AGENDA
February 8, 2018
CITY OF CITRUS HEIGHTS
CITY COUNCIL
6:00 PM SPECIAL MEETING
7:00 PM REGULAR MEETING
City Hall Council Chambers
6360 Fountain Square Drive, Citrus Heights, CA

Agenda Packet

Documents:

2-8-18 AGENDA PACKET.PDF

CALL SPECIAL MEETING TO ORDER

1. Roll Call: Council Members: Daniels, Fox, Slowey, Bruins, Miller

PUBLIC COMMENT

Under Government Code Section 54954.3, members of the audience may address the Council on any item of interest to the public and within the Council's purview, or on any Agenda Item before or during the Council's consideration of the Item. If you wish to address the Council during the meeting, please fill out a Speaker Identification Sheet and give it to the City Clerk. When you are called upon to speak, step forward to the podium and state your name for the record. Normally, speakers are limited to five minutes each with 30 minutes being allowed for all comments. Any public comments beyond the initial 30 minutes may be heard at the conclusion of the agenda. The Mayor has the discretion to lengthen or shorten the allotted times.

STUDY SESSION

2. Seek Direction And Consensus For The Awareness Campaign Implementation

ADJOURNMENT

CALL REGULAR MEETING TO ORDER

1. Flag Salute

2. Roll Call: Council Members: Daniels, Fox, Slowey, Bruins, Miller

3. Video Statement

APPROVAL OF AGENDA

PRESENTATIONS

COMMENTS BY COUNCIL MEMBERS AND REGIONAL BOARD UPDATES

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with 30 minutes being allowed for all comments. Any public comments beyond the initial 30 minutes may be heard at the conclusion of the agenda. The Mayor has the discretion to lengthen or shorten the allotted times.

CONSENT CALENDAR

It is recommended that all consent items be acted on simultaneously unless separate discussion and/or action is requested by a Council Member.

4. SUBJECT: Approval Of Minutes
RECOMMENDATION: Approve the Minutes of Special/Regular Meeting of Thursday, January 25, 2018.

5. SUBJECT: Various Signalized Intersection Safety Improvements HSIPL 5475(041) Award Of Contract For Professional Services To TJKM Transportation Consultants
STAFF REPORT: R. Sherman / S. Hodgkins / L. Blomquist
RECOMMENDATION: Adopt Resolution No. 2018-____; A Resolution of the City Council of the City of Citrus Heights, California, Authorizing the City Manager to Enter Into a Contract with TJKM Transportation Consultants to Provide Professional Services for the 'Various Signalized Intersection Safety Improvements' Project

6. SUBJECT: Quarterly Treasurer's Report
STAFF REPORT: R. Rivera
RECOMMENDATION: Staff Recommends the Council Receive and File the Quarterly Treasurer's Report for the Quarter Ending December 31, 2017.

7. SUBJECT: Comprehensive Annual Financial Report
STAFF REPORT: R. Rivera
RECOMMENDATION: Staff Recommends the Council Accepts and Files the City of Citrus Heights Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2017.

8. SUBJECT: Appoint A Representative To The Public Agency Risk Sharing Authority Of California Board Of Directors
STAFF REPORT: R. Rivera / A. Van
RECOMMENDATION: Adopt Resolution No. 2018-____; A Resolution of the City Council of the City of Citrus Heights to Appoint a Representative to the Public Agency Risk Sharing Authority of California (PARSAC) Board of Directors

9. SUBJECT: Audited Financial Statements And Compliance Report For Transportation Development Act Funds
STAFF REPORT: R. Rivera
RECOMMENDATION: Staff Recommends that the Council Accepts and Files the City of Citrus Heights Transportation Development Act Funds Audited Financial Statements and Compliance Report for Fiscal Year Ended June 30, 2017.

10. SUBJECT: Adopt Resolution Authorizing The City Manager To Execute A Consulting Service Agreement With Municipal Resource Group, LLC
STAFF REPORT: R. Rivera / M. Alejandrez
RECOMMENDATION: Adopt Resolution No. 2018-_____; A Resolution of the City Council of the City of Citrus Heights, California, Authorizing the City Manager to Execute a Consulting Service Agreement with Municipal Resource Group, LLC for Professional Services

PUBLIC HEARINGS

11. SUBJECT: Adoption Of Mitigated Negative Declaration And Adoption Of The Neighborhoods 8, 9, And 10 Storm Drainage Master Plan Study
STAFF REPORT: R. Sherman / S. Hodgkins
RECOMMENDATION: Adopt Resolution No. 2018-____; A Resolution of the City Council of the City of Citrus Heights, California, Adopting the Citrus Heights

Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study and Adopting a Mitigated Negative Declaration

12. SUBJECT: Appeal Of Planning Commission Decision Re: Gates At 5555 Mariposa (Northridge Grove Subdivision)
STAFF REPORT: R. Sherman / C. McDuffee
RECOMMENDATION: Staff, On Behalf of the Planning Commission, Recommends the City Council Deny the Appeal and Uphold the Planning Commission's Decision to Approve the Gates and Make the Following Motions:

Motion 1: Find that the Previously Adopted Mitigated Negative Declaration for the Project is Appropriate in that no Substantial Changes have Occurred or no New Information Requiring Additional Environmental Review has Been Presented.

Motion 2: Deny the Appeal and Approve a Design Review Permit Modification Allowing Privacy Gates to be Installed at 5555 Mariposa Avenue, Subject to the Findings and Conditions of Approval.

REGULAR CALENDAR

13. SUBJECT: Resolution Adopting Master License Agreement Template And Process For Right Of Way Installs Of Wireless Facilities
STAFF REPORT: R. Sherman / C. McDuffee / A. Bermudez
RECOMMENDATION: Adopt Resolution No. 2018-___; A Resolution of the City Council of the City of Citrus Heights, California, Approving a Wireless Master License Agreement and Authorizing the City Manager to Execute Wireless Master License Agreements and Issue Pole Licenses for City-Owned Poles in the Right of Way

DEPARTMENT REPORTS

14. SUBJECT: Update On Changes To The 916 Area Code
DEPARTMENT: Police Department

CITY OF CITRUS HEIGHTS
CITY COUNCIL
Special/Regular Meeting of Thursday, February 8, 2018
City Hall Council Chambers
6360 Fountain Square Dr., Citrus Heights, CA
Special Meeting 6:00 p.m.
Regular Meeting 7:00 p.m.

PLEASE NOTE: The Council may take up any agenda item at any time, regardless of the order listed. Action may be taken on any item on the agenda. The City Council has established a procedure for addressing the Council. Speaker Identification Sheets are provided on the table inside the Council Chambers. If you wish to address the Council during the meeting, please complete a Speaker Identification Sheet and give it to the City Clerk. So that everyone who wishes may have an opportunity to speak, there is a five-minute maximum time limit when addressing the Council. Audio/Visual presentation material must be provided to the City Clerk's Office at least 48 hours prior to the meeting.

Any writings or documents provided to a majority of the City Council regarding any item on this agenda will be made available for public inspection at City Hall located at 6360 Fountain Square Drive, Citrus Heights during normal business hours. Email subscriptions of the agenda are available online by signing up with the City's Notify Me service.

City Council meetings are televised live on Metro Cable 14, the government affairs channel on the Comcast, Consolidated Communications, and AT&T U-Verse cable systems and replayed on the following Monday at 9:00 a.m. Meetings are also webcast live at www.citrusheights.net.

The Agenda for this meeting of the City Council for the City of Citrus Heights was posted in the following listed sites before the close of business at 5:00 p.m. on the Friday preceding the meeting.

1. City of Citrus Heights, 6360 Fountain Square Drive, Citrus Heights, CA
2. Rusch Park Community Center, 7801 Auburn Boulevard, Citrus Heights, CA
3. Sacramento County Library, Sylvan Oaks Branch, 6700 Auburn Blvd., Citrus Heights, CA

If you need a disability-related modification or accommodation, including auxiliary aids or services, to participate in this meeting, please contact the City Clerk's Office 916-725-2448, 6360 Fountain Square Drive at least 48 hours prior to the meeting. TDD: California Relay Service 7-1-1.

February 2, 2018

Amy Van, City Clerk

Please turn off all cellular phones and pagers while the City Council meeting is in session.

SPECIAL MEETING
6:00 PM

CALL SPECIAL MEETING TO ORDER

1. Roll Call: Council Members: Daniels, Fox, Slowey, Bruins, Miller

PUBLIC COMMENT

STUDY SESSION

2. Seek Direction and Consensus for the Awareness Campaign Implementation

ADJOURNMENT

REGULAR MEETING
7:00 PM

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DEPARTMENT: Police Department

CITY MANAGER ITEMS

ITEMS REQUESTED BY COUNCIL MEMBERS/ FUTURE AGENDA ITEMS

ADJOURNMENT

CITY OF CITRUS HEIGHTS
CITY COUNCIL
MINUTES
Special/Regular Meeting of Thursday, January 25, 2018
City Hall Council Chambers
6360 Fountain Square Drive, Citrus Heights, CA

CALL SPECIAL MEETING TO ORDER

The special meeting was called to order at 5:30 by Mayor Miller.

1.	Roll Call:	Council Members present:	Daniels, Fox, Slowey, Bruins, Miller
		Council Members absent:	None
		Staff present:	Boyd, Cotter, Maraviov, Poole, Sherman, Van, Ziegler and department directors.

PUBLIC COMMENT

None

CLOSED SESSION

2. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code Section 54956.8
Property: 8244 Auburn Blvd., Citrus Heights, CA
Agency Negotiator: Christopher W. Boyd, City Manager and Rhonda Sherman, Community Services Director
Negotiating Parties: Sacramento County
Under Negotiation: Price and Terms of Payment

3. CONFERENCE WITH REAL PROPERTY NEGOTIATORS
Pursuant to Government Code Section 54956.8
Property: 7716 Old Auburn Blvd., Citrus Heights, CA
Agency Negotiator: Christopher W. Boyd, City Manager and Rhonda Sherman, Community Services Director
Negotiating Parties: Sacramento County
Under Negotiation: Price and Terms of Payment

There was no reportable action from the closed session.

STUDY SESSION

4. Comprehensive Transit Plan Update

Operations Manager Poole said in conjunction with Sacramento Regional Transit District, the City is developing a Comprehensive Transit Plan (CTP) to analyze connections to local, regional and other transit services, as well as analyze the current and future transit needs. The goal of the CTP is to help the City invest in a transit service that meets the needs of current and future Citrus Heights residents.

Tim Payne with Nelson & Nygaard provided insight from the background analysis and the results of the transit survey. He highlighted feedback from the various methods of community outreach,

which consisted of pop-up workshops, online engagement tools, public information notifications and meetings with public stakeholder groups.

ADJOURNMENT

Mayor Miller adjourned the special meeting at 6:58 p.m.

CALL REGULAR MEETING TO ORDER

The regular council meeting was called to order at 7:00 p.m. by Mayor Miller.

1. The Flag Salute was led by Council Member Bruins.

2. Roll Call:

Council Members present:	Daniels, Fox, Slowey, Bruins, Miller
Council Members absent:	None
Staff present:	Boyd, Cotter, Maraviov, Van, Ziegler and department directors.

3. The video statement was read by City Clerk Van.

APPROVAL OF AGENDA

ACTION: On a motion by Council Member Slowey, seconded by Council Member Daniels, the City Council approved the agenda.

AYES:	Daniels, Fox, Slowey, Bruins, Miller
NOES:	None
ABSENT:	None

PRESENTATIONS

4. Recognition of the 2018 Republic Services Calendar Contest Winners

Johnnise Downs with Republic Services stated that each year they host a poster competition where the goal is to promote recycling and encourage sustainable practices throughout the community. This year the theme was "Reduce, Reuse, Recycle, and Rot". She introduced the poster contest winners and presented them with certificates of recognition

5. Report on Results of the 2017 Holiday Referral Program

Support Services Manager Maraviov provided a presentation on the results of the 2017 Holiday Referral Program that provided help to 87 adults and 263 children with food, clothes, toys, gift cards, beds and monetary donations.

COMMENTS BY COUNCIL MEMBERS AND REGIONAL BOARD UPDATES

Council Member Daniels attended the Kiwanis crab feed and provided a report from the Sacramento Metropolitan Air Quality Board.

Council Member Slowey provided a report from the League of California Cities Revenue and Tax Committee meeting and the Finance Committee. He attended the Citrus Heights Chamber Installation & Community Awards Dinner and went on an affordable housing tour throughout Sacramento. He highlighted an article featured in Western Cities Magazine about the Citrus Heights Navigator Program.

Council Member Fox attended County Supervisor Frost's community cabinet meeting and the League of California Cities New Council Member conference.

Vice Mayor Bruins had nothing to report.

Mayor Miller attended the Sacramento Area Council of Governments Board meeting. He provided a report from the Regional Transit Board meeting.

PUBLIC COMMENT

Arthur Ketterling had questions about the micro transit pilot program.

CONSENT CALENDAR

It is recommended that all consent items be acted on simultaneously unless separate discussion and/or action are requested by a Council Member.

6. **SUBJECT**: Approval of Minutes
RECOMMENDATION: Approve the Minutes of Regular Meeting of Thursday, January 11, 2018.

7. **SUBJECT**: Acceptance of the Caltrans Sustainable Transportation Planning Grant for Preparation of an Old Auburn Complete Streets Plan
STAFF REPORT: R. Sherman / S. Hodgkins / L. Blomquist
RECOMMENDATION: Adopt Resolution No. 2018-010; A Resolution of the City Council of the City of Citrus Heights, California, Authorizing the City Manager to Execute Agreements with the California Department of Transportation for the 'Old Auburn Complete Streets Plan'

ACTION: On a motion by Mayor Miller, seconded by Council Member Daniels, the City Council adopted Consent Calendar Items 6 and 7.

AYES:	Daniels, Fox, Slowey, Bruins, Miller
NOES:	None
ABSENT:	None

PUBLIC HEARING

8. **SUBJECT**: Boulevard Plan Amendment – SPA 17-01 - Wall Signage
STAFF REPORT: R. Sherman / C. McDuffee / C. Kempenaar
RECOMMENDATION: Adopt Resolution No. 2018-011; A Resolution of the City Council of the City of Citrus Heights Adopting Amendments to the Auburn Boulevard Plan – Reinventing the Auburn Boulevard Corridor

Senior Planner Kempenaar stated the item is a Specific Plan Amendment to the Boulevard Plan in regard to the maximum wall signage allowed for businesses along Auburn Boulevard. The Boulevard Plan helped develop a long-term vision for the boulevard and set the framework for the street improvements. The proposed changes to the Boulevard Plan would increase the maximum wall signage sizes to be 2 square feet per 1 linear foot of primary building frontage.

Mayor Miller opened the public hearing at 7:32 p.m.

Hearing no speakers, he closed the public hearing at 7:32 p.m.

ACTION: On a motion by Council Member Slowey, seconded by Vice Mayor Bruins, the City Council adopted Resolution 2018-011; Resolution of the City Council of the City of Citrus Heights Adopting Amendments to the Auburn Boulevard Plan - Reinventing the Auburn Boulevard Corridor.

AYES: Daniels, Fox, Slowey, Bruins, Miller
NOES: None
ABSENT: None

9. **SUBJECT**: Revised Citizen Participation Plan for the Community Development Block Grant (CDBG) Program
STAFF REPORT: R. Sherman / S. Cotter
RECOMMENDATION: The Recommendation is to Continue the Item to a Future City Council Meeting.

ACTION: On a motion by Council Member Fox, seconded by Vice Mayor Bruins, the City Council continued Item 9 to a future City Council meeting.

AYES: Daniels, Fox, Slowey, Bruins, Miller
NOES: None
ABSENT: None

REGULAR CALENDAR

10. **SUBJECT**: Appointment to fill an Unexpired Term on the Construction Board of Appeals
STAFF REPORT: A. Van
RECOMMENDATION: Staff Recommends that the City Council, by Majority Vote, Appoint an Individual to the Construction Board of Appeals to fill an Unexpired Term Ending December 31, 2018.

City Clerk Van announced that the City received an application from William Shirley for the unexpired vacancy on the Construction Board of Appeals with a term ending December 2018. She stated that staff recommends the City Council, by majority vote, consider the appointment to the Construction Board of Appeals to fill an unexpired term ending December 31, 2018.

ACTION: On a motion by Council Member Slowey, seconded by Council Member Daniels, the City Council appointed William Shirley to the Construction Board of Appeals to fill an unexpired term ending December 31, 2018.

AYES: Daniels, Fox, Slowey, Bruins, Miller
NOES: None
ABSENT: None

11. **SUBJECT:** Objecting to the Sale of Two Properties at Public Auction by Sacramento County and Authorizing the City Manager to Negotiate their Purchase
STAFF REPORT: R. Sherman / S. Cotter
RECOMMENDATION: Adopt Resolution No. 2018-012; A Resolution of the City Council of the City of Citrus Heights Objecting to the Sale of Tax Defaulted Properties Identified as 8244 Auburn Blvd and 7716 Old Auburn Road Authorizing the City Manager to Negotiate Their Purchase

Development Specialist Cotter stated the City received a notice that properties located at 8244 Auburn Blvd and 7716 Old Auburn Road were in tax default and scheduled to go for Chapter 7 public auction through Sacramento County. Per Tax and Revenue Code the City is allowed to object to the Chapter 7 auction in order to preserve the City's option to purchase the properties through a Chapter 8 tax sale. By objecting to the sale, the properties will be withheld from the public auction on February 26, 2018 and give the City the opportunity to purchase for infrastructure improvement projects and preservation of open space.

ACTION: On a motion by Council Member Slowey, seconded by Council Member Fox, the City Council adopted Resolution No. 2018-012; A Resolution of the City Council of the City of Citrus Heights Objecting to the Sale of Tax Defaulted Properties Identified as 8244 Auburn Blvd and 7716 Old Auburn Road Authorizing the City Manager to Negotiate Their Purchase.

AYES: Daniels, Fox, Slowey, Bruins, Miller
NOES: None
ABSENT: None

DEPARTMENT REPORTS

12. **SUBJECT**: Navigator Homeless Resource Program Report
DEPARTMENT: Police Department

Sergeant Morris and Citrus Heights Navigator Toni Morgan stated that for the fourth quarter the Navigator Program has helped 148 total clients get into housing, assisted seven clients with services such as building resumes, job searching, and obtaining food stamps.

CITY MANAGER ITEMS

None

ITEMS REQUESTED BY COUNCIL MEMBERS/ FUTURE AGENDA ITEMS

None

ADJOURNMENT

Mayor Miller adjourned the regular meeting at 8:07 p.m.

Respectfully Submitted,

_____
Amy Van, City Clerk

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Rhonda Sherman, Community Services Director
Stuart Hodgkins, Interim City Engineer
Leslie Blomquist, Senior Civil/Traffic Engineer

SUBJECT: **Various Signalized Intersection Safety Improvements HSIPL 5475(041) Award of Contract for Professional Services to TJKM Transportation Consultants**

Summary and Recommendation

The City applied for, and was selected to receive, a Highway Safety Improvement Program (HSIP) grant in the amount of $486,000 (with a total project estimate of $540,000) for the Various Signalized Intersection Safety Improvements Project (Project).

The General Services Department solicited a Request for Proposals (RFP) for design and public outreach coordination services. In accordance with required Caltrans selection procedures, TJKM Transportation Consultants (TJKM) was selected as the top ranked consultant.

Staff recommends the City Council adopt Resolution No. 2018-__ A Resolution of the City Council of the City of Citrus Heights, California, authorizing the City Manager to execute a contract for design services with TJKM Transportation Consultants for the Various Signalized Intersection Safety Improvements.

Fiscal Impact

The contract with TJKM is for an amount not to exceed $53,539. Funding for this contract will come from HSIP grant funds ($36,673) and Measure A funds ($16,866).

Background and Analysis

This project includes upgrades at 30 signalized intersections including larger vehicle indications at 29 intersections, count-down pedestrian indications at 11 intersections, a pedestrian median barrier fence along three legs of the intersection of Greenback Ln/Auburn Blvd, and four accessible curb ramps at two intersections on Sunrise Blvd (at Macy Plaza Drive and Birdcage Center).

The City issued a RFP in November 2017, and received two proposals on December 6, 2017. The City used a qualifications based selection process consistent with Caltrans Local Assistance Procedures Manual, Chapter 10, which governs consultant selection. Proposals and interviews were evaluated based on the criteria specified in the RFP. As a result of the process, staff found TJKM to be the most qualified consultant. They provided an in-depth and detailed proposal, introduced a highly qualified team and demonstrated a clear understanding of the work involved in the design and public outreach of the grant funded Project.

Staff and the top ranked consultant have fine-tuned the scope of work and the project budget to ensure that the services provided meet the City's needs and that the work will be done cost effectively.

Conclusion

Staff recommends the City Council approve the attached resolution authorizing the City Manager to enter into an agreement with TJKM to provide professional services for the 'Various Signalized Intersection Safety Improvements' project.

Attachments: (1) Resolution authorizing the City Manager to enter into a contract with TJKM Transportation Consultants to provide professional services for the 'Various Signalized Intersection Safety Improvements' project
(2) Consultant Services Agreement Between the City of Citrus Heights and TJKM Transportation Consultants for the Various Signalized Intersection Safety Improvements Project

RESOLUTION NO. 2018- ___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO ENTER INTO A CONTRACT WITH TJKM TRANSPORTATION CONSULTANTS TO PROVIDE PROFESSIONAL SERVICES FOR THE 'VARIOUS SIGNALIZED INTERSECTION SAFETY IMPROVEMENTS' PROJECT

WHEREAS, the City of Citrus Heights has been awarded Highway Safety Improvement Program (HSIP) funds in the amount of $486,000, for design and construction of the project; and

WHEREAS, the Federal Highway Administration approved allocation of engineering design funds on March 24, 2017; and

WHEREAS, design and public outreach coordination services from qualified consultants is required for this project; and

WHEREAS, City staff followed the federal procedures for selection of the most qualified consultant; and

WHEREAS, TJKM Transportation Consultants was found to be the best qualified to provide the required services; and

WHEREAS, the City now desires to enter into a Professional Services Contract with TJKM Transportation Consultants in an amount not to exceed $53,539; and

WHEREAS, the proposed professional services will be paid for with Highway Safety Improvement Program grant funds and Measure A funds; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the City Council of the City of Citrus Heights that the City Manager is authorized to enter into a Contract for Services with TJKM Transportation Consultants for engineering design and public outreach coordination services for the 'Various Signalized Intersection Safety Improvements' Project.

The City Clerk shall certify the passage and adoption of this Resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Citrus Heights, California, this 8th day of February, 2018 by the following vote, to wit:

AYES: Council Members:
NOES: Council Members:
ABSTAIN: Council Members:
ABSENT: Council Members:

Steve Miller, Mayor

ATTEST:

Amy Van, City Clerk

CONSULTING SERVICES AGREEMENT BETWEEN
THE CITY OF CITRUS HEIGHTS AND
TJKM TRANSPORTATION CONSULTANTS
VARIOUS SIGNALIZED INTERSECTION SAFETY IMPROVEMENTS PROJECT
(FHWA assisted A&E projects)

Table of Contents

ARTICLE I. INTRODUCTION

This contract for consulting services is made by and between the City of Citrus Heights ("CITY") and TJKM Transportation Consultants ("CONSULTANT") ("together referred to as the "Parties") as of February 8, 2018 (the "Effective Date").

The Contract Administrator for City will be: Leslie Blomquist, Senior Civil/Traffic Engineer.

A. The work to be performed under this contract is described in Article II entitled Statement of Work and the approved CONSULTANT's Cost Proposal dated December 6, 2017. The approved CONSULTANT's Cost Proposal is attached hereto as Exhibit A and incorporated by reference. If there is any conflict between the approved Cost Proposal and this contract, this contract shall take precedence.

B. RESERVED.

C. CONSULTANT and the agents and employees of CONSULTANT, in the performance of this contract, shall act in an independent capacity and not as officers or employees or agents of CITY.

D. Without the written consent of CITY, this contract is not assignable by CONSULTANT either in whole or in part.

E. No alteration or variation of the terms of this contract shall be valid, unless made in writing and signed by the Parties hereto; and no oral understanding or agreement not incorporated herein, shall be binding on any of the Parties hereto.

F. The consideration to be paid to CONSULTANT as provided herein, shall be in compensation for all of CONSULTANT's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly so provided.

ARTICLE II. STATEMENT OF WORK

Subject to the terms and conditions set forth in this Agreement, CONSULTANT shall provide to CITY the services described in the Scope of Work attached as Exhibit A, and incorporated herein, at the time and place and in the manner specified therein.

CONSULTANT shall perform all services required pursuant to this Agreement according to the standards observed by a competent practitioner of the profession in which CONSULTANT is engaged. CONSULTANT shall assign only competent personnel to perform services pursuant to this Agreement. In the event that CITY, in its sole discretion, at any time during the term of this Agreement, requests in writing the reassignment of any such persons to ensure CONSULTANT performs services in accordance with the Standard of Performance, CONSULTANT shall, immediately upon receiving CITY's request, reassign such persons.

ARTICLE III. CONSULTANT'S REPORTS OR MEETINGS

A. CONSULTANT shall submit progress reports at least once a month. The report should be sufficiently detailed for the Contract Administrator to determine, if CONSULTANT is performing to expectations, or is on schedule; to provide communication of interim findings, and to sufficiently address any difficulties or special problems encountered, so remedies can be developed.

B. CONSULTANT's Project Manager shall meet with CITY's Contract Administrator, as needed, to discuss progress on the contract.

ARTICLE IV. PERFORMANCE PERIOD (Verbatim)

A. This contract shall go into effect on February 8, 2018, contingent upon approval by CITY, and CONSULTANT shall commence work after notification to proceed by CITY'S Contract Administrator. The contract shall end on June 30, 2019, unless extended by contract amendment.

B. CONSULTANT is advised that any recommendation for contract award is not binding on CITY until the contract is fully executed and approved by CITY.

ARTICLE V. ALLOWABLE COSTS AND PAYMENTS (Verbatim)

A. The method of payment for this contract will be based on actual cost plus a fixed fee. CITY will reimburse CONSULTANT for actual costs (including labor costs, employee benefits, travel, equipment rental costs, overhead and other direct costs) incurred by CONSULTANT in performance of the work. CONSULTANT will not be reimbursed for actual costs that exceed the estimated wage rates, employee benefits, travel, equipment rental, overhead, and other estimated costs set forth in the approved CONSULTANT'S Cost Proposal, unless additional reimbursement is provided for by contract amendment.

   In no event, will CONSULTANT be reimbursed for overhead costs at a rate that exceeds CITY's approved overhead rate set forth in the Cost Proposal. In the event that CITY determines that a change to the work from that specified in the Cost Proposal and contract is required, the contract time or actual costs reimbursable by CITY shall be adjusted by contract amendment to accommodate the changed work. The maximum total cost as specified in Paragraph "H" shall not be exceeded, unless authorized by contract amendment.

B. In addition to the allowable incurred costs, CITY will pay CONSULTANT a maximum fixed fee of $3,083.71 (three thousand eighty-three dollars and seventy-one cents). The fixed fee is nonadjustable for the term of the contract, except in the event of a significant change in the scope of work and such adjustment is made by contract amendment.

C. Reimbursement for transportation and subsistence costs shall not exceed the rates specified in the approved Cost Proposal.

D. When milestone cost estimates are included in the approved Cost Proposal, CONSULTANT shall obtain prior written approval for a revised milestone cost estimate from the Contract Administrator before exceeding such cost estimate.

E. Progress payments will be made monthly in arrears based on services provided and allowable incurred costs. A pro rata portion of CONSULTANT's fixed fee will be included in the monthly progress payments. If CONSULTANT fails to submit the required deliverable items according to the schedule set forth in the Statement of Work, CITY shall have the right to delay payment or terminate this Contract in accordance with the provisions of Article VI Termination.

F. No payment will be made prior to approval of any work, nor for any work performed prior to approval of this contract.

G. CONSULTANT will be reimbursed, as promptly as fiscal procedures will permit upon receipt by CITY's Contract Administrator of itemized invoices in triplicate. Invoices shall be submitted no later than 45 calendar days after the performance of work for which CONSULTANT is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices

shall follow the format stipulated for the approved Cost Proposal and shall reference this contract number and project title. Final invoice must contain the final cost and all credits due CITY including any equipment purchased under the provisions of Article XI Equipment Purchase of this contract. The final invoice should be submitted within 60 calendar days after completion of CONSULTANT's work. Invoices shall be mailed to CITY's Contract Administrator at the following address:

CITY:	City of Citrus Heights
Contract Administrator	Leslie Blomquist
	6360 Fountain Square Drive
	Citrus Heights, CA 95621

H. The total amount payable by CITY including the fixed fee shall not exceed $53,539.00 (fifty-three thousand, five hundred thirty-nine dollars and zero cents).

I. Salary increases will be reimbursable if the new salary is within the salary range identified in the approved Cost Proposal and is approved by CITY's Contract Administrator.

For personnel subject to prevailing wage rates as described in the California Labor Code, all salary increases, which are the direct result of changes in the prevailing wage rates are reimbursable.

ARTICLE VI. TERMINATION (Verbatim)

A. CITY reserves the right to terminate this contract upon thirty (30) calendar day's written notice to CONSULTANT with the reasons for termination stated in the notice.

B. CITY may terminate this contract with CONSULTANT should CONSULTANT fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such termination, CITY may proceed with the work in any manner deemed proper by CITY. If CITY terminates this contract with CONSULTANT, CITY shall pay CONSULTANT the sum due to CONSULTANT under this contract prior to termination, unless the cost of completion to CITY exceeds the funds remaining in the contract. In which case the overage shall be deducted from any sum due CONSULTANT under this contract and the balance, if any, shall be paid to CONSULTANT upon demand.

C. The maximum amount for which the CITY shall be liable if this contract is terminated is $53,539 (fifty-three thousand, five hundred thirty-nine dollars and zero cents).

ARTICLE VII. COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS (Verbatim)

A. CONSULTANT agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., shall be used to determine the cost allowability of individual items.

B. CONSULTANT also agrees to comply with federal procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

C. Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowable under 49 CFR, Part 18 and 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., are subject to repayment by CONSULTANT to CITY.

ARTICLE VIII. RETENTION OF RECORDS/AUDIT (Verbatim)

For the purpose of determining compliance with Public Contract Code 10115, et seq. and Title 21, California Code of Regulations, Chapter 21, Section 2500 et seq., when applicable and other matters connected with the performance of the contract pursuant to Government Code 8546.7; CONSULTANT, subconsultants, and CITY shall maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not limited to, the costs of administering the contract. All Parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. The state, State Auditor, CITY, FHWA, or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of CONSULTANT and it's certified public accountants (CPA) work papers that are pertinent to the contract and indirect cost rates (ICR) for audit, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

ARTICLE IX. AUDIT REVIEW PROCEDURES (Verbatim)

A. Any dispute concerning a question of fact arising under an interim or post audit of this contract that is not disposed of by agreement, shall be reviewed by CITY'S Chief Financial Officer/Finance Director.

B. Not later than 30 days after issuance of the final audit report, CONSULTANT may request a review by CITY'S Chief Financial Officer of unresolved audit issues. The request for review will be submitted in writing.

C. Neither the pendency of a dispute nor its consideration by CITY will excuse CONSULTANT from full and timely performance, in accordance with the terms of this contract.

ARTICLE X. SUBCONTRACTING (Verbatim)

A. Nothing contained in this contract or otherwise, shall create any contractual relation between CITY and any subconsultant(s), and no subcontract shall relieve CONSULTANT of its responsibilities and obligations hereunder. CONSULTANT agrees to be as fully responsible to CITY for the acts and omissions of its subconsultant(s) and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by CONSULTANT. CONSULTANT's obligation to pay its subconsultant(s) is an independent obligation from CITY'S obligation to make payments to the CONSULTANT.

B. CONSULTANT shall perform the work contemplated with resources available within its own organization and no portion of the work pertinent to this contract shall be subcontracted without written authorization by CITY's Contract Administrator, except that, which is expressly identified in the approved Cost Proposal.

C. CONSULTANT shall pay its subconsultants within ten (10) calendar days from receipt of each payment made to CONSULTANT by CITY.

D. All subcontracts entered into as a result of this contract shall contain all the provisions stipulated in this contract to be applicable to subconsultants.

E. Any substitution of subconsultant(s) must be approved in writing by CITY's Contract Administrator prior to the start of work by the subconsultant(s).

ARTICLE XI. EQUIPMENT PURCHASE (Verbatim)

A. Prior authorization in writing, by CITY's Contract Administrator shall be required before CONSULTANT enters into any unbudgeted purchase order, or subcontract exceeding $5,000 for supplies, equipment, or CONSULTANT services. CONSULTANT shall provide an evaluation of the necessity or desirability of incurring such costs.

B. For purchase of any item, service or consulting work not covered in CONSULTANT's Cost Proposal and exceeding $5,000 prior authorization by CITY's Contract Administrator; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.

C. Any equipment purchased as a result of this contract is subject to the following: "CONSULTANT shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of $5,000 or more. If the purchased equipment needs replacement and is sold or traded in, CITY shall receive a proper refund or credit at the conclusion of the contract, or if the contract is terminated, CONSULTANT may either keep the equipment and credit CITY in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established CITY procedures; and credit CITY in an amount equal to the sales price. If CONSULTANT elects to keep the equipment, fair market value shall be determined at CONSULTANT's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by CITY and CONSULTANT, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by CITY." 49 CFR, Part 18 requires a credit to Federal funds when participating equipment with a fair market value greater than $5,000 is credited to the project.

ARTICLE XII. STATE PREVAILING WAGE RATES (Verbatim)

A. CONSULTANT shall comply with the State of California's General Prevailing Wage Rate requirements in accordance with California Labor Code, Section 1770, and all Federal, State, and local laws and ordinances applicable to the work.

B. Any subcontract entered into as a result of this contract, if for more than $25,000 for public works construction or more than $15,000 for the alteration, demolition, repair, or maintenance of public works, shall contain all of the provisions of this Article, unless the awarding agency has an approved labor compliance program by the Director of Industrial Relations.

C. When prevailing wages apply to the services described in the scope of work, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination. See http://www.dir.ca.gov.

ARTICLE XIII. CONFLICT OF INTEREST (Verbatim)

A. CONSULTANT shall disclose any financial, business, or other relationship with CITY that may have an impact upon the outcome of this contract, or any ensuing CITY construction project. CONSULTANT shall also list current clients who may have a financial interest in the outcome of this contract, or any ensuing CITY construction project, which will follow.

B. CONSULTANT hereby certifies that it does not now have, nor shall it acquire any financial or business interest that would conflict with the performance of services under this contract.

C. CONSULTANT hereby certifies that neither CONSULTANT, nor any firm affiliated with CONSULTANT will bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this contract. An affiliated firm is one, which is subject to the control of the same persons through joint-ownership, or otherwise.

D. Except for subconsultants whose services are limited to providing surveying or materials testing information, no subconsultant who has provided design services in connection with this contract shall be eligible to bid on any construction contract, or on any contract to provide construction inspection for any construction project resulting from this contract.

ARTICLE XIV. REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION (Verbatim)

CONSULTANT warrants that this contract was not obtained or secured through rebates kickbacks or other unlawful consideration, either promised or paid to any CITY employee. For breach or violation of this warranty, CITY shall have the right in its discretion; to terminate the contract without liability; to pay only for the value of the work actually performed; or to deduct from the contract price; or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

ARTICLE XV. STATEMENT OF COMPLIANCE

A. CONSULTANT's signature affixed herein, and dated, shall constitute a certification under penalty of perjury under the laws of the State of California that CONSULTANT has, unless exempt, complied with, the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Administrative Code, Section 8103.

B. During the performance of this Contract, Consultant and its subconsultants shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over 40*)*, marital status, and denial of family care leave. Consultant and subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Consultant and subconsultants shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 (a-f) et seq.) and the 5applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Contract by reference and made a part hereof as if set forth in full.

   Consultant and its subconsultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

C. The Consultant shall comply with regulations relative to Title VI (nondiscrimination in federally-assisted programs of the Department of Transportation – Title 49 Code of Federal Regulations, Part 21 - Effectuation of Title VI of the 1964 Civil Rights Act). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the state of California shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.

D. The Consultant, with regard to the work performed by it during the Agreement shall act in accordance with Title VI. Specifically, the Consultant shall not discriminate on the basis of race, color, national origin, religion, sex, age, or disability in the selection and retention of Subconsultants, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the U.S. DOT's Regulations, including employment practices when the Agreement covers a program whose goal is employment.

ARTICLE XVI. DEBARMENT AND SUSPENSION CERTIFICATION

A. CONSULTANT's signature affixed herein, shall constitute a certification under penalty of perjury under the laws of the State of California, that CONSULTANT has complied with Title 2 CFR, Part 180, "OMB Guidelines to Agencies on Government wide Debarment and Suspension (nonprocurement)", which certifies that he/she or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years. Any exceptions to this certification must be disclosed to CITY.

B. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining CONSULTANT responsibility. Disclosures must indicate to whom exceptions apply, initiating agency, and dates of action.

C. Exceptions to the Federal Government Excluded Parties List System maintained by the General Services Administration are to be determined by the Federal highway Administration.

ARTICLE XVII. FUNDING REQUIREMENTS

A. It is mutually understood between the Parties that this contract may have been written before ascertaining the availability of funds or appropriation of funds, for the mutual benefit of both Parties, in order to avoid program and fiscal delays that would occur if the contract were executed after that determination was made.

B. This contract is valid and enforceable only, if sufficient funds are made available to CITY for the purpose of this contract. In addition, this contract is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress, State Legislature, or CITY governing board that may affect the provisions, terms, or funding of this contract in any manner.

C. It is mutually agreed that if sufficient funds are not appropriated, this contract may be amended to reflect any reduction in funds.

D. CITY has the option to void the contract under the 30-day termination clause pursuant to Article VI, or by mutual agreement to amend the contract to reflect any reduction of funds.

ARTICLE XVIII. CHANGE IN TERMS

A. This contract may be amended or modified only by mutual written agreement of the Parties.

B. CONSULTANT shall only commence work covered by an amendment after the amendment is executed and notification to proceed has been provided by CITY's Contract Administrator.

C. There shall be no change in CONSULTANT's Project Manager or members of the project team, as listed in the approved Cost Proposal, which is a part of this contract without prior written approval by CITY's Contract Administrator.

ARTICLE XIX. DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION

A. This contract is subject to 49 CFR, Part 26 entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs". Consultants who obtain DBE participation on this contract will assist Caltrans in meeting its federally mandated statewide overall DBE goal.

B. The goal for DBE participation for this contract is 19%. Participation by DBE consultant or subconsultants shall be in accordance with information contained in the Consultant Proposal DBE Commitment (Exhibit 10-O1), or in the Consultant Contract DBE Information (Exhibit 10-O2) attached hereto and incorporated as part of the Contract. If a DBE subconsultant is unable to perform, CONSULTANT must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.

C. DBEs and other small businesses, as defined in 49 CFR, Part 26 are encouraged to participate in the performance of contracts financed in whole or in part with federal funds. CONSULTANT or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. CONSULTANT shall carry out applicable requirements of 49 CFR, Part 26 in the award and administration of US DOT-assisted agreements. Failure by CONSULTANT to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as CITY deems appropriate.

D. Any subcontract entered into as a result of this contract shall contain all of the provisions of this section.

E. A DBE firm may be terminated only with prior written approval from CITY and only for the reasons specified in 49 CFR 26.53(f). Prior to requesting CITY consent for the termination, CONSULTANT must meet the procedural requirements specified in 49 CFR 26.53(f).

F. A DBE performs a Commercially Useful Function (CUF) when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a CUF, evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the, contract is commensurate with the work it is actually performing, and other relevant factors.

G. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, examine similar transactions, particularly those in which DBEs do not participate.

H. If a DBE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of the contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that it is not performing a CUF.

I. CONSULTANT shall maintain records of materials purchased or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each

DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE prime consultants shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.

J. Upon completion of the Contract, a summary of these records shall be prepared and submitted on the form entitled, "Final Report-Utilization of Disadvantaged Business Enterprise (DBE), First-Tier Subconsultants" CEM-2402F [Exhibit 17-F, of the LAPM], certified correct by CONSULTANT or CONSULTANT's authorized representative and shall be furnished to the Contract Administrator with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in twenty-five percent (25%) of the dollar value of the invoice being withheld from payment until the form is submitted. The amount will be returned to CONSULTANT when a satisfactory "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subconsultants" is submitted to the Contract Administrator.

K. If a DBE subconsultant is decertified during the life of the contract, the decertified subconsultant shall notify CONSULTANT in writing with the date of decertification. If a subconsultant becomes a certified DBE during the life of the Contract, the subconsultant shall notify CONSULTANT in writing with the date of certification. Any changes should be reported to CITY's Contract Administrator within 30 days.

ARTICLE XX. CONTINGENT FEE

CONSULTANT warrants, by execution of this contract that no person or selling agency has been employed, or retained, to solicit or secure this contract upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by CONSULTANT for the purpose of securing business. For breach or violation of this warranty, CITY has the right to annul this contract without liability; pay only for the value of the work actually performed, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XXI. DISPUTES

A. Any dispute, other than audit, concerning a question of fact arising under this contract that is not disposed of by agreement shall be decided by a committee consisting of CITY's Contract Administrator and Rhonda Sherman, Community Services Director, who may consider written or verbal information submitted by CONSULTANT.

B. Not later than 30 days after completion of all deliverables necessary to complete the plans, specifications and estimate, CONSULTANT may request review by CITY Governing Board of unresolved claims or disputes, other than audit. The request for review will be submitted in writing.

C. Neither the pendency of a dispute, nor its consideration by the committee will excuse CONSULTANT from full and timely performance in accordance with the terms of this contract.

ARTICLE XXII. INSPECTION OF WORK

CONSULTANT and any subconsultant shall permit CITY, the state, and the FHWA if federal participating funds are used in this contract; to review and inspect the project activities and files at all reasonable times during the performance period of this contract including review and inspection on a daily basis.

ARTICLE XXIII. SAFETY

A. CONSULTANT shall comply with OSHA regulations applicable to CONSULTANT regarding necessary safety equipment or procedures. CONSULTANT shall comply with safety instructions issued by CITY Safety Officer and other CITY representatives. CONSULTANT personnel shall wear hard hats and safety vests at all times while working on the construction project site.

B. Pursuant to the authority contained in Section 591 of the Vehicle Code, CITY has determined that such areas are within the limits of the project and are open to public traffic. CONSULTANT shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. CONSULTANT shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.

C. Any subcontract entered into as a result of this contract, shall contain all of the provisions of this Article.

ARTICLE XXIV. RESERVED

ARTICLE XXV. OWNERSHIP OF DATA

A. Upon completion of all work under this contract, ownership and title to all reports, documents, plans, specifications, and estimates produce as part of this contract will automatically be vested in CITY; and no further agreement will be necessary to transfer ownership to CITY. CONSULTANT shall furnish CITY all necessary copies of data needed to complete the review and approval process.

B. It is understood and agreed that all calculations, drawings and specifications, whether in hard copy or machine-readable form, are intended for one-time use in the construction of the project for which this contract has been entered into.

C. CONSULTANT is not liable for claims, liabilities, or losses arising out of, or connected with the modification, or misuse by CITY of the machine-readable information and data provided by CONSULTANT under this contract; further, CONSULTANT is not liable for claims, liabilities, or losses arising out of, or connected with any use by CITY of the project documentation on other projects for additions to this project, or for the completion of this project by others, except only such use as many be authorized in writing by CONSULTANT.

D. Applicable patent rights provisions regarding rights to inventions shall be included in the contracts as appropriate (48 CFR 27, Subpart 27.3 - Patent Rights under Government Contracts for federal-aid contracts).

E. CITY may permit copyrighting reports or other agreement products. If copyrights are permitted; the agreement shall provide that the FHWA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use; and to authorize others to use, the work for government purposes.

ARTICLE XXVI. CLAIMS FILED BY CITY's CONSTRUCTION CONTRACTOR

A. If claims are filed by CITY's construction contractor relating to work performed by CONSULTANT's personnel, and additional information or assistance from CONSULTANT's personnel is required in order to evaluate or defend against such claims; CONSULTANT agrees to make its personnel available for consultation with CITY'S construction contract administration and legal staff and for testimony, if necessary, at depositions and at trial or arbitration proceedings.

B. CONSULTANT's personnel that CITY considers essential to assist in defending against construction contractor claims will be made available on reasonable notice from CITY. Consultation or testimony will be reimbursed at the same rates, including travel costs that are being paid for CONSULTANT's personnel services under this contract.

C. Services of CONSULTANT's personnel in connection with CITY's construction contractor claims will be performed pursuant to a written contract amendment, if necessary, extending the termination date of this contract in order to resolve the construction claims.

ARTICLE XXVII. CONFIDENTIALITY OF DATA

A. All financial, statistical, personal, technical, or other data and information relative to CITY's operations, which are designated confidential by CITY and made available to CONSULTANT in order to carry out this contract, shall be protected by CONSULTANT from unauthorized use and disclosure.

B. Permission to disclose information on one occasion, or public hearing held by CITY relating to the contract, shall not authorize CONSULTANT to further disclose such information, or disseminate the same on any other occasion.

C. CONSULTANT shall not comment publicly to the press or any other media regarding the contract or CITY's actions on the same, except to CITY's staff, CONSULTANT's own personnel involved in the performance of this contract, at public hearings or in response to questions from a Legislative committee.

D. CONSULTANT shall not issue any news release or public relations item of any nature, whatsoever, regarding work performed or to be performed under this contract without prior review of the contents thereof by CITY, and receipt of CITY'S written permission.

E. Any subcontract entered into as a result of this contract shall contain all of the provisions of this Article.

F. All information related to the construction estimate is confidential, and shall not be disclosed by CONSULTANT to any entity other than CITY.

ARTICLE XXVIII. NATIONAL LABOR RELATIONS BOARD CERTIFICATION

In accordance with Public Contract Code Section 10296, CONSULTANT hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against CONSULTANT within the immediately preceding two-year period, because of CONSULTANT's failure to comply with an order of a federal court that orders CONSULTANT to comply with an order of the National Labor Relations Board.

ARTICLE XXIX. EVALUATION OF CONSULTANT

CONSULTANT's performance will be evaluated by CITY. A copy of the evaluation will be sent to CONSULTANT for comments. The evaluation together with the comments shall be retained as part of the contract record.

ARTICLE XXX. RETENTION OF FUNDS

A. Any subcontract entered into as a result of this Contract shall contain all of the provisions of this section.

B. No retainage will be withheld by the Agency from progress payments due the prime consultant. Retainage by the prime consultant or subconsultants is prohibited, and no retainage will be held by the prime consultant from progress due subconsultants. Any violation of this provision shall subject the

violating prime consultant or subconsultants to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to the prime consultant or subconsultant in the event of a dispute involving late payment or nonpayment by the prime consultant or deficient subconsultant performance, or noncompliance by a subconsultant. This provision applies to both DBE and non-DBE prime consultants and subconsultants.

ARTICLE XXXI. NOTIFICATION

All notices hereunder and communications regarding interpretation of the terms of this contract and changes thereto, shall be effected by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid, and addressed as follows:

CONSULTANT:	TJKM Transportation Consultants
Project Manager	Atul Patel
	4305 Hacienda Drive, Suite 550
	Pleasanton, CA 94588

CITY:	City of Citrus Heights
Contract Administrator	Leslie Blomquist
	6360 Fountain Square Drive
	Citrus Heights, CA 95621

ARTICLE XXXII. ADDITIONAL TERMS

Additional terms and conditions for this contract are set forth in Exhibit B, attached hereto and incorporated herein. In the event that there are any conflicts between Exhibit B and this contract, the terms and conditions of Exhibit B shall prevail.

ARTICLE XXXIII. CONTRACT

The two Parties to this contract, who are the before named CONSULTANT and the before named CITY, hereby agree that this contract, including all exhibits, constitutes the entire agreement which is made and concluded in duplicate between the two Parties. Both of these Parties for and in consideration of the payments to be made, conditions mentioned, and work to be performed; each agree to diligently perform in accordance with the terms and conditions of this contract as evidenced by the signatures below.

SIGNATURES ON FOLLOWING PAGE

CITY OF CITRUS HEIGHTS

Christopher W. Boyd, City Manager

Attest:

Amy Van, City Clerk

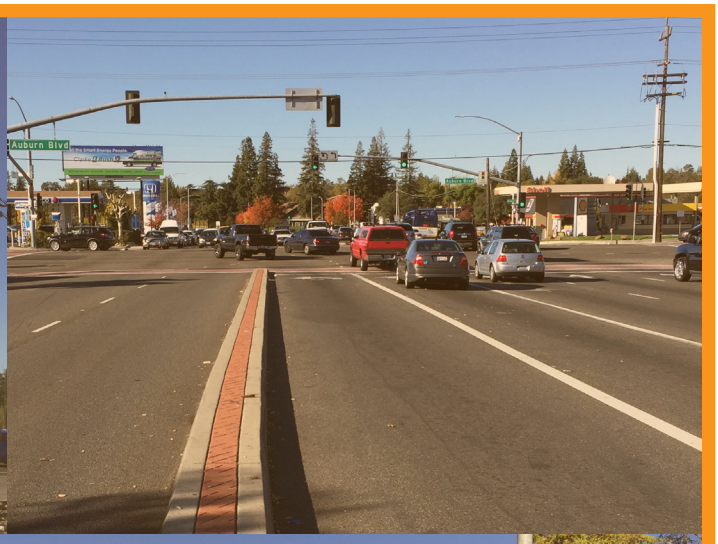
Approved as to Form:

Ruthann G. Ziegler, City Attorney

CONSULTANT

Atul Patel, Project Manager

EXHIBIT A
SCOPE OF WORK & COST PROPOSAL



Proposal for

Various Signalized Intersection Safety Improvements

Project No. 20-17-003 | Federal Project No. HSIPL-5475(041)

December 6, 2017

TJKM
VISION THAT MOVES YOUR COMMUNITY

In Association with:

SIEGFRIED

December 6, 2017

City of Citrus Heights – General Services Department
6360 Fountain Square Drive
Citrus Heights, CA 95621
Attention: Leslie Blomquist

Subject: **Proposal for Professional Design Services for the Various Signalized Intersection Safety Improvements Project | Project No. 20-17-003 | Federal Project No. HSIPL-5475(041)**

Dear Leslie Blomquist:

Thank you for providing TJKM Transportation Consultants the opportunity to present our team's qualifications and work plan to provide professional engineering design services for the City of Citrus Heights. The TJKM Team will be led by TJKM's Director of ITS and Design services, Mr. Atul Patel, TE, PTOE. Mr. Patel has designed many traffic signal installations and modifications involving Caltrans and obtained encroachment permits for his clients as part of the project. Some of the projects included similar installation of signal hardware upgrades, such as countdown pedestrian heads, replacement of signal heads with 12" section heads, and upgrading push buttons to Accessible Pedestrian Signal push buttons.

TJKM Team

Atul will oversee team task assignments, monitor budget and schedule compliance, and serve as the primary point of contact for City staff. Mr. Nayan Amin, TE will be the Principal-In-Charge and Ms. Ruta Jariwala, PE, TE, will perform QA/QC on the project. TJKM has also partnered with Siegfried Engineering for their expertise in topographic surveying, civil engineering, landscape architecture, and public outreach. With this tried and true collaboration, we are confident that the TJKM Team will meet the City's goals and objectives for this project, and will exceed your service expectations.

Working for both public and private clients, TJKM has designed thousands of traffic signals throughout Northern California, with Atul and his Team having prepared plans, specifications and estimates (PS&E) for over 600 of them. Their in-depth experience results in minimal plan check comments, moving projects more efficiently through the approval process. In addition, TJKM's signal design projects typically include bid and construction support services; our design staff has developed excellent working relationships with many Bay Area contractors. TJKM has extensive experience in federally funded projects similar to this one.

Office Locations

TJKM's corporate headquarters is located at 4305 Hacienda Drive, Suite 550 in Pleasanton, CA. Our nearest office to the City of Citrus Heights is located at 109 Scripps Drive in Sacramento, CA.

Again, thank you for considering the TJKM Team for the City of Citrus Heights' design needs. If you have any questions about our submittal, please contact me at 925.463.0611, or you may reach me via email at apatel@tjkm.com.

Sincerely,
TJKM Transportation Consultants

Atul Patel, TE, PTOE – Proposed Project Manager
4305 Hacienda Drive, Suite 550
Pleasanton, CA 94588
925.264.5003 direct
925.463.3690 fax
apatel@tjkm.com

PROJECT UNDERSTANDING

PROJECT GOALS, CHALLENGES, AND CONSIDERATIONS

The City applied for a federal HSIP grant for Cycle 8 and was successfully awarded funding for the project. The project will upgrade all existing 8" and combination vehicle signal indications to 12" lenses. There are approximately 173 total three-section signal indications that require replacement with 12" lenses citywide. Furthermore, there are 18 four-section signal indications needing upgrades to all 12" lenses. There are 57 pedestrian signal heads that require replacement with countdown pedestrian signal heads. In addition to the retrofitted pedestrian signal heads, there are six pedestrian signal heads that will be new countdown pedestrian signal heads. The project will also upgrade six pedestrian push button assemblies to Accessible Pedestrian Signal push buttons and install four ADA compliant curb ramps on the east side of Sunrise Boulevard (at Birdcage Center and Macy Place Drive). There are existing landscape bushes and an existing staircase at Birdcage Center/Sunrise Blvd that appears to be barricaded off to the sidewalk on Sunrise Boulevard. These will need to be cleared out to construct the two new directional ramps. There is also a valley gutter adjacent to the corners to keep in consideration during the design. There are no pedestrian push buttons or pedestrian signal heads for the crossing across Macy Place Drive. Installing those in conjunction with the new curb ramps will be part of the project.

In addition to the signal hardware upgrades, the City would like to install a median fencing on three legs of the intersection of Greenback Lane at Auburn Boulevard within existing raised medians to prevent jaywalking between signalized crosswalks. The City Police Department and the General Services Department identified the need back in 2010 after reviewing the collision data, which found the intersection to have the highest number of pedestrian related collisions. The Sacramento Regional Transit District (SacRTD) has notified the City about observations of pedestrians running across the road to access various bus stops located on multiple corners of the intersection.

There will be public outreach meetings relating to the median fencing design with stakeholders, business owners, Homeowner Associations, neighborhoods, and City Council. There will be alternative designs prepared by the Consultant for the public to provide input. TJKM has teamed with civil and landscape design firm Siegfried to assist with the public outreach and design of the median fencing and design the ADA curb ramps.

Since the project is federally funded, the project will need to obtain NEPA and CEQA clearance, which the City is taking the lead on processing the documentation through Caltrans Local Assistance Program.

INSURANCE REQUIREMENTS

We have read and certify that TJKM can meet the Certificate of Insurance requirements as stated in the RFP. A copy of our insurance coverage is available upon request.

PROJECT TEAM

TJKM has assembled a very skilled and talented group of engineers to assist the City with the preparation of the design documents for the City of Citrus Heights' proposed intersection improvements. Our design staff has worked as a team to successfully prepare detailed design plans for numerous design projects in cities similar to those of Citrus Heights, and we are confident in our teams' ability to provide high quality deliverables in a timely manner to the City.

CONTACT PERSON

The TJKM Team will be led by Atul Patel, TE, PTOE. Atul will oversee team task assignments, monitor budget and schedule compliance, and serve as the primary point of contact for City of Citrus Heights staff. He has designed many projects with similar signal hardware upgrades for cities throughout California. Mr. Nayan Amin, TE will be the Principal-In-Charge and negotiate a contract with the City. Ms. Ruta Jariwala, PE, TE will be in charge of QA/QC and peer review of all deliverables submitted to the City. Our lead designer, Mr. Rutvij Patel, EIT will have primary responsibility for preparing AutoCAD plans for this project. Siegfried Engineering is on our team and will be assisting TJKM with preparing the topographic survey, designing the ADA curb ramps, median fencing, and providing public outreach for the design of the median fencing.

FIRM OVERVIEW

TJKM is a traffic engineering and transportation planning firm providing services throughout California. As a Class C Corporation founded in 1974, TJKM currently has a staff of 30 employees with offices in Pleasanton, San Jose, Sacramento, Fresno, and Santa Rosa. Our projects range in size from short-term engagements developing meaningful traffic solutions for a wide range of transportation issues to long-term planning for new developments, communities, and transportation systems. For over 40 years, more than 3,500 satisfied clients have entrusted TJKM with their critical work. We serve a full-range of clients, including municipalities, congestion management agencies, metropolitan planning organizations, transportation agencies, private developers, other consulting firms, and attorneys. TJKM has been involved in more than 8,000 transportation projects throughout California, and averages 240 new projects each year. TJKM's primary service categories include traffic engineering design (including PS&E), transportation planning, traffic operations, corridor studies, intelligent transportation systems (ITS), traffic safety and multimodal studies. Our motivation comes from satisfying clients' objectives and improving communities. TJKM has a strong roster of both public and private sector clients and continually builds upon this base.

TJKM has served both public and private clients throughout California and into Nevada. Our engineers have worked on the public side of the desk for years as municipal engineers, developing superior skills in collaborating with the public and city councils and more importantly, crafting excellent relationships with the right people.

Our firm has designed new traffic signal installations and traffic signal modifications for numerous public agencies in the State of California. **Our design project manager and engineers are "hands on" and understand the latest signal equipment and design standards used by Caltrans and local agencies. Our experience with local agency processes keeps projects moving faster; and know-how from thousands of engagements helps us complete projects on time and within budget.**

TJKM Transportation Consultants is a disadvantaged and small business enterprise (DBE #40772 and SBE #38780).

SPECIALIZATION AND EXPERTISE

TJKM has designed more than 2,000 traffic signals in nearly 200 jurisdictions throughout the San Francisco Bay Area, and Northern and Central California. Our satisfied clients include cities, counties, Caltrans, engineering consultants, and private developers.

All of our signals are provided from start-to-finish, in-house with a full team of designers and engineers that also have in-the-field and hands-on experience for constructible designs. Our signal department has a proven track record of successful design projects and is dedicated to providing high-quality and accurate PS&E. We have designed numerous traffic signal installations and modifications for cities within California and are familiar with designing them to incorporate the City's latest signal design standards and preferences.

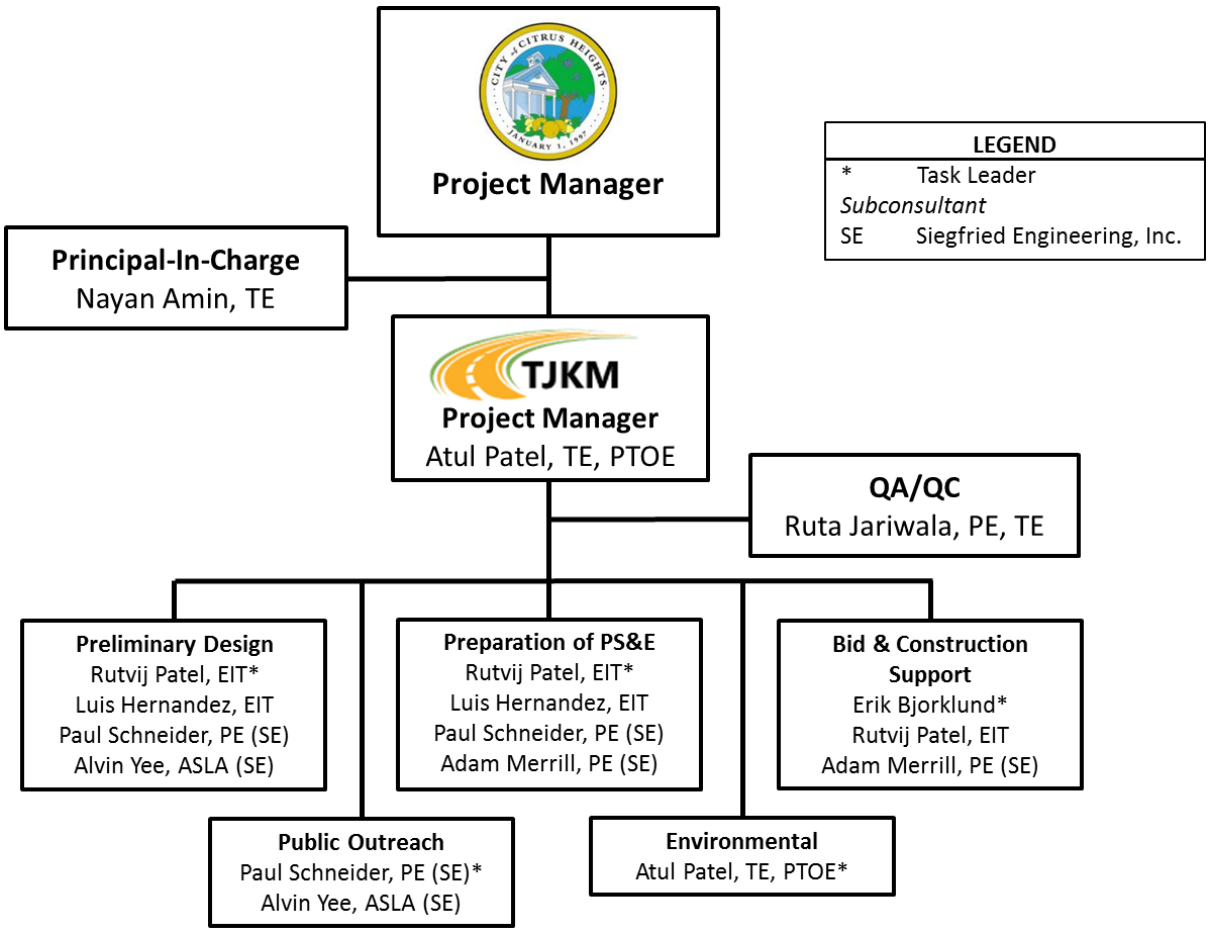
Many of our traffic signal design projects require design for interconnect and coordination that include fiber optic, copper wire, and wireless communications. We also develop signal timing plans to move traffic more efficiently in transportation corridors. TJKM's staff routinely provides construction assistance for our design projects, including traffic calming devices and traffic signal systems. We attend pre-bid and pre-construction conferences to provide in-field assistance and work effectively with contractors. We also design traffic/construction zone control plans that show how traffic will be handled during construction periods.

Our services include:

- Traffic signal design
- Interconnect, fiber optic, copper twisted pair, and wireless communication systems
- Roadway delineation and pavement marking design
- Traffic calming devices
- Traffic/construction zone control plans
- Construction assistance for design projects
- Conceptual geometric designs for future projects
- Peer review of proposed geometric designs for conformance to traffic flow and ADA requirements
- CAD services for converting historic designs into field-verified, electronic as-built files

ORGANIZATIONAL CHART

Our Project Organization Chart, shown below, illustrates our proven "chain of command" used on similar contracts. We anticipate working closely with City staff to ensure understanding and satisfaction of project objectives from start to project completion.



Subconsultants

On this project, TJKM will oversee the project with Mr. Patel as the Project Manager. We will review all procedures and submittals prepared by our subconsultant, Siegfried Engineering. TJKM will be responsible for signal design and preparation of the PS&E phase of the project. Siegfried Engineering will be conducting topographic surveying, designing ADA ramp improvements and median fencing, and leading the Public Outreach task relating to design of the median fencing.

Founded in 1955, Siegfried provides professional services in civil engineering, structural engineering, landscape architecture, surveying, and planning. Siegfried is recognized as one of the foremost engineering and surveying firms in Northern and Central California, as measured by their clients, employees, and community. They solve their clients' toughest challenges, making complex projects not only manageable, but also truly successful. Their innovative approach and technical expertise continue to shape the success of communities and businesses throughout the region and beyond. Siegfried has:

- A multidisciplinary approach to engineering, surveying, planning, and landscape architecture, which gives clients the efficiency of a full service firm with a depth of knowledge unmatched in the industry.
- An open and efficient management process, which keeps projects moving seamlessly from concept to execution.
- Advanced technological tools with clearly defined benefits: faster turnaround, fewer mistakes, and significant cost reductions.

Throughout their history, Siegfried has successfully established and maintained positive working relationships with public agencies at the local, city, county, and state levels. For over half a century, they have earned a reputation for excellence with solid performance and client satisfaction. The Siegfried staff is comprised of registered civil and structural engineers, land surveyors, and a landscape architect. Through Siegfried's years of experience, it has become clear that keeping the varied divisions and services in the firm under one roof benefits both the process and the product, streamlining costs while maximizing function.

Siegfried provides professional engineering and land surveying services for a broad range of projects. They have special expertise in the use of cutting edge technology for computer-aided analysis, calculations, design, and drafting by integrating systems to model the existing site topography. These capabilities results in the professional design and production of improvement plans for the successful execution and completion of our client's projects.

STAFF EXPERIENCE AND QUALIFICATIONS

The following table summarizes our proposed team members' qualifications.

Name, Role, Years of Experience	Registration Number	Specialized Expertise	Qualifications & Experience
TJKM			
Nayan Amin, TE Principal-In-Charge 27 Years of Experience	CA TE 2290	▪ Traffic Signal Systems ▪ Traffic Operations ▪ ITS Planning & Design ▪ Transportation Planning ▪ Complete Streets ▪ Traffic Calming	▪ Downtown Concord Pedestrian & Bicycle Lane Improvements, Concord ▪ Comprehensive Pedestrian & Bicycle Master Plan, Belmont ▪ Hudson Bike & Pedestrian Improvements, Redwood City ▪ Traffic Analysis for Sacramento Street Bridge Reconstruction Project, Vallejo
Atul Patel, TE, PTOE Project Manager | Environmental Task Lead 27 Years of Experience	CA TE 2321 TX CE 83987 AZ CE 44981	▪ Traffic Engineering Design ▪ ITS Planning & Design ▪ Traffic Signal Systems ▪ Pedestrian and Bicycle Studies	▪ Bike Lane Gap Closure Project, West Sacramento ▪ Fair Oaks/Howe Signal Modification, Sacramento ▪ Sunnyvale-Saratoga Traffic Signal, Pedestrian & Bicycle Safety Project, Sunnyvale ▪ Safe Routes to School 2015, Sunnyvale
Ruta Jariwala, PE, TE QA/QC 18 Years of Experience	CA TE 2465 CA CE 73840	▪ Traffic Operations ▪ Traffic Signal Systems ▪ Engineering Design ▪ Traffic Impact Studies	▪ Safe Routes to School 2015, Sunnyvale ▪ Remington Drive/Bernardo Avenue Traffic Signal Design Installation, Sunnyvale ▪ Fair Oaks/Howe Signal Modification, Sacramento ▪ Citywide Intersection Safety Improvement Study, San Bruno

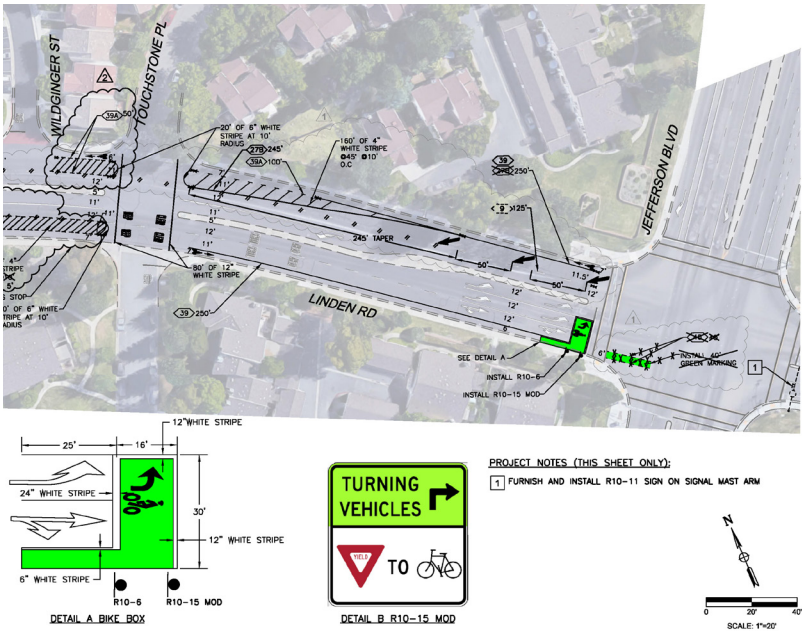
Name, Role, Years of Experience	Registration Number	Specialized Expertise	Qualifications & Experience
Rutvij Patel, EIT Preliminary Design | Preparation of PS&E Task Lead 10 Years of Experience	EIT 154117	▪ Traffic Operations ▪ Traffic Handling ▪ Pavement Delineation ▪ Signage Plans	▪ Bike Lane Gap Closure Project, West Sacramento ▪ Fair Oaks/Howe Signal Modification, Sacramento ▪ Sunnyvale-Saratoga Traffic Signal, Pedestrian & Bicycle Safety Project, Sunnyvale ▪ Safe Routes to School 2015, Sunnyvale
Erik Bjorklund Bid & Construction Support Task Lead 26 Years of Experience	N/A	▪ Engineering Design ▪ Traffic Operations ▪ Traffic Signal Systems	▪ Design Plans for 700 Traffic Signals & Hundreds of Miles of Signing & Delineation ▪ Remington Drive/Bernardo Avenue Traffic Signal Design Installation, Sunnyvale ▪ Fair Oaks/Howe Signal Modification, Sacramento
Luis Hernandez, EIT Project Engineer 1 Year of Experience	EIT 155496	▪ Traffic Operations ▪ Traffic Handling ▪ Signage Plans ▪ Pavement Delineation	▪ Bike Lane Gap Closure Project, West Sacramento ▪ Fair Oaks/Howe Signal Modification, Sacramento ▪ Sunnyvale-Saratoga Traffic Signal, Pedestrian & Bicycle Safety Project, Sunnyvale ▪ Safe Routes to School 2015, Sunnyvale
Siegfried Engineering			
Paul Schneider, PE, QSD/QSP Public Outreach Task Lead 19 Years of Experience	CA CE 62498 Qualified SWPPP Developer No. 575 Qualified SWPPP Provider No. 575	▪ Civil Engineering ▪ Public Outreach ▪ Client Management ▪ Regional On-Call Civil Engineer	▪ Lincoln Oaks Reservoir, Citrus Heights ▪ Swain & Montauban Roundabout, Stockton ▪ Hudson Bicycle & Pedestrian Improvements, Redwood City ▪ Signal Installation at Remington/Bernardo, Sunnyvale
Adam Merrill, PE, QSD/QSP Project Engineer 11 Years of Experience	CA CE 76826 Qualified SWPPP Developer No. 24851 Qualified SWPPP Provider No. 24851	▪ Civil Engineering ▪ Bid & Construction Support ▪ Plans, Specifications, & Estimates	▪ Hudson Bicycle & Pedestrian Improvements, Redwood City ▪ Signal Installation at Remington/Bernardo, Sunnyvale ▪ Sunnyvale Signal Modifications at 4 Locations, Sunnyvale ▪ Low Impact Development Project at Various Locations, San Anselmo
Alvin Yee, ASLA Landscape Architect 11 Years of Experience	CA Landscape Architect No. 5968	▪ Landscape Architecture ▪ Community Outreach ▪ Photo-Simulations & Renderings	▪ Marietta Fountain at Citrus Heights City Hall, Citrus Heights ▪ Hudson Bicycle & Pedestrian Improvements, Redwood City ▪ Low Impact Development Project at Various Locations, San Anselmo ▪ Arcade Creek Park Preserve, Park Visual Simulations, Citrus Heights

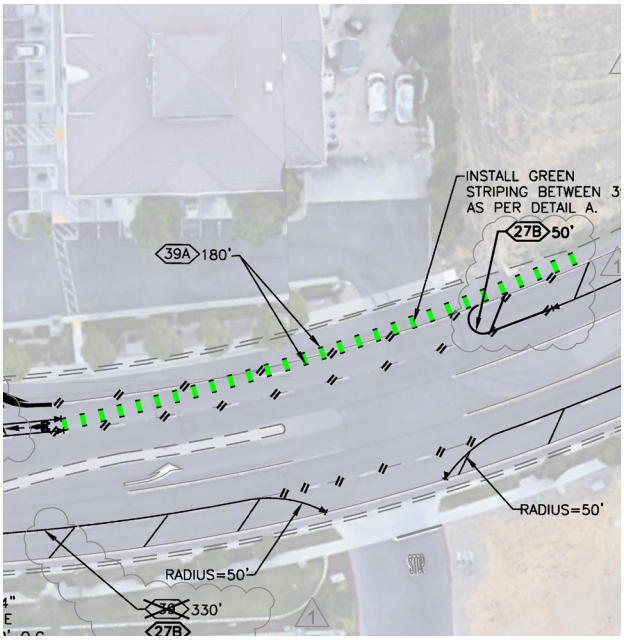
REFERENCES AND RELEVANT EXPERIENCE

TJKM has established organizational and procedural policies to ensure quality engineering services to our clients, nearly **85 percent** of who are repeat clients. Prompt service, attention to detail, strict adherence to schedule requirements, and commitment to our clients' goals are among the reasons for this steady client base. Our objective on every assignment is to provide the most cost-effective product that meets the specific needs and criteria of each client within the planned schedule and budget. On the following pages are some of our relevant signal design projects. We encourage the City of Citrus Heights to contact our references to learn about our performance. We are confident that you will be pleased with what our clients have to say about us.

City of West Sacramento

Bike Lane Gap Closure





PROJECT OWNER:
City of West Sacramento

PROJECT DATE(S):
2016 - Ongoing

KEY PERSONNEL:
Atul Patel, TE, PTOE • Project Manager
Rutvij Patel, EIT • Task Lead

TJKM CLIENT REFERENCE:
Jesse Khatkar
City of West Sacramento
1110 West Capitol Avenue
Suite I
West Sacramento, CA 95691
916.671.4667
jessek@cityofwestsacramento.org

TJKM FEE:
$86K

PROJECT DESCRIPTION:

The TJKM Team's Scope of Work specifically includes:

- Preparing an AutoCAD base plan from the Google Professional aerials of the project corridors.
- Prepare PS&E for the addition of Class II, III, and IV citywide bicycle improvements and traffic signal modifications for bicycle detection.
- Prepare and obtain an encroachment permit for improvements within Caltrans right-of-way.
- Provide bid and design support during construction
- Prepare record drawings from City/Contractor redline markups, after the completion of construction.

TJKM
VISION THAT MOVES YOUR COMMUNITY

CITY OF WEST SACRAMENTO

City of Sacramento

Signal Modification Fair Oaks Boulevard & Howe Avenue

PROJECT OWNER:
City of Sacramento

PROJECT DATE(S):
2013 - 2016

KEY PERSONNEL:
Atul Patel, TE, PTOE • Project Manager
Ruta Jariwala, PE, TE • QA/QC & Task Lead
Rutvij Patel, EIT • Task Lead

TJKM CLIENT REFERENCE:
Lane Bader
Blair, Church & Flynn
451 Clovis Avenue, Suite 200,
Clovis, CA 93612
559.326.1400
lbader@bcf-engr.com

TJKM FEE:
$25K

PROJECT DESCRIPTION:

The TJKM was subs consultant to Blair, Church & Flynn and performed the following tasks on the project:

- Assisted Blair, Church & Flynn for design of slip right turn lane at northwest corner of Fair Oaks Boulevard and Howe Avenue. Specifically analyzed the turn pocket radius to insure WB-4 trucks can safely make the movement.
- Based on the approval of the slip right turn design TJKM prepared a full set of signal modification plans, specifications, and estimate for the intersection.
- The plans showed the layout of new signal equipment for properly functioning right turn slip lane with overlap phasing.
- Provided bid and design support during construction
- Prepare record drawings from City/Contractor redline markups, after the completion of construction.

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VISION THAT MOVES YOUR COMMUNITY

City of SACRAMENTO

Sunnyvale, CA

Sunnyvale / Saratoga Road Traffic Signal, Bicycle, and Pedestrian Safety Project

PROJECT OWNER:
City of Sunnyvale

PROJECT DATE(S):
2016 - Ongoing

KEY PERSONNEL:
Atul Patel, TE, PTOE • Project Manager
Rutvij Patel, EIT • Task Lead

TJKM CLIENT REFERENCE:
Elizabeth Racca-Johnson
City of Sunnyvale
456 Olive Avenue, CA 94086
(408) 730-7428
eraccajohnson@sunnyvale.ca.us

TJKM FEE:
$113K

PROJECT DESCRIPTION:

TJKM is the Prime consultant designing the PS&E for bicycle and pedestrian safety enhancements at the Sunnyvale/Saratoga Road and Mathilda Avenue/ Talisman intersections. The City is upgrading the curb ramps to be ADA compliant at each corner, modifying the existing median islands to square up the crosswalks, and upgrade the traffic signal poles. TJKM was responsible for preparing the PS&E, assisting the City with preparing E-76 forms and documentation, overseeing the NEPA clearance documentation and potholing.

High visibility green bicycle lanes are to be installed along Sunnyvale/Saratoga Road and Mathilda Avenue to improve the merging of both bicycle lanes as they merge northbound on Sunnyvale/Saratoga Road. In addition to bicycle enhancements, the traffic signal upgrades proposed include installation of a PTZ camera for video surveillance, FLIR video detection, relocation of the fiber interconnect to the new cabinet, removal of median refuge areas and pedestrian push buttons in the north leg of the Mathilda Avenue median island, and the removal of the pedestrian refuge on the south leg of Mathilda Avenue median island.

TJKM

VISION THAT MOVES YOUR COMMUNITY

Sunnyvale, CA

Safe Routes to School 2015

PROJECT OWNER:
City of Sunnyvale

PROJECT DATE(S):
2015 - 2016

KEY PERSONNEL:
Atul Patel, TE, PTOE • Project Manager
Ruta Jariwala, TE, PE • QA/QC
Rutvij Patel, EIT • Task Lead

TJKM CLIENT REFERENCE:
Liliana Price
City of Sunnyvale
456 West Olive
Sunnyvale, CA 94086
(408) 730-7543
iprice@ci.sunnyvale.ca.us

TJKM FEE:
$283K

PROJECT DESCRIPTION:

TJKM is the prime consultant designing the PS&E for citywide pedestrian improvements at 60 signalized and unsignalized intersections along with preparing the E76 documentation for NEPA environmental clearance. The improvements consist of modifications of traffic signal equipment, curb ramp upgrades, signing and striping, and pavement marking improvements. TJKM analyzed over 200 intersections and prepared a Basis of Design Report for the recommended improvements to move forward into the design phase.

TJKM

VISION THAT MOVES YOUR COMMUNITY

Sunnyvale, CA

Remington Drive/Bernardo Avenue Traffic Signal Design Installation

PROJECT OWNER:
City of Sunnyvale

PROJECT DATE(S):
2012-2013

KEY PERSONNEL:
Atul Patel, TE, PTOE • Project Manager
Ruta Jariwala, PE, TE • QA/QC
Erik Bjorklund • Senior Project Engineer
Rutvij Patel, EIT • Project Engineer

TJKM CLIENT REFERENCE:
Liliana Price
456 West Olive
Sunnyvale, CA 94086
(408) 730-7543
lprice@sunnyvale.ca.gov

TJKM Fee:
$48K

PROJECT DESCRIPTION:

TJKM was the Prime Consultant responsible for preparing PS&E for the intersection improvements.

The project included:

- Environmental clearance documentation
- ADA and sidewalk improvements
- Pedestrian and bicycle safety
- Potholing the pole locations during the design phase
- Traffic signal installation, and signing/striping modifications
- Wireless interconnect system
- Fiber optic interconnect system to the adjacent traffic signal at Mary/Remington

The project is completed and TJKM provided bid and construction support during construction.

TJKM

VISION THAT MOVES YOUR COMMUNITY

Stockton, CA

San Joaquin RTD Bus Rapid Transit, Phase III

CLIENT REFERENCE:
Bryan Pennino
Pennino Management Group
1420 S Mills Avenue
Lodi, CA 95242
(209) 456-2063
bpennino@penninogroup.com

PROJECT DESCRIPTION:

Civil engineering and surveying services for the design of 18 bus stop locations along a 5.5 mile stretch of Hammer Lane for the Regional Transit District (RTD) Bus Rapid Transit (BRT) III route. The purpose is to expand existing BRT services east and west between I-5 and Highway 99 in North Stockton. This project will improve service to meet current and future mobility needs, improve quality of life, improve air quality, decrease traffic congestion, and assist in the development of a strong, integrated, and diverse economy. Median fencing was incorporated at major intersections for pedestrian safety, and to reduce the temptation to cross an eight-lane arterial to the opposing bus stop. Another unique element was the design and implementation of Queue Jump Lanes, which gives priority to buses and allows SJRTD to maintain tight schedules along the rapid transit route.

San Francisco Bay Area, CA

Bicycle Plan Public Outreach for Caltrans District 4

CLIENT REFERENCE:
Jodi Almassy, PE
City of Stockton
425 N. El Dorado Street
Stockton, CA 95202
(209) 937-8411
jodi.almassy@stocktongov.com

PROJECT DESCRIPTION:

Siegfried collaborated with business owners and City staff to reconstruct one of the City's oldest and busiest arterial roads through an active and historic business core. The project was designed to improve pedestrian and vehicular linkages with the City's downtown core and nearby commuter rail, while also improving business access. Our scope included reconstruction of three blocks of a major thoroughfare, including the redesign of two intersections and signals, and implementing traffic sequencing. Raised median islands were installed to provide for pedestrian safety features, and to reduce the temptation to cross the road mid-block. Reconstruction of existing basements, access, and utility and rail coordination. To ensure that businesses were not affected and to provide clear instruction to bidders, Siegfried developed a six-stage phased construction plan that was successfully implemented.

WORK PLAN

PROJECT CHALLENGES

There are a few challenges relating to this project. Some of them include the following:

- **Caltrans Encroachment Permit Approval** – This process can be time-consuming and lengthy, so submitting the design for the signal hardware upgrades at the Antelope/I-80 Eastbound and Westbound ramps separate to the City intersection package, and submitting early in the design phase will be critical to keeping the project on track.
- **The Curb Ramp Upgrades at Sunrise Boulevard (at Birdcage Center and Macy Place Drive)** – There are existing landscape bushes and an existing staircase at Birdcage Center/Sunrise Boulevard that appears to be barricaded off to the sidewalk on Sunrise Boulevard. These will need to be cleared out to construct the two new directional ramps. There is also a valley gutter adjacent to the corners to that needs to be maintained for drainage flow.
- **Public Outreach Process and Gaining Consensus on the Median Fencing Design** – Siegfried has conducted public outreach on many of their improvement projects and understands how to listen to the stakeholders concerns and provide alternative designs that meet their needs. Three public meetings have been budgeted for vetting of the design through the public outreach process.

PROPOSED WORK PLAN

Based on our initial field review of the project site and knowledge of the area, we will carry out all of the tasks required for this project.

Task 1 – Project Management/Kick-Off

Task 1.1 – Kick-Off Meeting

Prior to the beginning of work, TJKM will meet with the City of Citrus Heights's project staff to exchange contact information from all project team members, and identify other contacts important to the project. We will establish a line of communication between the TJKM Team and City staff, identify the key personal for contact and relaying of information back and forth. It is assumed that the kick-off/coordination meeting will be attended by the City of Citrus Heights Project Manager, and the City Assistant Traffic Engineer, among other staff deemed necessary by the City. The meeting will seek to discuss important aspects of the project, which include but are not limited to the following:

- Discuss coordination, project impacts, goals, and schedule.
- Discuss format of drawings and specifications.
- Obtain available information such as as-built drawings, aerial photography in ACAD format, and standard specifications from the City.
- Obtain available information on existing and proposed underground and overhead utilities such as sewer, water, power, phone, cable, and storm drain, from the City of Citrus Heights.
- Discuss key aspects of the traffic signal design and clarification on the following assumptions:
  - Caltrans Local Assistance Coordination and NEPA clearance to be handled by the City; the TJKM Team to provide assistance as necessary to get all approvals based on the schedule provided in the City's RFP.
  - No widening (capacity increasing) improvements will be implemented as part of this project. It is assumed that existing curb line will remain in place except as necessary for ADA curb ramp improvements.
  - The City will be responsible for acquiring all right of way, if necessary, to construct project improvements.
  - The City will be responsible for preparing right-of-way acquisition documents (if right-of-way acquisition is necessary as part of this project).
  - The City will prepare the necessary right-of-way documents needed to complete the acquisition including plats, descriptions, and record of survey.
- Utility Potholing has not been included in the scope of work.
- Discuss in detail, issues to be resolved in the scope of work, if any.
- In an effort not to obtain any additional right-of-way, discuss the potential design of new or modification of the existing handicap ramps in order to maintain ADA compliance.

Deliverables

- Schedule
- Meeting minutes

Task 1.2 – Project Management

TJKM will manage the schedule and budget throughout the duration of the project. Based on the RFP, it is assumed the City will take the lead in preparing the E-76 forms necessary for obtaining the RFA for construction approval from Caltrans Local Assistance Program, including the Right-of-Way, and Utility Certification forms. The TJKM Team will provide assistance to City for review of the documents, as necessary, to obtain these approvals.

TJKM will maintain frequent and timely communication with the City of Citrus Heights during the design and construction phase of the project. A biweekly conference call will be scheduled with the City's Project Manager to go over outstanding issues and work completed in the previous two weeks and work to be conducted over the next few weeks.

TJKM will prepare meeting minutes at all the meetings attended and provide action item logs for subsequent follow-up via email. We have budgeted meetings at the following stages:

- Kick-Off Meeting
- Review of 35% Submittal
- Review of 90% Submittal
- Review of 100% Submittal

Additional meetings can be conducted with a contract amendment and billed on a time and materials basis.

Task 2 – Preliminary Design

Task 2.1 – Topographic Survey and Background Research

As part of the TJKM Team, Siegfried will research and review existing topographic mapping, photos, right-of-way maps, "as-built" plans, record maps, surveys, assessor maps, and local street improvement plans for the project. Siegfried will conduct field reconnaissance of the entire project limits. Siegfried will work with all pertinent utilities to identify conflicts, coordinate utility plan reviews, conduct necessary coordination meetings, and locate designed improvements as required to facilitate any utility relocations. The objective is to eliminate any conflicts that may be encountered during construction, which would pose construction delays or claims. Siegfried will coordinate with utility companies to the maximum extent possible and show all known existing utilities.

At the locations where there is signal equipment upgrades, TJKM will use a high resolution aerial as a background for the base mapping at a 1"=20' scale and identify which signal heads, push buttons, and pedestrian signal heads are to be replaced or added.

Task 2.2 – Utility Coordination

Siegfried will provide utility coordination services for this project. Due to the federal funding associated with the project, utility coordination services will be conducted in general conformance with Caltrans' Local Assistance and Utility Relocation Manuals. The TJKM Team will follow the Utility A-B-C process:

- **Utility "A" Letter** – A USA list is generated that shows all possible utility companies located within the project limits. A letter is sent to the respective utility company informing them about the project and asking them for as-built mapping and liability claims within the project area.
- **Utility "B" Letter** – Letter is issued to the utility companies with 60% plans that show utility impacts. The utility companies are instructed to begin relocation plans at this time. Frequent follow-ups with utility companies are required from this point forward.
- **Utility "C" Letter (Notice to Owner)** – Once utility relocation plans are received and approved from the utility companies, the notice to owner letter authorizes the company to relocate their utilities. Right-of-way acquisition (if necessary) must be cleared for this letter to be issued.

As part of conducting utility mapping, Siegfried will determine horizontal location of existing utilities and prepare a list of those utilities, which have a potential for physical conflicts with proposed improvements. In areas of reconstruction where elevations of underground utilities are unknown, Siegfried will provide recommendations for where potholing should be performed. Potholing services are assumed to be provided by the City.

Task 2.3 – Verification of Load Requirements

TJKM will verify wind load, dead load, and vertical height requirements for existing traffic signal poles based on the pole type shown on the City's signal as-built plans or pole tags. TJKM will prepare a tech memo with our findings.

Deliverables

- Utility Letters ("A" to C")
- Support documents for utility conflict resolution, if required
- Load Requirements memo

Task 2.4 – Field Reconnaissance

The TJKM Team will begin project work by performing a site reconnaissance at the 30 project intersections mentioned previously. Field visit will include verification of existing signal infrastructure, lane geometry, signage, striping, and existing visible utilities.

The TJKM Team will make field observations, investigations, and review safety issues of the existing conditions. Based on our field reconnaissance, careful design consideration will be given to the placement of new signal equipment, any signage and striping changes required, and civil infrastructure that needs improvement to meet ADA compliance, such as curb ramps. Also any landscape improvements necessary to eliminate line of sight issues will be considered.

Task 3 – Public Outreach

Siegfried will lead the public outreach task for the project, relating to the median fence design. Siegfried will attend up to three outreach meetings to support the median fence design. In addition, Siegfried will provide up to three alternative fence concepts to be vetted at said meetings.

Deliverables

- Fence Concepts

Task 4 – Detailed PS&E

Task 4.1 – 35% PS&E Submittal

TJKM will prepare 35% plans based on CAD files prepared using high resolution Google Earth aerials. The signal plans will show layout of all traffic signal equipment for this project including but not limited to; signal poles, signal heads, signal interconnect equipment, conduits, and signal phasing. The design for the signal modifications shall follow standards laid out in the Caltrans Standard Plans and Specifications, the California Manual on Uniform Traffic Control Devices, the City of Citrus Heights current standards.

Siegfried will prepare 35% design plans for the installation of ADA compliant curb ramps as well as any other civil work that needs to be done relating to the median fence. These plans will be prepared with similar methodology and reference documents as mentioned above for signal plans. Siegfried will prepare complete PS&E documents for the four curb ramps and the median fencing. The PS&E will be prepared according to the City's standards. Prepare a base map showing existing information to facilitate the design of all the necessary improvements. The base map limits will be sufficient to cover all necessary improvements within the project area. PS&E submittals will be submitted for review to the City at 35%, 90%, and 100% completion stage.

The Team will then prepare a 35% engineer's estimate for anticipated cost of construction. Preparation of specifications and special provisions will be in the 90% submittal and will be in accordance with the City of Citrus Heights's desired format and will adhere to City's latest standard specifications and Caltrans Standard Specifications and special provision.

TJKM will prepare a Caltrans encroachment permit application package for the City to sign the form and submit to Caltrans for their review for the improvements at the two I-80/Antelope Road traffic signals. Comments received from Caltrans will be incorporated into the contract documents in the next submittal.

Deliverables

- 35% Plans, half size (11" x 17") hard copy (three sets)
- Estimate in PDF format (or in Excel if requested)
- Caltrans Encroachment Permit Application Form
- 35% Caltrans Plans and Special Provisions

Task 4.2 – 90% PS&E Submittal

The TJKM Team will receive one set of non-conflicting comments on the 35% PS&E from Caltrans and the City, and have a phone call or in-person meeting with City Staff to get clarification on any comments that need discussion. The Team will then refine the 90% plans based on the discussion. The plans will be more complete at this stage by including non-standard details to plans and providing greater details on plans to get them construction ready.

The estimate and specifications shall be revised per comments received on the 35% submittal. The TJKM Team will also prepare a bid table to be added into the specifications per the City's desired format.

Deliverables

- 90% Plans, full size (36" x 24") hard copy (one set)
- 90% Plans, half size (11" x 17") hard copy (three sets)
- 90% Specifications (in Word) and Estimate in PDF format (or in Excel if requested)
- Revised Caltrans Permit Package

Task 4.3 – 100% Bid Package PS&E Submittal

The TJKM Team will receive one set of non-conflicting comments on the 90% PS&E from City and Caltrans, and have a phone call or in-person meeting with City staff to get clarification on any comments that need further discussion.

The Team will then prepare 100% design plans according to City staff's and Caltrans comments on the 90% submittal. The plans will be close to construction ready at this point. It is anticipated that the comments will be minor editorial comments in this submittal. The Engineer's estimate and specifications shall be refined further and finalized based on City comments. A full bid-ready PS&E, and any support documents such as bid tables, shall be provided to the City for one final review.

If any minor refinement is required to documents it will be handled in this task and final hard copies will be provided to the City to begin the bidding process.

Deliverables

- Mylar Final Plans, full size (36" x 24") hard copy (one set)
- PDF plans, full size (36" x 24")
- Bid Specifications (in Word) and Estimate in PDF format (or in Excel if requested)
- Any other documents required by the City for complete Bid Documents
- Revised Caltrans Permit Package

Task 5 – Environmental

As per the RFP, the City will take the lead in preparing the NEPA clearance and CEQA clearance documentation for Caltrans Local Assistance Program approval. TJKM will assist the City with review of the documents, and provide any plans or estimates as part of the required documentation through final approval by Caltrans.

Deliverables

- Review of NEPA documentation, plans, and estimates, as necessary

Task 6 – Bidding and Construction Support

During the bidding phase of this project, the TJKM Team will answer any bidder's question and provide clarifications to the bid questions. The Team will respond to Requests for Information (RFIs) and will prepare addenda, as necessary. The TJKM Team will also prepare conformed documents, as necessary.

During construction, the TJKM Team will assist City staff as follows:

- Prepare responses to contractor's RFIs during the construction phase, if required
- Review contractor equipment submittals
- Attend up to one field meeting.

Deliverables

- Addendum(s), clarifications, and conformed documents, as necessary
- Clarifications and response to submittals

Exceptions to the Scope of Services

Please note that the following are not included in the Work Plan detailed above:

- Preparation of E-76 documentation. The City is assumed to take the lead in preparing those.
- Hazardous waste testing, monitoring, and contingency plan for both site and building demolition work.
- Geotechnical monitoring, potholing, construction management, inspection, supervision, and scheduling.
- Gas, electric, and telephone service plans.
- Record Survey Maps, Tentative Maps, Parcel Maps, Final Maps, and legal descriptions and sketches and Construction staking.
- Design revisions during construction.
- Record Drawings.

RESPONSIVENESS

Frequent and effective communication between the City, other local jurisdictions, and the TJKM Team is needed to maintain the project schedule and ensure a quality product. The key to our success is an integrated team approach. Our goal is "no surprises" and a partnership that has common understanding and expectations every step of the way. Atul will maintain close communication with the City's Project Manager by personal contact, telephone, written communications, and meetings. Our project manager strongly believes in the necessity and benefit of scheduled monthly progress meetings. Atul, as well as other key team members, will communicate with the City's Project Manager via biweekly conference calls to discuss project issues, status, schedule, budget and invoicing items. This will ensure that our "no surprises" goal is maintained and the City is thoroughly aware of all aspects of the project.

The TJKM Team will maintain regular contact with City staff to ensure clear communication on project tasks, products, meetings and schedule. Specifically we will:

- Hold scheduled conference calls to review project status and discuss key issues. During these calls we will discuss various project deliverables including workshop agendas, workshop summaries, proposed alternatives, preferred alternative, draft plan and final plan documents.
- Participate in additional calls and meet with City staff, as needed at key stages during the planning effort to review key ideas, products, deliverables, project status and overall project direction and budget.
- Manage all aspects of the project to maintain project schedule and budget, maintain continuous liaison with the City and other stakeholders.
- Prepare and submit monthly progress status updates to the City. The reports will include progress of work; status of public involvement; updated project schedule; information/decisions required to maintain schedule and complete deliverables; problems encountered that may affect schedule; budget or work products and anticipated work products for the following month.

PROJECT SCHEDULE

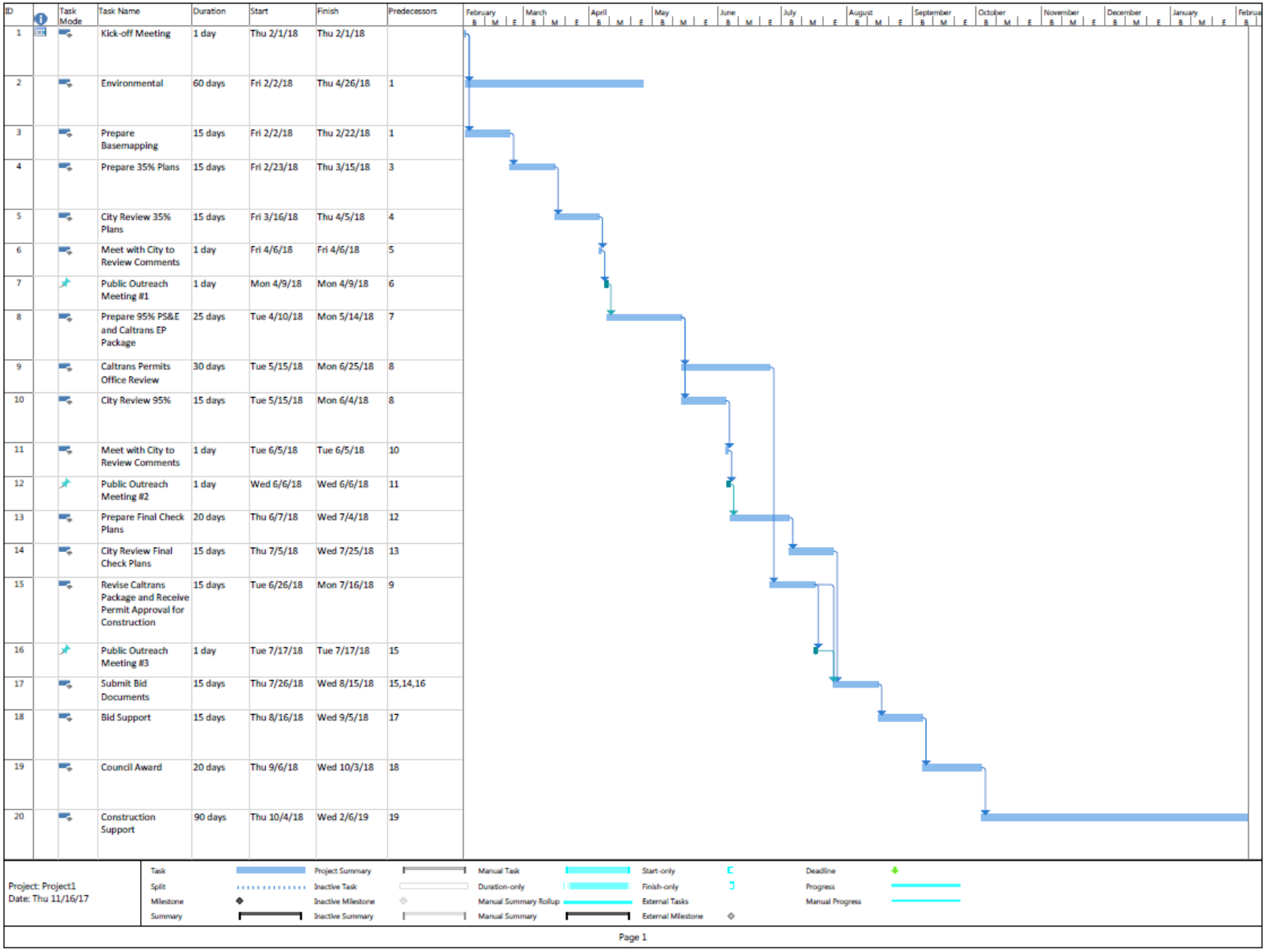
Upon receipt of a Notice to Proceed (NTP) from the City of Citrus Heights, TJKM will perform design services for the intersection safety improvements project in accordance with the schedule shown on the following page.

COST PROPOSAL

As per the RFP we have included our cost proposal in a separate sealed envelope.

REQUIRED FEDERAL PAPERWORK

TJKM is a certified disadvantaged and small business enterprise (DBE #40772 and SBE #38780) therefore will exceed the 19% DBE requirement. In Appendix A is our completed Exhibit 10-O1 form, our Certified DBE notification, and a print out from the website.



ID	Task Mode	Task Name	Duration	Start	Finish	Predecessors
1		Kick-off Meeting	1 day	Thu 2/1/18	Thu 2/1/18	
2		Environmental	60 days	Fri 2/2/18	Thu 4/26/18	1
3		Prepare Basemapping	15 days	Fri 2/2/18	Thu 2/22/18	1
4		Prepare 35% Plans	15 days	Fri 2/23/18	Thu 3/15/18	3
5		City Review 35% Plans	15 days	Fri 3/16/18	Thu 4/5/18	4
6		Meet with City to Review Comments	1 day	Fri 4/6/18	Fri 4/6/18	5
7		Public Outreach Meeting #1	1 day	Mon 4/9/18	Mon 4/9/18	6
8		Prepare 95% PS&E and Caltrans EP Package	25 days	Tue 4/10/18	Mon 5/14/18	7
9		Caltrans Permits Office Review	30 days	Tue 5/15/18	Mon 6/25/18	8
10		City Review 95%	15 days	Tue 5/15/18	Mon 6/4/18	8
11		Meet with City to Review Comments	1 day	Tue 6/5/18	Tue 6/5/18	10
12		Public Outreach Meeting #2	1 day	Wed 6/6/18	Wed 6/6/18	11
13		Prepare Final Check Plans	20 days	Thu 6/7/18	Wed 7/4/18	12
14		City Review Final Check Plans	15 days	Thu 7/5/18	Wed 7/25/18	13
15		Revise Caltrans Package and Receive Permit Approval for Construction	15 days	Tue 6/26/18	Mon 7/16/18	9
16		Public Outreach Meeting #3	1 day	Tue 7/17/18	Tue 7/17/18	15
17		Submit Bid Documents	15 days	Thu 7/26/18	Wed 8/15/18	15,14,16
18		Bid Support	15 days	Thu 8/16/18	Wed 9/5/18	17
19		Council Award	20 days	Thu 9/6/18	Wed 10/3/18	18
20		Construction Support	90 days	Thu 10/4/18	Wed 2/6/19	19

Appendix A
Required Forms

EXHIBIT 10-O1 CONSULTANT PROPOSAL DBE COMMITMENT

1. Local Agency: City of Citrus Heights 2. Contract DBE Goal: 19%
3. Project Description: Professional Design Services for Various Signalized Intersection Safety Improvements
4. Project Location: Various intersections throughout the City of Citrus Heights
5. Consultant's Name: T J K M 6. Prime Certified DBE: ☑

7. Description of Work, Service, or Materials Supplied	8. DBE Certification Number	9. DBE Contact Information	10. DBE %
Traffic Engineering	40772	T J K M, Nayan Amin, 925.463.0611, 4305 Hacienda Dr, Ste, 550,	69%

Local Agency to Complete this Section

17. Local Agency Contract Number:
18. Federal-Aid Project Number:
19. Proposed Contract Execution Date:

11. TOTAL CLAIMED DBE PARTICIPATION 69 %

Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.

20. Local Agency Representative's Signature
21. Date
22. Local Agency Representative's Name
23. Phone
24. Local Agency Representative's Title

IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.

12. Preparer's Signature
13. Date: 12/04/2017
14. Preparer's Name: Nayan Amin
15. Phone: 925.463.0611
16. Preparer's Title: President

DISTRIBUTION: Original – Included with consultant's proposal to local agency.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

EXHIBIT 10-Q DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:

☐ a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:

☐ a. bid/offer/application
b. initial award
c. post-award

3. Report Type:

☐ a. initial
b. material change

For Material Change Only:
year ____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity

☐ Prime ☐ Subawardee
Tier _____, if known

Congressional District, if known

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:

Congressional District, if known

6. Federal Department/Agency:

7. Federal Program Name/Description:

CFDA Number, if applicable _____

8. Federal Action Number, if known:

9. Award Amount, if known:

10. Name and Address of Lobby Entity

(If individual, last name, first name, MI)

11. Individuals Performing Services

including address if different from No. 10a
(If individual, last name, first name, MI)

(attach Continuation Sheet(s) if necessary)

12. Amount of Payment (check all that apply)

$ _____ ☐ actual ☐ planned

13. Form of Payment (check all that apply):

☐ a. cash
☐ b. in-kind; specify: nature _____
Value _____

14. Type of Payment (check all that apply)

☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e deferred
☐ f. other, specify _____

15. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:

16. Continuation Sheet(s) attached: **Yes** ☐ **No** ☐ (attach Continuation Sheet(s) if necessary)

17. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: _____

Print Name: Nayan Amin

Title: President

Telephone No.: 925.463.0611 Date: 12/04/2017

NOT APPLICABLE

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Standard Form - LLL

Standard Form LLL Rev. 04-28-06

Distribution: Orig- Local Agency Project Files

Appendix B
Resumes

Mr. Amin has more than 27 years of both public and private sector experience in the areas of transportation planning, traffic impact studies, transportation management plans, construction scheduling, construction area signs, signing and striping, traffic signal coordination, traffic operations, transit priority, traffic signal systems, freeway and arterial management studies, and intelligent transportation systems planning, design and construction oversight. He specializes in macro and microscopic model development and application for analysis of impacts across all modes of transportation. His projects range from traffic studies for developments, specific plans, general plans, corridor studies, and area-wide studies to long-term planning studies. Studies also include multimodal operations, light-rail, bus rapid transit, pedestrian, bicyclists and traffic safety and operations.

Nayan Amin, TE

PRESIDENT

Project Role: Principal-In-Charge

AREAS OF EXPERTISE

- Transportation Planning
- Traffic Impact Studies
- Transportation Management Plans
- Traffic Operations
- Transit Priority
- Freeway & Arterial Management Studies

YEARS OF EXPERIENCE

27

REGISTRATION & CERTIFICATIONS

CA TR2290 (Traffic)

PROFESSIONAL HISTORY

TJKM	2012–Present
URS	2004 – 2012
Bucher, Willis & Ratliff	2001 – 2003
TJKM	1996 – 2000
VK Patel	1990 – 1994

EDUCATION

MS Civil Engineering,
San Jose State University,
San Jose, CA
BS Civil Engineering,
Saurashtra University, India

Project Experience

Downtown Concord Pedestrian & Bicycle Lane Improvements, Concord, CA, City of Concord, 2015-Ongoing, $183K: Principal-In-Charge for the project which will enhancements corridors along five roadways in Downtown Concord to provide last mile bicycle and pedestrian connections to Concord BART from the west, east, and south. The improvements include buffered bicycle lanes, Class II bicycle lanes, Class III bicycle routes, improvements at two unsignalized crosswalks, sidewalk expansion, Class I pathways, and curb ramp upgrades. TJKM is preparing the E-76 Request for Authorization for construction documentation and the PS&E for the project.

Comprehensive Pedestrian & Bicycle Master Plan, Belmont, CA, City of Belmont, 2015-2016, $67K: Project Manager overseeing development of a comprehensive pedestrian and bicycle master plan to encourage people of all ages to bike and/or walk more. Currently, the City has several bike lanes, but they do not provide a consistent bike route. The City also faces sidewalks limitations due to steep terrain, right-of-way-limitations, and opposition from neighborhood groups. The TJKM Team will prepare a thorough review of existing bicycle, pedestrian, and Safe Routes to School planning documents, including the City's Complete Streets Policy, and conduct peak hour manual counts for pedestrians and bicyclists at key intersections, as well as analyzing pedestrian and bicycle collisions to offer countermeasures. The Team will also identify and work with representatives from community groups, schools, police and fire departments, coalitions, and adjacent agencies to gain support of the plan, and conduct public outreach via public workshops, walking/biking tours, project websites, online surveys and other strategies. TJKM will recommend capital projects based on existing conditions and input, and assess design policies and guidelines to maintain a natural aesthetic.

Hudson Bike & Pedestrian Improvements, Redwood City, CA, City of Redwood City, 2014-2016, $176K: Principal-In-Charge of project to recommend improvements to the only truly continuous north-south roadway through Redwood City, west of El Camino Real, which was seen as a potentially desirable route for bicyclists and pedestrians even though it attracts relatively high vehicle traffic volumes. TJKM addressed design constraints by developing improvements, such as traffic circles,

curb bulb-outs, raised islands, landscaping, and peak hour bicycle lanes, which provided an optimal balance among roadway width for bicyclists, reduced crossing distance for pedestrians, and allowing safe accommodation of vehicle traffic. Rapid rectangular flashing beacon signs and traffic signal modifications along the corridor, and pedestrian push button and bicycle detection, were also designed as part of the project. The TJKM Team prepared exhibits and conducted two public workshops to receive input from the surrounding neighborhoods on the concepts developed. The Team refined alternatives and prepared detailed design plans of the pedestrian and bicycle improvements.

Citywide Multimodal Improvement Study, Hayward, CA, City of Hayward, 2015-Ongoing, $250K: QA/QC reviewing deliverables for the Citywide Intersection Study which, is to address existing and future congestion and enhance operations for all modes of transportation throughout the City of Hayward. TJKM conducted a comprehensive outreach approach geared in part to addressing potential concerns on the part of both the development community and City leaders. TJKM is examining about 100 intersections and 15 roadway segments for the project. TJKM used land use information from the General Plan to determine the amount of growth expected, and will conduct a thorough study of needed roadway improvements, leading to the preparation of the CIP document. As a part of the project TJKM will also prepare conceptual layouts for the recommended improvements.

Citywide Multimodal Improvement Plan, Mountain View, CA, City of Mountain View, 2015-Ongoing, $220K: Project Manager overseeing the development an Area-wide Multimodal Improvement Plan. Elements of the Multimodal Improvement Plan are largely drawn from several recent studies and plans analyzing future conditions and provides potential improvement strategies and projects. More than 50 study intersections and 50 roadway segments are being evaluated as part of the study to identify deficiencies, and improvements to enhance operations for all modes of transportation. The Plan is also intended to help reduce VMT/GHG and help meet mode shift goals. As a part of the project TJKM will also prepare conceptual layouts for the recommended improvements.

Traffic Analysis for Sacramento Street Bridge Reconstruction Project, Vallejo, CA, Drake Haglan & Associates, 2016-2017, $20K: Principal-In-Charge. TJKM completed a traffic analysis for the Sacramento Street Bridge reconstruction project in the City of Vallejo. The City planned to improve safety by replacing the existing Sacramento Street Bridge with a newly designed bridge. The bridge, located between Farragut Avenue and Illinois Street, provides grade separation for vehicle traffic on Sacramento Street from a railroad track below, owned by the City of Vallejo and operated by Alstom Transportation. TJKM's study included traffic analysis for three study scenarios and eight study intersections in total. The analysis covered the a.m., midday, and p.m. peak hours. TJKM developed and calibrated Synchro models and applied the calibrated models for delay and level of service (LOS) analysis. In addition, TJKM simulated the queues at the study intersections using SimTraffic in order to analyze the traffic impacts created due to the addition of project trips.

Bike Safety Study, Atherton, CA, Town of Atherton, 2015-2016, $10K: Principal-In-Charge on project evaluating lengths of intermittent bicycle lanes, installation of alternating bicycle lanes to provide a safe space for vehicles to pass cyclists, the need for bike turnout areas and potential turn lane restrictions to enhance bicyclist safety.

San Benito Street Corridor Study, Hollister, CA, City of Hollister, 2014-2016, $80K: Project Manager responsible for redesigning traffic patterns as part of the Downtown Strategic Plan. The Strategic Plan calls for a design consisting of reduced through lanes, and a center lane for turning, to enhance downtown land uses, and enhance traffic safety for vehicular, pedestrian and bicyclists, along the corridor. The goal of this project is to develop an implementation plan with base maps to guide the City in the implementation of improvements in an orderly manner. The study also needs to evaluate the feasibility of constructing a roundabout at the intersection of Gateway Drive/San Felipe.

Traffic Signal Designs (4 Locations), Santa Clara County, CA, Valley Medical Center, 2012, $50K: Project Manager for project that entailed preparation of PS&E; design, construction specifications, and cost estimate for traffic signal, signing, and striping; and recommendations for signal phasing and operation of the traffic signal to provide safe and efficient traffic and pedestrian operations at the intersections of South Bascom Avenue/Renova Drive and Moorpark Avenue/Ginger Lane. Project required extensive coordination and consensus building between Caltrans, City of San Jose and County of Santa Clara.

Mr. Patel has 27 years of traffic engineering and transportation planning experience, and has worked in both the public and private sectors. He is a registered Traffic Engineer and has a Professional Traffic Operations Engineer certification. He is also a registered Civil Engineer in Texas and Arizona. Prior to joining TJKM, Mr. Patel served as the City Traffic Engineer for the City of Menlo Park and prior to that was the Traffic Engineering Design Group Leader at DKS. During his tenure with Menlo Park, Mr. Patel co-developed the City's signal design and equipment standards and was actively involved in the planning and design of the traffic, parking and pedestrian circulation of their El Camino Real Downtown Specific Plan and the Facebook EIR projects and implementation of the City's long-term parking machine system downtown. He has managed numerous projects, including traffic impact and parking studies for large-scale developments and PS&E for traffic signals, lighted crosswalk systems, traffic control devices and roadway improvements, etc.

Atul Patel, TE, PTOE

ITS & DESIGN DIRECTOR

Project Role: Project Manager | Environmental Task Lead

AREAS OF EXPERTISE

- Intelligent Transportation Design & Planning
- Traffic Signal Designs
- Traffic Operational Analysis
- Bicycle, Pedestrian & Parking Studies

YEARS OF EXPERIENCE

27

REGISTRATION & CERTIFICATIONS

CA TR2321 (Traffic)
Professional Traffic Operations Engineer
TX 83987 (Civil)

PROFESSIONAL HISTORY

TJKM	2012-Present
City of Menlo Park	2010-2012
DKS	1999-2010

EDUCATION

MBA Technical Management, University of Phoenix, Northern California Campus, CA
BS Civil Engineering, Texas A&M University, College Station, TX

Project Experience

Bike Lane Gap Closure, West Sacramento, CA, City of West Sacramento, 2016-Ongoing, $86K: Project Manager for the project, which included the following scope of work items: preparing an AutoCAD base plan from the Google Professional aerials of the project corridors; PS&E for the addition of Class II, III, and IV citywide bicycle improvements and traffic signal modifications for bicycle detection; prepare and obtain an encroachment permit for improvements within Caltrans R.O.W.; bid and design support during construction.

Fair Oaks/Howe Signal Modification, Sacramento, CA, City of Sacramento, 2014-Ongoing, $69K: Project Manager assisting in signal coordination for signal design concept related to construction of a CVS Pharmacy.

Sunnyvale-Saratoga Road Traffic Signal, Bicycle & Pedestrian Safety Project, Sunnyvale, CA, City of Sunnyvale, 2016-Ongoing, $113K: Project Manager overseeing the design the PS&E for bicycle and pedestrian safety enhancements at the intersection of Sunnyvale-Saratoga Road and Mathilda Avenue/Talisman intersections. The City is upgrading the curb ramps to be ADA compliant and modifying the existing median islands to square up the crosswalks and upgrade the traffic signal poles. TJKM was responsible for preparing the PS&E, assisting the City with preparing E-76 forms and documentation and overseeing the NEPA clearance documentation. In addition to bicycle enhancements, the traffic signal upgrades proposed include installation of a PTZ camera for video surveillance, FLIR video detection, relocation of the fiber interconnect to the new cabinet, removal of median refuge areas and pedestrian push buttons in the north leg of the Mathilda Avenue median island and the removal of the pedestrian refuge on the south leg of Mathilda Avenue median island.

Safe Routes to School 2015, Sunnyvale, CA, City of Sunnyvale, 2015-Ongoing, $283K: Project Manager responsible for designing the PS&E for Citywide pedestrian improvements at 60 signalized and unsignalized intersections. The improvements consist of modifications of traffic signal equipment, curb ramp upgrades, signing and striping and pavement marking improvements. TJKM analyzed over 200 intersections and prepared a Basis of Design Report for the recommended improvements to move forward into the detailed design phase. TJKM is currently designing the improvements

recommended along with preparing the E76 documentation for NEPA environmental clearance.

Downtown Concord Pedestrian & Bicycle Lane Improvements, Concord, CA, City of Concord, 2015-Ongoing, $183K: Project Manager for the project which will enhancements corridors along five roadways in Downtown Concord to provide last mile bicycle and pedestrian connections to Concord BART from the west, east, and south. The improvements include buffered bicycle lanes, Class II bicycle lanes, Class III bicycle routes, improvements at two unsignalized crosswalks, sidewalk expansion, Class I pathways, and curb ramp upgrades. TJKM is preparing the E-76 Request for

Safe Routes to School Implementation, Sunnyvale, CA, Bellecci & Associates, 2013-2016, $39K: Project Manager responsible for preparing PS&E for a citywide bicycle signage for their bicycle routes, preparing signal modification plans at Maude/Sunnyvale-Saratoga and signing and striping plans along Maude Avenue, in pavement crosswalk lighting at Bayview and Maude Avenue, and preparing signing and striping improvements at 16 intersections citywide.

Engineering Design for Two Intersections, Sunnyvale, CA, City of Sunnyvale, 2013-2016, $73K: Project Manager for signal modification at Mathilda/Maude and Sunnyvale-Saratoga/Fremont. TJKM provides plan, specifications and estimates for both intersections as well as oversees environmental review to prepare CEQA and NEPA documentation, and provides support through the construction bid process and construction.

Traffic Signal Reconstruction at Four Locations, Sunnyvale, CA, City of Sunnyvale, 2013-2016, $139K: Project Manager responsible for preparing PS&E for intersection and traffic signal modification improvements at Hollenbeck/Homestead, Hollenbeck/Alberta, Arques/Oakmead, and Mathilda/Olive. The intersection improvements include installation of pedestrian curb bulb-outs, grading and drainage improvements, removal and installation of traffic signal poles, signing and striping improvements, fiber optic interconnect system installation, upgrading curb ramps to ADA standards, and preparing environmental categorical exclusion documentation.

Traffic Analysis of Five Intersection Signal Modifications, Visalia, CA, City of Visalia, 2014-2015, $157K: As part of HSIP grant funding, the City proposed the addition of exclusive left turn lanes and an eight-phase signal operation system for the five project intersections. As Project Manager, assisted in analyzing the effect of proposed signal modifications on traffic signal operations. Developed existing and proposed conditions Synchro models, updated timing parameters, and prepared technical memorandum consisting of the existing and proposed conditions analyses.

Benjamin Holt Drive & Cumberland Place, Stockton, CA, City of Stockton, 2012-2014, $36K: Project Manager responsible for design improvements including traffic signal installation, signal interconnect, signing and striping modifications, safety lighting, emergency vehicle preemption, video monitoring system, and wheelchair reramp construction. A critical component of the intersection design considered safety and clearance for pedestrians and bicyclists, so TJKM took a multimodal design approach for the intersection and to determine the number and style of ADA ramps to be used for the project.

Benjamin Holt Drive & Inglewood Avenue, Stockton, CA, City of Stockton, 2012-2014, $36K: Project Manager assisted in design improvements including traffic signal installation, signal interconnect, signing and striping modifications, safety lighting, emergency vehicle preemption, video monitoring system, and wheelchair ramp reconstruction in a location where pedestrian volume at the intersection is very high. TJKM took a multimodal design approach, recommended ADA ramps and determined the phasing for the traffic signal operations using 24-hour directional volume counts and intersection turning movement counts, which included pedestrians and bicyclists.

Remington Drive/Bernardo Avenue Traffic Signal Design Installation, Sunnyvale, CA, City of Sunnyvale, 2012-2013, $48K: Project Manager for HSIP project that included emergency vehicle preemption, environmental clearance documentation, civil intersection improvements, design of a new traffic signal at this intersection, installation of ADA ramps, audible pedestrian push buttons, and fiber optic interconnect along Remington Drive to Mary Avenue. Also added alternate design continuing to the Sunnyvale-Saratoga Road intersection. The project included photometric analysis of the safety lighting and preparation of traffic control plans for the potholing work at the intersection.

Auburn-Sylvan Road ITS Project, Citrus Heights, CA, City of Citrus Heights, 2007-2008, $100K: Project Manager responsible for identifying system-level requirements for the video surveillance system and communications system, preparing PS&E for video surveillance system, ITS fiber optic communication system, and signal modifications at eight traffic signals along Auburn Boulevard and Sylvan Road. Provided construction support once the PS&E was completed.

Ms. Jariwala has 18 years of professional experience in the areas of traffic operations, transportation planning, freeway and arterial management studies, signal coordination, traffic signal systems, traffic impact studies/EIRs and intelligent transportation systems planning, design and construction oversight. She has extensive experience in macro and microscopic model development and application for analysis of traffic operations for express lane studies. Studies also include multi-modal operations, light-rail, bus rapid transit, pedestrian, bicyclists and traffic safety.

Ruta Jariwala, PE, TE

PRINCIPAL

Project Role: QA/QC

AREAS OF EXPERTISE

- Signal Coordination
- Project Management
- Traffic Impact Studies
- Freeway Operations
- Traffic Operations
- Traffic Planning

YEARS OF EXPERIENCE

18

REGISTRATION & CERTIFICATIONS

CA C73840 (Civil)
CA TR2465 (Traffic)

PROFESSIONAL HISTORY

TJKM	2012 – Present
URS	2004 – 2012
Bucher, Willis & Ratliff	2001 – 2003
Autodesk	1999 – 2001

EDUCATION

MS Civil Engineering,
San Jose State University,
San Jose, CA
BS Civil Engineering,
Bombay University, India

Project Experience

Safe Routes to School 2015, Sunnyvale, CA, City of Sunnyvale, 2015-Ongoing, $283K: QA/QC on project to design the PS&E for Citywide pedestrian improvements at 60 signalized and unsignalized intersections. The improvements consist of modifications of traffic signal equipment, curb ramp upgrades, signing and striping and pavement marking improvements. TJKM analyzed over 200 intersections and prepared a Basis of Design Report for the recommended improvements to move forward into the detailed design phase. TJKM is currently designing the improvements recommended along with preparing the E76 documentation for NEPA environmental clearance.

Remington Drive/Bernardo Avenue Traffic Signal Design Installation, Sunnyvale, CA, City of Sunnyvale, 2012-2013, $48K: QA/QC Manager for HSIP project that included emergency vehicle preemption, environmental clearance documentation, civil intersection improvements, design of a new traffic signal at this intersection, installation of ADA ramps, audible pedestrian push buttons, and fiber optic interconnect along Remington Drive to Mary Avenue and add alternate design continuing to the Sunnyvale-Saratoga Road intersection. The project included photometric analysis of the safety lighting and preparation of traffic control plans for the potholing work at the intersection.

Fair Oaks/Howe Signal Modification, Sacramento, CA, City of Sacramento, 2014-Ongoing, $69K: QA/QC and Signal Coordination Task Lead on project requiring signal coordination for signal design concept related to construction of a CVS Pharmacy.

Citywide Intersection Safety Improvement Study, San Bruno, CA, City of San Bruno, 2016-Ongoing, $100K: Task Lead on the project where TJKM is assisting the City on the Citywide Intersection Safety Improvement Study. As part of the project TJKM collected collision data for five years within the City, conducted field observations, analyzed the collision to identify the patterns, high risk factors and locations, and is developing countermeasures to enhance safety and operations for all modes of transportation. Prioritization of locations and risk factors was conducted based on set of thresholds developed for the project. Upon identification of countermeasures, TJKM will identify funding sources and prepare applications for the City to pursue funding to implement the countermeasures.

San Benito Street Corridor Study, Hollister, CA, City of Hollister, 2014-2016, $80K: Task Leader for project redesigning traffic patterns as part of Downtown Strategic Plan. The Strategic Plan calls for a design

consisting of reduced through lanes and center lane for turning to enhance the downtown land uses and enhance traffic safety for vehicular, pedestrian and bicyclists along the corridor. The goal of this project is to develop an implementation plan with base maps to guide the city in implementation of improvements in an orderly manner. The study also needs to evaluate the feasibility of constructing a roundabout at the intersection of Gateway Drive/San Felipe.

Citywide Multimodal Improvement Plan, Mountain View, CA, City of Mountain View, 2015-Ongoing, $220K: QA/QC Manager and Task Lead. TJKM is responsible for development of an Area-wide Multimodal Improvement Plan. Task Lead assisting City of Mountain View in developing an Area-wide Multimodal Improvement Plan. Elements of the Multimodal Improvement Plan are largely drawn from several recent studies and plans analyzing future conditions and provides potential improvement strategies and projects. More than 50 study intersections and 50 roadway segments are being evaluated as part of the study to identify deficiencies, and improvements to enhance operations for all modes of transportation. The Plan is also intended to help reduce VMT/GHG and help meet mode shift goals. As a part of the project TJKM will also prepare conceptual layouts for the recommended improvements.

ITS & Signal Synchronization Project, Visalia, CA, City of Visalia, 2013-2017, $98K: QA/QC Manager responsible for development of system level requirements for the communication network, preparation of plans, specifications and estimates for traffic signal controller upgrades, wireless Ethernet communication system and fiber optic communication systems along Akers Street, Whitendale Avenue, and Caldwell Avenue. The design interconnected 19 traffic signal controller locations to the City's Advanced Transportation Management System and Traffic Operations Center using fiber optic cable.

Bike Safety Study, Atherton, CA, Town of Atherton, 2015-2016, $10K: Task Leader on project evaluating lengths of intermittent bicycle lanes, installation of alternating bicycle lanes to provide a safe space for vehicles to pass cyclists, the need for bike turnout areas and potential turn lane restrictions to enhance bicyclist safety.

Comprehensive Pedestrian & Bicycle Master Plan, Belmont, CA, City of Belmont, 2015-2016, $67K: Task Leader involved in developing a comprehensive pedestrian and bicycle master plan to encourage people of all ages to bike or walk more. The TJKM team prepared a thorough review of existing bicycle, pedestrian, and Safe Routes to School planning documents, conducted peak hour manual counts for pedestrians and bicyclists at key intersections, as well as analyzed pedestrian and bicycle collisions to offer countermeasures. The team also identified and worked with representatives from community groups, schools, police and fire departments, coalitions and adjacent agencies to gain support of the plan and conducted public outreach.

Charleston-Arastradero Corridor Improvements, Palo Alto, CA, Mark Thomas & Company, 2014-2016, $260K: Task Leader on project for corridor serving multi-modal users including bicycles, vehicles, transit and pedestrians from 11 schools and adjacent neighborhoods. Issues to be addressed are the high-speed vehicular traffic, morning/school-related traffic congestion, gaps in the bike lanes and overall bicycle and pedestrian safety. Goals include improving pedestrian and bicycle safety, reducing traffic congestion and reducing vehicular speeds. Community workshops will be conducted to gain public input on design alternatives. TJKM is responsible for completing traffic analysis, developing conceptual design, sections of the environmental document, and preparation of plans, specifications and estimates (PS&E) related to pavement delineation, signing, traffic signals and enhancements of pedestrian facilities.

Marin-Curtis Safe Routes to School Pedestrian Improvements, Albany, CA, City of Albany, 2013-2016, $96K: Task Lead on project to enhance the safety of pedestrian and bicyclists near the school and design pedestrian bulb-outs, RRFB systems, raised crosswalks, and road humps.

Traffic Signal Reconstruction at Four Locations, Sunnyvale, CA, City of Sunnyvale, 2013-2016, $130K: QA/QC Manager. TJKM was responsible for preparing the PS&E for intersection and traffic signal modification improvements at Hollenbeck/Homestead, Hollenbeck/Alberta, Arques/Oakmead, and Mathilda/Olive. The intersection improvements included installation of pedestrian curb bulb outs, grading and drainage improvements, removal and installation of traffic signal poles, signing and striping improvements, fiber optic interconnect system installation, upgrading curb ramps to ADA standards, and preparing environmental categorical exclusion documentation.

Mr. Patel has 10 years of professional experience in transportation/traffic engineering and design. He spent his first four years at URS interning for the Traffic Engineering group, providing support on traffic impact studies, highway operation analysis, signal coordination projects and highway design plans, specifications and estimates (PS&E) packages. Upon joining TJKM, he has worked primarily on signal design projects.

Rutvij Patel, EIT

PROJECT MANAGER

Project Role: Preliminary Design | Preparation of PS&E Task Lead

AREAS OF EXPERTISE

- Traffic Operations
- Traffic Handling
- Pavement Delineation
- Signage Plans

YEARS OF EXPERIENCE

10

REGISTRATION & CERTIFICATIONS

EIT Cert. #154117

PROFESSIONAL HISTORY

TJKM	2013 – Present
URS	2007 – 2012

EDUCATION

BS Civil Engineering
San Jose State University,
San Jose, CA - 2012

Project Experience

Bike Lane Gap Closure, West Sacramento, CA, City of West Sacramento, 2016-Ongoing, $86K: Task Lead for the project, which included the following scope of work items: preparing an AutoCAD base plan from the Google Professional aerials of the project corridors; PS&E for the addition of Class II, III, and IV citywide bicycle improvements and traffic signal modifications for bicycle detection; prepare and obtain an encroachment permit for improvements within Caltrans R.O.W.; bid and design support during construction.

Sunnyvale-Saratoga Road Traffic Signal, Bicycle & Pedestrian Safety Project, Sunnyvale, CA, City of Sunnyvale, 2016-Ongoing, $113K: Task Lead assisting with designing the PS&E for bicycle and pedestrian safety enhancements at the intersection of Sunnyvale-Saratoga Road and Mathilda Avenue/Talisman intersections. The City is upgrading the curb ramps to be ADA compliant and modifying the existing median islands to square up the crosswalks and upgrade the traffic signal poles. TJKM was responsible for preparing the PS&E, assisting the City with preparing E-76 forms and documentation and overseeing the NEPA clearance documentation. In addition to bicycle enhancements, the traffic signal upgrades proposed include installation of a PTZ camera for video surveillance, FLIR video detection, relocation of the fiber interconnect to the new cabinet, removal of median refuge areas and pedestrian push buttons in the north leg of the Mathilda Avenue median island and the removal of the pedestrian refuge on the south leg of Mathilda Avenue median island.

Safe Routes to School 2015, Sunnyvale, CA, City of Sunnyvale, 2015-Ongoing, $283K: Task Lead assisted designing the PS&E for Citywide pedestrian improvements at 60 signalized and unsignalized intersections. The improvements consist of modifications of traffic signal equipment, curb ramp upgrades, signing and striping and pavement marking improvements. TJKM analyzed over 200 intersections and prepared a Basis of Design Report for the recommended improvements to move forward into the detailed design phase. TJKM is currently designing the improvements recommended along with preparing the E76 documentation for NEPA environmental clearance.

Fair Oaks/Howe Signal Modification, Sacramento, CA, City of Sacramento, 2014-Ongoing, $49K: Project Engineer assisting in writing reports for signal design concept related to construction on a CVS Pharmacy.

Remington Drive/Bernardo Avenue Traffic Signal Design Installation, Sunnyvale, CA, City of Sunnyvale, 2012-2013, $48K: Project Engineer for HSIP project that included

emergency vehicle preemption, environmental clearance documentation, civil intersection improvements, design of a new traffic signal at this intersection, installation of ADA ramps, audible pedestrian push buttons, and fiber optic interconnect along Remington Drive to Mary Avenue and add alternate design continuing to the Sunnyvale-Saratoga Road intersection. The project included photometric analysis of the safety lighting and preparation of traffic control plans for the potholing work at the intersection.

Downtown Concord Pedestrian & Bicycle Lane Improvements, Concord, CA, City of Concord, 2015-Ongoing, $183K: Project Engineer on a project which proposes corridor enhancements along five roadways in Downtown Concord to provide last mile bicycle and pedestrian connections to Concord BART, from the west, east, and south. The improvements include buffered bicycle lanes, Class II bicycle lanes, Class III bicycle routes, improvements at two unsignalized crosswalks, sidewalk expansion, Class 1 pathways, and curb ramp upgrades. TJKM is preparing the E-76 Request for Authorization for construction documentation and the PS&E for the project, along with providing public outreach assistance.

Marin-Curtis Elementary Safe Routes to School Pedestrian Improvements, Albany, CA, City of Albany, 2013-2016, $96K: Project Engineer on a project that will enhance the safety of pedestrian and bicyclists near the Marin Curtis Elementary school. Designed pedestrian bulb-outs, RRFB systems, raised crosswalks, and road humps.

Safe Route to School Implementation, Sunnyvale, CA, Bellicci & Associates, 2013-2016, $39K: Project Engineer assisting with preparing PS&E for the installation of bike route signage for future routes throughout the City. About 500 signs have been installed on new and existing roadside sign and street light poles to improve safety for pedestrians, bicyclists, and vehicles near 16 intersections and corresponding roadway segments. Project tasks include preparing signal modification, signing and striping plans, and in-pavement crosswalk lighting plans.

Engineering Design for Two Intersections, Sunnyvale, CA, City of Sunnyvale, 2013-2016, $76K: Project Engineer assisting in preparing design drawings and PS&E for signal modifications in two locations as well as CEQA/NEPA environments clearance documentation.

Traffic Signal Reconstruction at 4 Locations, Sunnyvale, CA, City of Sunnyvale, 2013-2016, $130K: Project Engineer. TJKM prepared the PS&E for intersection and traffic signal modification improvements, which included installation of pedestrian curb bulb-outs, grading and drainage improvements, removal and installation of traffic signal poles, signing and striping improvements, fiber optic interconnect system installation, and upgrading curb ramps to standards of the Americans with Disabilities Act.

Safe Routes to School, Kettleman City, CA, Mark Thomas & Company, 2013-2015, $10K: Project Manager in charge of determining, with the County, the pros and cons of an in-roadway lighting system or flashing beacon system for the project. Prepared a PS&E for the chosen option and designed the system. The chosen design included providing an ADA compliant crosswalk with in-roadway lights near Kettleman City Elementary School and providing a safe roadway network for vehicles, bicyclists, and pedestrians to use.

Benjamin Holt Drive & Cumberland Place, Stockton, CA, City of Stockton, 2012-2014, $36K: Project Engineer assisted in design improvements including traffic signal installation, signal interconnect, signing and striping modifications, safety lighting, emergency vehicle preemption, video monitoring system, and wheelchair ramp reconstruction. A critical component of the intersection design considered safety and clearance for pedestrians and bicyclists, so TJKM took a multimodal design approach for the intersection and to determine the number and style of Americans with Disabilities Act (ADA) ramps to be used for the project.

Benjamin Holt Drive & Inglewood Avenue, Stockton, CA, City of Stockton, 2012-2014, $36K: Project Engineer assisted in design improvements including traffic signal installation, signal interconnect, signing and striping modifications, safety lighting, emergency vehicle preemption, video monitoring system, and wheelchair ramp reconstruction in a location where pedestrian volume at the intersection is very high. TJKM took a multimodal design approach and recommended ADA ramps and determined the phasing for the traffic signal operations using 24-hour directional volume counts and intersection turning movement counts, which included pedestrians and bicyclists.

Safe Routes to School Traffic Signal on Lincoln Avenue, Fresno County, CA, County of Fresno, 2012, $18K: As Project Engineer, assisted on the design of a traffic/pedestrian signal and ADA approach curb ramps to serve the Washington Colony Elementary School and Washington Colony Middle School. Some of the key issues that TJKM addressed early in the PS&E phase were motorists and pedestrians sight distance, optimum placement of a crosswalk, and utility coordination.

Mr. Bjorklund has 26 years of design experience, including 24 with TJKM. He has been the lead designer for more than 600 signal design, modification, and signal interconnect projects throughout California, and has prepared hundreds of miles of signing and striping (S&S) design plans using AutoCAD. Mr. Bjorklund has extensive experience performing field analyses to determine geometric configurations of intersections, and has conducted many peer reviews of other designers' work, providing clients with useful design modifications. During his tenure with the City of Brentwood, Mr. Bjorklund plan checked Joint Trench, Interconnect, Fiber Optic, Street Lighting, Traffic Signals, and Signing and Striping Plans.

Many of the design projects Mr. Bjorklund has led and managed include Caltrans coordination and obtaining encroachment permits. His familiarity with Caltrans' design standards results in minimal plan check revisions, moving design projects efficiently through the Agency's approval process. TJKM's design projects often include construction support services and Mr. Bjorklund has established a good working relationship with many of the developers and contractors in the Bay Area.

Erik Bjorklund

PROJECT MANAGER

Project Role: Bid & Construction Support Task Lead

AREAS OF EXPERTISE

- Street & Highway Lighting
- Traffic Signal Design & Modification
- Signing & Striping Design
- Signal Timing
- Arterial/Interchange Design
- AutoCAD
- Traffic Handling Plans
- Interconnect

YEARS OF EXPERIENCE

26

PROFESSIONAL HISTORY

TJKM	1990 – Present
City of Brentwood	2000 – 2002

EDUCATION

AS Computer-Aided Drafting Technology, ITT Technical Institute Sacramento, CA

Fundamentals of Traffic Signal Design, Basic 170 Controller Course, & Construction Inspection of Traffic Signals
University of California, Berkeley Extension

PROFESSIONAL SOCIETIES

City of Livermore, Planning Commissioner

Institute of Transportation\Engineers (ITE)

Project Experience

Remington Drive/Bernardo Avenue Traffic Signal Design Installation, Sunnyvale, CA, City of Sunnyvale, 2012-2013, $48K:: Project Engineer responsible for preparing PS&E for intersection improvements. The project included environmental clearance documentation, ADA and sidewalk improvements, pedestrian and bicycle safety, traffic signal installation and signing/striping modifications, wireless interconnect system, and fiber optic interconnect system to the adjacent traffic signal at Mary Avenue and Remington Drive.

Fair Oaks/Howe Signal Modification, Sacramento, CA, Blair, Church & Flynn, 2013-Ongoing, $67K: Project Engineer assisting with signal design and modification related to construction for a CVS Pharmacy.

Safe Routes to School Implementation, Sunnyvale, CA, Bellicci & Associates, 2013-2016, $39K: Engineer assisted with preparing PS&E for citywide signage for bicycle routes, preparing signal modification plans at Maude/Sunnyvale-Saratoga, and S&S plans along Maude Avenue, in-pavement crosswalk lighting at Bayview and Maude Avenue, and preparing S&S improvements at 16 intersections citywide.

Marin-Curtis Safe Routes to Schools Pedestrian Improvements, Albany, CA, City of Albany, 2013-2016, $96K: Task Lead responsible for this design project to enhance the safety of pedestrian and bicyclists near the school. Designed pedestrian bulb-outs, Regulatory Rapid Flashing Beacon systems, raised crosswalks, and road humps within the school's vicinity.

Engineering Design for 2 Intersections, Sunnyvale, CA, City of Sunnyvale, 2013, $76K: Project Engineer for signal modification at Mathilda/Maude and Sunnyvale-Saratoga/Fremont. The Team provided PS&E for both intersections and oversaw environmental review to prepare CEQA and NEPA documentation, while providing support through the bid process and construction.

Signal Modification at Palo Alto High & Embarcadero, Palo Alto, CA, City of Palo Alto, 2014-Ongoing, $42K: Project Engineer responsible for providing PS&E for the Embarcadero Road Corridor Study, between the Palo Alto High School pedestrian crossing and El

Camino Real. The project included ADA and sidewalk improvements, pedestrian and bicycle safety, traffic signal modification, with the goal of improving bicycle and pedestrian safety, and improved vehicle progression along the corridor.

Rohnert Park Traffic Signals, Rohnert Park, CA, Brookfield Homes, 2014-Ongoing, $74K: Project Manager responsible for preparing PS&E for traffic signal installation design at four intersections, field review, and providing construction support services.

Cordes Ranch Phase 1A/1B/1C, Tracy, CA, Kier & Wright, 2014-Ongoing, $218K: Project Manager responsible for preparing PS&E for traffic signal modifications, S&S plans and estimates, and technical specifications. Provided construction support services, traffic control plans, and attended meetings for the Cordes Ranch business park.

Hudson Bike & Pedestrian Improvements, Redwood City, CA, City of Redwood City, 2014-2016, $175K: Project Engineer assisting with traffic signal modifications as part of a project to recommend improvements to the only truly continuous north-south roadway through Redwood City west of El Camino Real. This roadway was seen as a potentially desirable route for bicyclists and pedestrians, even though it attracts relatively high vehicle traffic volumes. TJKM addressed various design constraints by developing improvements such as traffic circles, curb bulb-outs, raised islands, landscaping, and peak-hour bicycle lanes, which provided an optimal balance among roadway width for bicyclists, reduced crossing distance for pedestrians, and safe accommodation of vehicle traffic. Rapid rectangular flashing beacon signs, traffic signal modifications along the corridor, pedestrian push button, and bicycle detection were also designed as part of the project. TJKM prepared exhibits and conducted two public workshops to receive input from the surrounding neighborhoods on the concepts developed. TJKM then refined alternatives and prepared detailed design plans of the pedestrian and bicycle improvements.

Charleston-Arastradero Corridor Project, Palo Alto, CA, Mark Thomas & Company, 2014-2015, $260K: Lead Designer responsible for preparation of plans, specifications and estimates (PS&E) related to pavement delineation, signing, traffic signals, and enhancements of pedestrian facilities. Project goal was to improve corridor serving multimodal users including bicycles, vehicles, transit, and pedestrians from 11 schools and adjacent neighborhoods. Issues addressed included high-speed vehicular traffic, morning/school-related traffic congestion, gaps in bike lanes, and overall bicycle and pedestrian safety. Community workshops were conducted to gain public input on design alternatives. TJKM was responsible for completing traffic analysis, developing conceptual design and sections of the environmental document.

Traffic Design Services at Dixon Landing Road & McCarthy Drive/Fremont Boulevard, Fremont, CA, Overton Moore Properties, 2013-2015, $26K: Project Manager responsible for preparing PS&E for traffic signal modifications, signal interconnect, providing construction support services and attending meetings. TJKM also met with the city to confirm design parameters, provided construction support services and prepared PS&E for traffic handling plans for Dixon Landing, from McCarthy to the existing tie-in at the bridge deck and Caltrans coordination.

Benjamin Holt Drive & Cumberland Place Traffic Signal Installation, Stockton, CA, City of Stockton, 2012-2014, $36K: As Project Engineer, assisted in design improvements including traffic signal installation, signal interconnect, S&S modifications, safety lighting, emergency vehicle preemption, video monitoring system, and wheelchair ramp reconstruction. A critical design component of the intersection considered safety and clearance for pedestrians and bicyclists, so TJKM took a multimodal design approach for the intersection to determine the number and style of ADA ramps to be used.

Benjamin Holt Drive & Inglewood Avenue Traffic Signal Installation, Stockton, CA, City of Stockton, 2012-2014, $36K: As Project Engineer, assisted in design improvements including traffic signal installation, signal interconnect, S&S modifications, safety lighting, emergency vehicle preemption, video monitoring system, and wheelchair ramp reconstruction in a location where pedestrian volume at the intersection was very high. TJKM took a multimodal design approach, recommended ADA ramps and determined the phasing for the traffic signal operations using 24-hour directional volume counts and intersection turning movement counts. Counts conducted included pedestrians and bicyclists.

Crosswalk Designs for Two Intersections, San Joaquin County, CA, Project Management Applications Inc., 2007-2012, $16K: As Project Manager, prepared PS&E for lighted crosswalks on Central Parkway and Main Street. The crosswalks are now successfully in operation.

San Antonio Road Pedestrian Safety Improvement Project, Los Altos, CA, City of Los Altos, 2007-2011, $40K: Project Manager responsible for the PS&E for the illuminated crosswalk designs along San Antonio Road (five locations) in Los Altos.

Front Street Pedestrian Safety Improvements, Lighted Crosswalk System, Danville, CA, Town of Danville, 2009, $10K: Project Manager responsible for the PS&E for in pavement lighted crosswalk system on Front Street near the library. The work included research and evaluation of available lighted crosswalk systems and LED flashing pedestrian warning signs. The design included review of existing roadway conditions, traffic operations for signing and striping modifications, ADA curb ramps, street lighting, and complete design for final bid documents.

Mr. Hernandez has more than one year of professional experience in transportation/traffic engineering and design. He is a recent graduate of Sacramento State University with a Bachelors in Civil Engineering, studying transportation engineering and traffic engineering as course electives. He began his professional experience by joining TJKM as an intern for the design team, providing support on signal design projects, specifications and estimates (PS&E) packages.

Luis Hernandez, EIT

ASSISTANT TRANSPORTATION ENGINEER

Project Role: Project Engineer

AREAS OF EXPERTISE

- Traffic Operations
- Traffic Handling
- Signage Plans
- Pavement Delineation

YEARS OF EXPERIENCE

1

REGISTRATIONS & CERTIFICATIONS

EIT Cert. # 155496

PROFESSIONAL HISTORY

TJKM 2016 – Present

BS Civil Engineering
Sacramento State University
Sacramento, CA -2016

Project Experience

Bike Lane Gap Closure, West Sacramento, CA, City of West Sacramento, 2016-Ongoing, $86K: Assistant Transportation Engineer routinely assisting the Project Manager by preparing Autocad base plans for Class II, III, and IV citywide bicycle improvements and traffic signal modifications for bicycle detection.

Fair Oaks/Howe Signal Modification, Sacramento, CA, City of Sacramento, 2014-Ongoing, $49K: Project Engineer assisting in writing reports for signal design concept related to construction on a CVS Pharmacy.

Sunnyvale-Saratoga Road Traffic Signal, Bicycle, & Pedestrian Safety Project, Sunnyvale, CA, City of Sunnyvale, 2016-Ongoing, $113K: Assistant Transportation Engineer assisting the Project Manager by preparing AutoCAD base plans, bicycle improvements, traffic signal modifications and new traffic signal placements. Preparing and correcting plans, specifications and estimates for traffic signal modifications and installation of new equipment.

Safe Route to School Implementation, Sunnyvale, CA, Bellicci & Associates, 2013-2016, $39K: Assists the Project Engineer with preparing PS&E for the installation of bike route signage for future routes throughout the City. About 500 signs were installed on new and existing roadside sign and street light poles to improve safety for pedestrians, bicyclists, and vehicles near 16 intersections and corresponding roadway segments. Tasks include correcting signal modification, signing and striping plans, ADA compliant ramps and in-pavement crosswalk lighting plans.

Miner Avenue Plan Line Study, Stockton, CA, Siegfried Engineering, 2015-Ongoing, $99K: Assistant Transportation Engineer assisting the Project Manager by preparing AutoCAD base plans, equipment and conductor schedule. Also by preparing and correcting plans, specifications and estimates for traffic signal modifications

NGAOP SCC Bluetooth/WiFi Readers Design PS&E, Santa Clara County, CA, MTC, 2015-Ongoing, $21K: Assists the Project Engineer to prepare and correct plans, specifications and estimates (PS&E) for Bluetooth readers along eight expressways in Santa Clara County to implement predictive Signal Timing to compare real-time data to historic "big data." Assisted with correcting 100% PS&E, preparing sheets.

11th St. at Glen, Tracy, CA, CA, City of Tracy, 2016-Ongoing, $6K: Assists the Project Engineer to correct plans and estimates as well as preparing AutoCAD base plans, equipment and conductor schedule.

12-037 Del Monte Site, Alameda, CA, Carlson, Barbee & Gibson, Inc., 2016-Ongoing, $51K: Assistant Transportation Engineer routinely assisting the Project Manager preparing Autocad base plans for Traffic Signal Plans and estimates as well as equipment and conductor schedule.

Paul J. Schneider, PE, QSD/QSP

Principal-In-Charge, Vice President

SIEGFRIED

Paul is recognized throughout the engineering community for his comprehensive knowledge, technical skills, and his ability to manage major development projects and a wide variety of Public Projects. His expertise is showcased in his strong ability to direct Siegfried's major projects, beginning with conceptual master planning, and continuing through the design of site infrastructure and improvement plans.

As Vice President and Principal of Siegfried, Paul is held in high regard for his strong ability to solve complex engineering and construction problems and finish projects on time and on budget.

PROFESSIONAL PROFILE

EDUCATION

B.S. Civil Engineering
University of the Pacific

B.A. Liberal Arts
Saint Mary's College of California

LICENSE

California Civil Engineer No. 62498
Qualified SWPPP Developer No. 575
Qualified SWPPP Provider No. 575

AFFILIATIONS

American Society of Civil Engineers

AWARDS

Design Build Institute of America, WPR, UC Davis International Center, 2017

STA Transportation for Sustainable Communities, Rio Vista Promenade Park Phase II, 2016

ASCE Award EBMUD Estates Reservoir - Outstanding Water/Wastewater Project of the Year, 2016

Design Build Institute of America, WPR Folsom Lake Community College, Gymnasium 2015

California Transportation Foundation (CTF) Small Transit Project of the Year, RTD Metro Express Hammer Lane BRT III, 2013

Design Build Institute of America, WPR UC Davis, Student Community Center, 2012

YEARS OF EXPERIENCE

19 - Total
18 - Siegfried

CONTACT INFORMATION

109 Scripps Drive
Sacramento, CA 95825
916.520.2777
pjs@siegfriedeng.com

RELEVANT EXPERIENCE

LINCOLN OAKS RESERVOIR - *Citrus Heights, CA*
This project provides 1.5 million gallons of new water storage capacity, enabling California American Water Company to lower operating costs and provide greater reliability in emergency conditions. Because the project is surrounded by existing residential homes, Siegfried was engaged to provide public outreach, visual simulations, sustainability consulting, and landscape architecture.

SWAIN & MONTAUBAN ROUNDABOUT - *Stockton, CA*
The project converted the four-way stop controlled intersection into a roundabout, upgraded wheelchair ramps for ADA compliance, improved drainage, installed signs, striping, street lighting, fiber optic cable for PTZ Cameras with interconnect to the City's Traffic Management Center (TMC), and evaluated crossings to see if Rectangular Rapid Flashing Beacons (RRFB) are needed. Siegfried provided construction contract documents including plans, specifications, cost estimates, and environmental clearance for the City's Roundabout project.

HUDSON STREET CORRIDOR, BICYCLE & PEDESTRIAN IMPROVEMENTS - *Redwood City, CA*
As virtually the only truly continuous north-south roadway through Redwood City west of El Camino Real, Hudson Street is a potentially desirable route for bicyclists and pedestrians, but also attracts relatively high vehicle traffic volumes. Improvements include the installation of traffic circles, curb bulb-outs, raised islands, landscaping, and peak hour bicycle lanes, which provided an optimal balance among roadway width for bicyclists, reduced crossing distance for pedestrians, and safe accommodation of vehicle traffic.

REMINGTON & BERNARDO SIGNAL - *Sunnyvale, CA*
Civil engineering, surveying, and landscape architecture for ADA compliant intersection and traffic signal improvements, a visual analysis, and several alternative design options which were presented to the City and the public stakeholders.

SAN ANSELMO MEDIAN MASTER PLAN - *San Anselmo, CA*
The median master plan for the Town of San Anselmo identifies three major transportation corridors in Town, and the potential for their medians to be utilized as both stormwater quality features, which treats and retains a portion of the subsequent stormwater to decrease the impact to neighboring creeks, and beautify the local medians to enhance the Town. The Town, along with Siegfried, is developing a plan for these medians so that the Town may apply for local, state and federal grants when the funding becomes available.

CUMBERLAND AND INGLEWOOD AT BENJAMIN HOLT, INTERSECTIONS & SIGNALS - *Stockton, CA*
Addition of new traffic signals at two locations: Cumberland & Benjamin Holt, and Inglewood and Benjamin Holt. Both locations included researching public records and survey maps to determine street right-of-ways, performing a topographic survey, and preparing all street improvements for ADA accessible ramps at all four corners, street hardscape materials, underground wet utilities, grading details, and an erosion control plan. In addition, Siegfried assisted with plan interpretation, the review of submittals, RFIs and change orders during the construction phase of each project.

EL DORADO STREET IMPROVEMENTS - *Stockton, CA*
The project objective was to resolve traffic deficiencies and accommodate increased traffic volumes, while addressing community concerns regarding safety, bicycle and pedestrian mobility, plus appearance. Project elements included 11,000 LF of new curbs, gutters, sidewalk improvements, the median, ADA ramps and replacement of site drainage facilities. Siegfried provided civil engineering, landscape architecture, and surveying, plus coordinated environmental documentation and public outreach efforts.

Adam Merrill, PE, QSD/QSP

Principal Civil Engineer

SIEGFRIED

Adam is recognized for his technical abilities and broad knowledge when it comes to civil engineering infrastructure projects. His duties include client management, planning, designing, preparing reports, and participating in and directing public outreach efforts to ensure community and project stakeholder consensus.

To ensure project success, Adam carefully considers all existing site conditions and topographical and geologic data. His use of cutting edge technology and design software including the latest in 3D and BIM modeling software allows him to prepare technically accurate design documents for any project he undertakes.

PROFESSIONAL PROFILE

EDUCATION
B.S. Civil Engineering
California Polytechnic State University
San Luis Obispo, CA

LICENSE
California Civil Engineer No. 76826

Qualified SWPPP Developer No. 24851

Qualified SWPPP Provider No. 24851

AFFILIATIONS
American Society of Civil Engineers

AWARDS
ASCE Award EBMUD Estates Reservoir - Outstanding Water/Wastewater Project of the Year, 2016

Distinguished Multiple-Field Facility, ASBA El Camino Park, 2016

Distinguished Track Facility, ASBA Riverbank High School, 2016

Design Build Institute of America, WPR Folsom Lake Community College, Gymnasium 2015

California Transportation Foundation (CTF) Small Transit Project of the Year, RTD Metro Express Hammer Lane BRT III, 2013

Design Build Institute of America, WPR UC Davis, Student Community Center, 2012

YEARS OF EXPERIENCE
11 - Total
6 - Siegfried

CONTACT INFORMATION
109 Scripps Drive
Sacramento, CA 95825
916.520.2777
amerrill@siegfriedeng.com

RELEVANT EXPERIENCE

HUDSON BICYCLE & PEDESTRIAN IMPROVEMENTS - *Redwood City, CA*
As virtually the only truly continuous north-south roadway through Redwood City west of El Camino Real, Hudson Street is a potentially desirable route for bicyclists and pedestrians, but also attracts relatively high vehicle traffic volumes. Improvements include the installation of traffic circles, curb bulb-outs, raised islands, landscaping, and peak hour bicycle lanes, which provided an optimal balance among roadway width for bicyclists, reduced crossing distance for pedestrians, and safe accommodation of vehicle traffic.

REMINGTON & BERNARDO SIGNAL - *Sunnyvale, CA*
Siegfried provided civil engineering, surveying, and landscape architecture services for the improvements at the Remington and Bernardo intersection in the City of Sunnyvale, CA. The project consisted of ADA compliant intersection and traffic signal improvements, a visual analysis, and several alternative design options which were presented to the City and the public stakeholders.

SUNNYVALE FOUR INTERSECTIONS - *Sunnyvale, CA*
Siegfried provided civil engineering and surveying for improvements at four intersections in the City of Sunnyvale. Intersection improvements include designs to reconfigure lane geometry, install fiber optic signal interconnects, modify traffic signal heads, upgrade safety lights, and add highly visible crosswalks, ADA compliant curb ramps, and new poles.

LOW IMPACT DEVELOPMENT (LID) PROJECT AT VARIOUS LOCATIONS - *San Anselmo, CA*
The Town of San Anselmo has identified three areas to implement improvements, in order to better the water quality in the area and reduce the amount of runoff their storm system would take on during any given storm event. This project bridges three distinct areas, parking, medians, and service areas. In addition to satisfying programmatic goals such as LID, wayfinding, and circulation, development forms must be appropriate to each area. This sensitivity results in projects that are both cohesive and also creates a sense of place for each public space that provides variety to the City and intuitive visual wayfinding.

MIRAMONTE AVENUE & COVINGTON ROAD INTERSECTION & SIGNAL - *Los Altos, CA*
Siegfried provided civil engineering, surveying, and landscape architecture for the improvements at the Miramonte and Covington intersection. The project consisted of an ADA compliant intersection and traffic signal improvements, a visual analysis, and several alternative design options which were presented to the City and the public stakeholders.

AIRPORT WAY INTERSECTIONS & SIGNALS - *Stockton, CA*
Siegfried provided civil engineering and surveying for the improvements along Airport Way in Stockton, CA which included three intersections and three traffic signals. Services included researching public records and survey maps to determine street right-of-ways, performing topographic surveys, and preparing all street improvements for ADA accessible ramps at all twelve corners, street hardscape materials, underground wet utilities, grading details, and erosion control plans. In addition, Siegfried assisted the with plan interpretation, the review of submittals, RFIs and change orders during the construction phase.

CUMBERLAND AND INGLEWOOD AT BENJAMIN HOLT, INTERSECTIONS & SIGNALS - *Stockton, CA*
Addition of new traffic signals at two locations: Cumberland & Benjamin Holt, and Inglewood and Benjamin Holt. Both locations included researching public records and survey maps to determine street right-of-ways, performing a topographic survey, and preparing all street improvements for ADA accessible ramps at all four corners, street hardscape materials, underground wet utilities, grading details, and an erosion control plan. In addition, Siegfried assisted with plan interpretation, the review of submittals, RFIs and change orders during the construction phase of each project.

Alvin Yee, ASLA

Associate Landscape Architect

SIEGFRIED

Alvin has dedicated his career to creating environmentally conscious, user-focused environments. He believes that a successful design provides space to activate, energize, and build a sense of community while creating an escape from the urban world.

Alvin employs a holisitic approach and works closely with architects and engineers to address all design concerns. His community outreach techniques engage stakeholders to fully understand all opportunities and constraints while creating a bond between end-user and solution. Alvin is also adept in creating photo-realistic simulations and hand renderings, presenting design concepts in a real-world context.

PROFESSIONAL PROFILE

EDUCATION
B.S. Landscape Architecture
Department of Environmental Design
University of California Davis

LICENSE
CA Landscape Architect No. 5968

AFFILIATIONS
American Society of Landscape Architects

Urban Land Institute, Young Leaders Group
Board Member

AWARDS
Design Build Institute of America, WPR, UC Davis International Center, 2017

Distinguished Multiple-Field Facility, ASBA
El Camino Park, 2016

Distinguished Track Facility, ASBA
Riverbank High School, 2016

Design Build Institute of America, WPR
Folsom Lake Community College
Gymnasium 2015

Plan of the Year - Livable Communities
Rio Vista River Promenade Park, 2010

YEARS OF EXPERIENCE
11 - Total
4 - Siegfried

CONTACT INFORMATION
109 Scripps Drive
Sacramento, CA 95825
916.520.2777
ayee@siegfriedeng.com

**Project completed while employed at previous firm*

RELEVANT EXPERIENCE

MARIETTA FOUNTAIN AT CITRUS HEIGHTS CITY HALL - *Citrus Heights, CA*
The City constructed a new City Hall, to unify four departments under a single roof. Siegfried was consulted to design a fountain representing the City, in order to enhance and harmonize the open entry plaza with the newly-constructed building. With the custom, relief pool seat wall and 'Timeless Civic' cast iron centerpiece, not only does the water feature serve as a focal point, it also represents a celebration of the City's accomplishments.

HUDSON STREET CORRIDOR, BICYCLE & PEDESTRIAN IMPROVEMENTS - *Redwood City, CA*
As virtually the only truly continuous north-south roadway through Redwood City west of El Camino Real, Hudson Street is a potentially desirable route for bicyclists and pedestrians, but also attracts relatively high vehicle traffic volumes. Improvements include the installation of traffic circles, curb bulb-outs, raised islands, landscaping, and peak hour bicycle lanes, which provided an optimal balance among roadway width for bicyclists, reduced crossing distance for pedestrians, and safe accommodation of vehicle traffic.

LOW IMPACT DEVELOPMENT (LID) PROJECT AT VARIOUS LOCATIONS - *San Anselmo, CA*
The Town of San Anselmo has identified three areas to implement improvements, in order to better the water quality in the area and reduce the amount of runoff their storm system would take on during any given storm event. This project bridges three distinct areas, parking, medians, and service areas. In addition to satisfying programmatic goals such as LID, wayfinding, and circulation, development forms must be appropriate to each area. This sensitivity results in projects that are both cohesive and also creates a sense of place for each public space that provides variety to the City and intuitive visual wayfinding.

UC DAVIS, PUTAH CREEK PARKING LOT & ROADWAY EXTENSION - *Davis, CA*
Project elements include expansion of the existing lot to provide an adequate amount of parking for existing and future facilities. The project requires a significant amount of interface with the adjacent Arboretum expansion, including pedestrian and bicycle circulation. Low Impact storm water runoff solutions are planned to avoid direct discharge into Putah Creek. Additionally, Siegfried is converting a portion of the existing Putah Creek Drive from auto traffic to bicycle and pedestrian only.

DIXIEANNE AVENUE – *Sacramento, CA**
Multi-modal streetscape providing a link from surrounding businesses and residences to Swanston Light Rail Station. To avoid direct discharge into the City's storm drain system traditional sidewalk planters have been transitioned into detention planters creating one of the nation's longest green streets. Additionally, the project was one of the City's first projects to address the most current state mandated Model Water Efficient Landscape Ordinance.

WEST CAPITOL AVENUE – *West Sacramento, CA**
Pilot streetscape design integrating the new West Sacramento City Hall and planned Sacramento Community College and Yolo County Library developed to revitalize the heart of West Sacramento. This complete street provides a transition from downtown Sacramento and the Bridge District into the City. Filtration planters were integrated into sidewalk planters to capture runoff before entering into the storm water system.

ARCADE CREEK PARK PRESERVE, PARK VISUAL SIMULATIONS - *Citrus Heights, CA**
This Park Preserve serves as the entry point to a trail system along Arcade Creek. A master plan was developed, but the Sunrise Parks and Recreation Department requested comments for improvements. To best show the major design flaws, a photo-simulation was created to demonstrate the design as it stood. Another simulation was created to show the integrated comments and identify constraints between the City's Master Plan and the existing conditions.

Corporate Office
4305 Hacienda Drive, Suite 550, Pleasanton, CA 94588
Phone: (925) 463-0611
www.TJKM.com

City of Citrus Heights
Proposal for Preparation of PS&E and Construction Support for
Various Signalized Intersection Safety Improvements Project
City Project No. 20-17-003 Federal Project No. HSIPL-5475(041)

Prepared by TJKM

Tasks		**TJKM**									
Task #	Task Description	PIC	QA/QC	PM	PS&E Task Lead	Senior Engineer	Project Engineer	Total Hours	TJKM Total Labor Costs	TJKM ODC	TJKM Total Labor Costs
		Nayan Amin	Ruta Jariwala	Atul Patel	Rutvij Patel	Erik Bjorklund	Alee Moua				
		$ 91.54	$ 91.54	$ 76.57	$ 50.28	$ 53.36	$ 28.85				
		$ 222.68	$ 222.68	$ 186.27	$ 122.31	$ 129.81	$ 70.18				
1	Project Management / Kick-Off Meeting	1		40	-	-		41	$ 7,673	$ 300	$ 7,973
2	Preliminary Design										
	2.1 - Topographic Survey 4 ramps only										
	2.2 - Utility Research										
	2.3 - Verification of Load Requirements		1		16			17	$ 2,180		$ 2,180
	2.4 - Field Reconnaissance				4		12	16	$ 1,331	$ 300	$ 1,631
	2.4 - Basemapping	-		1	4		16	21	$ 1,798		$ 1,798
3	Public Outreach			12				12	$ 2,235	$ 330	$ 2,565
4	3.1 - Prepare 35% PS&E	-	1	4	4		16	25	$ 2,580	$ 100	$ 2,680
	3.2 - Prepare 90% PS&E	-	1	8	10		32	51	$ 5,182	$ 100	$ 5,282
	3.3 - 100% Final PS&E	-	1	8	8		8	25	$ 3,253	$ 200	$ 3,453
5	Environmental	-		16				16	$ 2,980		$ 2,980
6	Bid and Construction Support	-			30	8		38	$ 4,708		$ 4,708
	Base Proposal Subtotal	**1**	**4**	**89**	**76**	**8**	**84**	**262**	**$ 33,921**	**$ 1,330**	**$ 35,251**

$35,251 check

$ 18,288.00 seigfried
$ 53,539 TOTAL

Siegfried
Proposed Fee for the Citrus Heights Signals Project

Tasks		Siegfried Ramps	Siegfried Median Fence and Outreach	PROJECT TOTAL
Task 1.1	**Background Research**			
1.1.1	Field Reconnaissance	$316	$50	$366
1.1.2	Utility Records	$366		$366
1.1.3	Site Photographs	$316	$50	$366
1.1.4	Topographic Survey	$3,158	$500	$3,658
Task 1.2	**PS&E**			
1.2.1	Prepare 65% PS&E	$3,166	$492	$3,658
1.2.2	Prepare 100% PS&E	$3,258	$400	$3,658
1.2.3	Prepare Final PS&E	$1,629	$200	$1,829
Task 1.3	**Public Outreach - Optional**			
1.3.1	Outreach Meeting	$0	$3,658	$3,658
Task 1.4	**Engineering Services During Const.**			
1.4.1	ESDC	$449	$100	$549
Task 1.5	**Engineering Services During Const.**			
1.5.1	As-Built Drawings	$133	$50	$183
	Total Cost	**$12,788**	**$5,500**	**$18,288**

Proposed Fee for the Citrus Heights Signals Project 10-H

Consultant:

Siegfried

Direct Labor

Job Title	Name	Hours	Actual Hourly Rate	Total
Principal and PM	Paul Schneider	21	$98.08	$2,060
Project Surveyor	Kevin Genasci	2	$60.10	$120
Landscape Architect	Bob Norbutas	8	$55.29	$442
Engineer II	Nathen Berend	40	$39.42	$1,577
Instrumentman	Derik Weldon	12	$49.17	$590
Technician III	Mike Kincaid	40	$30.00	$1,200

Labor Costs		
a) Direct Labor Cost	$5,989	
b) Anticipated Salary Increases	$365	*3% for 2 year period*
c) Total Direct Labor Costs	$6,354	

Indirect Costs		
Audited Fringe and Overhead Rate	152.20%	See below for required breakdown
Total Indirect Costs	$9,670	

Fee	
Rate	10%
Total Fixed Profit	$1,602.42

Other Direct Costs		
Travel	150	$.575/mile
Survey Equipment	510	*$45.20/hr for survey equipment*
Plotting	0	*$1/sf*
Total Cost	**$18,288**	

Indirect Cost Breakdown	
Fringe	37.05%
Overhead	35.73%
General and Administrative	79.42%

EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT

1. Local Agency: City of Citrus Heights 2. Contract DBE Goal: 19%
3. Project Description: Professional Design Services for Various Signalized Intersection Safety Improvements
4. Project Location: Various intersections throughout the City of Citrus Heights
5. Consultant's Name: T J K M 6. Prime Certified DBE: ☑ 7. Total Contract Award Amount: $53,539
8. Total Dollar Amount for **ALL** Subconsultants: $18,288 9. Total Number of **ALL** Subconsultants: 1

10. Description of Work, Service, or Materials Supplied	11. DBE Certification Number	12. DBE Contact Information	13. DBE Dollar Amount
Traffic Engineering	40772	T J K M, Nayan Amin, 925.463.0611, 4305 Hacienda Dr, Ste, 550,	$35,251

Local Agency to Complete this Section

20. Local Agency Contract Number:
21. Federal-Aid Project Number:
22. Contract Execution Date:

14. TOTAL CLAIMED DBE PARTICIPATION

$ 35,251

66 **%**

Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.

23. Local Agency Representative's Signature 24. Date
25. Local Agency Representative's Name 26. Phone
27. Local Agency Representative's Title

IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.

15. Preparer's Signature 16. Date: 01/25/2018
17. Preparer's Name: Nayan Amin 18. Phone: 925.463.0611
19. Preparer's Title: President

DISTRIBUTION: 1. Original – Local Agency
2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – CONSULTANT CONTRACT DBE COMMITMENT

CONSULTANT SECTION

1. Local Agency - Enter the name of the local or regional agency that is funding the contract.
2. Contract DBE Goal - Enter the contract DBE goal percentage as it appears on the project advertisement.
3. Project Description - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc).
4. Project Location - Enter the project location as it appears on the project advertisement.
5. Consultant's Name - Enter the consultant's firm name.
6. Prime Certified DBE - Check box if prime contractor is a certified DBE.
7. Total Contract Award Amount - Enter the total contract award dollar amount for the prime consultant.
8. Total Dollar Amount for ALL Subconsultants – Enter the total dollar amount for all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.
9. Total number of ALL subconsultants – Enter the total number of all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.
10. Description of Work, Services, or Materials Supplied - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
11. DBE Certification Number - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
12. DBE Contact Information - Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.
13. DBE Dollar Amount - Enter the subcontracted dollar amount of the work to be performed or service to be provided. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
14. Total Claimed DBE Participation - $: Enter the total dollar amounts entered in the "DBE Dollar Amount" column. %**:** Enter the total DBE participation claimed ("Total Participation Dollars Claimed" divided by item "Total Contract Award Amount"). If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
15. Preparer's Signature - The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.
16. Date - Enter the date the DBE commitment form is signed by the consultant's preparer.
17. Preparer's Name - Enter the name of the person preparing and signing the consultant's DBE commitment form.
18. Phone - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
19. Preparer's Title - Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

20. Local Agency Contract Number - Enter the Local Agency contract number or identifier.
21. Federal-Aid Project Number - Enter the Federal-Aid Project Number.
22. Contract Execution Date - Enter the date the contract was executed.
23. Local Agency Representative's Signature - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.
24. Date - Enter the date the DBE commitment form is signed by the Local Agency Representative.
25. Local Agency Representative's Name - Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.
26. Phone - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
27. Local Agency Representative Title - Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.

EXHIBIT B
ADDITIONAL TERMS

1. INDEMNIFICATION.

To the fullest extent permitted by law, CONSULTANT shall indemnify, defend with counsel acceptable to CITY, and hold harmless CITY and its officers, officials, employees, agents and volunteers (collectively, "Indemnitees") from and against any and all liability, loss, damage, claims, expenses, and costs, including without limitation, attorney's fees, costs and fees of litigation, (collectively, "Liability") of every nature arising out of or in connection with CONSULTANT's performance of the services under this Agreement, or its failure to comply with any of its obligations contained in this Agreement, or its failure to comply with any applicable law or regulation, except such Liability caused by the sole negligence or willful misconduct of CITY. If CONSULTANT is performing design professional services, CONSULTANT's obligations under this section shall be limited to the extent required by Civil Code section 2782.8.

Acceptance by CITY of insurance certificates and endorsements required under this Agreement does not relieve CONSULTANT from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damage or claims for damages whether or not such insurance policies shall be been determined to apply.

In the event that CONSULTANT or any employee, agent, or subcontractor of CONSULTANT providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of CITY, CONSULTANT shall indemnify, defend, and hold harmless CITY for the payment of any employee and/or employer contributions for PERS benefits on behalf of CONSULTANT or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of CITY.

2. INSURANCE.

Before beginning any services under this Agreement, CONSULTANT, at its own cost and expense, shall procure the types and amounts of insurance specified herein and maintain that insurance throughout the term of this Agreement. The cost of such insurance shall be included in the CONSULTANT's bid or proposal. CONSULTANT shall be fully responsible for the acts and omissions of its subcontractors or other agents.

2.1 **Workers' Compensation.** CONSULTANT shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by CONSULTANT in the amount required by applicable law. The requirement to maintain Statutory Workers' Compensation and Employer's Liability Insurance may be waived by the CITY upon written verification that CONSULTANT is a sole proprietor and does not have any employees and will not have any employees during the term of this Agreement.

2.2 **Commercial General and Automobile Liability Insurance.**

2.2.1 **General requirements.** CONSULTANT, at its own cost and expense, shall maintain commercial general and automobile liability insurance for the term of this Agreement in an amount not less than $2,000,000 per occurrence and $4,000,000 aggregate, combined single limit coverage for risks associated with the work contemplated by this Agreement.

2.2.2 **Minimum scope of coverage.** Commercial general coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 (most recent edition) covering comprehensive General Liability on an "occurrence" basis. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (most recent edition) covering any auto (Code 1), or if CONSULTANT has no owned autos, hired (code 8) and non-owned autos (Code 9). No endorsement shall be attached limiting the coverage.

2.2.3 **Additional requirements.** Each of the following shall be included in the insurance coverage or added as a certified endorsement to the policy:

a. The Commercial General and Automobile Liability Insurance shall cover on an occurrence basis.

b. CITY, its officers, officials, employees, agents, and volunteers shall be covered as additional insureds for liability arising out of work or operations on behalf of the CONSULTANT, including materials, parts, or equipment furnished in connection with such work or operations; or automobiles owned, leased, hired, or borrowed by the CONSULTANT. Coverage can be provided in the form of an endorsement to the CONSULTANT's insurance at least as broad as CG 20 10 11 85, or both CG 20 10 10 01 and CG 20 37 10 01.

c. For any claims related to this Agreement or the work hereunder, the CONSULTANT's insurance covered shall be primary insurance as respects the CITY, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees, agents or volunteers shall be excess of the CONSULTANT's insurance and non-contributing.

d. The policy shall cover inter-insured suits and include a "separation of Insureds" or "severability" clause which treats each insured separately.

e. CONSULTANT agrees to give at least 30 days prior written notice to CITY before coverage is canceled or modified as to scope or amount.

2.3 **Professional Liability Insurance.**

2.3.1 **General requirements.** CONSULTANT, at its own cost and expense, shall maintain for the period covered by this Agreement professional liability insurance for licensed professionals performing work pursuant to this Agreement in an amount not less than $1,000,000 per occurrence or claim covering the CONSULTANT's errors and omissions.

2.3.2 **Claims-made limitations.** The following provisions shall apply if the professional liability coverage is written on a claims-made form:

a. The retroactive date of the policy must be shown and must be before the date of the Agreement.

b. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Agreement or the work.

c. If coverage is canceled or not renewed and it is not replaced with another claims-made policy form with a retroactive date that precedes the date of this Agreement, CONSULTANT must purchase an extended period coverage for a minimum of five (5) years after completion of work under this Agreement.

d. A copy of the claim reporting requirements must be submitted to the CITY for review prior to the commencement of any work under this Agreement.

2.4 All Policies Requirements.

2.4.1 Submittal Requirements. CONSULTANT shall submit the following to CITY prior to beginning services:

a. Certificate of Liability Insurance in the amounts specified in this Agreement; and

b. Additional Insured Endorsement as required for the General Commercial and Automobile Liability Polices.

2.4.2 Acceptability of Insurers. All insurance required by this Agreement is to be placed with insurers with a Bests' rating of no less than A:VII.

2.4.3 Deductibles and Self-Insured Retentions. Insurance obtained by the CONSULTANT shall have a self-insured retention or deductible of no more than $100,000.

2.4.4 Wasting Policies. No policy required herein shall include a "wasting" policy limit (i.e. limit that is eroded by the cost of defense).

2.4.5 Waiver of Subrogation. CONSULTANT hereby agrees to waive subrogation which any insurer or contractor may require from CONSULTANT by virtue of the payment of any loss. CONSULTANT agrees to obtain any endorsements that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the CITY has received a waiver of subrogation endorsement from the insurer.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the CITY for all work performed by the CONSULTANT, its employees, agents, and subcontractors.

2.4.6 Subcontractors. CONSULTANT shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein, and CONSULTANT shall ensure that CITY, its officers, officials, employees, agents, and volunteers are covered as additional insured on all coverages.

2.4.7 Excess Insurance. If CONSULTANT maintains higher insurance limits than the minimums specified herein, CITY shall be entitled to coverage for the higher limits maintained by the CONSULTANT.

2.5 Remedies. In addition to any other remedies CITY may have if CONSULTANT fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, CITY may, at its sole option: 1) obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement; 2) order CONSULTANT to stop work under this Agreement and withhold any payment that becomes due to CONSULTANT hereunder until CONSULTANT demonstrates compliance with the requirements hereof; and/or 3) terminate this Agreement.

3. LICENSES & PERMITS.

CONSULTANT represents and warrants to CITY that CONSULTANT and its employees, agents, and any subcontractors have, and will maintain at their sole cost and expense, all licenses, permits,

qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. In addition to the foregoing, CONSULTANT and any subcontractors shall obtain and maintain during the term of this Agreement valid business licenses from CITY.

4. ASSIGNMENT AND SUBCONTRACTING.

CITY and CONSULTANT recognize and agree that this Agreement contemplates personal performance by CONSULTANT and is based upon a determination of CONSULTANT's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to CITY for entering into this Agreement was and is the professional reputation and competence of CONSULTANT. CONSULTANT may not assign this Agreement or any interest therein without the prior written approval of the CITY Manager, or his or her designee. CONSULTANT shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the CITY Manager, or his or her designee.

5. GOVERNING LAW & VENUE

In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in Sacramento County or in the United States District Court for the Eastern District of California. The laws of the State of California shall govern this Agreement.

2852508.2

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Ronda Rivera, Assistant City Manager

SUBJECT: **Quarterly Treasurer's Report**

Summary and Recommendation
Staff recommends the Council receive and file the Quarterly Treasurer's Report for the quarter ending December 31, 2017.

Fiscal Impact
No fiscal impact.

Background and Analysis
California Government Code Section 53646(b) states that the "treasurer or chief fiscal officer may render a quarterly report to the chief executive officer, internal auditor, and the legislative body" within 30 days of the quarter's end.

On December 31, 2017, the market value of the City's cash and investments was $8,630,583.82.

Conclusion
This report satisfies California Government Code Section 53646(b).

Attachment: (1) Treasurer's Report as of December 31, 2017

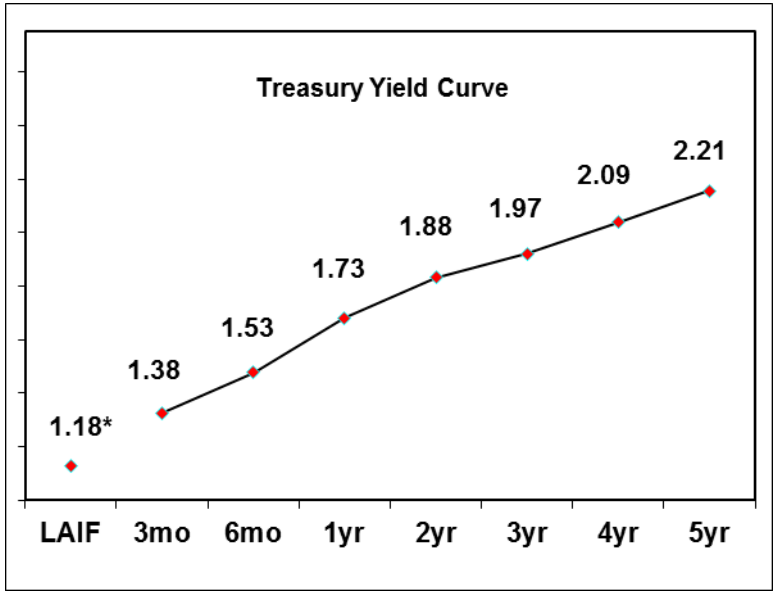
RCM Robinson Capital Management LLC
27 Reed Boulevard
Mill Valley, CA 94941
Phone: 415-771-9421
Fax: 415-762-1980

City of Citrus Heights

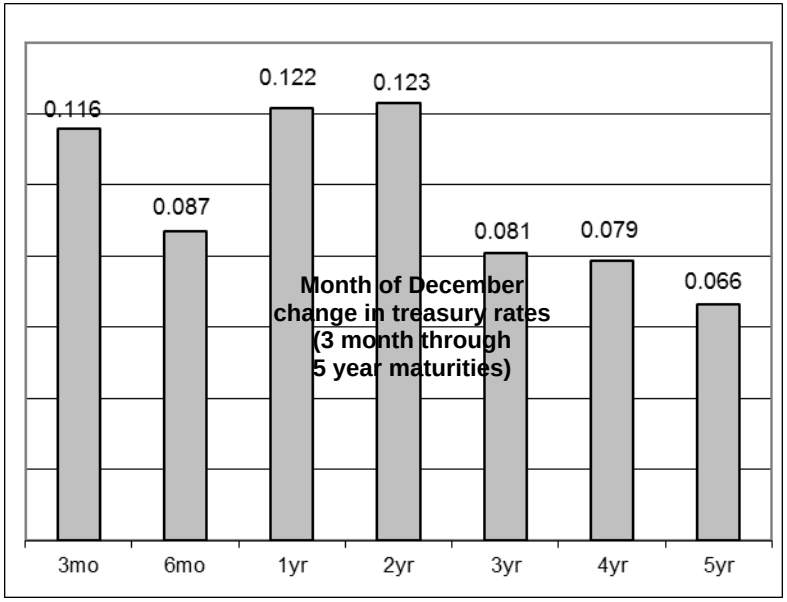
Report period December 1, 2017 – December 31, 2017

The Treasurer's investment portfolio is in compliance with the California Government Code Section 53601.

Institutional Fixed Income Market Review
December 31, 2017



*LAIF estimated apportionment rate.



Source: Bloomberg; rates as of market close 12/29/17.

GDP

According to the latest GDP estimate, the U.S. economy grew at a 3.2 percent annualized rate in the third quarter, following a 3.1 percent gain in the second quarter. This compares to an average 4.2 percent annualized growth rate from 1950 through 1973; 3.2 percent growth rate from 1974 through 2000 and a 1.8 percent growth rate from 2001 through 2016. The U.S. economy is currently in its 99th straight month of annualized expansion; the third longest expansion since 1900.

Inflation

The year-over-year non-seasonally adjusted Consumer Price Index (CPI) rose 2.20 percent in November, up from 2.04 percent in October. The energy component contributed the most to the index, with gasoline increasing 7.3 percent. Year-over-year Core CPI (ex Food and Energy) increased 1.71 percent, slightly lower than the previous month's 1.77 percent.

Home sales and starts

November Existing-Home Sales increased a seasonally adjusted annual rate of 5.81 million, a 5.6 percent increase from October and a 3.8 percent increase year-over-year. New residential housing starts were up to a 930,000-annualized pace, the most since 2007. New home sales in November soared by a near record 109,000 to an annualized rate of 733,000 (the largest monthly jump in 25 years), with the western states surging 31 percent from October.

Fed Watch

The Federal Reserve voted to raise the Fed Funds target rate range for the third time in 2017 to 1.25-1.50. According to the Bloomberg Fed funds futures implied rates function, there is a 72 percent probability of an additional rate increase by the March 21st FOMC meeting.

CITY OF CITRUS HEIGHTS
SUMMARY OF INVESTMENTS
INVESTMENT PORTFOLIO DECEMBER 31, 2017

	COST	*FACE*	*MARKET*	*PERCENT*	*DAYS TO MATURITY*	*YIELD TO MATURITY*	*WEIGHTED YIELD*
STATE-LOCAL AGENCY INVESTMENT FUNDS	4,778,142.09	4,778,142.09	4,778,142.09	55.1%	1	1.180%	0.651%
GENERAL ACCOUNT/US BANK	1,012,711.81	1,012,711.81	1,012,711.81	11.7%	1	0.000%	0.000%
FEDERAL AGENCIES/TREASURIES/CD'S/SCHWAB	2,862,866.98	2,875,528.52	2,839,729.92	33.2%	1,248	1.909%	0.633%
GRAND TOTAL INVESTMENT PORTFOLIO	**8,653,720.88**	**8,666,382.42**	**8,630,583.82**	**100%**	**464**	**1.438%**	**1.284%**

LOCAL AGENCY INVESTMENT FUND (LAIF) RATE OF RETURN	1.180%
CITY WEIGHTED AVERAGE RATE OF RETURN (including non-interest bearing checking)	1.284%
CITY EFFECTIVE RATE OF RETURN DECEMBER 2017	1.440%
CITY EFFECTIVE RATE OF RETURN FISCAL YEAR TO DATE	1.380%
CITY INTEREST EARNINGS FISCAL YEAR TO DATE	60,528.68

In accordance with California Government Code Section 53646 as amended, the following certification accompanies this report:

The Finance Director of the City of Citrus Heights hereby certifies that sufficient investment liquidity exists and anticipated revenues are available to meet the City's budgeted expenditure requirements for the next six months. In addition, it is hereby certified that investments in the City's portfolio comply with the requirements of the City of Citrus Height's adopted investment policy.

Respectfully submitted,

Ronda Rivera
Finance Director

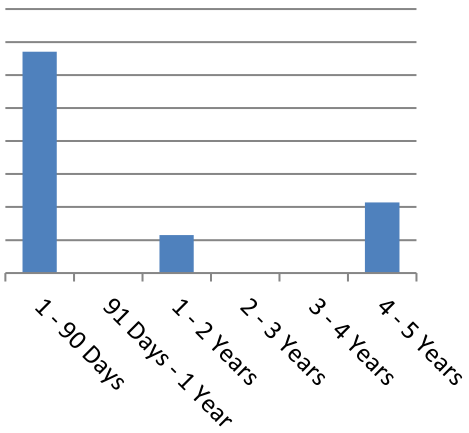
CITY OF CITRUS HEIGHTS DETAIL OF PORTFOLIO INVESTMENTS
November 2017

	SymPro	Cusip Number	Moody's Rating	S & P Rating	Book Value	Face Value	Market Value	Rate	YTM	Purchase Date	Maturity Date	Maturity/Call Days
LOCAL AGENCY INVESTMENT FUND												
Local Agency Investment Fund					4,778,142.09	4,778,142.09	4,778,142.09	1.180%	1.180%			1
TOTAL					**4,778,142.09**	**4,778,142.09**	**4,778,142.09**					**1**
GENERAL ACCOUNT/US BANK												
US Bank Corporate Checking					1,012,711.81	1,012,711.81	1,012,711.81	0.000%	0.000%			1
TOTAL					**1,012,711.81**	**1,012,711.81**	**1,012,711.81**					**1**
CUSTODY ACCOUNT/SCHWAB												
Schwab Cash Reserve					25,528.52	25,528.52	25,528.52	0.650%	0.650%			1
TOTAL					**25,528.52**	**25,528.52**	**25,528.52**					**1**
MEDIUM TERM NOTES/FEDERAL AGENCY/CERTIFICATES OF DEPOSIT/ TREASURY COUPON SECURITIES												
Fannie Mae (c)	1109	3136G4GU1	Aaa	AA+	996,562.09	1,000,000.00	988,318.00	1.400%	1.585	03/30/2017	11/25/2019	693
Freddie Mac (c)	1108	3134GBAE2	Aaa	AA+	1,840,776.37	1,850,000.00	1,825,883.40	2.000%	2.124	03/30/2017	03/29/2022	1,548
TOTAL					**2,837,338.46**	**2,850,000.00**	**2,814,201.40**					
(c) callable												
TOTAL INVESTMENT PORTFOLIO					**8,653,720.88**	**8,666,382.42**	**8,630,583.82**					

City of Citrus Heights
Portfolio Management
Portfolio Statistics and Performance
December 31, 2017

Portfolio Liquidity

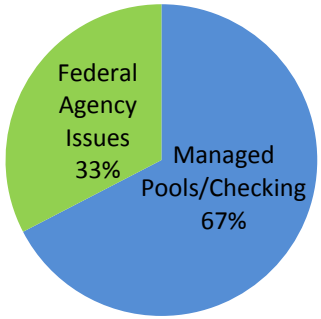
Aging Interval	Par Value
1 - 90 Days	5,816,382
91 Days - 1 Year	0
1 - 2 Years	1,000,000
2 - 3 Years	0
3 - 4 Years	0
4 - 5 Years	1,850,000
TOTAL	8,666,382

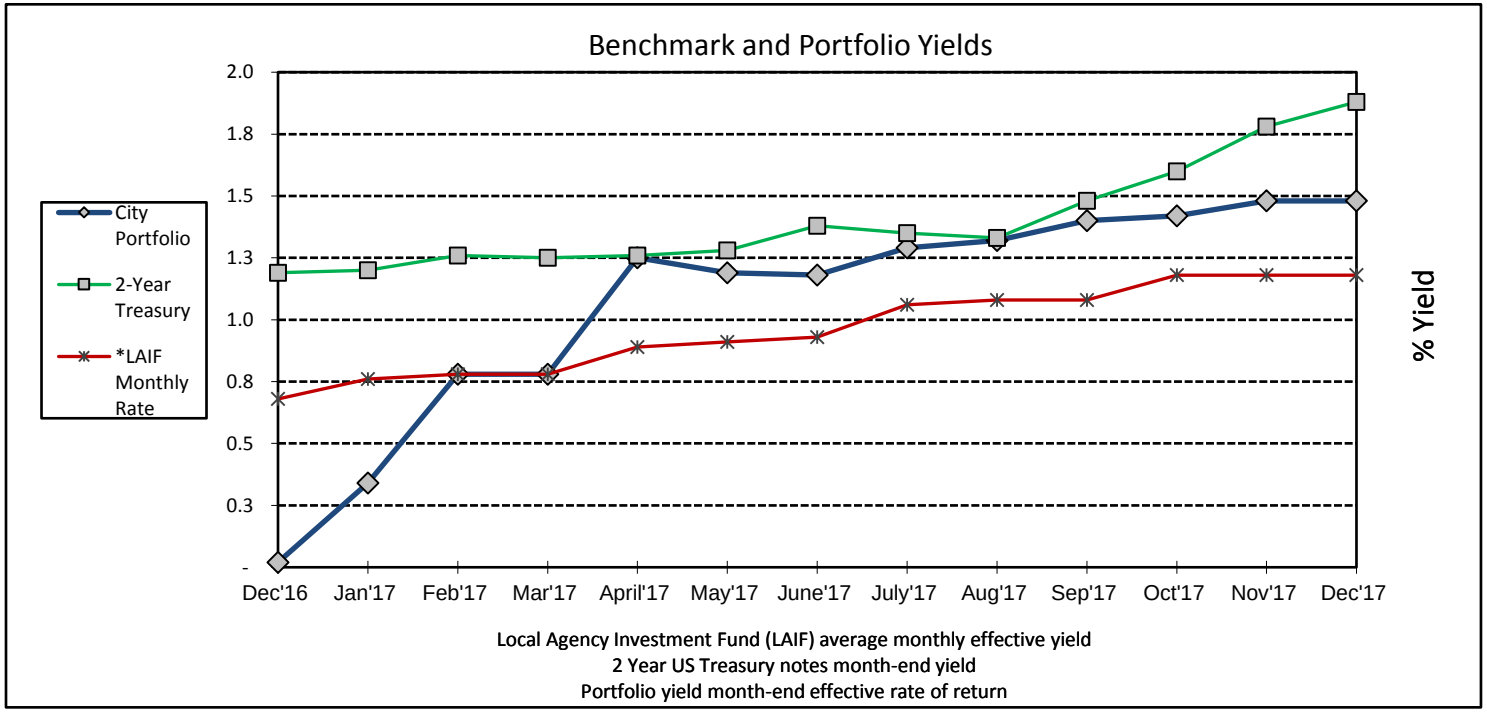


*To maturity (does not include call date)

Portfolio Composition

Investment Type	Market Value
Managed Pools/Checking	5,816,382
Federal Agency Issues	2,814,201
U.S. Treasuries	0
Corporate Notes	0
Certificates of Deposit	0





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CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Ronda Rivera, Assistant City Manager

SUBJECT: **Comprehensive Annual Financial Report**

Summary and Recommendation
Staff recommends the Council accepts and files the City of Citrus Heights Comprehensive Annual Financial Report for the fiscal year ended June 30, 2017.

Fiscal Impact
No fiscal impact.

Background and Analysis
The accounting firm of Richardson and Company, LLP performed the annual audit of the City's general purpose financial statements for the fiscal year ended June 30, 2017. They have determined the financial statements present fairly, in all material respects, the financial position of the City of Citrus Heights. The statements are in conformity with generally accepted accounting principles.

Conclusion
The attached reports reflect the financial position of the City of Citrus Heights at June 30, 2017.

Attachment: (1) City of Citrus Heights Comprehensive Annual Financial Report as of June 30, 2017

CITY OF CITRUS HEIGHTS, CALIFORNIA

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED

JUNE 30, 2017

Prepared by:

Ronda Rivera
Assistant City Manager

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City of Citrus Heights, California
Comprehensive Annual Financial Report
For the year ended June 30, 2017

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City of Citrus Heights, California
Comprehensive Annual Financial Report
For the year ended June 30, 2017

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City of Citrus Heights, California
Comprehensive Annual Financial Report
For the year ended June 30, 2017

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CITY OF CITRUS HEIGHTS

6360 Fountain Square Drive • Citrus Heights, CA 95621-5634 • (916) 725-2448
Fax (916) 725-5799 • TTY/TDD: California Relay Service 7-1-1 • www.citrusheights.net

The City of Citrus Heights is committed to providing high quality, economical, responsive city services to our community.

January 8, 2018

To the Honorable Mayor and Members of the City Council and Citizens of the City of Citrus Heights:

City staff is pleased to submit the City of Citrus Heights' Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2017. It is the policy of the City Council that a licensed certified public accountant conduct an annual audit at the end of each fiscal year and issue a complete set of audited financial statements. The audit is conducted in accordance with generally accepted auditing standards and the financial statements are presented in conformity with generally accepted accounting principles (GAAP).

Responsibility for the accuracy of the data and the fairness of presentation, including all footnotes and disclosures, rests with the City. City staff believes the data presented in this report is accurate in all material respects and all statements and disclosures necessary for the reader to obtain a thorough understanding of the City's financial activities have been included. Management of the City has established an internal control framework that is designed to both protect the City's assets from loss, theft, or misuse and to compile sufficient reliable information for the preparation of the City's financial statements in conformity with GAAP. Because the cost of a control should not exceed the benefits derived, the objective is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatements.

While traditionally addressed to the governing body of the City, this report is intended to provide relevant financial information to the citizens of the City of Citrus Heights, City staff, creditors, investors, and other concerned readers. City staff encourages all readers to contact the Finance Division with any questions or comments concerning this report.

The City's financial statements have been audited by Richardson & Company, LLP, a firm of certified public accountants. The goal of the independent audit is to provide reasonable assurance that the financial statements of the City for the fiscal year ended June 30, 2017 are free of material misstatements. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Based upon the audit, the independent auditors concluded that there was reasonable basis for rendering an unmodified opinion, which states that the City's financial statements for the fiscal year ended June 30, 2017 are fairly presented in conformity with GAAP. The independent auditor's report is presented as the first component of the financial section of this report.

The independent audit of the financial statements of the City was part of a broader, federally mandated "Single Audit" designed to meet the special needs of federal grantor agencies. The standards governing Single Audit engagements require the independent auditor to report not only on the fair presentation of the financial statements, but also on the audited government's internal controls and compliance with legal requirements, with special emphasis on internal controls and legal requirements involving the administration of federal awards. These reports are available in the City's separately issued Single Audit Reports.

GAAP requires that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement MD&A and should be read in conjunction with it. The City's MD&A can be found immediately following the report of the independent auditors.

Profile of the City of Citrus Heights

The City of Citrus Heights operates under a Council-Manager form of government and provides municipal services that include public safety, public works, and community development. This report includes all funds of the City of Citrus Heights.

The City Council establishes annual budgets for the General Fund, Proprietary Funds, and all Special Revenue Funds, except for certain Special Revenue Funds for which expenditures are controlled by grant funding or by assessments received. Budgetary control is legally maintained at the fund level for these funds. Department directors submit budget requests to the City Manager. The City Manager prepares an estimate of revenues and prepares recommendations for the following year's budget. The preliminary budget may or may not be amended by the City Council and is adopted by resolution by the City Council on or before June 30th each year in accordance with the City's Municipal Code.

The City of Citrus Heights was incorporated on January 1, 1997, as a general law city. Citrus Heights was the first new city in Sacramento County in more than 50 years and was the largest city to incorporate in the State of California. With a population of more than 87,000 in a 14.2 square-mile area, Citrus Heights is 99% developed and is graced with a strong business base and a well-established residential community.

The Citrus Heights City Council consists of five members, elected at-large to four-year overlapping terms. Council members must be residents of the City. The positions of Mayor and Vice Mayor are chosen by the City Council through policy direction determined by the City Council. The Mayor conducts the City Council meetings and represents the City on ceremonial occasions.

The City Council serves as the policy board for the municipality. As an elected Board of Directors, the City Council provides policy direction, establishes goals, and sets priorities for the City government. In addition to serving as the policy makers for the community, the City Council also is responsible for numerous land use decisions within its borders, including the General Plan. The City Council appoints the City Manager, City Attorney, and all members of advisory boards and commissions.

Citrus Heights is retail oriented and is fortunate to have a large area which serves as a hub of shopping and retail services in the Sunrise-Greenback area. The Sunrise Mall, the flagship retail center, was built in 1972 and was the largest indoor mall in Northern California at that time.

In Citrus Heights, the total labor force is approximately 44,000. Unemployment in Citrus Heights is approximately 4.0%. Within ten miles, there is a diverse labor force specializing in such occupations as sales, executive and managerial services, technical support, professional specialties, and other services.

Budget Initiatives

The City of Citrus Heights has developed broad policy direction through the development of budget strategies that establish long-term policy guidance for conducting the City's financial activities. The City Council has established these policies to meet the following strategic objectives:

1. **Strategic Focus** – The City's financial management should be strategic, reflecting the Council's and the community's priorities for service while providing resources that realistically fund routine operations.

2. **Fiscal Control and Accountability** – The City's financial activities should be fiscally sound and accountable to the City Council through the City Manager.

3. **Clarity** – The City's financial planning and reporting should be clear and easy to understand so that all participants, the City Council, the community and staff can productively participate in making good decisions.

4. **Long-Term Planning** – The City's financial planning should emphasize multi-year horizons to promote long-term planning of resource uses.

5. **Flexible and Cost Effective Responses** - The City's financial management practices should encourage a mission-driven organization that responds quickly and straightforwardly to community demands. The City's management should flexibly respond to opportunities for better service, should proactively manage revenues, and should cost-effectively manage ongoing operating costs.

6. **Staffing Philosophy** – The City has worked towards establishing a balance between City employees and contract staff to ensure the most efficient City operations.

Financial Policies

The City Council has developed policy parameters for the City's fiscal management. Those fiscal policies address a number of issues including financial activity reporting, budgeting and financial planning, appropriation control, debt management, investments, fees and charges, purchasing, performance measures and competitive review, and reserves.

Long-Term Financial Planning

The City's financial planning promotes long-term planning of its resources. The ten-year financial model has served as the primary budget guidance tool since the City's incorporation in 1997. The model is adjusted annually to project future operating revenue and expenditures. Modest increases in General Fund expenditures have been projected for the next ten years. Several factors directly affect the City's General Fund revenue. Since the City receives approximately 36% of its General Fund revenue from sales tax, it is especially susceptible to economic downturns. Also, the City is approximately 99% built out which results in fewer opportunities for revenue generating growth. The City is projected to maintain a balanced General Fund through FY 2022-2023, when the City will start to receive its Property Tax revenue.

Current Economic Conditions and Outlook

The City's economic development efforts and implementation of the City's financial policies help to promote Citrus Heights' long-term fiscal stability. Since incorporation in 1997, at the direction of Council, staff has conducted a systematic review of operations, resulting in some cases in the transition from contract service to an in-house operational model; in other instances a renegotiation of existing service contracts; and in other instances, retention of the contract operational model with a different service provider. These operational analyses and reforms are intended to promote long-term savings to the City and ensure long-term stability. As part of this operation review, the City has established appropriation limits in key operational areas such as law enforcement, which has promoted increased operational efficiency.

The City of Citrus Heights anticipates minimal revenue growth for the next ten years. The City has set up a reserve fund to help maintain a balanced budget until property tax revenue is received in fiscal year 2022-2023.

Awards and Acknowledgements

The City of Citrus Heights received an award for its submission of the FY 2015-16 Comprehensive Annual Financial Report for the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association (GFOA). This was the seventeenth consecutive year that the City received this award.

In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized Comprehensive Annual Financial Report. This report must

satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. City staff believes that this report will again meet the program requirements to receive the award.

The preparation of this Comprehensive Annual Financial Report would not have been possible without the efficient and dedicated services of the entire staff of the Finance Division and the auditing firm of Richardson & Company, LLP. I would also like to thank members of the City Council, the City Manager, and the various departments for their cooperation and support in planning and conducting the financial operations of the City during the past fiscal year.

Respectfully Submitted,

Ronda Rivera
Assistant City Manager

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

City of Citrus Heights

California

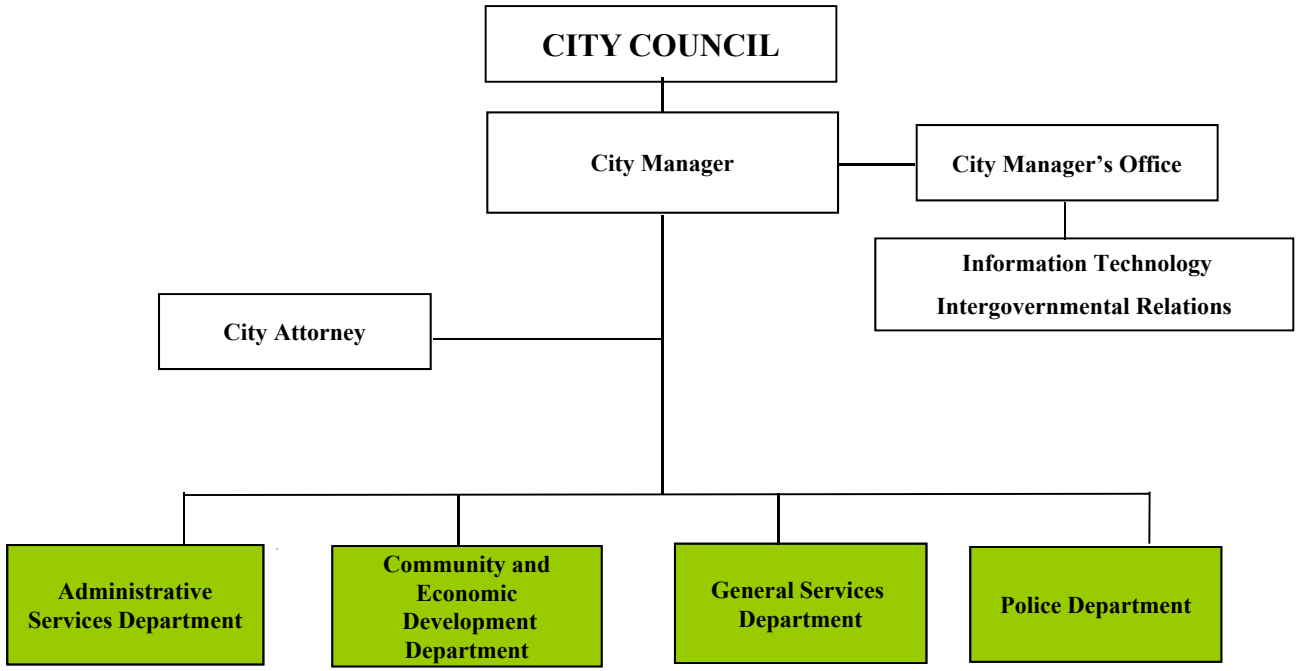
For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2016

Executive Director/CEO

CITY OF CITRUS HEIGHTS

Organization Chart



City of Citrus Heights, California

For the year ended June 30, 2017

List of Officials

- Steve Miller, Mayor
- Jeannie Bruins, Vice Mayor
- Bret Daniels, Council Member
- Albert J. Fox, Council Member
- Jeff Slowey, Council Member

- Christopher W. Boyd, City Manager
- Ronda Rivera, Assistant City Manager
- Rhonda Sherman, Community Services Director
- Ronald A. Lawrence, Chief of Police
- Ruthann Ziegler, City Attorney

RICHARDSON & COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS

550 Howe Avenue, Suite 210
Sacramento, California 95825

Telephone: (916) 564-8727
FAX: (916) 564-8728

INDEPENDENT AUDITOR'S REPORT

To the Honorable Mayor and Members of the City Council
City of Citrus Heights, California

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the City of Citrus Heights, California (the City), as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund and the aggregate remaining fund information of the City of Citrus Heights, California, as of June 30, 2017, and the respective changes in financial position, and, where applicable, cash flows thereof and the budgetary comparison for the General Fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedules of the proportionate share of the net pension liability of the pension plans, schedules of contributions to the pension plans and schedule of funding progress of the other postemployment benefits plan, as listed in the accompanying table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The introductory section, combining and individual fund financial statements and schedules and statistical section, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The combining and individual fund financial statements and schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplemental information is fairly stated in all material respects in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on them.

To the Honorable Mayor and Members of the City Council
City of Citrus Heights, California

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated January 8, 2018 on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over financial reporting and compliance.

Richardson & Company, LLP

January 8, 2018

Management's Discussion and Analysis

This section provides a narrative overview and analysis of the financial activities of the City of Citrus Heights (City) for the fiscal year ended June 30, 2017. It should be read in conjunction with the accompanying transmittal letter and basic financial statements.

FINANCIAL HIGHLIGHTS

- As of June 30, 2017, total assets and deferred outflows of the City exceeded its liabilities and deferred inflows by $376,041,922 (net position). The portion of net position that may be used to meet the government's ongoing obligations to citizens and creditors (unrestricted net position) is $4,424,587. The portion of net position that is restricted and may only be used for specific purposes is $15,935,790. The remaining $355,681,545 is invested in capital assets.

- As of June 30, 2017, the City's governmental funds reported combined ending fund balances of $16,547,932. Of the combined fund balances, 38.8% ($6.4 million) is available to meet the City's current and future needs (committed, assigned and unassigned balances).

- As of June 30, 2017, the committed amount in the General Fund of $4.6 million represents amounts committed for insurance, postemployment healthcare benefits and a Council commitment for economic uncertainties and anticipated future short-term structural deficits (i.e. revenue stabilization). See Note 7.

- Under the revenue neutrality agreement with the County of Sacramento, $4,774,259 of property tax revenue was retained by the County as payment under the agreement. These payments are expected to continue through the fiscal year ended June 30, 2022.

- The City signed a ground lease agreement with Dignity Health Medical Foundation (Dignity Health) for the former City Hall site under which the City collected an initial payment of $1.0 million and will collect and additional $5.9 million over a fifteen-year period beginning in the fiscal year ended June 30, 2020.

- Capital assets, net of depreciation, decreased to $355,681,545 from $365,904,908, which includes $318,528,203 of infrastructure per the requirements of GASB 34.

- Long-term liabilities decreased to $13,144,573 from $23,996,981 due to the City exercising its option under the lease agreement to purchase the City Hall and a utility yard.

OVERVIEW OF THE COMPREHENSIVE ANNUAL FINANCIAL REPORT

This Comprehensive Annual Financial Report is in three major parts:

1) **Introductory section**, which includes the Transmittal Letter and general information;

OVERVIEW OF THE COMPREHENSIVE ANNUAL FINANCIAL REPORT, Continued

2) **Financial section**, which includes the Management's Discussion and Analysis (this part), the Basic Financial Statements, which include the Government-wide and the Fund Financial Statements along with the notes to these financial statements and Combining and Individual Fund Financial Statements and Schedules; and,

3) **Statistical section,** which includes detailed information as a context for understanding what the information in the financial statements, and footnotes says about the City's overall financial health**.**

The Basic Financial Statements

The Basic Financial Statements are comprised of the Government-wide Financial Statements and the Fund Financial Statements; these two sets of financial statements provide two different views of the City's financial activities and financial position.

The Government-wide Financial Statements

The Government-wide Financial Statements provide a broad overview of the City's activities as a whole and comprise the Statement of Net Position and the Statement of Activities. The Statement of Net Position provides information about the financial position of the City as a whole, including all its capital assets and long-term liabilities on the full accrual basis, similar to that used by corporations. The Statement of Activities provides information about all the City's revenues and all its expenses, also on the full accrual basis, with the emphasis on measuring net revenues or expenses of each the City's programs. The Statement of Activities explains in detail the change in net position for the year.

All of the City's activities are grouped into Governmental Activities and Business-type activities, as explained below. All the amounts in the Statement of Net Position and the Statement of Activities are separated into Governmental Activities and Business-type Activities in order to provide a summary of these two activities of the City as a whole.

- ***Governmental activities*** – All of the City's basic services are considered to be governmental activities, including general government, community development, economic development, public safety, animal control, engineering, community events, public improvements, planning and zoning, building inspections, and general administration. These services are supported by general City revenues such as taxes and by specific program revenues such as developer fees.

- ***Business-type activities*** – All of the City's enterprise activities are reported here. The City's only Business-type activity fund is Solid Waste. Unlike governmental services, these services are supported by charges paid by users based on the amount of the service they use.

OVERVIEW OF THE COMPREHENSIVE ANNUAL FINANCIAL REPORT, Continued

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The City, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All of the funds of the City can be divided into two categories: governmental funds and proprietary funds.

Governmental funds. Governmental funds are used to account for essentially the same functions reported as governmental activities in the Government-wide Financial Statements. However, unlike the Government-wide Financial Statements, Governmental Fund Financial Statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating a government's near-term financing requirements.

Because the focus of the Governmental Fund Financial Statements is narrower than that of the Government-wide Financial Statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the Government-wide Financial Statement. By doing so, readers may better understand the long-term impact of the government's near-term financial decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances provide a reconciliation to facilitate this comparison between governmental funds and governmental activities. The Governmental Fund Financial Statements provide detailed information about each of the City's most significant funds, called major funds. The concept of major funds, and the determination of which are major funds, was established by GASB Statement 34 and replaces the concept of combining like funds and presenting them as one total. Instead, each major fund is presented individually, with all nonmajor funds summarized and presented only in a single column. Subordinate schedules present the detail of these nonmajor funds. Major funds present the major activities of the City for the year, and may change from year to year as a result of changes in the pattern of the City's activities.

For the fiscal year ended June 30, 2017, the City's major funds include the General Fund and General Capital Improvements Capital Projects Fund.

For the fiscal year ended June 30, 2017, the City adopted annual appropriated budgets for the General Fund and Special Revenue funds.

Proprietary funds. The City maintains one Enterprise-type proprietary fund. Enterprise funds are used to report the same functions presented as business-type activities in the Government-wide Financial Statements. The City uses enterprise funds to account for Solid Waste activities. Proprietary funds provide the same type of information as the Government-wide Financial

OVERVIEW OF THE COMPREHENSIVE ANNUAL FINANCIAL REPORT, Continued

Statements, only in more detail. The proprietary fund financial statements provide separate information for the Solid Waste operation.

Notes to the Basic Financial Statements. The notes provide additional information that is essential to a full understanding of the data provided in the Government-wide and Fund Financial Statements. The notes to the basic financial statements can be found on pages 31-65 of this report. Required Supplementary Information follows the notes on Page 66.

Combining and Individual Fund Financial Statements and Schedules. The combining statements referred to earlier in connection with nonmajor governmental funds are presented immediately following the notes to the financial statements. Combining and individual fund statements can be found on pages 70-113 of this report.

GOVERNMENT-WIDE FINANCIAL ANALYSIS

As noted earlier, net position may serve over time as a useful indicator of a government's financial position.

In the case of the City, assets exceeded liabilities by $376,041,922 as of June 30, 2017. Under the state's revenue neutrality law, the County retains the annual property tax for the first twenty-five years after the City's incorporation (through fiscal year 2021–2022). For the fiscal year ended June 30, 2017, the County retained $4,774,259 of property taxes.

The Summary of Net Position as of June 30, 2017, and 2016, follows:

	Governmental Activities		Business-type Activitites		Totals	
	2017	2016	2017	2016	2017	2016
Current and other assets	$ 31,196,247	$ 43,507,817	$ 379,239	$ 488,121	$ 31,575,486	$ 43,995,938
Capital assets	355,292,096	365,583,785	389,449	321,123	355,681,545	365,904,908
Total Assets	386,488,343	409,091,602	768,688	809,244	387,257,031	409,900,846
Total Deferred Outflows	11,344,874	8,554,980	54,046	31,935	11,398,920	8,586,915
Long-term liabilities	13,005,965	23,945,866	138,608	51,115	13,144,573	23,996,981
Other liabilities	7,338,149	7,841,095	127,074	190,324	7,465,223	8,031,419
Total Liabilities	20,344,114	31,786,961	265,682	241,439	20,609,796	32,028,400
Total Deferred Inflows	1,997,193	3,632,518	7,040	13,100	2,004,233	3,645,618
Net position:						
Net investment in capital assets	355,292,096	351,834,754	389,449	321,123	355,681,545	352,155,877
Restricted	15,935,790	15,729,052	-	-	15,935,790	15,729,052
Unrestricted	4,264,024	14,663,297	160,563	265,517	4,424,587	14,928,814
Total Net Position	$ 375,491,910	$ 382,227,103	$ 550,012	$ 586,640	$ 376,041,922	$ 382,813,743

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

Restricted net position increased by $206,738 due to the receipt of restricted funds in a number of special revenue funds for road maintenance, transit services and various development activities. Unrestricted net position can be used to finance day to day operations without constraints established by debt covenants or other legal requirements. The City had $4,424,587 of unrestricted net position as of June 30, 2017, which is a decrease of $10,504,227. The decrease was mainly due to the City exercising its option under the lease agreement to purchase the City Hall and Utility Yard for $13.8 million, offset by a $1.0 million initial payment by Dignity Health under the ground lease agreement for the former City Hall site. While unrestricted net position is technically unrestricted, much of the amount is committed for a specific use as described in Note 7.

The City maintains a commitment of fund balance in the General Fund, commonly called the General Fund Reserve. It is set at a maximum of $35 million at June 30, 2017, and the balance is currently $3.9 million. The net position of business-type activities cannot be used to make up an unrestricted net position deficit in the governmental activities. The City generally can only use these assets to finance the continuing operations of the business-type activities.

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

The change in net position for the fiscal years ended June 30, 2017, and 2016, follows:

	Governmental Activities		Business-type Activitites		Totals	
	2017	2016	2017	2016	2017	2016
Revenues:						
Program revenues:						
Charges for services	$ 9,363,391	$ 9,293,689	$ 761,614	$ 732,401	$ 10,125,005	$ 10,026,090
Grants and contributions:						
Operating	6,087,515	10,236,552	-	-	6,087,515	10,236,552
Capital	2,006,396	4,489,329	-	-	2,006,396	4,489,329
General revenues:						
Property taxes and assessments	991,552	946,113	-	-	991,552	946,113
Sales and use taxes	15,412,345	15,977,575	-	-	15,412,345	15,977,575
Utility users tax	2,881,617	2,810,771	-	-	2,881,617	2,810,771
Other taxes	1,616,163	1,601,229	-	-	1,616,163	1,601,229
Shared intergovernmental - unrestricted	7,611,171	7,260,670	-	-	7,611,171	7,260,670
Investment earnings (Losses)	1,108,551	527,734	452	4,913	1,109,003	532,647
Total Revenues	47,078,701	53,143,662	762,066	737,314	47,840,767	53,880,976
Expenses:						
Governmental activities:						
General government	5,463,122	4,704,899	-	-	5,463,122	4,704,899
Public safety	18,378,242	17,355,288	-	-	18,378,242	17,355,288
Public ways and facilities	24,188,701	34,185,103	-	-	24,188,701	34,185,103
Culture and recreation	669,948	654,183	-	-	669,948	654,183
Economic development	402,904	214,978	-	-	402,904	214,978
Community enhancements	4,710,977	4,313,943	-	-	4,710,977	4,313,943
Business-type activities:						
Solid waste	-	-	798,694	757,028	798,694	757,028
Total Expenses	53,813,894	61,428,394	798,694	757,028	54,612,588	62,185,422
Excess of revenues over expenditures before transfers	(6,735,193)	(8,284,732)	(36,628)	(19,714)	(6,771,821)	(8,304,446)
Transfers	-	-	-	-	-	-
Change in Net Position	(6,735,193)	(8,284,732)	(36,628)	(19,714)	(6,771,821)	(8,304,446)
Net position, beginning of year	382,227,103	390,511,835	586,640	606,354	382,813,743	391,118,189
NET POSITION, JUNE 30	$ 375,491,910	$ 382,227,103	$ 550,012	$ 586,640	$ 376,041,922	$ 382,813,743

Revenues

The City's total revenues for governmental and business-type activities were $47,840,767 for the fiscal year ended June 30, 2017. Approximately 65% of the City's key revenues are generated from three major sources.

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

The following discusses variances in key revenues from the prior fiscal year:

1. **Sales Tax** - Annual receipts for the fiscal year ended June 30, 2017 decreased $565,230 from the prior year. Increases in revenue from taxable sales were offset by an adjustment related to the end of the Triple Flip in Fiscal Year 2015-16.

2. **Shared Intergovernmental Revenues** - Annual receipts for the fiscal year ended June 30, 2017 increased by $350,501 from the prior year. This amount represents the state motor vehicle in-lieu tax.

3. **Grants and Contributions - Governmental Activities Operating -** Governmental Activities operating grants and contributions were mainly from transit allocations from the Sacramento Area Council of Governments and street, road, and community enhancement grants that were for maintenance and operations as well as grant reimbursements for housing loans made during the year. Revenues decreased in 2017 as some projects ended.

   Grants and Contributions - Governmental Activities Capital - The decrease in capital revenues reflects the completion of several major capital projects during the fiscal year ended June 30, 2017. Those projects included the Sunrise Boulevard Complete Streets Improvement Project (Phase 3), Safe Routes to School – Antelope North Project and the Twin Oaks Avenue/Mariposa Avenue Storm Drainage Improvement Project.

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

Expenses

Governmental and business-type activity expenses of the City for the year totaled $54,612,588. Governmental activity expenses totaled $53,813,894 or 98.5% of total expenses. Business-type activities expenses totaled $798,694 during the fiscal year. Public safety costs represented 34.2% of total governmental activities expenses. Public ways and facilities costs represented the largest single expense for governmental activities.

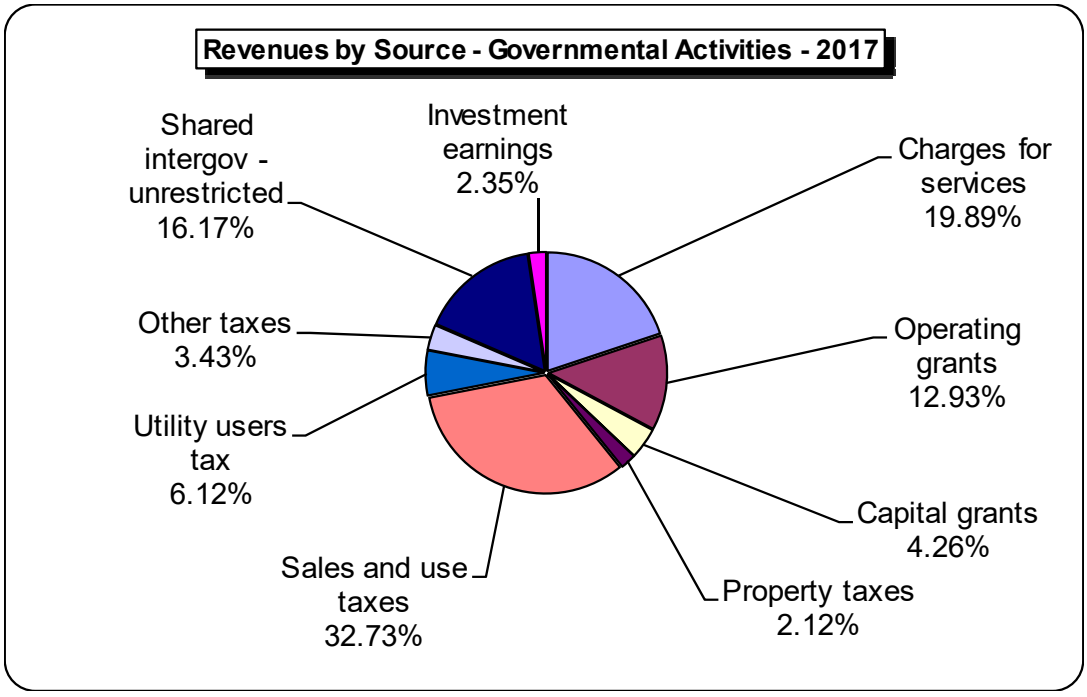
Governmental Activities

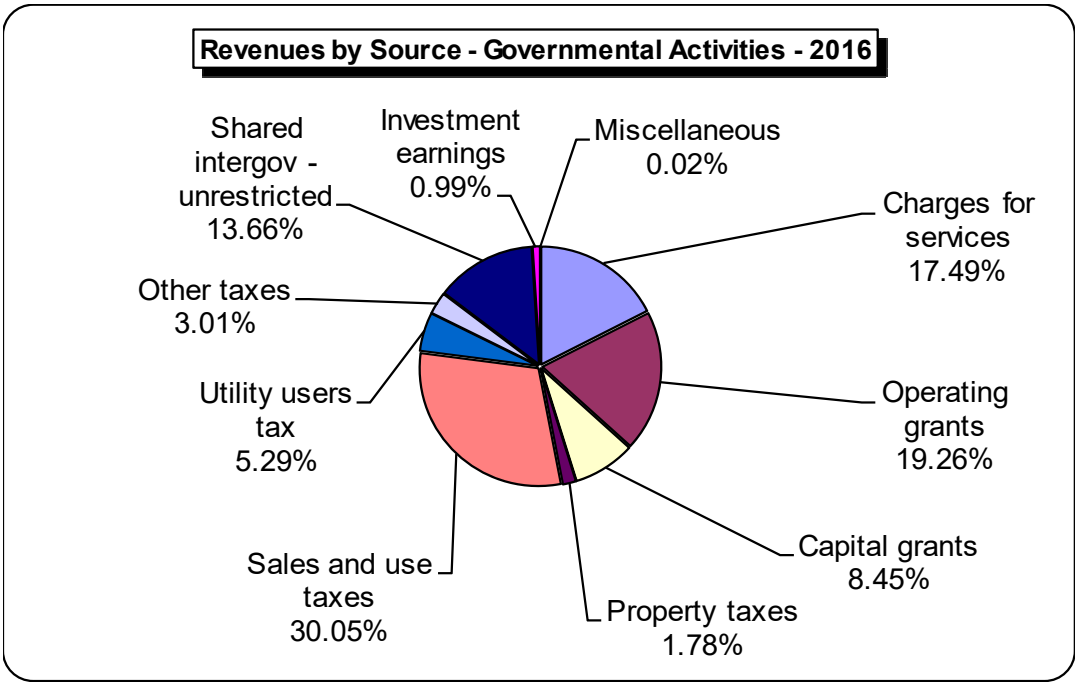
The following table shows the cost of each of the City's major programs and the net cost of the programs. Net cost is the total cost less fees and other direct revenue generated by the activities. The net cost reflects the financial burden that was placed on the City's taxpayers by each of the programs. The total cost of services and the net cost of services for the fiscal years ended June 30, 2017, and 2016, were as follows:

	2017		2016	
	Total Cost of Services	**Net Cost of Services**	**Total Cost of Services**	**Net Cost of Services**
General government	$ 5,463,122	$ (4,059,762)	$ 4,704,899	$ (2,986,278)
Public safety	18,378,242	(15,766,626)	17,355,288	(15,009,794)
Public ways and facilities	24,188,701	(14,270,186)	34,185,103	(18,628,564)
Culture and recreation	669,948	(297,501)	654,183	(282,384)
Economic development	402,904	(402,904)	214,978	(214,928)
Community enhancements	4,710,977	(1,559,613)	4,313,943	(286,876)
TOTAL	$ 53,813,894	$ (36,356,592)	$ 61,428,394	$ (37,408,824)

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

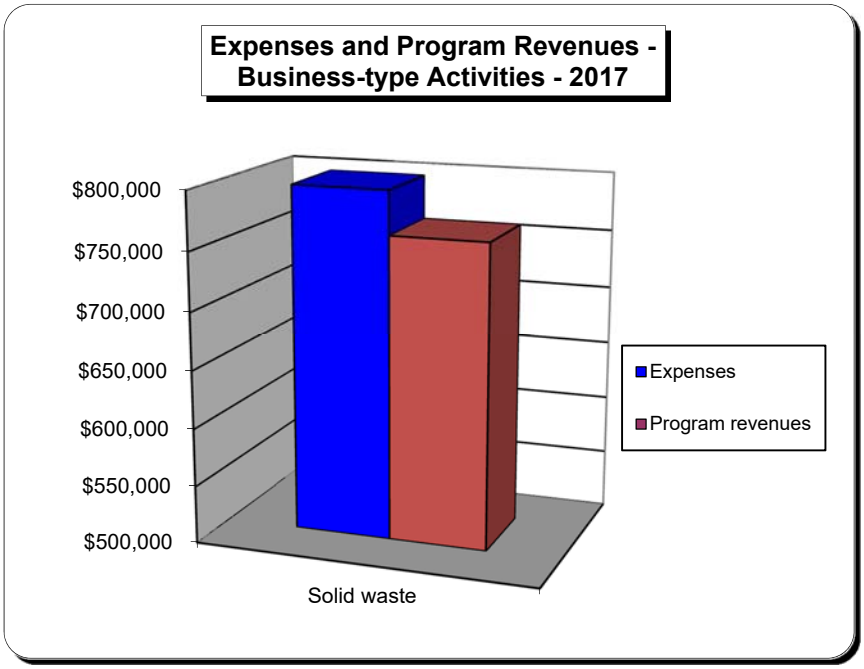
Revenues by source for the fiscal years ended June 30, 2017, and 2016, are as follows:

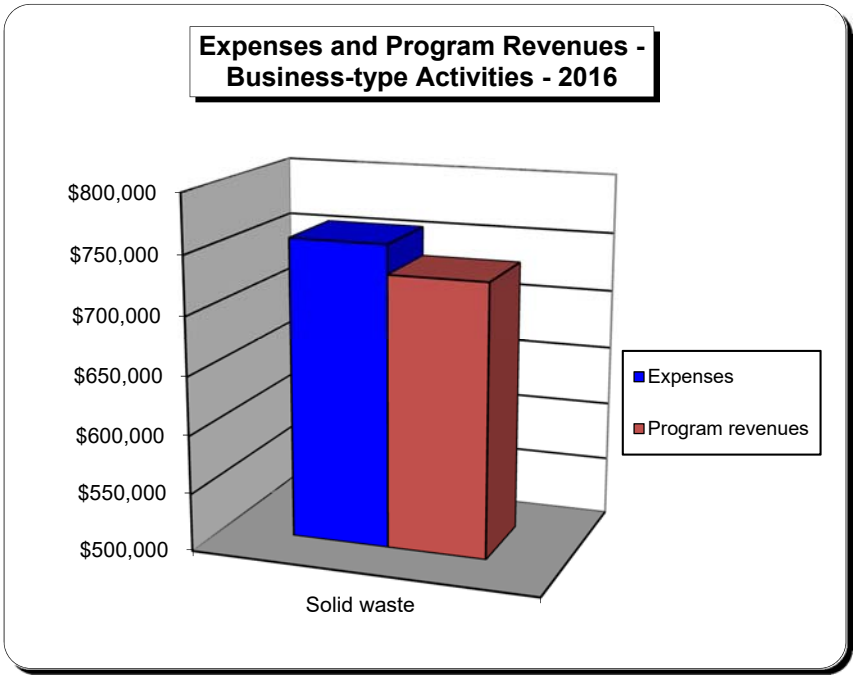




GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

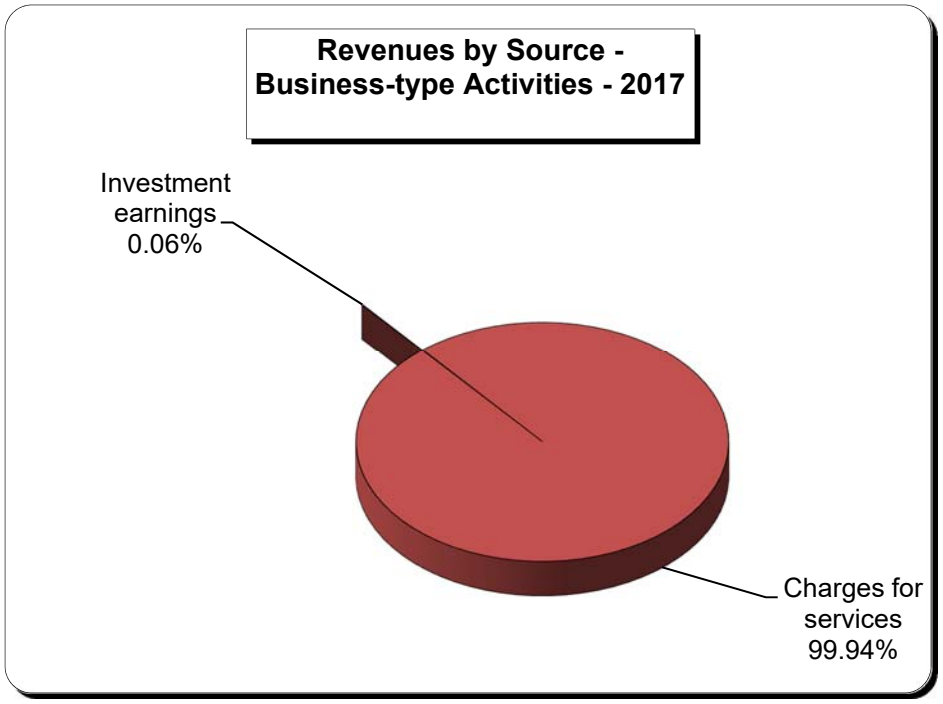
Business-type activities. The City's net position for business-type activities decreased by $36,628. The City has one business-type activity, which is Solid Waste Operations. The expenses and program revenues for the Solid Waste Operation for the fiscal year ended June 30, 2017, and 2016, are as follows:

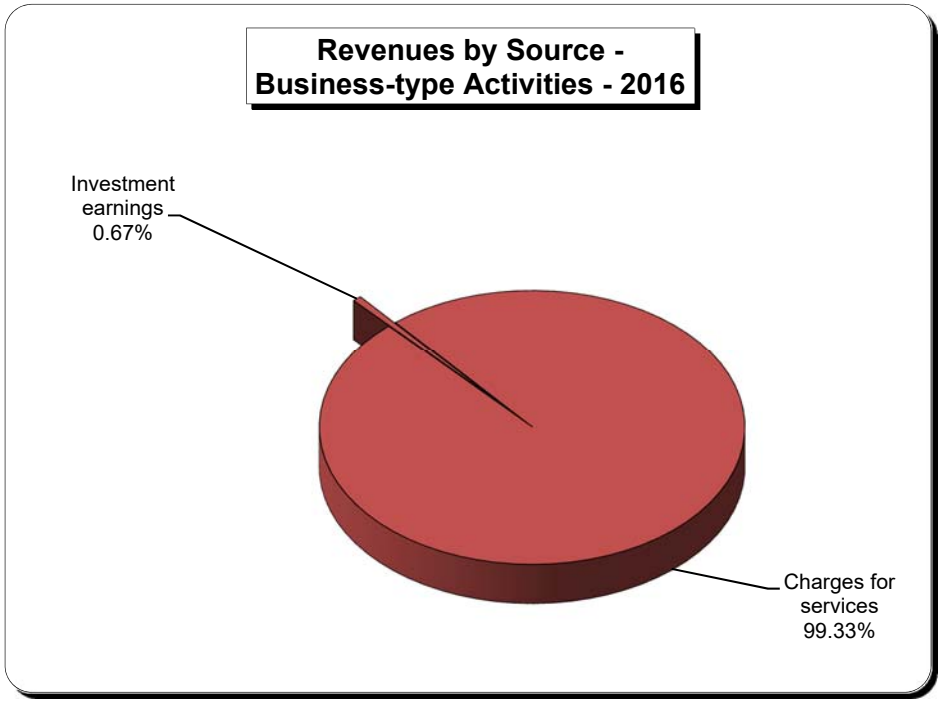




GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

The revenues by source for the solid waste business-type activity for the fiscal years ended June 30, 2017 and 2016 are as follows:





GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

Financial Analysis of the Government's Funds

The City of Citrus Heights uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The fund financial statements focus on individual parts of the City government, reporting the City's operations in more detail than the government-wide financial statements.

Governmental funds. The City's governmental funds provide information on near-term inflows, outflows, and balances of spending resources. At the fiscal year ended June 30, 2017, the City's governmental funds reported combined fund balances of $16,547,932. The City reports two major funds, the General Fund and General Capital Improvements Capital Projects Fund.

The General Fund is the chief operating fund of the City. At the fiscal year ended June 30, 2017, the General Fund's fund balance totaled $5,718,435 of which $4,559,378 was committed for board approved projects. Fund balance in the General Fund decreased by $13,357,576, mainly due to the transfer of nearly $14 million of committed funds to the General Capital Improvements Capital Projects Fund for the purchase of the City Hall and utility yard as described in Note 6.

The General Capital Improvements Capital Projects Fund is used for funds collected and expended for the construction or purchase of public facilities and projects. The fund was used for the purchase of the City Hall and utility yard during the year ended June 30, 2017 as described in Note 6. Expenditures increased to $15,023,152 from $2,284,915 during the year ended June 30, 2016 due to this purchase. The Fund also received a $749,249 reimbursement from Dignity Health for demolition costs of the former City Hall as described in Note 5.

The City's Redevelopment Agency was dissolved on January 31, 2012, in accordance with the provisions of ABx1 26. The City of Citrus Heights elected to become the Housing Successor and Successor Agency. The Redevelopment Agency's remaining assets were distributed to and liabilities were assumed by the Successor Agency. The Housing activities were presented as a separate private purpose trust fund until a finding of completion was issued by the State Department of Finance during the year ended June 30, 2016. Due to the finding of completion, the housing fund was closed and its assets were transferred back to the City. The final non-housing asset was sold during the year ended June 30, 2017. Since the Successor Agency's board is governed by an Oversight Board, consisting of members from outside agencies, it is reported as a separate Private Purpose Trust Fund and is not considered a Component Unit of the City of Citrus Heights. Therefore, it is not included in the governmental activities in the financial statements. For more information on the dissolution of the Redevelopment Agency, and its financial implications to the City of Citrus Heights, please refer to Note 12 of the Financial Statements.

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

Proprietary funds. The City has one business-type activity, which is Solid Waste Operations. The Proprietary fund unrestricted net position decreased $36,628 in the fiscal year ended June 30, 2017.

General Fund Budgetary Highlights

There was no difference between the original budget and the final amended budget for revenues. The difference between the final budget and actual revenues reflects a positive amount of $1,136,198. Licenses and permits came in under budget; all other revenue categories exceeded the budget estimate. The largest favorable variance compared to the budget was in use of money and property due to the $1.0 million initial payment received under the ground lease from Dignity Health.

There was no difference between the original budget and the final amended budget for expenditures. Total expenditures were $891,566 over the budgeted amount. The additional costs were mainly related to completion of the new City Hall complex and higher than anticipated costs for legal services, liability and workers compensation claim payments, and labor-related costs.

Capital Assets

The City's investment in capital assets for its governmental and business-type activities as of June 30, 2017 amounted to $355,681,545. This investment in capital assets includes land, art, construction in progress costs for road and other improvements, buildings and improvements, infrastructure, the City Hall and Utility Yard assets and machinery and equipment.

	Governmental Activities		Business-type Activities		Total	
	2017	2016	2017	2016	2017	2016
Land	$ 14,118,799	$ 10,119,091	$ -	$ -	$ 14,118,799	$ 10,119,091
Art	103,650	103,650	-	-	103,650	103,650
Construction in progress	537,821	4,953,306	-	109,802	537,821	5,063,108
Buildings and improvements	19,807,698	5,510,114	-	-	19,807,698	5,510,114
Infrastructure	318,138,754	322,103,180	389,449	211,321	318,528,203	322,314,501
Assets under capital lease	-	21,387,991	-	-	-	21,387,991
Machinery and equipment	2,585,374	1,406,453	-	-	2,585,374	1,406,453
Total	$ 355,292,096	$ 365,583,785	$ 389,449	$ 321,123	$ 355,681,545	$ 365,904,908

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

The increase in land, building and improvements and equipment was mainly due to the reclassification of the assets associated with the City Hall from assets under capital lease during the year. The City moved into its new City Hall in August of 2016 and exercised its option to purchase the City Hall and Utility Yard during the year, resulting in assets under capital lease being reclassified to land, buildings and improvements and machinery and equipment. The change in construction in progress was mainly due to the completion of several major capital projects including the Sunrise Boulevard Complete Streets Improvement Project (Phase 3) and the Twin Oaks Avenue/Mariposa Avenue Drainage Improvements Project. More detail of the capital assets and current activity can be found in the notes to the financial statements on Pages 35 and 36 for significant accounting policies and Note 4 on Page 45 and 46 for other capital asset information.

Long-term Debt

The City's long-term debt consisted of a capital lease payable at June 30, 2016 in the amount of $13,749,031 for the City Hall and utility yard. The City exercised its option to purchase the assets during the year ended June 30, 2017, which eliminated the related capital lease payable. More detail on the City's long-term debt can be found in Note 6 on page 47.

Economic Outlook

The local economy continues to perform well. The housing market has rebounded with the median price of a home in Sacramento County increasing by 7.9 percent between June 2016 and June 2017. The City of Citrus Heights experienced a net taxable value increase of 6.1 percent for the 2017-18 tax roll, just slightly less than the countywide increase of 6.2 percent.

Employment has continued to increase in the Sacramento Region, although the rate of increase has slowed from the previous year. During the past twelve months, local employment increased by 1.1 percent compared to 3.9 percent during the previous twelve month period. The unemployment rate in Sacramento County was 3.8 percent in November 2017 which compares favorably to the statewide unemployment rate of 5.3 percent.

Consumer spending has also continued its positive trend with a 2 percent increase in sales tax collections by the City during Fiscal Year 2016-17. It is anticipated that the local, state and national economies will continue along a slow, steady growth trajectory in 2018.

The City maintains a multi-year forecasting model to project anticipated revenues and expenditures. The model predicts continued positive operating performance through fiscal year 2022-2023, when the City will begin to receive property tax revenues that are currently being retained by Sacramento County as part of the revenue neutrality settlement.

GOVERNMENT-WIDE FINANCIAL ANALYSIS, Continued

Requests for Information

This Comprehensive Annual Financial Report is intended to provide citizens, taxpayers, investors, and creditors with a general overview of the City's finances. If you have any questions about this report, need additional financial information, or would like to obtain component unit financial statements, contact the City of Citrus Heights Finance Department, 6360 Fountain Square Drive, Citrus Heights, CA 95621, or visit the City's web page at www.citrusheights.net.

CITY OF CITRUS HEIGHTS, CALIFORNIA
STATEMENT OF NET POSITION
June 30, 2017

	Governmental Activities	Business-type Activities	Total
ASSETS			
CURRENT ASSETS			
Cash and investments	$ 11,231,373	$ 287,229	$ 11,518,602
Receivables:			
Accounts	830,251	82,574	912,825
Interest	15,960	253	16,213
Due from other governments	6,191,992	9,183	6,201,175
Prepaid items	7,105	-	7,105
TOTAL CURRENT ASSETS	18,276,681	379,239	18,655,920
NONCURRENT ASSETS			
Interest receivable - lease	62,864	-	62,864
Loans and notes receivable	6,365,881	-	6,365,881
Lease receivable	3,706,221	-	3,706,221
Land held for resale	2,784,600	-	2,784,600
Capital assets:			
Nondepreciable	14,760,270	-	14,760,270
Depreciable, net	340,531,826	389,449	340,921,275
TOTAL NONCURRENT ASSETS	368,211,662	389,449	368,601,111
TOTAL ASSETS	386,488,343	768,688	387,257,031
DEFERRED OUTFLOWS OF RESOURCES			
Pension plans	11,344,874	54,046	11,398,920
LIABILITIES			
CURRENT LIABILITIES			
Accounts payable	1,466,730	117,777	1,584,507
Salaries and benefits payable	558,057	114	558,171
Refundable deposits	93,548	-	93,548
Due to other governments	888,972	9,183	898,155
Retention payable	35,814	-	35,814
Unearned revenue	2,457,796	-	2,457,796
Noncurrent liabilities - current portion	1,837,232	-	1,837,232
TOTAL CURRENT LIABILITIES	7,338,149	127,074	7,465,223
NONCURRENT LIABILITIES			
Noncurrent liabilities	13,005,965	138,608	13,144,573
TOTAL NONCURRENT LIABILITIES	13,005,965	138,608	13,144,573
TOTAL LIABILITIES	20,344,114	265,682	20,609,796
DEFERRED INFLOWS OF RESOURCES			
Pension plans	1,997,193	7,040	2,004,233
NET POSITION			
Net investment in capital assets	355,292,096	389,449	355,681,545
Restricted for:			
Housing projects	9,744,898	-	9,744,898
Stormwater maintenance	1,998,973	-	1,998,973
Streets, roads and park projects	1,898,796	-	1,898,796
Assessment District maintenance	1,363,659	-	1,363,659
Other	929,464	-	929,464
Unrestricted	4,264,024	160,563	4,424,587
TOTAL NET POSITION	$ 375,491,910	$ 550,012	$ 376,041,922

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
STATEMENT OF ACTIVITIES
For the Year Ended June 30, 2017

FUNCTIONS/PROGRAMS	Expenses	Program Revenues: Charges for Services	Program Revenues: Grants and Other Contributions: Operating	Program Revenues: Grants and Other Contributions: Capital	Net (Expense) Revenue and Changes in Net Position: Governmental Activities	Net (Expense) Revenue and Changes in Net Position: Business-type Activities	Totals
PRIMARY GOVERNMENT							
GOVERNMENTAL ACTIVITIES							
General government	$ 5,463,122	$ 1,151,570	$ 251,790	$ -	$ (4,059,762)	$ -	$ (4,059,762)
Public safety	18,378,242	1,759,927	851,689	-	(15,766,626)	-	(15,766,626)
Public ways and facilities	24,188,701	4,500,372	3,503,965	1,914,178	(14,270,186)	-	(14,270,186)
Culture and recreation	669,948	354,517	17,930	-	(297,501)	-	(297,501)
Economic development	402,904	-	-	-	(402,904)	-	(402,904)
Community enhancements	4,710,977	1,597,005	1,462,141	92,218	(1,559,613)	-	(1,559,613)
TOTAL GOVERNMENTAL ACTIVITIES	53,813,894	9,363,391	6,087,515	2,006,396	(36,356,592)	-	(36,356,592)
BUSINESS-TYPE ACTIVITIES							
Solid waste	798,694	761,614	-	-	-	(37,080)	(37,080)
TOTAL BUSINESS-TYPE ACTIVITIES	798,694	761,614	-	-	-	(37,080)	(37,080)
TOTAL PRIMARY GOVERNMENT	$ 54,612,588	$ 10,125,005	$6,087,515	$2,006,396	(36,356,592)	(37,080)	(36,393,672)
General revenues:							
Taxes:							
Property taxes, levied for general purposes					991,552	-	991,552
Sales and use tax					15,412,345	-	15,412,345
Utility users tax					2,881,617	-	2,881,617
Other taxes					1,616,163	-	1,616,163
Intergovernmental:							
State motor vehicle in-lieu tax (MVLF)					7,611,171	-	7,611,171
Investment earnings					1,108,551	452	1,109,003
Total general revenues					29,621,399	452	29,621,851
Change in net position					(6,735,193)	(36,628)	(6,771,821)
Net position, beginning of year					382,227,103	586,640	382,813,743
Net position, end of year					$ 375,491,910	$ 550,012	$ 376,041,922

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
GOVERNMENTAL FUNDS
BALANCE SHEETS
June 30, 2017

	Major Funds			
	General Fund	General Capital Improvements Capital Projects Fund	Total Nonmajor Governmental Funds	Total Governmental Funds
ASSETS				
Cash and investments	$ 2,158,189	$ 109,258	$ 8,963,926	$ 11,231,373
Receivables:				
Accounts	435,326	-	394,925	830,251
Interest	7,150	-	8,810	15,960
Interest - lease	62,864	-	-	62,864
Loans and notes receivable	25,054	-	6,340,827	6,365,881
Direct financing lease receivable	3,706,221	-	-	3,706,221
Due from other funds	1,602,721	-	-	1,602,721
Due from other governments	3,571,775	-	2,620,217	6,191,992
Prepaid items	7,105	-	-	7,105
Land held for resale	-	-	2,784,600	2,784,600
TOTAL ASSETS	$ 11,576,405	$ 109,258	$ 21,113,305	$ 32,798,968
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES				
Accounts payable	$ 416,248	$ 11,845	$ 1,038,637	$ 1,466,730
Salaries and benefits payable	557,228	-	829	558,057
Refundable deposits	93,548	-	-	93,548
Due to other funds	-	-	1,602,721	1,602,721
Due to other governments	304,903	1,422	582,647	888,972
Retention payable	-	-	35,814	35,814
Unearned revenue	432,858	-	319,346	752,204
TOTAL LIABILITIES	1,804,785	13,267	3,579,994	5,398,046
DEFERRED INFLOWS OF RESOURCES				
Unavailable revenue - accounts and grants receivable	284,100	-	458,978	743,078
Unavailable revenue - loans	-	-	6,340,827	6,340,827
Unavailable revenue - direct financing lease	3,706,221	-	-	3,706,221
Unavailable revenue - direct financing lease interest	62,864	-	-	62,864
TOTAL DEFERRED INFLOWS OF RESOURCES	4,053,185	-	6,799,805	10,852,990
FUND BALANCES (DEFICITS)				
Nonspendable:				
Loans and notes receivable	25,054	-	-	25,054
Prepaid items	7,105	-	-	7,105
Restricted	25,394	-	10,067,839	10,093,233
Committed	4,559,378	-	-	4,559,378
Assigned	-	95,991	798,327	894,318
Unassigned (deficit)	1,101,504	-	(132,660)	968,844
TOTAL FUND BALANCES	5,718,435	95,991	10,733,506	16,547,932
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 11,576,405	$ 109,258	$ 21,113,305	$ 32,798,968

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
Reconciliation of the
GOVERNMENTAL FUND -- BALANCE SHEETS
to the
STATEMENT OF NET POSITION
June 30, 2017

Fund balances - total governmental funds		$ 16,547,932
Amounts reported for governmental activities in the statement of net position are different because:		
Capital assets used in governmental activities are not current financial resources and, therefore, are not reported in the governmental funds.		355,292,096
Deferred outflows related to the City's pension plans will reduce the pension liability in the future.		11,344,874
Long-term receivables are not available to pay current period expenditures and, therefore, are not recognized in the governmental funds.		
Deferred inflows of resources recognized	$ 10,852,990	
Unearned revenue - direct financing lease receivable	(1,705,592)	9,147,398
Long-term liabilities are not due and payable in the current period and, therefore, are not reported in the governmental fund balance sheet. Those liabilities consist of:		
Compensated absences	(1,787,676)	
Claims payable	(1,191,000)	
Net OPEB obligation	(452,444)	
Net pension liability	(11,412,077)	(14,843,197)
Deferred inflows of resources related to the City's pension plans will be reflected in the pension liability in the future.		(1,997,193)
NET POSITION OF GOVERNMENTAL ACTIVITIES		$ 375,491,910

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
GOVERNMENTAL FUNDS
STATEMENTS OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
For the Year Ended June 30, 2017

	Major Funds			
	General Fund	General Capital Improvements Capital Projects Fund	Total Nonmajor Governmental Funds	Total Governmental Funds
REVENUES				
Taxes and assessments	$ 16,631,964	$ -	$ -	$ 16,631,964
Licenses and permits	1,180,220	-	450,927	1,631,147
Fines and forfeitures	801,833	-	445,261	1,247,094
Intergovernmental	7,832,577	-	11,170,432	19,003,009
Use of money and property	1,374,705	-	24,004	1,398,709
Charges for services	1,366,196	-	5,231,966	6,598,162
Contributions	137,479	-	17,930	155,409
Other revenues	4,154	739,509	338,979	1,082,642
TOTAL REVENUES	29,329,128	739,509	17,679,499	47,748,136
EXPENDITURES				
Current:				
General government	5,209,849	-	337,829	5,547,678
Public safety	18,447,167	-	1,184,806	19,631,973
Public ways and facilities	-	736,513	11,566,731	12,303,244
Culture and recreation	584,999	-	139,751	724,750
Economic development	405,901	-	-	405,901
Community enhancements	3,451,027	-	1,263,627	4,714,654
Capital outlay	138,660	537,608	3,467,870	4,144,138
Capital lease principal payments	-	13,749,031	-	13,749,031
TOTAL EXPENDITURES	28,237,603	15,023,152	17,960,614	61,221,369
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	1,091,525	(14,283,643)	(281,115)	(13,473,233)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	5,345	410,000	-	415,345
Transfers in	223,592	13,969,748	1,042,993	15,236,333
Transfers out	(14,678,038)	-	(558,295)	(15,236,333)
TOTAL OTHER FINANCING SOURCES (USES)	(14,449,101)	14,379,748	484,698	415,345
NET CHANGE IN FUND BALANCES	(13,357,576)	96,105	203,583	(13,057,888)
Beginning fund balances	19,076,011	(114)	10,529,923	29,605,820
ENDING FUND BALANCES	$ 5,718,435	$ 95,991	$ 10,733,506	$ 16,547,932

The accompanying notes to financial statements are an integral part of this statemen

CITY OF CITRUS HEIGHTS, CALIFORNIA
Reconciliation of the
STATEMENTS OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
OF GOVERNMENTAL FUNDS
to the
STATEMENT OF ACTIVITIES
For the Year Ended June 30, 2017

Net change in fund balances - total governmental funds		$ (13,057,888)
Amounts reported for governmental activities in the statement of activities are different because:		
Some receivables are deferred in the governmental funds because the amounts do not represent current financial resources that are recognized under the accrual basis in the statement of activities. This amount represents the change in deferred inflows of resources related to unavailable revenue and loans receivable.		3,036,786
Governmental funds report capital outlay as expenditures. However, in the statement of net position, the cost of those assets is allocated over their estimated useful lives as depreciation expense. This is the amount of capital assets recorded in the current period.		
Capital outlay	$ 4,144,138	
Depreciation expense	(11,998,393)	(7,854,255)
Governmental funds report proceeds from disposal of capital assets as revenues. However, in the statement of activities only the gain or (loss) on the sale of capital assets is reported. This is the difference between the gain or (loss) and proceeds.		(2,437,434)
Deferred outflows and inflows of resources related to the City's pension plan do not result in the receipt or use of current financial resources and are not reported in the governmental funds.		
Change in deferred outflows of resources - pension plans		2,789,894
Change in deferred inflows of resources - pension plans		1,635,325
Long-term liabilities reported in the statement of activities do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds. Principal payments are reported as expenditures in governmental funds, but are reported as a reduction of the liability in the statement of net position. These amounts represents the change in long-term liabilities not recorded in the fund statements.		
Unearned revenue - direct financing lease receivable	(1,705,592)	
Principal payments on capital leases	13,749,031	
Change in compensated absences liability	(81,284)	
Change in OPEB liability	9,000	
Change in net pension liability	(2,818,776)	9,152,379
CHANGE IN NET POSITION OF GOVERNMENTAL ACTIVITIES		$ (6,735,193)

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
GENERAL FUND
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	GENERAL FUND			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ 16,588,632	$ 16,588,632	$ 16,631,964	$ 43,332
Licenses and permits	1,447,000	1,447,000	1,180,220	(266,780)
Fines and forfeitures	740,000	740,000	801,833	61,833
Intergovernmental	7,536,675	7,536,675	7,832,577	295,902
Use of money and property	538,025	538,025	1,374,705	836,680
Charges for services	1,342,598	1,342,598	1,366,196	23,598
Contributions	-	-	137,479	137,479
Other revenues	-	-	4,154	4,154
TOTAL REVENUES	28,192,930	28,192,930	29,329,128	1,136,198
EXPENDITURES				
Current:				
General government	4,738,845	4,738,845	5,209,849	(471,004)
Public safety	18,714,683	18,714,683	18,447,167	267,516
Culture and recreation	440,978	440,978	584,999	(144,021)
Economic development	466,148	466,148	405,901	60,247
Community enhancements	2,954,383	2,954,383	3,451,027	(496,644)
Capital outlay	31,000	31,000	138,660	(107,660)
TOTAL EXPENDITURES	27,346,037	27,346,037	28,237,603	(891,566)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	846,893	846,893	1,091,525	244,632
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	5,345	5,345
Transfers in	245,000	245,000	223,592	(21,408)
Transfers out	(15,341,043)	(15,341,043)	(14,678,038)	663,005
TOTAL OTHER FINANCING SOURCES (USES)	(15,096,043)	(15,096,043)	(14,449,101)	646,942
NET CHANGE IN FUND BALANCE	$(14,249,150)	$(14,249,150)	(13,357,576)	$ 891,574
Beginning fund balance			19,076,011	
ENDING FUND BALANCE			$ 5,718,435	

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
SOLID WASTE NONMAJOR ENTERPRISE FUND
STATEMENT OF NET POSITION
June 30, 2017

	Totals
ASSETS	
CURRENT ASSETS	
Cash and investments	$ 287,229
Receivables:	
Accounts	82,574
Interest	253
Due from other governments	9,183
TOTAL CURRENT ASSETS	379,239
NONCURRENT ASSETS	
Capital assets:	
Depreciable, net	389,449
TOTAL NONCURRENT ASSETS	389,449
TOTAL ASSETS	768,688
DEFERRED OUTFLOWS OF RESOURCES	
Pensions	54,046
TOTAL DEFERRED OUTFLOWS OF RESOURCES	54,046
LIABILITIES	
CURRENT LIABILITIES	
Accounts payable	117,777
Salaries and benefits payable	114
Due to other governments	9,183
TOTAL CURRENT LIABILITIES	127,074
NONCURRENT LIABILITIES	
Net pension liability	138,608
TOTAL NONCURRENT LIABILITIES	138,608
TOTAL LIABILITIES	265,682
DEFERRED INFLOWS OF RESOURCES	
Pension plans	7,040
NET POSITION	
Net investment in capital assets	389,449
Unrestricted	160,563
TOTAL NET POSITION	$ 550,012

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
SOLID WASTE NONMAJOR ENTERPRISE FUND
STATEMENT OF REVENUES, EXPENSES
AND CHANGES IN FUND NET POSITION
For the Year Ended June 30, 2017

	Totals
OPERATING REVENUES	
Charges for services	$ 761,614
TOTAL OPERATING REVENUES	761,614
OPERATING EXPENSES	
Salaries and benefits	344,419
Professional services	17,008
Materials and supplies	159,662
General and administrative expenses	273,379
Depreciation expense	4,226
TOTAL OPERATING EXPENSES	798,694
OPERATING INCOME	(37,080)
NONOPERATING REVENUES	
Interest revenue	452
TOTAL NONOPERATING REVENUES	452
CHANGE IN NET POSITION	(36,628)
Net position, beginning of year	586,640
NET POSITION, END OF YEAR	$ 550,012

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
SOLID WASTE NONMAJOR ENTERPRISE FUND
STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2017

	Totals
CASH FLOWS FROM OPERATING ACTIVITIES	
Receipts from customers and users	$ 758,604
Payments to suppliers	(513,238)
Payments to employees	(284,983)
NET CASH PROVIDED BY OPERATING ACTIVITIES	(39,617)
CASH FLOWS FROM CAPITAL FINANCIAL ACTIVITIES	
Purchases of capital assets	(72,552)
NET CASH USED BY CAPITAL FINANCING ACTIVITIES	(72,552)
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest income received	900
NET CASH PROVIDED BY INVESTING ACTIVITIES	900
NET DECREASE IN CASH AND CASH EQUIVALENTS	(111,269)
Cash and cash equivalents, beginning of the year	398,498
Cash and cash equivalents, end of the year	$ 287,229
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:	
Operating income	$ (37,080)
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation Expense	4,226
(Increase) decrease in current assets and deferred outflows of resources:	
Accounts receivable	(3,620)
Due from other governments	610
Prepaid items	175
Deferred outflows of resources - pensions	(22,111)
Increase (decrease) in liabilities and deferred inflows of resources:	
Accounts payable and accrued liabilities	(62,923)
Due to other governments	(441)
Salaries and benefits payable	114
Retention payable	
Net pension liability	87,493
Deferred inflows of resources - pensions	(6,060)
NET CASH PROVIDED BY OPERATING ACTIVITIES	$ (39,617)

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
FIDUCIARY FUNDS
STATEMENT OF FIDUCIARY NET POSITION
June 30, 2017

	Successor Agency Private Purpose Trust Fund	Agency Funds
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS		
Cash and investments	$ 8,793	$ 51,739
Interest receivable	9	-
TOTAL ASSETS	8,802	$ 51,739
LIABILITIES AND NET POSITION		
CURRENT LIABILITIES		
Accounts payable	-	$ 32,991
Due to other governments	8,802	18,748
TOTAL CURRENT LIABILITIES	8,802	$ 51,739
TOTAL LIABILITIES	8,802	
NET POSITION		
Net position held in trust for redevelopment dissolution	$ -	

The accompanying notes to financial statements are an integral part of this statement.

CITY OF CITRUS HEIGHTS, CALIFORNIA
FIDUCIARY FUNDS
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
For the Year Ended June 30, 2017

	Successor Agency Private Purpose Trust Funds
ADDITIONS:	
Investment earnings	$ 8,295
TOTAL ADDITIONS	8,295
DEDUCTIONS:	
Public ways and facilities	230,434
Loss on sale of land held for resale	122,421
TOTAL DEDUCTIONS	352,855
CHANGE IN FIDUCIARY NET POSITION	(344,560)
NET POSITION	
Net position, beginning of year	344,560
NET POSITION, END OF YEAR	$ -

The accompanying notes to financial statements are an integral part of this statement.

NOTES TO BASIC FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the City have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the standard-setting body for governmental accounting and financial reporting. The GASB issued a codification of the existing Governmental Accounting and Financial Reporting Standards which, along with subsequent GASB pronouncements (Statements and Interpretations), constitutes GAAP for governmental units. The City applies all GASB pronouncements to its activities. The more significant of these accounting policies are described below.

Financial Reporting Entity

The City of Citrus Heights (City) was incorporated on January 1, 1997, under the laws and regulations of the State of California (State). The City operates under a City Council/Manager form of government and provides the following services: public safety (police), highways and streets, solid waste, stormwater utility, public improvements, planning and zoning, building, animal services, transit, and general administration.

The City operates as a self-governing local government unit within the State. It has limited authority to levy taxes and has the authority to determine user fees for the services that it provides. The City's main funding sources include sales taxes, utility user tax, other intergovernmental revenue from state and federal sources, user fees, and federal and state financial assistance. All secured and unsecured ad valorem property taxes, with the exception of tax increment associated with the former Redevelopment Agency and lighting and landscaping special assessments, are paid to Sacramento County (County) as part of the revenue neutrality payment obligation through June 30, 2022. The financial statements do not reflect the amounts received on behalf of the City and retained by the County.

The financial reporting entity consists of (a) the primary government, the City, (b) organizations for which the primary government is financially accountable, and (c) other organizations for which the primary government is not accountable, but for which the nature and significance of their relationship with the primary government are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. Financial accountability is defined as the appointment of a voting majority of the component unit's board, and either (a) the City has the ability to impose its will on the organization, or (b) there is a potential for the organization to provide a financial benefit to or impose a financial burden on the City.

As required by GAAP, these financial statements would present the government and its component units, entities for which the government is considered to be financially accountable. The City does not have any component units.

Basis of Presentation

Government-Wide Financial Statements

The government-wide statement of net position and statement of activities display information about the nonfiduciary activities of the government as a whole. They include all funds of the reporting entity except for fiduciary funds. The statements distinguish between governmental and business-type activities. Governmental activities generally are financed through taxes, intergovernmental revenues, and other nonexchange revenues, while business-type activities rely to a significant extent on fees and charges to external parties.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

The statement of activities demonstrates the degree to which the direct expenses of a given function or segment is offset by program revenues. Amounts reported as *program revenues* include 1) charges to customers or applicants for goods, services, or privileges provided by a given function or segment, 2) operating grants and contributions, and 3) capital grants and contributions restricted to the operating or capital requirements of a specific function or segment. All taxes and internally dedicated resources classified as program revenues are reported as *general revenues*.

Fund Financial Statements

Fund financial statements of the reporting entity are organized into funds, each of which is considered to be a separate accounting entity. Each fund is accounted for by providing a separate set of self-balancing accounts, which constitute its assets, liabilities, fund equity, revenues, and expenditures/expenses. Funds are organized into three major categories: governmental, proprietary and fiduciary. An emphasis is placed on major funds within the governmental and proprietary categories. A fund is considered major if it is the primary operating fund of the City or meets the following criteria:

a. Total assets, liabilities, revenues or expenditures/expenses of that individual governmental fund are at least ten percent of the corresponding total for all funds of that category or type; and,

b. Total assets, liabilities, revenues, or expenditures/expenses of the individual governmental fund are at least five percent of the corresponding total for all governmental funds combined.

Qualitative factors are also considered in determining major programs as applicable.

The City reports the following major funds:

- **General Fund** – The General Fund is the primary operating fund of the City. It accounts for all activities except those legally or administratively required to be accounted for in another fund. From this fund are paid the City's general operating expenditures, the fixed charges, and the capital costs that are not paid through other funds.

- **General Capital Improvements Capital Projects Fund** – Accounts for funds collected and expended for the construction or purchase of public facilities and projects. The fund was used for the purchase of the City Hall and utility yard as described in Note 6.

Although the Home Program Grants Special Revenue Fund and CDBG Special Revenue Fund report a significant amount of deferred inflows of resources related to outstanding loans that quantitatively may suggest the funds should be reported as major, the loan programs are mature and the funds are not considered to be major funds from a qualitative standpoint. The funds are not reported as major funds unless there are a significant amount of revenues or expenditures during the year.

Additionally, the City reports the following fund types:

Governmental Funds

Special Revenue Funds - The Special Revenue Funds are used to account for specific revenues that are legally or otherwise restricted to expenditures for particular purposes.

Capital Project Funds - The Capital Projects Funds are used to account for financial resources used for the acquisition or construction of major capital facilities other than those financed by proprietary funds.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

Proprietary Funds

Enterprise Funds - Enterprise Funds are used to account for operations that are financed and operated in a manner similar to private business enterprises. Costs are financed or recovered primarily through user charges.

Fiduciary Funds

Private Purpose Trust Funds - Private Purpose Trust Funds are used to account for fiduciary assets not required to be reported in another fiduciary fund type. The City's private purpose trust funds are used to account for the activities of the Successor Agency to the Community Redevelopment Agency of City of Citrus Heights as described in Note 12.

Agency Funds - Agency Funds account for assets held by the City in a purely custodial capacity. Since agency funds are custodial in nature, they do not involve the measurement of results of operations and are not presented in the government-wide financial statements. There are two agency funds reported by the City, including a fund that collects fire development fees on behalf of the Sacramento Metropolitan Fire District and a fund that collects transportation fees on behalf of the State.

Measurement Focus

Measurement focus is a term used to describe which transactions are recorded within the various financial statements.

The government-wide financial statements are presented using the economic resources measurement focus and the accrual basis of accounting, as are the proprietary funds and fiduciary funds, with the exception of agency funds, which have no measurement focus. The accounting objectives of economic resources measurement focus are the determination of net income, financial position, and cash flows. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recorded in the year for which they are levied. Sales taxes are recognized when the underlying sales transaction takes place. Grants and similar items are recognized as revenue as soon as all eligibility requirements have been met. All assets and liabilities (whether current or noncurrent) as well as deferred outflows and inflows of resources, associated with their activities are reported. Fund equity is classified as net position, which serves as an indicator of financial position.

In the governmental fund financial statements, the "current financial resources" measurement focus is used and the modified accrual basis of accounting. Only current financial assets and liabilities along with deferred outflows and inflows of resources are generally included on their balance sheets. Their operating statements present sources and uses of available spendable financial resources during a given period. These funds use fund balance as their measure of available spendable financial resources at the end of the period.

Basis of Accounting

In the government-wide statements, proprietary funds and private purpose trust funds are presented using the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recorded when the liability is incurred or economic asset used. Operating revenues in the fund are those revenues that are generated from the primary operations of the fund,

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

including charges for services. All other revenues are reported as non-operating revenues. Operating expenses are those expenses that are essential to the primary operations of the fund. All other expenses are reported as non-operating expenses. Revenues, expenses, gains, losses, assets, and liabilities resulting from exchange and exchange-like transactions are recognized when the exchange takes place.

Governmental fund financial statements are presented on the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized when "measurable and available." Measurable means knowing or being able to reasonably estimate the amount, and available means the amount is collectible within the current period or soon enough thereafter to pay current liabilities. The City considers all revenues reported in the governmental funds to be available if the revenues are collected within 60 days after year end, with the exception of grant revenues, sales tax and Transportation Development Act (TDA) revenues. Grant revenues are considered to be available if collected within 180 days and sales tax and TDA revenues are considered to be available if collected within 90 days of the end of the current fiscal period.

Property taxes, franchise taxes, licenses, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal year. All other revenue items are considered to be measurable and available only when cash is received by the government. Expenditures (including capital outlay) are recorded when the related fund liability is incurred.

Assets, Liabilities and Equity

Cash and Investments

The City's cash and cash equivalents include cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition, including the City's investments in LAIF, and certificates of deposit.

The City pools cash and investments from all funds for the purpose of increasing income through investment activities. Highly liquid money market investments with maturities of one year or less at time of purchase are stated at amortized cost. All other investments are stated at fair value in accordance with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*. Market value is used as fair value for those securities for which market quotations are readily available.

Receivables

In the government-wide statements, receivables consist of all revenues earned at year-end and not yet received. Major receivable balances for the governmental activities include property taxes, sales and use taxes, utility user taxes, intergovernmental subventions, interest earnings, and expense reimbursements.

In the fund financial statements, material receivables in governmental funds include revenue accruals such as property tax, sales tax, utility user tax, and intergovernmental subventions since they are usually both measurable and available. Non-exchange transactions collectible but not available, such as property tax, are deferred in the fund financial statements in accordance with the modified accrual basis, but not deferred in the government-wide financial statements in accordance with the accrual basis.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

Interest and investment earnings are recorded when earned only if paid within 60 days since they would be considered both measurable and available. The loans receivable are recorded in the fund statements, but are reported as deferred inflows of resources to indicate they do not represent current financial resources. The loans are recognized when advanced in the government-wide statements. The City's experience is that all accounts receivable are collectible; therefore an allowance for doubtful accounts is unnecessary.

Interfund Receivables and Payables

During the course of operations, numerous transactions occur between individual funds that may result in amounts owed between funds. Those related to goods and services type transactions are classified as "due to and from other funds." Long-term interfund loans (noncurrent portion) are reported as "advances from and to other funds." Interfund receivables and payables between funds within governmental activities are eliminated in the government-wide Statement of Net Position. See Note 8 for details of interfund transactions, including receivables and payables at year-end.

Prepaid Items

Certain payments to vendors reflect costs applicable to future accounting periods and are recorded as prepaid items in both government-wide and fund financial statements. In the governmental fund financial statements, prepaid items are reported as nonspendable fund balance to indicate they do not constitute current resources available for appropriation. The consumption method is used to recognize prepaid items.

Capital Assets

The City's assets are capitalized at historical cost or estimated historical cost, if actual cost is unavailable. Donated capital assets are recorded at the acquisition value, which is the price that would be paid to acquire an asset with equivalent service potential in an orderly market transaction at the acquisition date. The City policy has set the capitalization threshold at $5,000 for non-infrastructure capital assets and $25,000 for infrastructure capital assets.

Public domain (infrastructure) capital assets include roads, bridges, curbs and gutters, streets, sidewalks, drainage systems, and lighting systems. Prior to July 1, 2003, governmental activity infrastructure assets were not capitalized; however, since then these assets have been valued at estimated historical cost.

The accounting treatment of capital assets depends on whether the assets are used in governmental fund operations or proprietary fund operations and whether they are reported in the government-wide or fund financial statements. Purchases of capital assets are reported as capital outlay expenditures in governmental funds and proceeds from sales of capital assets are reported as other financing sources. In the government-wide and proprietary fund statements, the cost of assets sold or retired, net of accumulated depreciation, is removed from the statement of net position in the year of sale or retirement and the resulting gain or loss on disposal is reported.

Depreciation of all exhaustible capital assets is recorded as an allocated expense in the Statement of Activities, with accumulated depreciation reflected in the Statement of Net Position. Depreciation is provided over the assets' estimated useful lives using the straight-line method of depreciation. No depreciation is recorded in the year of acquisition or in the year of disposition.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

The range of estimated useful lives by type of asset is as follows:

Building and improvements	5-50 years
Leasehold improvements	5 years
Machinery and equipment	5 years
Network equipment/phone system	10 years
Computer equipment	5 years
Vehicles	5-15 years

Change in Estimate

The City updated its capital assets policy to change the depreciable lives of certain machinery, equipment and vehicles to more closely match the number of years the assets are used before they are replaced. Assets where the useful lives were revised include city and police administration cars, motorcycles, pickups/vans, trailers/chippers, computer equipment and network equipment. The change in depreciable lives is reported as a change in estimate under GASB Statement No. 62. The effect of this change in estimate was a decrease in governmental activities accumulated depreciation and depreciation expense of $909,669 during the year ended June 30, 2017.

Deferred Outflows and Inflows of Resources

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred outflows and deferred inflows of resources. *Deferred outflows of resources* represent a consumption of net position by the government that is applicable to a future reporting period. *Deferred inflows of resources* represent an acquisition of net position that is applicable to a future reporting period. These amounts will not be recognized as an outflow of resources (expenditure/expense) or an inflow of resources (revenue) until the earnings process is complete. The governmental funds report unavailable revenues for grants and other revenues when the amounts meet the asset recognition criteria under GASB 33 and were accrued as receivables, but the amounts were not received in the availability period. Deferred outflows and inflows of resources include amounts deferred related to the City's pension plans under GASB 68 as described in Note 10. As indicated above, loans receivable are also reported as deferred inflows of resources to indicate they do not represent current financial resources.

Compensated Absences

Employees accrue annual leave, long-term medical, holiday and compensatory time off benefits. City employees have vested interests in the amount of accrued time off, with the exception of long-term medical leave, and are paid at termination. Also, annually an employee may elect to be compensated for up to 40 hours of unused annual leave. However, this is contingent upon the employee using at least 40 hours of annual leave during the previous year and, the employee having a minimum balance of 80 annual leave hours after the payment. Compensated absences are accrued when incurred in the government-wide and proprietary financial statements. A liability for these amounts is reported in the governmental funds only if they have matured, for example, as a result of employee resignations or retirements and is currently payable. The City had no employee resignations or retirements for which compensated absences should be accrued in governmental funds at year-end. The General Fund is typically used to liquidate compensated absences.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

Equity Classification

Government-Wide Statements

Equity in government-wide and proprietary fund statements is classified as net position and is displayed in three components:

a. *Net investment capital assets* – consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. The net investment in capital assets for the City represents the balance of capital assets, net of depreciation since the City has no long-term liabilities outstanding.

b. *Restricted net position* – consists of net position with constraints placed on the use by external groups such as creditors, grantors, contributors, or by laws or regulations of other governments or law through constitutional provisions or enabling legislation.

c. *Unrestricted net position* – all other net position that do not meet the definition of "restricted" or "net investment in capital assets."

Fund Financial Statements

Governmental fund equity is classified as fund balance and displayed in the following components:

Nonspendable Fund Balance –

- Assets that will never convert to cash (prepaid items and inventory) and assets that will not convert to cash soon enough to affect the current period (long-term notes or loans receivable not deferred in the fund statements).

Restricted Fund Balance –

- Resources that are subject to externally enforceable legal restrictions imposed by parties altogether outside the government (creditors, grantors, contributors and other governments).
- Resources that are subject to limitations imposed by law through constitutional provisions or enabling legislation (e.g., Gas Tax).

Committed Fund Balance –

- Self-imposed limitations set in place prior to the end of the period (encumbrances, economic contingencies and uncertainties).
- Limitation at the highest level of decision-making (Council) that requires formal action at the same level to remove. Council Resolution is required to be taken to establish, modify or rescind a fund balance commitment.

Assigned Fund Balance –

- Resources constrained by the government's intent to be used for specific purposes, but are neither restricted nor committed.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

- Governmental fund amounts in excess of nonspendable, restricted and committed in other than the General Fund are automatically reported as assigned.
- Assigned amounts for specific purposes are determined and authorized by the City Manager according to the City's fund balance policy. Use of assigned funds exceeding the City Manager's $50,000 spending authority are approved as part of the budget or by Council Resolution.

Unassigned Fund Balance –

- Residual net resources.
- Total fund balance in the General Fund in excess of nonspendable, restricted, committed and assigned fund balance (surplus).
- Excess of nonspendable, restricted and committed fund balance over total fund balance (deficit).

See Note 7 for more information about the City's net position and fund balances.

Revenues, Expenditures, and Expenses

Program revenues

Amounts reported as *program revenues* include 1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function or segment and 2) grants and contributions (including special assessments) that are restricted to meeting the operational or capital requirements of a particular function or segment. All taxes, including those dedicated for specific purposes, and other internally dedicated resources are reported as general revenues rather than as program revenues.

Property Tax

The County of Sacramento (County) is responsible for the collection and allocation of property taxes. Under California law, property taxes are assessed and collected by the County up to 1% of the full cash value of taxable property, plus other increases approved by the voters and distributed in accordance with statutory formulas. The City recognizes property taxes when the individual installments are due, provided they are collected within 60 days after year-end.

Secured property taxes are levied on or before the first day of September of each year. They become a lien on real property on March 1 preceding the fiscal year for which taxes are levied. These taxes are paid in two equal installments; the first is due November 1 and delinquent with penalties after December 10; the second is due February 1 and delinquent with penalties after April 10. Secured property taxes, which are delinquent and unpaid as of June 30, are declared to be tax defaulted and are subject to redemption penalties, cost, and interest when paid. If the delinquent taxes are not paid at the end of five years, the property is sold at public auction and the proceeds are used to pay the delinquent amounts due. Any excess is remitted, if claimed, to the taxpayer. Additional tax liens are created when there is a change in ownership of property or upon completion of new construction. Tax bills for these new tax liens are issued throughout the fiscal year and contain various payments and delinquent dates, but are generally due within one year. If the new tax liens are lower, the taxpayer receives a tax refund rather than a tax bill. Unsecured personal property taxes are not a lien against real property. These taxes are due on March 1, and become delinquent if unpaid on August 31.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

The City participates in an alternative method of distribution of property tax levies and assessments known as the "Teeter Plan." The State Revenue and Taxation Code allow counties to distribute secured real property, assessment, and supplemental property taxes on an accrual basis resulting in full payment to cities each fiscal year. Any subsequent delinquent payments and penalties and interest during a fiscal year will revert to Sacramento County. The Teeter Plan payment, which includes 95% of the outstanding accumulated delinquency, is included in property tax revenue retained by Sacramento County under the revenue neutrality agreement. Under the Teeter Plan Code, 5% of the delinquency must remain with the County as a reserve for Teeter Plan funding.

Interfund Transfers

Resources are reallocated between funds by reporting them as interfund transfers. For the purposes of the Statement of Activities, all interfund transfers within individual governmental funds have been eliminated. See Note 8 for more information about the City's interfund transfers.

Pensions

For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the City's California Public Employees' Retirement System (CalPERS) plans (Plans) and additions to/deductions from the Plans' fiduciary net position have been determined on the same basis as they are reported by CalPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Budgetary Accounting

The City Council establishes budgets for the General Fund and all Special Revenue Funds, except for certain Special Revenue Funds for which expenditures are controlled by grant funding or by assessments received. The City budgeted only the following capital projects funds: the General Capital Improvements Fund, Community Capital Replacement Fund and Safe Routes to Schools Capital Projects Fund. Budgetary control is legally maintained at the fund level for these funds. Department heads submit budget requests to the City Manager. The City Manager prepares an estimate of revenues and prepares recommendations for the next year's budget. The preliminary budget may or may not be amended by the City Council and is adopted by resolution by the City Council on or before June 30 in accordance with the municipal code.

The City Council may amend the budget by motion during the fiscal year. Only the Council can authorize transfers between funds and approve inter-fund loans. The City Manager is authorized to transfer budgeted amounts within a fund without formal council action or approval.

Expenditures may not legally exceed appropriations at the fund level, which is the legal level of control. Supplemental appropriations, which increase appropriations, may be made during the fiscal year. There were no material supplemental appropriations made for the fiscal year ended June 30, 2017. Budget information is presented for the General and budgeted Special Revenue Funds in the fund financial statements. The budget information is presented on a basis consistent with generally accepted accounting principles. Appropriations, except open project appropriations and unexpended grant appropriations, lapse at the end of each fiscal year.

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, Continued

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses. Actual results could differ from those estimates.

2. CASH AND INVESTMENTS

At June 30, 2017, the City's pooled cash and investments are classified in the accompanying financial statements as follows:

Government-wide Statements of Net Position	
Governmental Activities	$ 11,231,373
Business-type Activities	287,229
Statement of Fiduciary Net Position - Fiduciary Funds	60,532
Total cash and investments	$ 11,579,134

Cash and investments are categorized as follows under GASB Statement No. 40:

Cash on hand	$ 4,600
Deposits with financial institutions	60,051
Total cash and deposits	64,651
Local Agency Investment Funds (LAIF)	8,682,102
U.S. Agency Obligations	2,832,381
Total investments	11,514,483
Total cash and investments	$ 11,579,134

Investments Authorized by the California Government Code and the City's Investment Policy

Investments are reported at fair value. California statutes authorize cities to invest idle or surplus funds in a variety of credit instruments as provided for in the California Government Code, Section 53600, Chapter 4 – Financial Affairs. The table below identifies the investment types that are authorized for the City by the California Government Code that address interest rate risk, credit risk, and concentration of credit risk.

2. CASH AND INVESTMENTS, Continued

During the year ended June 30, 2017, the City's permissible investments included the following instruments:

Authorized Investment Type	Maximum Maturity	Minimum Credit Quality	Maximum Percentage Of Portfolio	Maximum Investment In One Issuer
U.S. Treasury obligations	5 years	N/A	None	None
U.S. Agency securities	5 years	N/A	None	None
Local agency bonds	5 years	N/A	None	None
Bankers acceptances	180 days	N/A	40%	10%
High grade commercial paper	270 days	AAA	25%	10%
Negotiable certificates of deposit	5 years	A	15%	3%
Medium-term corporate notes	5 years	A	30%	10%
Mutual funds	90 days	AAA	20%	10%
Money market mutual funds	90 days	AAA	20%	10%
Repurchase agreements	1 year	A	20%	None
Reverse repurchase agreements	92 days	A	20% of base value	None
LAIF	N/A	N/A	$50,000,000	None

The City complied with the provisions of California Government Code pertaining to the types of investments held, institutions in which deposits were made and security requirements. The City will continue to monitor compliance with applicable statutes pertaining to public deposits and investments.

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer maturity of an investment, the greater the sensitivity of its fair value is to changes in market interest rates. In accordance with its investment policy, the City manages its exposures to declines in fair values by limiting the weighted average maturity of its investment portfolio to less than 5 years. As of June 30, 2017, the weighted average maturity of investments was 3.16 years.

Information about the sensitivity of the fair values of the City's investments to market rate interest rate fluctuations is provided by the following table that shows the distribution of the City's investments by maturity:

	Maturities as of Year-end		
Type of Investment	Total	12 Months or Less	25-60 Months
Local Agency Investment Fund	$ 8,682,102	$ 8,682,102	$ -
U.S. Agency Obligations	2,832,381	-	2,832,381
Total	$ 11,514,483	$ 8,682,102	$ 2,832,381

2. CASH AND INVESTMENTS, Continued

Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the minimum rating required by (where applicable) the California Government Code, the City's investment policy, and the actual rating as of year-end for each investment type.

	Ratings as of Year-end		
Type of Investment	Total	AA+	Unrated
Local Agency Investment Fund	$ 8,682,102	$ -	$ 8,682,102
U.S. Agency Obligations	2,832,381	2,832,381	
Total	$ 11,514,483	$ 2,832,381	$ 8,682,102

Concentration of Credit Risk

The investment policy of the City contains no limitation on the amount that can be invested in any one issuer beyond that stipulated by the California Government Code. Investments in any one issuer, other than U.S. Treasury securities, mutual funds, and external investment pools that represent 5% or more of total District-wide investments are as follows:

Issuer	Investment Type	Amount
Federal Home Loan Mortgage Corporation	U.S. Agencies	$ 1,837,953
Federal National Mortgage Association	U.S. Agencies	994,428

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. The California Government Code and the City's investment policy do not contain legal or policy requirements that would limit the exposure to custodial credit risk for deposits, other than the following provision for deposits. The California Government Code requires that a financial institution secure deposits made by state or local government units by pledging securities in an undivided collateral pool held by depository regulated under state law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure public agency deposits by pledging first trust deed mortgage notes having a value of 150% of the secured public deposits.

2. CASH AND INVESTMENTS, Continued

At June 30, 2017, the carrying amount of the City's deposits was $60,051 and the balance in financial institutions was $439,058. Of the balance in financial institutions, $250,000 was covered by federal depository insurance and $189,058 was collateralized as required by State law (Government Code Section 53630), by the pledging financial institution with assets held in a common pool for the City and governmental agencies, but not in the name of the City. As of June 30, 2017, all of the City's U.S. Agency obligations totaling $2,832,381 were held by the same broker-dealer (counterparty) that was used by the City to buy the securities.

Investment in LAIF

LAIF is stated at fair value. LAIF is regulated by California Government Code Section 16429 under the oversight of the Treasurer of the State of California. The total fair value amount invested by all public agencies in LAIF is $77,539,216,146 and is managed by the State Treasurer. Of that amount, 2.9 percent is invested in structured notes and asset-backed securities. The Local Investment Advisory Board (Board) has oversight responsibility for LAIF. The Board consists of five members as designated by State Statute. The fair value of the City's investment in this pool is reported in the accompanying financial statements at amounts based upon the City's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF, which are recorded on an amortized cost basis. The weighted average maturity of investments held by LAIF was 194 days at June 30, 2017.

Fair Value Measurement

The City categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The Fund has the following recurring fair value measurements as of June 30, 2017:

		Fair Value Measurements Using		
	Amount	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by fair value level:				
U.S. Agency Obligations	$ 2,832,381	$ -	$ 2,832,381	$ -
Total investments by fair value level	2,832,381	$ -	$ 2,832,381	$ -
Investments measured at net asset value or not categorized:				
LAIF	8,682,102			
Total	$ 11,514,483			

2. CASH AND INVESTMENTS, Continued

All securities classified in Level 2 are valued using pricing models based on market data, such as matrix or model pricing from outside pricing services, such as Interactive Data Corporation. These valuation techniques include third party benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two sided markets, benchmark securities, bids, offers and reference data including market research publications.

3. LOANS AND NOTES RECEIVABLE

Through the City's various housing rehabilitation funds and first-time home buyer's funds, the City has loaned funds to qualifying individuals and businesses. Interest rates vary depending on the terms of the loan. Accrued interest receivable on the loans totaled $932,752 at year-end. The City also has loans receivable from employees for computer purchases in the General Fund.

Governmental activities loans and notes receivable consisted of the following for the year ended June 30, 2017:

	Beginning July 1, 2016	Additions	Deletions	Ending June 30, 2017
General Fund	$ 27,129	$ 26,332	$ (28,407)	$ 25,054
Non-Major Special Revenue Funds	6,254,612	423,293	(337,078)	6,340,827
Total loans/notes receivable	$ 6,281,741	$ 449,625	$ (365,485)	$ 6,365,881

The following is a summary of the loans and notes receivable outstanding as of June 30, 2017:

General Fund – These loans are for employees to purchase computers for personal use as a benefit provided by the City, loans are provided on a two-year amortization schedule and do not bear interest. The balance of these loans at June 30, 2017, was $25,054.

Home Program Grants Special Revenue Fund – The City made various loans to qualifying participants within the City that are reported in this fund under the following programs:

Federal First Time Home Buyers Program (HOME) - Interest rates vary depending on the terms of the loan and interest is deferred until the loan is refinanced or title to the property changes. The loan principal may be assumed by another qualifying borrower or must be returned to the City if a nonqualifying buyer purchases the related property. Interest rates range from 0% to 3% at year-end and the loans mature through 2043. The HOME notes receivable balance at June 30, 2017 was $4,482,795.

HUD Economic Development Initiative Grants - Interest rates vary depending on the terms of the loan and interest is deferred until the loan is refinanced or title to the property changes. The interest rates were 3% at year-end. The down payment assistance notes receivable at June 30, 2017 were $26,417.

Total Home Program Grant Special Revenue Fund loans totaled $4,509,212.

3. LOANS AND NOTES RECEIVABLE, Continued

Community Development Block Grant (CDBG) Special Revenue Fund – The City participates in a CDBG Revolving loan program. The program is federally funded and provides housing rehabilitation loans to eligible applicants. The City makes loans to resident homeowners who qualify as low income, some of which are deferred and are not repaid until the title to the property changes. Interest rates range from 0% to 3% at year-end and mature through 2044. The balance of these loans at June 30, 2017 was $1,524,318.

Housing Agency Special Revenue Fund – The City took over maintenance of loans receivable during the year ended June 30, 2016 for Low and Moderate-income Housing that were previously reported in the Successor Agency Housing Fund. The City provides home rehabilitation loans to eligible low and moderate-income borrowers. Interest on certain loans may be waived by the City if the loan remains outstanding for the full term; therefore, interest income is recorded when received. Interest rates range from 0% to 3% and loans mature through 2039. The balance of these loans outstanding at June 30, 2017 was $307,297.

4. CAPITAL ASSETS

Capital asset activity was as follows for the year ended June 30, 2017:

	Balance June 30, 2016	Additions	Deletions	Transfers/ Adjustments	Balance June 30, 2017
Governmental Activities:					
Capital assets,not being depreciated:					
Land	$ 10,119,091	$ -	$ (2,403,612)	$ 6,403,320	$ 14,118,799
Art	103,650	-	-	-	103,650
Construction in Progress	4,953,306	3,140,276	-	(7,555,761)	537,821
Total capital assets, not being depreciated	15,176,047	3,140,276	(2,403,612)	(1,152,441)	14,760,270
Capital assets being depreciated:					
Buildings and improvements	26,733,154	30,392	(636,134)	15,151,047	41,278,459
Infrastructure	563,802,443	-	-	7,362,529	571,164,972
Assets under capital lease	21,387,991	-	(26,856)	(21,361,135)	-
Machinery and equipment	8,419,762	973,470	(148,559)	-	9,244,673
Total capital assets, being depreciated	620,343,350	1,003,862	(811,549)	1,152,441	621,688,104
Less accumulated depreciation for:					
Buildings and improvements	(21,223,040)	(883,855)	636,134	-	(21,470,761)
Infrastructure	(241,699,263)	(11,326,955)	-	-	(253,026,218)
Machinery and equipment	(7,013,309)	212,417	141,593	-	(6,659,299)
Total accumulated depreciation	(269,935,612)	(11,998,393)	777,727	-	(281,156,278)
Total capital assets being depreciated, net	350,407,738	(10,994,531)	(33,822)	1,152,441	340,531,826
Total capital assets, net	$ 365,583,785	$ (7,854,255)	$ (2,437,434)	$ -	$ 355,292,096

The assets under capital lease in the table above represent the City Hall and Utility yard purchased by the City as described in Note 6 below. The cost of the assets is listed in the table above. The accumulated depreciation was immaterial prior to taking ownership of the assets. The assets were reclassified to land, building, and machinery and equipment as a result of taking ownership.

4. CAPITAL ASSETS, Continued

	Balance at July 1, 2016	Additions	Transfers & Adjustments	Balance at June 30, 2017
Business-type Activities:				
Capital assets, not being depreciated:				
Construction in progress	$ 109,802	$ 72,552	$ (182,354)	$ -
Total capital assets, not being depreciated	109,802	72,552	(182,354)	-
Capital assets, being depreciated:				
Infrastructure	211,321	-	182,354	393,675
Total capital assets being depreciated	211,321	-	182,354	393,675
Less accumulated depreciation for:				
Infrastructure	-	(4,226)	-	(4,226)
Total accumulated depreciation	-	(4,226)	-	(4,226)
Total capital assets, net	$ 321,123	$ 68,326	$ -	$ 389,449

Depreciation expense for capital assets was charged to functions as follows:

General government	$ 136,014
Public safety	839,000
Public ways and facilities	11,021,118
Culture and recreation	2,261
Total	$ 11,998,393

5. DIRECT FINANCING LEASE RECEIVABLE

In February 2017, the City entered into a ground lease receivable agreement with Dignity Health Medical Foundation (Dignity Health) to lease the former City Hall site at Fountain Square Drive and Greenback Lane. The property will be used for medical office building for outpatient services and other medical uses. Under the terms of the agreement, Dignity Health will own all improvements made to the property and will be responsible for all taxes, insurance and other property related expenses. Dignity Health reimbursed the City $749,249 incurred by the City to demolish the old City Hall building and prepare the site for use by Dignity Health. Dignity Health provided an initial payment of $1,000,000 in February 2017 and will pay monthly lease payments ranging from $10,828 to $57,554 over a 15-year period beginning six months after the core and shell of the medical office building are completed. The core and shell of the building are expected to be completed in March 2018, resulting in payments expected to begin in September 2018. The agreement contains a provision for the City to sell the property to Dignity Health for $1 at the end of the lease term. Interest was imputed at 4.5%, which was the estimated market rate for similar instruments at the date the lease was executed. Principal payments on the lease at inception were $4,706,221. Because the payments are not sufficient to pay the imputed interest at 4.5% through February 28, 2021, unpaid interest of $315,025 will be added to principal balance of the lease through February 28, 2021 for interest computation purposes. Unpaid interest during the year ended June 30, 2017 was $62,864.

The lease and related interest receivable is offset with deferred inflows in the General Fund since the amounts were not received in the availability period. The difference between the leased property and principal amount of the lease of $1,705,592 is reported as unearned revenue in the government-wide statements under GASB Statement No. 62.

6. LONG-TERM LIABILITIES

The following is a summary of changes in long-term liabilities for the year ended June 30, 2017:

	Balance July 1, 2016	Additions	Retirements	Balance June 30, 2017	Due Within One Year
Governmental Activities:					
Compensated absences	$ 1,706,392	$ 1,422,218	$ (1,340,934)	$ 1,787,676	$ 1,418,685
Claims payable	1,191,000	595,753	(595,753)	1,191,000	418,547
Capital leases:					
City Hall	12,297,078	-	(12,297,078)	-	-
Utility yard	1,451,953	-	(1,451,953)	-	-
OPEB Liability	461,444	-	(9,000)	452,444	-
Net pension liability	8,593,301	2,818,776	-	11,412,077	-
	$ 25,701,168	$ 4,836,747	$ (15,694,718)	$ 14,843,197	$ 1,837,232
Business-type Activities:					
Net pension liability	$ 51,115	$ 87,493	$ -	$ 138,608	$ -
	$ 51,115	$ 87,493	$ -	$ 138,608	$ -

See Note 1 for a discussion of compensated absences, Note 9 for more information about the claims liability, Note 10 for information about the net pension liability and Note 11 for information about the OPEB liability.

Capital Leases

On April 22, 2015, the City entered into a capital lease payable agreement for a new City Hall building and utility yard. The City made an initial payment of $7,638,960 on June 11, 2015 and was scheduled to begin monthly lease payments when the building and utility yard were occupied, which occurred in August 2016. However, in September 2016, the City passed Resolution 2016-077 to exercise its option to purchase the City Hall Building and utility yard for $12,297,078 and $1,451,953, respectively, which terminated the capital lease agreement before any monthly payments were made. On September 20, 2016, the City made a $10 million initial deposit toward the purchase price and the remaining $3,749,031 was paid in January 2017, at which time the title to the City Hall and utility yard passed to the City. Due to the purchase, the capital lease liability was extinguished.

7. FUND BALANCES

Nonspendable, restricted and committed fund balance consisted of the following at June 30, 2017:

	Major Funds			
Fund Balance Classifications	General Fund	General Capital Improvements Capital Projects Fund	Total Nonmajor Governmental Funds	Total
Nonspendable:				
Loans and notes receivable	$ 25,054	$ -	$ -	$ 25,054
Prepaid items	7,105	-	-	7,105
Total Nonspendable Fund Balances	32,159	-	-	32,159
Restricted for:				
Donations for projects	25,394	-	-	25,394
Stormwater maintenance	-	-	2,123,059	2,123,059
Streets, roads and park projects	-	-	1,936,046	1,936,046
Assessment district maintenance	-	-	1,363,659	1,363,659
Police activities	-	-	484,004	484,004
Housing projects	-	-	3,436,550	3,436,550
Pedestrian and bicycle facilities	-	-	169,246	169,246
Tree preservation	-	-	215,893	215,893
Buisness marketing	-	-	4,086	4,086
Transit program	-	-	335,218	335,218
Other grant programs	-	-	78	78
Total Restricted Fund Balances	25,394	-	10,067,839	10,093,233
Committed to:				
Insurance	375,000	-	-	375,000
Postemployment healthcare benefits	274,980	-	-	274,980
Revenue stabilization	3,909,398	-	-	3,909,398
Total Committed Fund Balances	4,559,378	-	-	4,559,378
Assigned to:				
Capital improvements and equipment replacement	-	95,991	798,327	894,318
	-	95,991	798,327	894,318
Unassigned in:				
General Fund	1,101,504	-	-	1,101,504
Special Revenue Funds	-	-	(130,990)	(130,990)
Capital Project Funds	-	-	(1,670)	(1,670)
Total Unassigned Fund Balances	1,101,504	-	(132,660)	968,844
Total fund balances (deficit)	$ 5,718,435	$ 95,991	$ 10,733,506	$ 16,547,932

Nonspendable

- **Advances to other funds** – used to indicate that the long-term advances do not represent available, spendable resources even though they are components of assets.

- **Loans and notes receivable** – used to segregate that portion of fund balance to indicate that long-term loans or notes receivable do not represent available, spendable resources, even though they are components of assets. Only loans and notes not deferred are reported in this category.

7. FUND BALANCES, Continued

- **Prepaid items** - used to indicate that prepaid amounts do not represent available, spendable resources, even though they are components of assets.

Restricted

- **Stormwater Utility Tax** – represents parcel tax revenue restricted for stormwater drainage activities.
- **Road Maintenance –** represents amounts restricted for streets and road maintenance by the Department of Transportation.
- **Transit -** represents amounts restricted for use by the Transportation Development Act for transit services.
- **Transportation Development Act –** represents amounts restricted for use by the Transportation Development Act for transportation, including pedestrian and bicycle.
- **Police** – represents police revenues restricted to fund programs to combat drug abuse and divert gang activity.
- **SLES –** represents state funds for use as a match for COPS Universal Hiring Grants.
- **Housing In-lieu Fees** – represents housing in-lieu fees restricted by ordinance to housing in-lieu programs.
- **HOME Program Grants** – represents amounts restricted for housing under the HOME program.
- **CDBG Grants** – represents amounts restricted for housing purposes by the Department of Housing and Urban Development.
- **Property Based Improvement District and Assessment District Funds** – represents special assessments on Sunrise MarketPlace businesses for marketing expenditures and special assessments on homeowners for lighting and landscaping and other expenses.
- **Housing Agency** – represents assets of the former redevelopment agency that are restricted for low and moderate-income housing.
- **Development Fee Funds** – represents development fees restricted to expenditures for development of infrastructure and low-income housing by ordinance.
- **Other Grants Funds** – represents grant funds restricted for the purpose of the fund.
- **Assessment District Funds** – represents special assessments restricted to assessment district activities**.**
- **Measure A Construction** – represents funds received from the Sacramento Transportation Authority restricted for construction, upgrade and improvement of the City's roadways.

7. FUND BALANCES, Continued

Committed

General Fund Reserve – used to represent that portion of fund balance committed for unexpected events that may impact the City's ability to provide essential day-to-day services. The attached table lists specific amounts committed by the City Council. The revenue stabilization commitment amount may only be used if there is a revenue shortfall of 10% of budgeted revenues. This amount can only be changed by Council Resolution.

Assigned

The fund balances of the Code Enforcement Fund, General Capital Improvements Fund and Community Capital Replacement Fund are assigned to various equipment and public improvement projects.

The City's policy is to use restricted, committed, assigned and unassigned resources, in that order, when an expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available. There were no deficit net position balances at June 30, 2017. Deficit fund balances consisted of the following:

Nonmajor Special Revenue Funds:

Community Events – $6,180 deficit resulted from project expenses exceeding contributions and transfers in from other funds. The deficit will be eliminated with future contributions and transfers in.

Code Enforcement - $4,987 deficit resulted from revenues received being below the amount budgeted. Deficit will be eliminated by future expenditure reductions or transfers in.

Gas Tax - $7,909 deficit resulted from unavailable revenues. The deficit will be eliminated when the amount due from the State is collected.

Police Grants - $40,671 deficit resulted from revenues received being less than the amount budgeted. The deficit will be eliminated with future reductions of expenditures.

Recycling Grants - $2,279 deficit resulted from expenditures being more than the amount budgeted. The deficit will be eliminated with the recognition of unearned revenue.

Bicycle Transportation Agreement (BTA) - $10,668 deficit resulted from unavailable revenues. The deficit will be eliminated when the revenue is received from the grantor.

Assessment District Funds Zone 3, Zone 4 and Lighting Assessment District - $1,312, $3,651 and $53,333 deficits, respectively, were the result of expenditures and transfers out exceeding the budget. The deficits will be eliminated with future expenditure reductions.

Nonmajor Capital Projects Funds:

Streets - $1,670 deficit was caused by expenditures exceeding grant revenues in the prior year. The deficit will be eliminated when the grantor releases retention it withheld from claims submitted that represents contingent revenue.

7. FUND BALANCES, Continued

Excess of Expenditures and Transfers Over Appropriations

Expenditures and transfers for budgeted funds exceeded appropriations for the following funds for the year ended June 30, 2017:

	Total Expenditures and Transfers Final Budget	Total Expenditures and Transfers	Excess Expenditures over Appropriations
Governmental Activities			
General Fund	$ 42,687,080	$ 42,915,641	$ (228,561)
Non-major funds:			
Special Revenue funds:			
Community Events	134,031	139,751	(5,720)
Gas Tax	1,930,204	1,984,652	(54,448)
Transportation Development Act	31,000	31,025	(25)
SLES	133,512	187,249	(53,737)
Housing In-Lieu Fee	45,765	46,057	(292)
CDBG Grants	1,010,242	1,229,614	(219,372)
Property Based Improvement District	752,259	835,752	(83,493)
Tree Preservation Development Fees	51,000	146,676	(95,676)
Recycling Grants	45,842	75,198	(29,356)
PetSmart Grant	-	17,288	(17,288)
Assessment District funds:			
Zone 3	6,832	10,253	(3,421)
Zone 4	8,296	8,536	(240)
98-01	5,365	6,706	(1,341)
03-01 Zone 2	23,254	37,335	(14,081)
Lighting Assessment District	384,182	403,297	(19,115)
Capital Projects funds:			
Community Capital Replacement	100,000	499,740	(399,740)

8. INTERFUND TRANSACTIONS

A. Due to and due from other funds

Due From Other Funds	Due to Other Funds	Amount
General Fund	Non-Major governmental Funds	$ 1,602,721
Total Due to/from Other Funds		$ 1,602,721

This balance resulted from the time lag between the dates that interfund goods and services are provided or reimbursable expenditures occur. All interfund receivables are expected to be paid back within the next fiscal year.

8. INTERFUND TRANSACTIONS, Continued

B. Interfund Advances

At June 30, 2017, the City had no long-term interfund advances.

C. Interfund Transfers

Transfers Out	Transfers In	Amount
General Fund	Non-major Governmental Funds	$ 14,678,038
Non-Major Governmental Funds	General Fund	223,592
	Non-Major Governmental Funds	334,703
Total Interfund Transfers		$ 15,236,333

Transfers are used to (1) move revenues from the fund that statute or budget requires to collect them to the funds that statute or budget requires to expend them and (2) subsidize operating losses.

D. Internal Balances

Internal balances are presented in the Government-wide financial statements only. They represent the net interfund receivables and payables remaining after the elimination of all such balances within governmental and business-type activities. There were no internal balances as of June 20, 2017.

9. RISK MANAGEMENT

The City is a member of the Public Agency Risk Sharing Authority of California (PARSAC), for liability and workers' compensation risk coverage. The liability program includes coverage for general liability, property, bond and employment practices. PARSAC is a statewide joint powers authority providing risk sharing services to California public entities that provide a municipal service. The City pays an annual premium to PARSAC for its risk coverage and purchases commercial insurance for claims exceeding PARSAC limits.

The City's insurance coverage for liability and workers' compensation provided through membership in PARSAC are as follows:

Amount			Coverage provider	Payment Source
GENERAL LIABILITY CLAIMS				
$ 0	-	$ 100,000	Self-insured retention	City funds
100,001	-	1,000,000	Public Agency Risk Sharing Authority of California	Shared risk pool
1,000,001	-	5,000,000	CSAC - Excess Insurance Authority	Shared risk pool
5,000,001	-	25,000,000	Commercial reinsurance	
25,000,001	-	35,000,000	Commerical excess carrier	Shared risk pool
WORKERS' COMPENSATION CLAIMS				
$ 0		$ 100,000	Self-Insured retention	City funds
100,001	-	500,000	Public Agency Risk Sharing Authority of California	Shared risk pool
500,001	-	5,000,000	Local Agency Workers' Compensation Excess Pool	Shared risk pool
5,000,001	-	50,000,000	Commercial reinsurance (purchased with CSAC-EIA)	
50,000,001	-	statutory limits	Excess insurance (purchased with CSAC-EIA)	

9. RISK MANAGEMENT, Continued

PARSAC is governed by a Board of Directors and member agencies are entitled to representation on the board. Upon termination of the joint powers authority agreements, all property of PARSAC would be returned to the respective parties that transferred the property to PARSAC and any surplus of funds and assets would be returned to the parties in proportion to actual balances of each entity. Complete financial information for PARSAC is available at 1525 Response Road, Sacramento, CA 95815.

The City accrues a claims liability for probable losses under the self-insured retention amounts in the table above for the general liability and workers' compensation programs. While the ultimate amount of losses incurred through June 30 is dependent on future developments, the estimated claims liability is based upon information from the actuarial valuation reports. The liability is based on the estimated ultimate cost of settling the claims, including the effects of inflation and other societal and economic factors, and includes an estimate for incurred but not reported claims. There are no claims that exceed insurance coverage and no significant changes or reductions in insurance coverage over the last three fiscal years. Costs relating to the litigation of claims are charged to expenditures as incurred. Claims are generally liquidated by the General Fund. At June 30, 2017 and 2016, fund balance of $375,000 has been committed for self-insured general liability claims.

Changes in the liability and workers' compensation claims payable amounts during the year ended June 30, 2017 were as follows:

	Beginning July 1, 2016	Claims and Changes in Estimates	Claims Paid	Ending June 30, 2017
General Liability	$ 428,000	$ 180,725	$ (180,725)	$ 428,000
Workers' Compensation	763,000	415,028	(415,028)	763,000
Total Claims Payable	$ 1,191,000	$ 595,753	$ (595,753)	$ 1,191,000

10. PENSION PLAN

A. *General Information about the Defined Benefit Pension Plan*

Plan Descriptions

All qualified permanent and probationary employees are eligible to participate in the City's Cost-Sharing Multiple Employer Defined Benefit Pension Plan (the Plan or PERFC) administered by the California Public Employees' Retirement System (CalPERS). PERFC consists of a miscellaneous risk pool and a safety risk pool, which are comprised of the following rate plans:

- Miscellaneous Plan
- Miscellaneous Second Tier Plan
- PEPRA Miscellaneous Plan
- Safety Plan
- Safety Second Tier Plan
- PEPRA Safety Police Plan

Although one Plan exists, CalPERS provides the information separately for the Miscellaneous and Safety Risk Pools and the information is presented separately below where available. Benefit provisions under the Plan are established by State statute and City resolution. CalPERS issues publicly available reports that include a full description of the pension plans regarding benefit provisions, assumptions and membership information that can be found on the CalPERS website at www.calpers.ca.gov.

Benefits Provided

CalPERS provides service retirement and disability benefits, annual cost of living adjustments and death benefits to plan members, who must be public employees and beneficiaries. Benefits are based on years of credited service, equal to one year of full time employment. Members with five years of total service are eligible to retire at age 50 (52 for PEPRA Miscellaneous Plan) with statutorily reduced benefits. All members are eligible for non-duty disability benefits after 5 years of service. The death benefit is one of the following: the 1959 Survivor Benefit level 4, or the Optional Settlement 2W Death Benefit. The cost of living adjustments for each plan are applied as specified by the Public Employees' Retirement Law.

The rate plans' provisions and benefits in effect at June 30, 2017, are summarized as follows:

	Miscellaneous Rate Plan	Miscellaneous Second Tier Rate Plan	PEPRA Miscellaneous Rate Plan
Hire date	Prior to August 13, 2011	August 13, 2011 to December 31, 2012	On or after January 1, 2013
Benefit formula (at full retirement)	2.7% @ 55	2.0% @ 55	2.0% @ 62
Benefit vesting schedule	5 years service	5 years service	5 years service
Benefit payments	monthly for life	monthly for life	monthly for life
Retirement age	50 - 55	50 - 63	52 - 67
Monthly benefits, as a % of eligible compensation	2.0% to 2.7%	1.426% to 2.42%	1.0% to 2.5%
Required employee contribution rates	8.00%	7.00%	6.25%
Required employer contribution rates	11.634%	8.377%	6.555%

10. PENSION PLAN, Continued

	Safety Rate Plan	Safety Second Tier Rate Plan	PEPRA Safety Rate Plan
	Prior to August 13, 2011	August 13, 2011 to December 31, 2012	On or after January 1, 2013
Benefit formula (at full retirement)	3.0% @ 50	3.0% @ 55	2.7% @ 57
Benefit vesting schedule	5 years service	5 years service	5 years service
Benefit payments	monthly for life	monthly for life	monthly for life
Retirement age	50 - 55	50 - 55	50 - 57
Monthly benefits, as a % of eligible compensation	3.00%	2.40% to 3.00%	2.00% to 2.70%
Required employee contribution rates	9.00%	9.00%	11.50%
Required employer contribution rates	19.536%	16.656%	12.082%

All rate plans except the PEPRA plans are closed to new members that are not already CalPERS participants. All miscellaneous rate plans are combined and reported below as the Miscellaneous Risk Pool and all safety rate plans are combined and reported below as the Safety Risk Pool.

Contributions

Section 20814(c) of the California Public Employees' Retirement Law requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. Funding contributions for the risk pools are determined annually on an actuarial basis as of June 30 by CalPERS. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. The City is required to contribute the difference between the actuarially determined rate and the contribution rate of employees.

For the year ended June 30, 2017, the contributions recognized as part of pension expense for each risk pool were as follows:

	Miscellaneous Risk Pool	Safety Risk Pool	Total
Contributions - employer	$ 1,109,977	$ 1,605,543	$ 2,715,520

10. PENSION PLAN, Continued

B. *Pension Liabilities, Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions*

As of June 30, 2017, the City reported net pension liabilities for its proportionate shares of the net pension liability of each risk pool as follows:

	Proportionate Share of Net Pension Liability
Miscellaneous Risk Pool	$ 6,486,625
Safety Risk Pool	5,064,060
Total Net Pension Liability	$ 11,550,685
Financial Statement Classification:	
Governmental Activities	$ 11,412,077
Business-type Activities	138,608
Total Net Pension Liability	$ 11,550,685

The City's net pension liability for each risk pool is measured as the proportionate share of the net pension liability. The net pension liability of each risk pool is measured as of June 30, 2016, and the total pension liability for each risk pool used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2015 rolled forward to June 30, 2016 using standard update procedures. The City's proportion of the net pension liability was based on a projection of the City's long-term share of contributions to the risk pool relative to the projected contributions of all participating employers, actuarially determined. The City's proportionate share of the net pension liability for each risk pool as of June 30, 2015 and 2016 were as follows:

	Miscellaneous Risk Pool	Safety Risk Pool	Total
Proportion - June 30, 2015	0.180888%	0.089355%	0.125940%
Proportion - June 30, 2016	0.186726%	0.097777%	0.133486%
Change - Increase (Decrease)	0.005838%	0.008422%	0.007546%

10. PENSION PLAN, Continued

For the year ended June 30, 2017, the City recognized pension expense of $1,108,827 for both risk pools combined. At June 30, 2017, the City reported deferred outflows of resources and deferred inflows of resources related to each risk pool and combined from the following sources:

	Miscellaneous Risk Pool		Safety Risk Pool		Total	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contributions subsequent to measurement date	$ 1,109,977	$ -	$ 1,605,543	$ -	$ 2,715,520	$ -
Differences between actual and expected experience	28,997	-	-	(115,069)	-	(86,072)
Changes in assumptions	-	(355,878)	-	(501,707)	-	(857,585)
Differences between the employer's contributions and the employer's proportionate share of contributions	517,536	-	1,378,397	-	1,895,933	-
Change in employer's proportion	986,454	(222,191)	1,483,920	(838,385)	2,470,374	(1,060,576)
Net differences between projected and actual earnings on plan investments	1,852,232	-	2,464,861	-	4,317,093	-
Total	$ 4,495,196	$ (578,069)	$ 6,932,721	$ (1,455,161)	$ 11,398,920	$ (2,004,233)
Financial Statement Classification:						
Governmental Activities					$ 11,344,874	$ (1,997,193)
Business-type Activities					54,046	(7,040)
Total					$ 11,398,920	$ (2,004,233)

The $2,715,520 reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the risk pools will be recognized as pension expense as follows:

Year Ended June 30	Miscellaneous Risk Pool	Safety Risk Pool	Total
2018	$ 807,661	$ 1,187,029	$ 1,994,690
2019	683,107	955,155	1,638,262
2020	836,630	1,088,158	1,924,788
2021	479,752	641,675	1,121,427
	$ 2,807,150	$ 3,872,017	$ 6,679,167

10. PENSION PLAN, Continued

Actuarial Assumptions

The total pension liabilities in the June 30, 2015 actuarial valuations for each risk pool was determined using the following actuarial assumptions:

Valuation Date	June 30, 2015
Measurement Date	June 30, 2016
Actuarial Cost Method	Entry-Age Normal Cost Method
Amortization Method	Level Percent of Payroll
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Discount Rate	7.65%
Inflation	2.75%
Payroll Growth	3.0%
Projected Salary Increase	Varies by Entry Age and Service
Investment Rate of Return	7.65%
Mortality[1]	Derived using CalPERS Membership Data for all funds

[1] The mortality table used was developed based on CalPERS' specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale BB. For more details on this table, please refer to the 2014 experience study report.

All other actuarial assumptions used in the June 30, 2015 valuation were based on the results of an actuarial experience study for the period from 1997 to 2011, including updates to salary increase, mortality and retirement rates. The Experience Study Report can be found on CalPERS' website under Forms and Publications.

Discount Rate

The discount rate used to measure the total pension liability was 7.65%. To determine whether the municipal bond rate should be used in the calculation of the discount rate for public agency plans (including PERF C), CalPERS stress tested plans that would most likely result in a discount rate that would be different from the actuarially assumed discount rate. Based on the testing of the plans, the tests revealed the assets would not run out. Therefore, the current 7.65% discount rate is appropriate and the use of the municipal bond rate calculation is not deemed necessary. The long-term expected discount rate of 7.65% is applied to all plans in the Public Employees Retirement Fund, including PERF C. The stress test results are presented in a detailed report called "GASB Crossover Testing Report" that can be obtained on CalPERS' website under the GASB 68 section.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, staff took into account both short-term and long-term market return expectations as well as the expected pension fund (Public Employee's Retirement Fund) cash flows. Such cash flows were developed assuming that both members and employers will make their required contributions on time and as scheduled in all future years. Using historical returns of

10. PENSION PLAN, Continued

all the funds' asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11-60 years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated. The expected rate of return was set by calculating the single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equivalent to the single equivalent rate calculated above and rounded down to the nearest one quarter of one percent.

The table below reflects the long-term expected real rate of return by asset class for each risk pool. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These rates of return are net of administrative expenses.

Asset Class	New Strategic Allocation	Real Return Years 1 - 10(a)	Real Return Years 11+(b)
Global Equity	51.0%	5.25%	5.71%
Global Debt Securities	20.0%	0.99%	2.43%
Inflation Assets	6.0%	0.45%	3.36%
Private Equity	10.0%	6.83%	6.95%
Real Estate	10.0%	4.50%	5.13%
Infrastructure and Forestland	2.0%	4.50%	5.09%
Liquidity	1.0%	-0.55%	-1.05%
Total	100.0%		

(a) An expected inflation of 2.5% used for this period.
(b) An expected inflation of 3.0% used for this period.

Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the City's proportionate share of the net pension liability for each risk pool, calculated using the discount rate for each risk pool, as well as what the City's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate:

	Miscellaneous Risk Pool	**Safety Risk Pool**	**Total**
1% Decrease	6.65%	6.65%	6.65%
Net Pension Liability	$ 10,428,418	$ 8,875,193	$ 19,303,611
Current Discount Rate	7.65%	7.65%	7.65%
Net Pension Liability	$ 6,486,625	$ 5,064,060	$ 11,550,685
1% Increase	8.65%	8.65%	8.65%
Net Pension Liability	$ 3,228,929	$ 1,935,510	$ 5,164,439

10. PENSION PLAN, Continued

Pension Plan Fiduciary Net Position

Detailed information about each risk pool's fiduciary net position is available in the separately issued CalPERS financial reports.

C. *Payable to the Pension Plans*

At June 30, 2017, the City reported payables for the outstanding amount of employer contributions to each risk pool as follows:

Miscellaneous Plan	$ 43,286
Safety Plan	85,770
Total	$ 129,056

D. Defined Contribution Plan

On June 22, 2017, the City Council approved a IRC Section 401(a) retirement plan called the ICMA 401 Money Purchase Plan & Trust (the 401(a) Plan), a defined contribution retirement plan, for its full-time executive management directors, who may participate at their employment date. The 401(a) Plan is administered by the ICMA Retirement Corporation and assets are invested in a IRC qualifying trust fund with VantageTrust, which holds assets for the benefit of participants.

Benefit terms, including contribution requirements, for the 401(a) Plan are established and may be amended by the City Council. For each employee in the 401(a) Plan, the City is required to contribute 5% of the employee's annual salary to an individual employee account. Employees are allowed to opt-in to contribute a minimum of 5% and up to 20% of their salary to the 401(a) Plan, subject to IRC contribution limits. Employees vest immediately in their own contributions and City contributions, as well as earnings on those contributions. There were no employer or employee contributions to the 401(a) Plan during the year ended June 30, 2017.

11. OTHER POSTEMPLOYMENT BENEFITS PLAN

Plan Description. The City's defined benefit other postemployment healthcare benefit plan, the City of Citrus Heights Retiree Healthcare Plan, is an agent plan administered by the City. The Plan provides access to lifetime healthcare benefits to eligible retirees and their dependents. Employees are eligible to participate in the City's Retiree Healthcare Plan if they retire directly from the City under CalPERS at age 50 or above and with five years of CalPERS service (there is no minimum service requirement if retirement is due to a service-connected disability). The City does not provide dental, vision, life, or Medicare Part B reimbursement to retirees. The City Council has the authority to establish and amend the benefit provisions of the Plan subject to collective bargaining arrangements. The City participates in the California Employers' Retiree Benefit Trust (CERBT) Fund, which is administered by CalPERS. CERBT is a tax-qualified irrevocable trust organized under Internal Revenue Code Section 115 to administer retiree healthcare benefits and collectively invest plan assets of all trust members. CERBT issues publicly available financial statements according to GASB Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, in aggregate with the other CERBT participating employers. CERBT financial statements can be obtained from the CalPERS website at www.calpers.ca.gov. The City's Plan does not issue separate financial statements.

11. OTHER POST EMPLOYMENT BENEFITS PLAN, Continued

Funding Policy. The contribution requirements of Plan members and the City are established by and may be amended by the City Council. The City provides retiree medical benefits through the California Public Employees' Medical and Hospital Care Act (PEMHCA). The City pays the PEMHCA minimum contribution for active employees. For eligible retirees, the City contributes not less than 5% of the active employee contribution, multiplied by the number of years the City has participated in PEMHCA. The City's active employee contributions were $128.00 and $125.00 per month and retiree contributions were $121.60 and $112.50 per month for the years ended June 30, 2017 and 2016, respectively. In May 2014, the Actuarial Standards Board released revisions to ASOP 6 requiring that the implied subsidy for claims in excess of premiums be valued for community rated plans such as PEMHCA. The June 30, 2015 valuation includes the implied subsidy for the first time.

The City currently prefunds plan benefits through the CERBT by contributing at least 100% of the annual required contribution (ARC). The ARC rate was 2.30% of annual covered payroll during the year ended June 30, 2017.

Annual OPEB Cost and Net OPEB Obligation. The City's annual other postemployment benefits plan (OPEB) cost (expense) is calculated based on the ARC of the employer. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed 30 years. For the year ended June 30, 2017, the City's contribution to the Plan of $366,000, including $13,474 in current health insurance payments for eleven retired employees, exceeded the City's annual OPEB cost of $357,000.

The following table shows the components of the City's annual OPEB cost for the year, the amount actually contributed to the Plan, and changes in the City's Net OPEB obligation:

Annual required contribution	$	366,000
Interest on net OPEB obligation		33,000
Adjustment to annual required contribution		(42,000)
Annual OPEB cost (expense)		357,000
Contributions made to irrevocable trust		(366,000)
Benefit payments made outside of trust		-
Increase (Decrease) in net OPEB obligation		(9,000)
Net OPEB obligation - beginning of year		461,444
Net OPEB obligation - end of year	$	452,444

The City's annual OPEB cost, the percentage of annual OPEB cost contributed to the Plan, and the net OPEB obligation for the current fiscal year and the two preceding fiscal years were as follows:

Fiscal Year Ended	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
6/30/15	$ 128,000	104.69%	$ 468,444
6/30/16	132,000	105.30%	461,444
6/30/17	357,000	102.52%	452,444

11. OTHER POST EMPLOYMENT BENEFITS PLAN, Continued

Funded Status and Funding Progress. The funded status of the Plan as of June 30, 2016 from the June 30, 2015 valuation, the Plan's most recent actuarial valuation, was as follows:

Actuarial accrued liability (AAL)	$	2,512,000
Actuarial value of Plan assets		1,302,000
Unfunded actuarial accrued liability (UAAL)	$	1,210,000
Funded ratio (actuarial value of Plan assets/AAL)		51.83%
Covered payroll (active Plan participants)	$	14,951,000
UAAL as a percentage of covered payroll		8.09%

Actuarial valuations of an ongoing plan involve estimates of the value of expected benefit payments and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Actuarial Methods and Assumptions. Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan participants) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan participants to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. For the June 30, 2015 actuarial valuation, the entry age normal actuarial cost method was used. The actuarial assumptions included a 7.25% investment rate of return (net of administrative expenses), a 4.5% annual increase in the PEMHCA minimum contribution, a 3.25% annual payroll increase, an Affordable Care Act Excise Tax load on cash benefits of 2% and a 3% general inflation assumption. Medical premiums were assumed to increase by 7% for non-Medicare recipients and 7.2% for Medicare recipients in 2017, reduced over 5 years to a rate of 5% for both non-Medicare and Medicare recipients in 2021 and beyond. The actuarial value of assets was determined using techniques that spread the effects of short-term volatility in the market value of investments over a five-year period. The total UAAL is being amortized as a level percentage of projected payroll over a closed 17-year period as of June 30, 2015. Future assumption changes and gains/losses developed in the June 30, 2015 valuation were amortized over a closed 15-year period.

12. SUCCESSOR AGENCY TRUST FOR ASSETS OF FORMER REDEVELOPMENT AGENCY

On December 29, 2011, the California Supreme Court upheld Assembly Bill 1X 26 ("the Bill") that provides for the dissolution of all redevelopment agencies in the State of California. This action impacted the reporting entity of the City of Citrus Heights that previously had reported a redevelopment agency within the reporting entity of the City as a blended component unit. The Bill provided that upon dissolution of a redevelopment agency, either the city or another unit of local government will agree to serve as the "successor agency" to hold the assets until they are distributed to other units of state and local government. On January 12, 2012, the City Council elected to become the Successor Agency for the former redevelopment agency in accordance with the Bill as part of City resolution number 2012-007.

12. SUCCESSOR AGENCY TRUST FOR ASSETS OF FORMER REDEVELOPMENT AGENCY, Continued

After enactment of the law, which occurred on June 28, 2011, redevelopment agencies in the State of California could not enter into new projects, obligations or commitments. Subject to the control of a newly established oversight board, remaining assets can only be used to pay enforceable obligations in existence at the date of dissolution (including the completion of any unfinished projects that were subject to legally enforceable contractual commitments).

Successor agencies are only allocated revenue in the amount that is necessary to pay enforceable obligations of the former redevelopment agency until all enforceable obligations of the prior redevelopment agency have been paid in full and all assets have been liquidated.

The Bill directed the State Controller of the State of California to review the propriety of any transfers of assets between redevelopment agencies and other public bodies that occurred after January 1, 2011. Management believes, in consultation with legal counsel, that all transactions with the City have been reviewed and settled as required by the Bill.

All loans, advances, land held for sale and other assets, with the exception of residual interest, were sold or transferred to the City or other appropriate agencies as of June 30, 2017. The remaining parcel of land held for sale reported in the Successor Agency Non-Housing Fund at June 30, 2016 was sold in December 2016 for $210,174. The sale resulted in a loss of $134,386. The proceeds were retained by the County for distribution to the appropriate external agencies as directed by the State Department of Finance. The City elected to retain the housing assets and functions previously performed by the former redevelopment agency. Low income housing loans were transferred to the Housing Agency Special Revenue Fund as a result. Activity in the housing assets are reported in the City's nonmajor governmental funds combining balance sheet and statement of revenues, expenditures and changes in fund balances. The Successor Agency was notified by the State Department of Finance that it acknowledges the end of the Successor Agency's existence on March 1, 2017.

13. COMMITMENTS AND CONTINGENCIES

The City is a party to claims and lawsuits arising in the ordinary course of business. The City's management and legal counsel are of the opinion that the ultimate liability, if any, arising from these claims will not have material adverse impact on the financial position of the City.

The City participates in a number of federal and state assisted grant programs. These programs are subject to program compliance audits by the grantors. The amount, if any, of expenditures which may be disallowed by the granting agencies cannot be determined at this time although the City expects such amounts, if any, to be immaterial.

The City of Citrus Heights and the County of Sacramento entered into a revenue neutrality agreement pursuant to Government Code §56845, as a means of mitigating the financial impacts of the incorporation of the City in 1997 on the County's general fund. Currently all secured and unsecured ad valorem property taxes levied and collected pursuant to state law within the City's corporate limits, except for the tax increment associated with the Redevelopment Agency and landscaping and lighting for special assessments, are retained by the County. The County will collect and retain the property taxes beginning January 1, 1997 through June 30, 2022. For the fiscal year ended June 30, 2017, property taxes retained by the County in accordance with the revenue neutrality agreement totaled $4,774,259.

13. COMMITMENTS AND CONTINGENCIES, Continued

In 2011, the City purchased fifteen parcels in foreclosure along Sayonara Drive and demolished the buildings. Because affordable housing was demolished, a statutory requirement exists under the State of California Health & Safety Code, Redevelopment Law, Chapter 4, Article 9, Section 33413 to replace the affordable housing. The City must replace either 35 units or 70 bedrooms of affordable housing. The replacement requirement may be satisfied within or outside of the former redevelopment project area. The City is currently pursuing alternatives for replacement of the affordable housing. Options being considered include selling the property for fair market value and selling the property with an affordable housing requirement attached to the property. The parcels are reported as land held for resale in the Housing Agency Special Revenue Fund.

The City had the following significant unexpended contractual commitments as of June 30, 2017:

2017 Accessibility and Drainage	$	45,000
Areas 8, 9 and 10 Drainage Master Plan		885,735
Auburn Blvd Complete Streets Phase 2-Rusch Park to North City Limits		452,285
Sunrise Blvd Phase 2A-Locher to Sayonara		31,871
Transit Study		176,652
Mariposa Avenue Safe Routes to Schools Phase 3-Northridge to Eastgate		46,227
Total commitments	$	1,637,770

14. NEW ACCOUNTING PRONOUNCEMENTS

In June 2015, the GASB approved Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This Statement establishes standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures related to other postemployment benefits other than pensions (OPEB). This Statement also addresses footnote disclosures and required supplementary information requirements for defined benefit OPEB plans. The alternative measurement method for OPEB plans will still be available under this Statement for employers with fewer than 100 employees (active and inactive). The provisions of this Statement are effective for periods beginning after June 15, 2017.

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations.* This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset (example is decommissioning a water treatment plant). A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this Statement. This Statement requires that recognition occur when the liability is both incurred and reasonably estimable. The determination of when the liability is incurred should be based on the occurrence of external laws, regulations, contracts, or court judgments, together with the occurrence of an internal event that obligates a government to perform asset retirement activities. This Statement requires the measurement of an ARO to be based on the best estimate of the current value of outlays expected to be incurred. The best estimate should include probability weighting of all potential outcomes, when such information is available or can be obtained at reasonable cost. The requirements of this Statement are effective for periods beginning after June 15, 2018.

14. NEW ACCOUNTING PRONOUNCEMENTS, Continued

In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. This Statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. This Statement describes four fiduciary funds that should be reported, if applicable: (1) pension (and other employee benefit) trust funds, (2) investment trust funds, (3) private-purpose trust funds, and (4) custodial funds. Custodial funds generally should report fiduciary activities that are not held in a trust or equivalent arrangement that meets specific criteria. This Statement also provides for recognition of a liability to the beneficiaries in a fiduciary fund when an event has occurred that compels the government to disburse fiduciary resources. Events that compel a government to disburse fiduciary resources occur when a demand for the resources has been made or when no further action, approval, or condition is required to be taken or met by the beneficiary to release the assets. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018.

In June 2017, the GASB issued Statement No. 87, *Leases.* This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. A lease is defined as a contract that conveys control of the right to use another entity's nonfinancial asset as specified in the contract for a period of time in an exchange or exchange-like transaction. Examples of nonfinancial assets include buildings, land, vehicles, and equipment. Any contract that meets this definition should be accounted for under the leases guidance, unless specifically excluded in this Statement. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019.

The City will fully analyze the impact of these new Statements prior to the implementation dates above.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF THE PROPORTIONATE SHARE OF THE NET PENSION LIABILITY - MISCELLANEOUS PLAN (UNAUDITED)
Last 10 Years

	2017	2016	2015
Proportion of the net pension liability	0.186726%	0.180888%	0.160219%
Proportionate share of the net pension liability	$ 6,486,625	$ 4,962,609	$ 3,959,792
Covered - employee payroll (measurement period)	$ 8,102,528	$ 7,437,222	$ 7,143,034
Proportionate share of the net pension liability as a percentage of covered payroll	80.06%	66.73%	55.44%
Plan fiduciary net position as a percentage of the total pension liability	77.85%	80.21%	83.03%

SCHEDULE OF CONTRIBUTIONS TO THE PENSION PLAN - MISCELLANEOUS PLAN (UNAUDITED)
Last 10 Years

	2017	2016	2015
Contractually required contribution (employer's fiscal year - actuarially determined)	$ 1,109,977	$ 1,052,606	$ 1,237,660
Contributions in relation to the actuarially determined contributions	(1,109,977)	(1,052,606)	(1,237,660)
Contribution deficiency (excess)	$ -	$ -	$ -
Covered - employee payroll (employer's fiscal year)	$ 8,017,935	$ 8,102,528	$ 7,437,222
Contributions as a percentage of covered - employee payroll	13.84%	12.99%	16.64%

Notes to Schedule:

Valuation date:	June 30, 2015	June 30, 2014	June 30, 2013
Measurement date:	June 30, 2016	June 30, 2015	June 30, 2014
Investment rate of return and discount rate used to compute contribution rates	7.50%	7.50%	7.50%

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal cost method
Amortization method	Difference between projected and actual earnings is amortized straight-line over 5 years. All other amounts are amortized straight-line over average remaining service life of participants.
Remaining amortization period	Not stated
Asset valuation method	5-year smoothed market
Inflation	2.75%
Salary increases	Varies by entry age and service
Retirement age	50-67 years. Probabilities of retirement are based on the 2010 CalPERS Experience Study for the period 1997 to 2007.
Mortality	CalPERS specific data from January 2014 actuarial experience study for the period 1997 to 2011 that uses 20 years of mortality improvements using Society of Actuaries Scale BB.

Omitted years: GASB Statement No. 68 was implemented during the year ended June 30, 2015. No information was available prior to this date. Future years will be reported prospectively as they become available.

SCHEDULE OF THE PROPORTIONATE SHARE OF THE NET PENSION LIABILITY - SAFETY PLAN (UNAUDITED)
Last 10 Years

	2017	2016	2015
Proportion of the net pension liability	0.097777%	0.089355%	0.095971%
Proportionate share of the net pension liability	$ 5,064,060	$ 3,681,807	$ 3,599,860
Covered - employee payroll (measurement period)	$ 7,921,496	$ 7,350,834	$ 7,239,564
Proportionate share of the net pension liability as a percentage of covered payroll	63.93%	50.09%	49.72%
Plan fiduciary net position as a percentage of the total pension liability	81.96%	83.45%	80.92%

SCHEDULE OF CONTRIBUTIONS TO THE PENSION PLAN - SAFETY PLAN (UNAUDITED)
Last 10 Years

	2017	2016	2015
Contractually required contribution (employer's fiscal year - actuarially determined)	$ 1,605,543	$ 1,460,317	$ 1,937,578
Contributions in relation to the actuarially determined contributions	1,605,543	1,460,317	1,937,578
Contribution deficiency (excess)	$ -	$ -	$ -
Covered - employee payroll (employer's fiscal year)	$ 8,247,151	$ 7,921,496	$ 7,350,834
Contributions as a percentage of covered - employee payroll	19.47%	18.43%	26.36%

Notes to Schedules:

Valuation date:	June 30, 2015	June 30, 2014	June 30, 2013
Measurement date:	June 30, 2016	June 30, 2015	June 30, 2014
Investment rate of return and discount rate used to compute contribution rates	7.50%	7.50%	7.50%

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal cost method
Amortization method	Difference between projected and actual earnings is amortized straight-line over 5 years. All other amounts are amortized straight-line over average remaining service life of participants.
Remaining amortization period	Not stated
Asset valuation method	5-year smoothed market
Inflation	2.75%
Salary increases	Varies by entry age and service
Retirement age	50-67 years. Probabilities of retirement are based on the 2010 CalPERS Experience Study for the period 1997 to 2007.
Mortality	CalPERS specific data from January 2014 actuarial experience study for the period 1997 to 2011 that uses 20 years of mortality improvements using Society of Actuaries Scale BB.

Omitted years: GASB Statement No. 68 was implemented during the year ended June 30, 2015. No information was available prior to this date. Future years will be reported prospectively as they become available.

SCHEDULE OF FUNDING PROGRESS OF THE OTHER POSTEMPLOYMENT BENEFITS PLAN (UNAUDITED)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (Asset) (a-b)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((a-b)/c)
6/30/2014	$ 911,000	$ 1,032,000	$ 121,000	88.28%	$ 14,953,000	0.81%
6/30/2015	$ 1,109,000	$ 2,126,000	$ 1,017,000	52.16%	$ 14,933,000	6.81%
6/30/2016	$ 1,302,000	$ 2,512,000	$ 1,210,000	51.83%	$ 14,951,000	8.09%

The City's latest actuarial valuation did not include the information above for the years ended June 30, 2017 or 2014. The June 30, 2014 information is from the previous valuation.

COMBINING AND INDIVIDUAL FUND STATEMENTS AND SCHEDULES

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CITY OF CITRUS HEIGHTS, CALIFORNIA
GENERAL CAPITAL IMPROVEMENTS MAJOR CAPITAL PROJECTS FUND
STATEMENT OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	GENERAL CAPITAL IMPROVEMENTS			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Other revenues	$ -	$ -	$ 739,509	$ 739,509
TOTAL REVENUES	-	-	739,509	739,509
EXPENDITURES				
Current:				
Public ways and facilities	1,286,345	1,286,345	736,513	549,832
Capital outlay	-	-	537,608	(537,608)
Capital lease principal payments	13,749,031	13,749,031	13,749,031	-
TOTAL EXPENDITURES	15,035,376	15,035,376	15,023,152	12,224
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(15,035,376)	(15,035,376)	(14,283,643)	751,733
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	410,000	410,000	410,000	-
Transfers in	14,307,627	14,307,627	13,969,748	(337,879)
TOTAL OTHER FINANCING SOURCES (USES)	14,717,627	14,717,627	14,379,748	(337,879)
NET CHANGE IN FUND BALANCE	$ (317,749)	$ (317,749)	96,105	$ 413,854
Beginning fund balance			(114)	
ENDING FUND BALANCE			$ 95,991	

NONMAJOR GOVERNMENTAL FUNDS

Special Revenue Funds:

Community Events – Accounts for funds received and expended for the City's community events.

Code Enforcement – Accounts for funds to be used on Code Enforcement for neighborhood enhancement activities.

Gas Tax – Accounts for State gas tax revenues used for street maintenance and construction.

Stormwater Utility Tax – Accounts for revenues and expenditures associated with the administration and coordination of stormwater drainage activities as supported by a parcel tax.

Road Maintenance – Accounts for sales tax revenue collected in accordance with a voter approved special tax to be used for repairs and maintenance of streets.

Transit – Accounts for Transportation Development Act revenues restricted for the City's transportation needs.

Transportation Development Act – Accounts for Transportation Development Act monies received for road and sidewalk improvement purposes and transit related activities.

Police – Accounts for police revenues received that are restricted to fund programs designed to combat drug abuse and divert gang activity.

Police Grants – Accounts for police grants received that are restricted to fund specific police programs, including sobriety checkpoints, methamphetamine enforcement, stolen vehicles, children exposed to domestic violence and other programs.

Supplemental Law Enforcement Services (SLES) – Accounts for revenues and expenditures associated with State funds provided as a match for the COPS Universal Hiring Grant.

Housing In-lieu Fee – Accounts for revenues and expenditures associated with housing in-lieu fees.

HOME Program Grants – Accounts for HOME Program Grant fund used for low income housing activities.

Community Development Block Grants (CDBG) – Accounts for CDBG grant funds used for low income housing loans for home repair projects.

Property Based Improvement District – Accounts for assessments made on Sunrise MarketPlace businesses reduced by related marketing expenditures.

Housing Agency – Accounts for the housing assets of the former redevelopment agency that are used for low and moderate income housing activities.

Development Fees Funds: These funds account for the revenues and expenditures associated with new development of infrastructure and low income housing:

- Roadway
- Housing Mitigation
- Tree Preservation
- Park Facilities
- Transit Development

Other Grant Special Revenue Funds:

Recycling Grants – Accounts for revenues and expenditures associated with the Recycling grants.

SACOG Community Design Grant – Accounts for revenues and expenditures associated with community design activities in coordination with the Sacramento Area Council of Governments (SACOG).

Bicycle Transportation Agreement (BTA) Grant – Accounts for revenues and expenditures associated with the design and construction of new and improved bikeways throughout the City.

PetSmart Grant – Accounts for revenues and expenditures associated with the PetSmart grant.

Assessment Districts: Accounts for special assessments collected for the assessment districts below within the City limits for which the City is obligated to maintain. The Lighting Assessment District accounts for special assessments used for street lighting purposes. The remaining assessment districts were organized under the Landscaping and Lighting Act of 1972 to account for special assessment used for street corridor landscape, open space maintenance and sound wall maintenance expenses.

- Zone 1
- Zone 2
- Zone 3
- Zone 4
- District 98-01
- District 98-02
- District 03-01
- District 98-02, Zone 2
- District 03-01, Zone 2
- Lighting Assessment District

Capital Project Funds:

- **Measure A Construction –** Accounts for Measure A revenues received from the Sacramento Transportation Authority that are restricted for expenditures associated with specific purposes, including construction, upgrade and improvements of the City's roadways.

- **Highway Safety Improvement** – Accounts for funds expended for Highway Safety Improvement grant projects and improvements.

- **Community Capital Replacement –** Accounts for funds expended on various capital improvement and replacement projects, including vehicle replacement.

- **Safe Routes to Schools –** Accounts for funds expended for the Safe Routes grant projects and improvements.

- **Auburn Boulevard Utilities –** Accounts for revenues and expenditures associated with the undergrounding of utilities on Auburn Boulevard from Sylvan to Antelope Road.

- **Streets –** Accounts for funds expended on various street capital improvement and paving projects, including an intersection improvements project and Old Auburn Bike Trail development.

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING BALANCE SHEETS
June 30, 2017

	Nonmajor Special Revenue Funds			
	Community Events	Code Enforcement	Gas Tax	Stormwater Utility Tax
ASSETS				
Cash and investments	$ -	$ -	$ 81,698	$ 2,093,986
Receivables:				
Accounts	-	351,009	-	1,200
Interest	-	-	-	1,844
Loans	-	-	-	-
Due from other governments	-	666	57,444	290,741
Land held for resale	-	-	-	-
TOTAL ASSETS	$ -	$ 351,675	$ 139,142	$ 2,387,771
LIABILITIES				
Accounts payable	$ 4,340	$ 844	$ 104,477	$ 248,552
Salaries and benefits payable	35	94	230	186
Due to other funds	1,805	16,491	-	-
Due to other governments	-	-	6,500	670
Retention payable	-	-	-	14,104
Unearned revenue	-	-	-	-
TOTAL LIABILITIES	6,180	17,429	111,207	263,512
DEFERRED INFLOWS OF RESOURCES				
Unavailable revenue - accounts and grants receivable	-	339,233	35,844	1,200
Unavailable revenue - loans	-	-	-	-
TOTAL DEFERRED INFLOWS OF RESOURCES	-	339,233	35,844	1,200
FUND BALANCES (DEFICITS)				
Restricted	-	-	-	2,123,059
Assigned	-	-	-	-
Unassigned (deficit)	(6,180)	(4,987)	(7,909)	-
TOTAL FUND BALANCES (DEFICITS)	(6,180)	(4,987)	(7,909)	2,123,059
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ -	$ 351,675	$ 139,142	$ 2,387,771

Nonmajor Special Revenue Funds

Road Maintenance	Transit	Transportation Development Act	Police	Police Grants	SLES	Housing In-lieu Fee
$ 326,295	$ 619,663	$ 169,079	$ 491,254	$ -	$ 129,117	$ 1,591
-	-	-	-	-	-	-
169	337	167	543	-	160	9
-	-	-	-	-	-	-
-	235,797	-	79,447	203,990	52,382	-
-	-	-	-	-	-	-
$ 326,464	$ 855,797	$ 169,246	$ 571,244	$ 203,990	$ 181,659	$ 1,600
$ 60,557	$ 3,827	$ -	$ 72,739	$ 74,027	$ 4,691	$ -
127	62	-	95	-	-	-
-	-	-	-	144,320	-	-
-	523,315	-	-	12,309	-	-
-	-	-	-	-	-	-
-	-	-	-	14,005	176,424	-
60,684	527,204	-	72,834	244,661	181,115	-
-	67,751	-	14,950	-	-	-
-	-	-	-	-	-	-
-	67,751	-	14,950	-	-	-
265,780	260,842	169,246	483,460	-	544	1,600
-	-	-	-	-	-	-
-	-	-	-	(40,671)	-	-
265,780	260,842	169,246	483,460	(40,671)	544	1,600
$ 326,464	$ 855,797	$ 169,246	$ 571,244	$ 203,990	$ 181,659	$ 1,600

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING BALANCE SHEETS
June 30, 2017

	Nonmajor Special Revenue Funds			
	HOME Program Grants	CDBG Grants	Property Based Improvement District	Housing Agency
ASSETS				
Cash and investments	$ 293,395	$ 226,606	$ -	$ 58,737
Receivables:				
Accounts	-	-	-	-
Interest	677	-	275	58
Loans	4,509,212	1,524,318	-	307,297
Due from other governments	-	578,871	3,811	-
Land held for resale	-	-	-	2,784,600
TOTAL ASSETS	$ 4,803,284	$ 2,329,795	$ 4,086	$ 3,150,692
LIABILITIES				
Accounts payable	$ -	$ 132,350	$ -	$ -
Salaries and benefits payable	-	-	-	-
Due to other funds	-	544,359	-	-
Due to other governments	-	-	-	-
Retention payable	-	19,551	-	-
Unearned revenue	-	-	-	-
TOTAL LIABILITIES	-	696,260	-	-
DEFERRED INFLOWS OF RESOURCES				
Unavailable revenue - accounts and grants receivable	-	-	-	-
Unavailable revenue - loans	4,509,212	1,524,318	-	307,297
TOTAL DEFERRED INFLOWS OF RESOURCES	4,509,212	1,524,318	-	307,297
FUND BALANCES (DEFICITS)				
Restricted	294,072	109,217	4,086	2,843,395
Assigned	-	-	-	-
Unassigned (deficit)	-	-	-	-
TOTAL FUND BALANCES (DEFICITS)	294,072	109,217	4,086	2,843,395
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 4,803,284	$ 2,329,795	$ 4,086	$ 3,150,692

Nonmajor Special Revenue Funds						
Development Fee Funds						Other Grant Funds
Roadway Development Fees	Housing Mitigation Development Fees	Tree Preservation Development Fees	Park Facilities Development Fees	Transit Development Fees	Total Development Fees Funds	Recycling Grants
$ 405,689	$ 188,089	$ 231,871	$ 114,665	$ 67,408	$ 1,007,722	$ 47,278
32,209	-	-	-	6,909	39,118	-
365	177	264	245	59	1,110	80
-	-	-	-	-	-	-
-	-	-	-	-	-	48,326
-	-	-	-	-	-	-
$ 438,263	$ 188,266	$ 232,135	$ 114,910	$ 74,376	$ 1,047,950	$ 95,684
$ -	$ -	$ 16,242	$ -	$ -	$ 16,242	$ 29,585
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	68,378
-	-	16,242	-	-	16,242	97,963
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
438,263	188,266	215,893	114,910	74,376	$ 1,031,708	-
-	-	-	-	-	-	-
-	-	-	-	-	-	(2,279)
438,263	188,266	215,893	114,910	74,376	1,031,708	(2,279)
$ 438,263	$ 188,266	$ 232,135	$ 114,910	$ 74,376	$ 1,047,950	$ 95,684

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING BALANCE SHEETS
June 30, 2017

	Nonmajor Special Revenue Funds			
	Other Grant Funds			
	SACOG Community Design Grant	BTA Grant	PetSmart Grant	Total Other Grants Funds
ASSETS				
Cash and investments	$ -	$ -	$ 56,046	$ 103,324
Receivables:				
Accounts	-	-	-	-
Interest	-	-	57	137
Loans	-	-	-	-
Due from other governments	3,125	13,528	-	64,979
Land held for resale	-	-	-	-
TOTAL ASSETS	$ 3,125	$ 13,528	$ 56,103	$ 168,440
LIABILITIES				
Accounts payable	$ -	$ -	$ 6,154	$ 35,739
Salaries and benefits payable	-	-	-	-
Due to other funds	3,125	13,528	-	16,653
Due to other governments	-	-	-	-
Retention payable	-	-	-	-
Unearned revenue	-	10,668	49,871	128,917
TOTAL LIABILITIES	3,125	24,196	56,025	181,309
DEFERRED INFLOWS OF RESOURCES				
Unavailable revenue - accounts and grants receivable	-	-	-	-
Unavailable revenue - loans	-	-	-	-
TOTAL DEFERRED INFLOWS OF RESOURCES	-	-	-	-
FUND BALANCES (DEFICITS)				
Restricted	-	-	78	78
Assigned	-	-	-	-
Unassigned (deficit)	-	(10,668)	-	(12,947)
TOTAL FUND BALANCES (DEFICITS)	-	(10,668)	78	(12,869)
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 3,125	$ 13,528	$ 56,103	$ 168,440

Nonmajor Special Revenue Funds

Assessment District Funds

Zone 1	Zone 2	Zone 3	Zone 4	98-01	98-02	03-01
$ 49,971	$ 70,347	$ -	$ -	$ 145,560	$ 90,839	$ 905,890
-	-	-	-	-	-	-
47	68	-	-	142	86	872
-	-	-	-	-	-	-
162	112	-	77	231	415	259
-	-	-	-	-	-	-
$ 50,180	$ 70,527	$ -	$ 77	$ 145,933	$ 91,340	$ 907,021
$ 10,799	$ 1,992	$ 268	$ 925	$ 276	$ 1,041	$ 9,484
-	-	-	-	-	-	-
-	-	1,044	2,803	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
10,799	1,992	1,312	3,728	276	1,041	9,484
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
39,381	68,535	-	-	145,657	90,299	897,537
-	-	-	-	-	-	-
-	-	(1,312)	(3,651)	-	-	-
39,381	68,535	(1,312)	(3,651)	145,657	90,299	897,537
$ 50,180	$ 70,527	$ -	$ 77	$ 145,933	$ 91,340	$ 907,021

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING BALANCE SHEETS
June 30, 2017

	Nonmajor Special Revenue Funds			
	Assessment District Funds			
	98-02 Zone 2	03-01 Zone 2	Lighting Assessment District	Total Assessment District Funds
ASSETS				
Cash and investments	$ 20,133	$ 113,959	$ -	$ 1,396,699
Receivables:				
Accounts	-	-	3,598	3,598
Interest	17	110	-	1,342
Loans	-	-	-	-
Due from other governments	-	59	4,241	5,556
Land held for resale	-	-	-	-
TOTAL ASSETS	$ 20,150	$ 114,128	$ 7,839	$ 1,407,195
LIABILITIES				
Accounts payable	$ -	$ 1,287	$ -	$ 26,072
Salaries and benefits payable	-	-	-	-
Due to other funds	-	1,074	30,986	35,907
Due to other governments	338	9,329	30,186	39,853
Retention payable	-	-	-	-
Unearned revenue	-	-	-	-
TOTAL LIABILITIES	338	11,690	61,172	101,832
DEFERRED INFLOWS OF RESOURCES				
Unavailable revenue - accounts and grants receivable	-	-	-	-
Unavailable revenue - loans	-	-	-	-
TOTAL DEFERRED INFLOWS OF RESOURCES	-	-	-	-
FUND BALANCES (DEFICITS)				
Restricted	19,812	102,438	-	1,363,659
Assigned	-	-	-	-
Unassigned (deficit)	-	-	(53,333)	(58,296)
TOTAL FUND BALANCES (DEFICITS)	19,812	102,438	(53,333)	1,305,363
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 20,150	$ 114,128	$ 7,839	$ 1,407,195

Total Nonmajor Special Revenue Funds	Nonmajor Capital Project Funds					
	Measure A Construction	Highway Safety Improvement	Community Capital Replacement	Safe Routes to Schools	Auburn Boulevard Utilities	Streets
$ 6,999,166	$ 1,146,388	$ -	$ 818,372	$ -	$ -	$ -
394,925	-	-	-	-	-	-
6,828	1,108	-	874	-	-	-
6,340,827	-	-	-	-	-	-
1,573,684	3,323	-	-	-	481,001	562,209
2,784,600	-	-	-	-	-	-
$ 18,100,030	$ 1,150,819	$ -	$ 819,246	$ -	$ 481,001	$ 562,209
$ 784,457	$ 31,567	$ -	$ 20,919	$ -	$ 154,945	$ 46,749
829	-	-	-	-	-	-
759,535	-	-	-	-	326,056	517,130
582,647	-	-	-	-	-	-
33,655	2,159	-	-	-	-	-
319,346	-	-	-	-	-	-
2,480,469	33,726	-	20,919	-	481,001	563,879
458,978	-	-	-	-	-	-
6,340,827	-	-	-	-	-	-
6,799,805	-	-	-	-	-	-
8,950,746	1,117,093	-	-	-	-	-
-	-	-	798,327	-	-	-
(130,990)	-	-	-	-	-	(1,670)
8,819,756	1,117,093	-	798,327	-	-	(1,670)
$ 18,100,030	$ 1,150,819	$ -	$ 819,246	$ -	$ 481,001	$ 562,209

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING BALANCE SHEETS
June 30, 2017

	Total Nonmajor Capital Project Funds	Total Nonmajor Governmental Funds
ASSETS		
Cash and investments	$ 1,964,760	$ 8,963,926
Receivables:		
Accounts	-	394,925
Interest	1,982	8,810
Loans	-	6,340,827
Due from other governments	1,046,533	2,620,217
Land held for resale	-	2,784,600
TOTAL ASSETS	$ 3,013,275	$ 21,113,305
LIABILITIES		
Accounts payable	$ 254,180	$ 1,038,637
Salaries and benefits payable	-	829
Due to other funds	843,186	1,602,721
Due to other governments	-	582,647
Retention payable	2,159	35,814
Unearned revenue	-	319,346
TOTAL LIABILITIES	1,099,525	3,579,994
DEFERRED INFLOWS OF RESOURCES		
Unavailable revenue - accounts and grants receivable	-	458,978
Unavailable revenue - loans	-	6,340,827
TOTAL DEFERRED INFLOWS OF RESOURCES	-	6,799,805
FUND BALANCES (DEFICITS)		
Restricted	1,117,093	10,067,839
Assigned	798,327	798,327
Unassigned (deficit)	(1,670)	(132,660)
TOTAL FUND BALANCES (DEFICITS)	1,913,750	10,733,506
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 3,013,275	$ 21,113,305

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CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING STATEMENT OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
For the Year Ended June 30, 2017

	Nonmajor Special Revenue Funds			
	Community Events	Code Enforcement	Gas Tax	Stormwater Utility Tax
REVENUES				
Licenses and permits	$ -	$ -	$ -	$ -
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	1,639,217	-
Use of money and property	-	5,595	-	2,126
Charges for services	1,490	220,158	-	3,713,598
Contributions	17,930	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	19,420	225,753	1,639,217	3,715,724
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	254,116	-	-
Public ways and facilities	-	-	1,871,310	2,950,922
Culture and recreation	139,751	-	-	-
Community enhancements	-	144,659	-	-
Capital outlay	-	-	113,342	817,621
TOTAL EXPENDITURES	139,751	398,775	1,984,652	3,768,543
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(120,331)	(173,022)	(345,435)	(52,819)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	114,031	184,259	320,660	-
Transfers out	-	(25,000)	-	(320,660)
TOTAL OTHER FINANCING SOURCES (USES)	114,031	159,259	320,660	(320,660)
NET CHANGE IN FUND BALANCES	(6,300)	(13,763)	(24,775)	(373,479)
Beginning fund balances (deficits),	120	8,776	16,866	2,496,538
ENDING FUND BALANCES (DEFICITS)	$ (6,180)	$ (4,987)	$ (7,909)	$ 2,123,059

Nonmajor Special Revenue Funds

Road Maintenance	Transit	Transportation Development Act	Police	Police Grants	SLES	Housing In-lieu Fee
$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	445,261	-	-	-
1,841,716	3,702,976	-	105,029	545,590	187,250	-
46	-	457	1,528	-	543	36
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
1,841,762	3,702,976	457	551,818	545,590	187,793	36
263,516	74,313	-	-	-	-	-
-	-	-	385,812	513,577	31,301	-
1,362,145	3,297,851	28,012	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	46,057
9,454	-	3,013	-	72,695	155,948	-
1,635,115	3,372,164	31,025	385,812	586,272	187,249	46,057
206,647	330,812	(30,568)	166,006	(40,682)	544	(46,021)
-	-	-	-	-	-	-
-	-	-	36,500	-	-	-
-	-	-	(198,592)	-	-	-
-	-	-	(162,092)	-	-	-
206,647	330,812	(30,568)	3,914	(40,682)	544	(46,021)
59,133	(69,970)	199,814	479,546	11	-	47,621
$ 265,780	$ 260,842	$ 169,246	$ 483,460	$ (40,671)	$ 544	$ 1,600

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING STATEMENT OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
For the Year Ended June 30, 2017

	Nonmajor Special Revenue Funds			
	HOME Program Grants	CDBG Grants	Property Based Improvement District	Housing Agency
REVENUES				
Licenses and permits	$ -	$ -	$ -	$ -
Fines and forfeitures	-	-	-	-
Intergovernmental	145,390	988,965	-	-
Use of money and property	1,453	-	364	223
Charges for services	-	-	752,936	-
Contributions	-	-	-	-
Other revenues	50,665	226,606	-	59,808
TOTAL REVENUES	197,508	1,215,571	753,300	60,031
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	-	-	835,752	-
Culture and recreation	-	-	-	-
Community enhancements	139,690	681,917	-	1,606
Capital outlay	-	547,697	-	-
TOTAL EXPENDITURES	139,690	1,229,614	835,752	1,606
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	57,818	(14,043)	(82,452)	58,425
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	14,043	-	-
Transfers out	(14,043)	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	(14,043)	14,043	-	-
NET CHANGE IN FUND BALANCES	43,775	-	(82,452)	58,425
Beginning fund balances (deficits),	250,297	109,217	86,538	2,784,970
ENDING FUND BALANCES (DEFICITS)	$ 294,072	$ 109,217	$ 4,086	$ 2,843,395

Nonmajor Special Revenue Funds						
Development Fee Funds						Other Grant Funds
Roadway Development Fees	Housing Mitigation Development Fees	Tree Preservation Development Fees	Park Facilities Development Fees	Transit Development Fees	Total Development Fees Funds	Recycling Grants
$ 150,770	$ 29,716	$ 221,444	$ 19,685	$ 29,312	$ 450,927	$ -
-	-	-	-	-	-	-
-	-	-	-	-	-	72,297
843	650	767	397	140	2,797	163
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
151,613	30,366	222,211	20,082	29,452	453,724	72,460
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	146,676	-	-	146,676	75,198
-	-	-	-	-	-	-
-	-	146,676	-	-	146,676	75,198
151,613	30,366	75,535	20,082	29,452	307,048	(2,738)
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
151,613	30,366	75,535	20,082	29,452	307,048	(2,738)
286,650	157,900	140,358	94,828	44,924	724,660	459
$ 438,263	$ 188,266	$ 215,893	$ 114,910	$ 74,376	$ 1,031,708	$ (2,279)

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING STATEMENT OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
For the Year Ended June 30, 2017

	Nonmajor Special Revenue Funds			
	Other Grants Funds			
	SACOG Community Design Grant	BTA Grant	PetSmart Grant	Total Other Grants Funds
REVENUES				
Licenses and permits	$ -	$ -	$ -	$ -
Fines and forfeitures	-	-	-	-
Intergovernmental	3,125	7,411	17,288	100,121
Use of money and property	-	-	78	241
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	3,125	7,411	17,366	100,362
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	-	-	-	-
Culture and recreation	-	-	-	-
Community enhancements	3,125	7,411	17,288	103,022
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	3,125	7,411	17,288	103,022
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	-	-	78	(2,660)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	-	-	78	(2,660)
Beginning fund balances (deficits),	-	(10,668)	-	(10,209)
ENDING FUND BALANCES (DEFICITS)	$ -	$ (10,668)	$ 78	$ (12,869)

Nonmajor Special Revenue Funds							
Assessment District Funds							
Zone 1	Zone 2	Zone 3	Zone 4	98-01	98-02	03-01
$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-
-	-	-	-	-	-	-
99	159	-	-	353	191	2,146
10,752	12,450	6,587	4,885	10,816	22,873	88,959
-	-	-	-	-	-	-
-	-	-	-	-	-	-
10,851	12,609	6,587	4,885	11,169	23,064	91,105
-	-	-	-	-	-	-
-	-	-	-	-	-	-
11,322	9,473	10,253	8,536	6,706	13,716	30,338
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
11,322	9,473	10,253	8,536	6,706	13,716	30,338
(471)	3,136	(3,666)	(3,651)	4,463	9,348	60,767
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
(471)	3,136	(3,666)	(3,651)	4,463	9,348	60,767
39,852	65,399	2,354	-	141,194	80,951	836,770
$ 39,381	$ 68,535	$ (1,312)	$ (3,651)	$ 145,657	$ 90,299	$ 897,537

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING STATEMENT OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
For the Year Ended June 30, 2017

	Nonmajor Special Revenue Funds			
	Assessment District Funds			
	98-02 Zone 2	03-01 Zone 2	Lighting Assessment District	Total Assessment District Funds
REVENUES				
Licenses and permits	$ -	$ -	$ -	$ -
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	31	260	-	3,239
Charges for services	16,335	20,163	349,964	543,784
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	16,366	20,423	349,964	547,023
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	9,633	37,335	403,297	540,609
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	9,633	37,335	403,297	540,609
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	6,733	(16,912)	(53,333)	6,414
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	6,733	(16,912)	(53,333)	6,414
Beginning fund balances (deficits),	13,079	119,350	-	1,298,949
ENDING FUND BALANCES (DEFICITS)	$ 19,812	$ 102,438	$ (53,333)	$ 1,305,363

Total Nonmajor Special Revenue Funds	Nonmajor Capital Projects Funds					
	Measure A Construction	Highway Safety Improvement	Community Capital Replacement	Safe Routes to Schools	Auburn Boulevard Utilities	Streets
$ 450,927	$ -	$ -	$ -	$ -	$ -	$ -
445,261	-	-	-	-	-	-
9,256,254	440,319	-	-	257,548	596,584	619,727
18,648	2,838	-	2,518	-	-	-
5,231,966	-	-	-	-	-	-
17,930	-	-	-	-	-	-
337,079	-	-	1,900	-	-	-
15,758,065	443,157	-	4,418	257,548	596,584	619,727
337,829	-	-	-	-	-	-
1,184,806	-	-	-	-	-	-
10,886,601	369,852	-	83,063	-	67,358	159,857
139,751	-	-	-	-	-	-
1,263,627	-	-	-	-	-	-
1,719,770	125,064	-	416,677	257,548	529,226	419,585
15,532,384	494,916	-	499,740	257,548	596,584	579,442
225,681	(51,759)	-	(495,322)	-	-	40,285
-	-	-	-	-	-	-
669,493	-	-	373,500	-	-	-
(558,295)	-	-	-	-	-	-
111,198	-	-	373,500	-	-	-
336,879	(51,759)	-	(121,822)	-	-	40,285
8,482,877	1,168,852	-	920,149	-	-	(41,955)
$ 8,819,756	$ 1,117,093	$ -	$ 798,327	$ -	$ -	$ (1,670)

CITY OF CITRUS HEIGHTS, CALIFORNIA
NONMAJOR GOVERNMENTAL FUNDS
COMBINING STATEMENT OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
For the Year Ended June 30, 2017

	Total Nonmajor Capital Project Funds	Total Nonmajor Governmental Funds
REVENUES		
Licenses and permits	$ -	$ 450,927
Fines and forfeitures	-	445,261
Intergovernmental	1,914,178	11,170,432
Use of money and property	5,356	24,004
Charges for services	-	5,231,966
Contributions	-	17,930
Other revenues	1,900	338,979
TOTAL REVENUES	1,921,434	17,679,499
EXPENDITURES		
Current:		
General government	-	337,829
Public safety	-	1,184,806
Public ways and facilities	680,130	11,566,731
Culture and recreation	-	139,751
Community enhancements	-	1,263,627
Capital outlay	1,748,100	3,467,870
TOTAL EXPENDITURES	2,428,230	17,960,614
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(506,796)	(281,115)
OTHER FINANCING SOURCES (USES)		
Proceeds from sale of capital assets	-	-
Transfers in	373,500	1,042,993
Transfers out	-	(558,295)
TOTAL OTHER FINANCING SOURCES (USES)	373,500	484,698
NET CHANGE IN FUND BALANCES	(133,296)	203,583
Beginning fund balances (deficits),	2,047,046	10,529,923
ENDING FUND BALANCES (DEFICITS)	$ 1,913,750	$ 10,733,506

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CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	COMMUNITY EVENTS			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	-	-	-	-
Charges for services	3,000	3,000	1,490	(1,510)
Contributions	17,000	17,000	17,930	930
Other revenues	-	-	-	-
TOTAL REVENUES	20,000	20,000	19,420	(580)
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	-	-	-	-
Culture and recreation	134,031	134,031	139,751	(5,720)
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	134,031	134,031	139,751	(5,720)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(114,031)	(114,031)	(120,331)	(6,300)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	114,031	114,031	114,031	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	114,031	114,031	114,031	-
NET CHANGE IN FUND BALANCES	$ -	$ -	(6,300)	$ (6,300)
Beginning fund balances (deficits)			120	
ENDING FUND BALANCES (DEFICITS)			$ (6,180)	

CODE ENFORCEMENT				GAS TAX			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	1,748,662	1,748,662	1,639,217	(109,445)
-	-	5,595	5,595	2,340	2,340	-	(2,340)
245,000	245,000	220,158	(24,842)	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
245,000	245,000	225,753	(19,247)	1,751,002	1,751,002	1,639,217	(111,785)
-	-	-	-	-	-	-	-
260,977	260,977	254,116	6,861	-	-	-	-
-	-	-	-	1,926,625	1,926,625	1,871,310	55,315
-	-	-	-	-	-	-	-
143,283	143,283	144,659	(1,376)	-	-	-	-
-	-	-	-	-	-	113,342	(113,342)
404,260	404,260	398,775	5,485	1,926,625	1,926,625	1,984,652	(58,027)
(159,260)	(159,260)	(173,022)	(13,762)	(175,623)	(175,623)	(345,435)	(169,812)
-	-	-	-	-	-	-	-
184,261	184,261	184,259	(2)	-	-	320,660	320,660
(25,000)	(25,000)	(25,000)	-	(3,579)	(3,579)	-	3,579
159,261	159,261	159,259	(2)	(3,579)	(3,579)	320,660	324,239
$ 1	$ 1	(13,763)	$ (13,764)	$ (179,202)	$ (179,202)	(24,775)	$ 154,427
		8,776				16,866	
		$ (4,987)				$ (7,909)	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	STORMWATER UTILITY TAX			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	20,000	20,000	2,126	(17,874)
Charges for services	3,400,000	3,400,000	3,713,598	313,598
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	3,420,000	3,420,000	3,715,724	295,724
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	2,286,434	2,286,434	2,950,922	(664,488)
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	3,016,000	3,016,000	817,621	2,198,379
TOTAL EXPENDITURES	5,302,434	5,302,434	3,768,543	1,533,891
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(1,882,434)	(1,882,434)	(52,819)	1,829,615
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	(320,660)	(320,660)
TOTAL OTHER FINANCING SOURCES (USES)	-	-	(320,660)	(320,660)
NET CHANGE IN FUND BALANCES	$ (1,882,434)	$ (1,882,434)	(373,479)	$ 1,508,955
Beginning fund balances (deficits)			2,496,538	
ENDING FUND BALANCES (DEFICITS)			$ 2,123,059	

ROAD MAINTENANCE				TRANSIT			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1,821,296	1,821,296	1,841,716	20,420	3,477,756	3,477,756	3,702,976	225,220
1,968	1,968	46	(1,922)	1,450	1,450	-	(1,450)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1,823,264	1,823,264	1,841,762	18,498	3,479,206	3,479,206	3,702,976	223,770
256,868	256,868	263,516	(6,648)	74,313	74,313	74,313	-
-	-	-	-	-	-	-	-
1,000,204	1,000,204	1,362,145	(361,941)	3,439,094	3,439,094	3,297,851	141,243
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
700,000	700,000	9,454	690,546	-	-	-	-
1,957,072	1,957,072	1,635,115	321,957	3,513,407	3,513,407	3,372,164	141,243
(133,808)	(133,808)	206,647	340,455	(34,201)	(34,201)	330,812	365,013
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
(35,941)	(35,941)	-	35,941	-	-	-	-
(35,941)	(35,941)	-	35,941	-	-	-	-
$ (169,749)	$ (169,749)	206,647	$ 376,396	$ (34,201)	$ (34,201)	330,812	$ 365,013
		59,133				(69,970)	
		$ 265,780				$ 260,842	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	TRANSPORTATION DEVELOPMENT ACT			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	65,919	65,919	-	(65,919)
Use of money and property	2,317	2,317	457	(1,860)
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	68,236	68,236	457	(67,779)
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	6,000	6,000	28,012	(22,012)
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	25,000	25,000	3,013	21,987
TOTAL EXPENDITURES	31,000	31,000	31,025	(25)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	37,236	37,236	(30,568)	(67,804)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ 37,236	$ 37,236	(30,568)	$ (67,804)
Beginning fund balances (deficits)			199,814	
ENDING FUND BALANCES (DEFICITS)			$ 169,246	

POLICE				POLICE GRANTS			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
324,000	324,000	445,261	121,261	-	-	-	-
-	-	105,029	105,029	728,733	728,733	545,590	(183,143)
3,768	3,768	1,528	(2,240)	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
327,768	327,768	551,818	224,050	728,733	728,733	545,590	(183,143)
-	-	-	-	-	-	-	-
384,282	384,282	385,812	(1,530)	728,733	728,733	513,577	215,156
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	72,695	(72,695)
384,282	384,282	385,812	(1,530)	728,733	728,733	586,272	142,461
(56,514)	(56,514)	166,006	222,520	-	-	(40,682)	(40,682)
-	-	-	-	-	-	-	-
47,430	47,430	36,500	(10,930)	-	-	-	-
(220,000)	(220,000)	(198,592)	21,408	-	-	-	-
(172,570)	(172,570)	(162,092)	10,478	-	-	-	-
$ (229,084)	$ (229,084)	3,914	$ 232,998	$ -	$ -	(40,682)	$ (40,682)
		479,546				11	
		$ 483,460				$ (40,671)	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	SLES			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	133,512	133,512	187,250	53,738
Use of money and property	-	-	543	543
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	133,512	133,512	187,793	54,281
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	133,512	133,512	31,301	102,211
Public ways and facilities	-	-	-	-
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	155,948	(155,948)
TOTAL EXPENDITURES	133,512	133,512	187,249	(53,737)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	-	-	544	544
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ -	$ -	544	$ 544
Beginning fund balances (deficits)			-	
ENDING FUND BALANCES (DEFICITS)			$ 544	

HOUSING IN-LIEU FEE				HOME PROGRAM GRANTS			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	648,000	648,000	145,390	(502,610)
441	441	36	(405)	922	922	1,453	531
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	50,665	50,665
441	441	36	(405)	648,922	648,922	197,508	(451,414)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
45,765	45,765	46,057	(292)	795,528	795,528	139,690	655,838
-	-	-	-	-	-	-	-
45,765	45,765	46,057	(292)	795,528	795,528	139,690	655,838
(45,324)	(45,324)	(46,021)	(697)	(146,606)	(146,606)	57,818	204,424
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	(14,043)	(14,043)
-	-	-	-	-	-	(14,043)	(14,043)
$ (45,324)	$ (45,324)	(46,021)	$ (697)	$ (146,606)	$ (146,606)	43,775	$ 190,381
		47,621				250,297	
		$ 1,600				$ 294,072	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	CDBG GRANTS			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	1,029,494	1,029,494	988,965	(40,529)
Use of money and property	-	-	-	-
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	30,000	30,000	226,606	196,606
TOTAL REVENUES	1,059,494	1,059,494	1,215,571	156,077
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	-	-	-	-
Culture and recreation	-	-	-	-
Community enhancements	1,010,242	1,010,242	681,917	328,325
Capital outlay	-	-	547,697	(547,697)
TOTAL EXPENDITURES	1,010,242	1,010,242	1,229,614	(219,372)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	49,252	49,252	(14,043)	(63,295)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	30,000	30,000	14,043	(15,957)
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	30,000	30,000	14,043	(15,957)
NET CHANGE IN FUND BALANCES	$ 79,252	$ 79,252	-	$ (79,252)
Beginning fund balances (deficits)			109,217	
ENDING FUND BALANCES (DEFICITS)			$ 109,217	

PROPERTY BASED IMPROVEMENT DISTRICT				HOUSING AGENCY			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	364	364	-	-	223	223
752,259	752,259	752,936	677	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	59,808	59,808
752,259	752,259	753,300	1,041	-	-	60,031	60,031
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
752,259	752,259	835,752	(83,493)	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	1,606	(1,606)
-	-	-	-	-	-	-	-
752,259	752,259	835,752	(83,493)	-	-	1,606	(1,606)
-	-	(82,452)	(82,452)	-	-	58,425	58,425
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ -	$ -	(82,452)	$ (82,452)	$ -	$ -	58,425	$ 58,425
		86,538				2,784,970	
		$ 4,086				$ 2,843,395	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	ROADWAY DEVELOPMENT FEES			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	5,000	5,000	150,770	145,770
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	3,691	3,691	843	(2,848)
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	8,691	8,691	151,613	142,922
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	184,668	184,668	-	184,668
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	184,668	184,668	-	184,668
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(175,977)	(175,977)	151,613	327,590
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ (175,977)	$ (175,977)	151,613	$ 327,590
Beginning fund balances (deficits)			286,650	
ENDING FUND BALANCES (DEFICITS)			$ 438,263	

HOUSING MITIGATION DEVELOPMENT FEES				TREE PRESERVATION DEVELOPMENT FEES			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	29,716	29,716	-	-	221,444	221,444
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1,417	1,417	650	(767)	1,125	1,125	767	(358)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1,417	1,417	30,366	28,949	1,125	1,125	222,211	221,086
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
158,832	158,832	-	158,832	-	-	-	-
-	-	-	-	51,000	51,000	146,676	(95,676)
-	-	-	-	-	-	-	-
158,832	158,832	-	158,832	51,000	51,000	146,676	(95,676)
(157,415)	(157,415)	30,366	187,781	(49,875)	(49,875)	75,535	125,410
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ (157,415)	$ (157,415)	30,366	$ 187,781	$ (49,875)	$ (49,875)	75,535	$ 125,410
		157,900				140,358	
		$ 188,266				$ 215,893	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	PARK FACILITIES DEVELOPMENT FEES			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	2,200	2,200	19,685	17,485
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	841	841	397	(444)
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	3,041	3,041	20,082	17,041
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	-	-	-	-
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	-	-	-	-
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	3,041	3,041	20,082	17,041
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ 3,041	$ 3,041	20,082	$ 17,041
Beginning fund balances (deficits)			94,828	
ENDING FUND BALANCES (DEFICITS)			$ 114,910	

TRANSIT DEVELOPMENT FEES				RECYCLING GRANTS			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1,000	1,000	29,312	28,312	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	45,842	45,842	72,297	26,455
403	403	140	(263)	-	-	163	163
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1,403	1,403	29,452	28,049	45,842	45,842	72,460	26,618
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
20,000	20,000	-	20,000	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	45,842	45,842	75,198	(29,356)
-	-	-	-	-	-	-	-
20,000	20,000	-	20,000	45,842	45,842	75,198	(29,356)
(18,597)	(18,597)	29,452	48,049	-	-	(2,738)	(2,738)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ (18,597)	$ (18,597)	29,452	$ 48,049	$ -	$ -	(2,738)	$ (2,738)
		44,924				459	
		$ 74,376				$ (2,279)	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	SACOG COMMUNITY DESIGN GRANT			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	93,000	93,000	3,125	(89,875)
Use of money and property	-	-	-	-
Charges for services	-	-	-	-
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	93,000	93,000	3,125	(89,875)
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	-	-	-	-
Culture and recreation	-	-	-	-
Community enhancements	93,000	93,000	3,125	89,875
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	93,000	93,000	3,125	89,875
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	-	-	-	-
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ -	$ -	-	$ -
Beginning fund balances (deficits)			-	
ENDING FUND BALANCES (DEFICITS)			$ -	

BTA GRANT				PETSMART GRANT			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
93,000	93,000	7,411	(85,589)	-	-	17,288	17,288
-	-	-	-	-	-	78	78
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
93,000	93,000	7,411	(85,589)	-	-	17,366	17,366
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
93,000	93,000	7,411	85,589	-	-	17,288	(17,288)
-	-	-	-	-	-	-	-
93,000	93,000	7,411	85,589	-	-	17,288	(17,288)
-	-	-	-	-	-	78	78
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ -	$ -	-	$ -	$ -	$ -	78	$ 78
		(10,668)				-	
		$ (10,668)				$ 78	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	ZONE 1			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	359	359	99	(260)
Charges for services	10,523	10,523	10,752	229
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	10,882	10,882	10,851	(31)
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	11,343	11,343	11,322	21
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	11,343	11,343	11,322	21
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(461)	(461)	(471)	(10)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ (461)	$ (461)	(471)	$ (10)
Beginning fund balances (deficits)			39,852	
ENDING FUND BALANCES (DEFICITS)			$ 39,381	

ZONE 2				ZONE 3			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
536	536	159	(377)	-	-	-	-
12,413	12,413	12,450	37	6,550	6,550	6,587	37
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
12,949	12,949	12,609	(340)	6,550	6,550	6,587	37
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
14,688	14,688	9,473	5,215	6,832	6,832	10,253	(3,421)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
14,688	14,688	9,473	5,215	6,832	6,832	10,253	(3,421)
(1,739)	(1,739)	3,136	4,875	(282)	(282)	(3,666)	(3,384)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ (1,739)	$ (1,739)	3,136	$ 4,875	$ (282)	$ (282)	(3,666)	$ (3,384)
		65,399				2,354	
		$ 68,535				$ (1,312)	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	ZONE 4			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	-	-	-	-
Charges for services	4,718	4,718	4,885	167
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	4,718	4,718	4,885	167
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	8,296	8,296	8,536	(240)
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	8,296	8,296	8,536	(240)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(3,578)	(3,578)	(3,651)	(73)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	3,579	3,579	-	(3,579)
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	3,579	3,579	-	(3,579)
NET CHANGE IN FUND BALANCES	$ 1	$ 1	(3,651)	$ (3,652)
Beginning fund balances (deficits)			-	
ENDING FUND BALANCES (DEFICITS)			$ (3,651)	

98-01				98-02			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
1,265	1,265	353	(912)	1,047	1,047	191	(856)
10,640	10,640	10,816	176	22,200	22,200	22,873	673
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
11,905	11,905	11,169	(736)	23,247	23,247	23,064	(183)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
5,365	5,365	6,706	(1,341)	15,244	15,244	13,716	1,528
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
5,365	5,365	6,706	(1,341)	15,244	15,244	13,716	1,528
6,540	6,540	4,463	(2,077)	8,003	8,003	9,348	1,345
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ 6,540	$ 6,540	4,463	$ (2,077)	$ 8,003	$ 8,003	9,348	$ 1,345
		141,194				80,951	
		$ 145,657				$ 90,299	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	03-01			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	7,338	7,338	2,146	(5,192)
Charges for services	88,700	88,700	88,959	259
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	96,038	96,038	91,105	(4,933)
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	49,692	49,692	30,338	19,354
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	49,692	49,692	30,338	19,354
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	46,346	46,346	60,767	14,421
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	-	-	-	-
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	-	-	-	-
NET CHANGE IN FUND BALANCES	$ 46,346	$ 46,346	60,767	$ 14,421
Beginning fund balances (deficits)			836,770	
ENDING FUND BALANCES (DEFICITS)			$ 897,537	

98-02 ZONE 2				03-01 ZONE 2			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
52	52	31	(21)	1,062	1,062	260	(802)
16,288	16,288	16,335	47	20,146	20,146	20,163	17
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
16,340	16,340	16,366	26	21,208	21,208	20,423	(785)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
10,459	10,459	9,633	826	23,254	23,254	37,335	(14,081)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
10,459	10,459	9,633	826	23,254	23,254	37,335	(14,081)
5,881	5,881	6,733	852	(2,046)	(2,046)	(16,912)	(14,866)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
$ 5,881	$ 5,881	6,733	$ 852	$ (2,046)	$ (2,046)	(16,912)	$ (14,866)
		13,079				119,350	
		$ 19,812				$ 102,438	

CITY OF CITRUS HEIGHTS, CALIFORNIA
BUDGETED NONMAJOR GOVERNMENTAL FUNDS
SCHEDULES OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL
For the Year Ended June 30, 2017

	LIGHTING ASSESSMENT DISTRICT			
	Budgeted Amounts			Variance With Final Budget Positive
	Original	Final	Actual	(Negative)
REVENUES				
Taxes and assessments	$ -	$ -	$ -	$ -
Licenses and permits	-	-	-	-
Fines and forfeitures	-	-	-	-
Intergovernmental	-	-	-	-
Use of money and property	-	-	-	-
Charges for services	348,241	348,241	349,964	1,723
Contributions	-	-	-	-
Other revenues	-	-	-	-
TOTAL REVENUES	348,241	348,241	349,964	1,723
EXPENDITURES				
Current:				
General government	-	-	-	-
Public safety	-	-	-	-
Public ways and facilities	384,182	384,182	403,297	(19,115)
Culture and recreation	-	-	-	-
Community enhancements	-	-	-	-
Capital outlay	-	-	-	-
TOTAL EXPENDITURES	384,182	384,182	403,297	(19,115)
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(35,941)	(35,941)	(53,333)	(17,392)
OTHER FINANCING SOURCES (USES)				
Proceeds from sale of capital assets	-	-	-	-
Transfers in	35,941	35,941	-	(35,941)
Transfers out	-	-	-	-
TOTAL OTHER FINANCING SOURCES (USES)	35,941	35,941	-	(35,941)
NET CHANGE IN FUND BALANCES	$ -	$ -	(53,333)	$ (53,333)
Beginning fund balances (deficits)			-	
ENDING FUND BALANCES (DEFICITS)			$ (53,333)	

COMMUNITY CAPITAL REPLACEMENT				SAFE ROUTES TO SCHOOLS			
Budgeted Amounts			Variance With Final Budget Positive	Budgeted Amounts			Variance With Final Budget Positive
Original	Final	Actual	(Negative)	Original	Final	Actual	(Negative)
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	280,500	280,500	257,548	(22,952)
5,580	5,580	2,518	(3,062)	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	1,900	1,900	-	-	-	-
5,580	5,580	4,418	(1,162)	280,500	280,500	257,548	(22,952)
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	83,063	(83,063)	280,500	280,500	-	280,500
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
100,000	100,000	416,677	(316,677)	-	-	257,548	(257,548)
100,000	100,000	499,740	(399,740)	280,500	280,500	257,548	22,952
(94,420)	(94,420)	(495,322)	(400,902)	-	-	-	-
-	-	-	-	-	-	-	-
373,500	373,500	373,500	-	-	-	-	-
-	-	-	-	-	-	-	-
373,500	373,500	373,500	-	-	-	-	-
$ 279,080	$ 279,080	(121,822)	$ (400,902)	$ -	$ -	-	$ -
		920,149				-	
		$ 798,327				$ -	

FIDUCIARY FUNDS

Agency Funds:

Fire Capital Facilities Fee – Accounts for fire district development fees collected on behalf of Sacramento Metropolitan Fire District.

STA Fees – Accounts for Transportation fees collected on behalf of State.

CITY OF CITRUS HEIGHTS, CALIFORNIA
AGENCY FUNDS
COMBINING STATEMENT OF ASSETS AND LIABILITIES
As of June 30, 2017

	Fire Capital Facilities Fee	STA Fees	Totals
ASSETS			
Cash and investments	$ 1,168	$ 50,571	$ 51,739
TOTAL ASSETS	$ 1,168	$ 50,571	$ 51,739
LIABILITIES			
Accounts payable	$ -	$ 32,991	$ 32,991
Due to other governments	1,168	17,580	18,748
TOTAL LIABILITIES	$ 1,168	$ 50,571	$ 51,739

CITY OF CITRUS HEIGHTS, CALIFORNIA
AGENCY FUNDS
COMBINING STATEMENT OF CHANGES IN ASSETS AND LIABILITIES
For the Year Ended June 30, 2017

	Balance June 30, 2016	Additions	Deductions	Balance June 30, 2017
FIRE CAPITAL FACILITIES FEE				
ASSETS:				
Cash and investments	$ 1,133	$ 1,168	$ (1,133)	$ 1,168
TOTAL ASSETS	$ 1,133	$ 1,168	$ (1,133)	$ 1,168
LIABILITIES:				
Due to other governments	$ -	$ 1,168	$ -	$ 1,168
TOTAL LIABILITIES	$ -	$ 1,168	$ -	$ 1,168
STA FEES				
ASSETS:				
Cash and investments	$ 17,580	$ 50,571	$ (17,580)	$ 50,571
TOTAL ASSETS	$ 17,580	$ 50,571	$ (17,580)	$ 50,571
LIABILITIES:				
Accounts payable	$ -	$ 32,991	$ -	$ 32,991
Due to other governments	17,580	17,580	(17,580)	17,580
TOTAL LIABILITIES	$ 17,580	$ 50,571	$ (17,580)	$ 50,571
TOTAL OF ALL AGENCY FUNDS				
ASSETS:				
Cash and investments	$ 18,713	$ 51,739	$ (18,713)	$ 51,739
TOTAL ASSETS	$ 18,713	$ 51,739	$ (18,713)	$ 51,739
LIABILITIES:				
Accounts payable	$ -	$ 32,991	$ -	$ 32,991
Due to other governments	17,580	18,748	(17,580)	18,748
TOTAL LIABILITIES	$ 17,580	$ 51,739	$ (17,580)	$ 51,739

STATISTICAL SECTION

TABLE OF CONTENTS

This part of the City of Citrus Heights' comprehensive annual financial report presents detailed information as a context for understanding what the information in the financial statements, footnotes, and required supplementary information says about the City's overall financial health.

Sources: Unless otherwise noted, the information in these schedules is derived from the comprehensive annual financial reports for the relevant year.

City of Citrus Heights, California
Net Position by Component
Last Ten Fiscal Years
(Fiscal year ended June 30)
(Accrual basis of accounting)

	2008	2009	2010	2011
Governmental activities				
Invested in capital assets	$ 385,884,734	$ 384,928,105	$ 388,085,031	$ 380,131,270
Restricted	6,887,036	477,776	3,046,484	4,342,108
Unrestricted	55,059,723	59,472,462	53,063,713	57,351,701
Total governmental activities net position	$ 447,831,493	$ 444,878,343	$ 444,195,228	$ 441,825,079
Business-type activities				
Invested in capital assets	$ -	$ -	$ -	$ -
Restricted	465,830	300,025	-	-
Unrestricted	454,773	745,876	2,848,766	716,320
Total business-type activities net position	$ 920,603	$ 1,045,901	$ 2,848,766	$ 716,320
Primary government				
Invested in capital assets	$ 385,884,734	$ 384,928,105	$ 388,085,031	$ 380,131,270
Restricted	7,352,866	777,801	3,046,484	4,342,108
Unrestricted	55,514,496	60,218,338	55,912,479	58,068,021
Total primary government net position	$ 448,752,096	$ 445,924,244	$ 447,043,994	$ 442,541,399

Source: City of Finance Department

2012	2013	2014	2015	2016	2017
$ 370,403,423	$ 369,630,853	$ 366,354,751	$ 362,247,604	$ 351,834,754	$ 355,292,096
3,696,281	22,751,540	15,749,227	15,682,624	15,729,052	15,935,790
51,220,587	25,246,205	28,626,101	12,581,607	14,663,297	4,264,024
$ 425,320,291	$ 417,628,598	$ 410,730,079	$ 390,511,835	$ 382,227,103	$ 375,491,910
$ -	$ -	$ 200,000	$ 200,000	$ 321,123	$ 389,449
-	-	-	-	-	-
759,833	655,163	614,441	406,354	265,517	160,563
$ 759,833	$ 655,163	$ 814,441	$ 606,354	$ 586,640	$ 550,012
$ 370,403,423	$ 369,630,853	$ 366,554,751	$ 362,447,604	$ 352,155,877	$ 355,681,545
3,696,281	22,751,540	15,749,227	15,682,624	15,729,052	15,935,790
51,980,420	25,901,368	29,240,542	12,987,961	14,928,814	4,424,587
$ 426,080,124	$ 418,283,761	$ 411,544,520	$ 391,118,189	$ 382,813,743	$ 376,041,922

City of Citrus Heights, California
Changes in Net Position
Last Ten Fiscal Years
(Fiscal year ended June 30)
(Accrual basis of accounting)

	2008	2009	2010	2011
Expenses				
Governmental activities:				
General government	$ 5,073,736	$ 6,296,913	$ 6,053,708	$ 5,984,581
Public safety	17,358,896	18,473,394	17,694,892	18,817,306
Public ways and facilities	16,911,000	17,396,873	21,335,008	24,344,523
Culture and recreation	343,466	346,317	557,661	820,799
Economic development	128,366	163,256	80,074	62,687
Community enhancements	4,048,105	4,018,617	3,421,515	5,702,868
Total governmental activities expenses	43,863,569	46,695,370	49,142,858	55,732,764
Business-type activities:				
Transit	3,187,952	2,871,380	-	-
Stormwater utility	618,408	829,033	697,400	-
Solid waste	430,278	395,791	436,658	535,094
Total business-type activities expenses	4,236,638	4,096,204	1,134,058	535,094
Total primary government expenses	48,100,207	50,791,574	50,276,916	56,267,858
Program revenues				
Governmental activities:				
Charges for services:				
General government	1,425,343	1,538,107	584,124	332,690
Public safety	659,192	250,785	1,512,882	433,535
Public ways and facilities	534,344	166,610	653,995	7,857,400
Culture and recreation	-	-	-	292,134
Economic development	-	-	-	-
Community enhancements	977,794	-	1,088,280	761,323
Operating grants and contributions	9,774,061	8,545,951	1,458,333	14,447,725
Capital grants and contributions	9,055,293	5,909,073	16,329,085	1,580,765
Total governmental activities program revenues	22,426,027	16,410,526	21,626,699	25,705,572
Business-type activities:				
Charges for services:				
Stormwater utility	643,536	643,536	2,655,812	-
Solid waste	523,257	568,294	546,290	613,242
Operating grants and contributions	3,476,443	2,972,090	-	-
Total business-type activities program revenues	4,643,236	4,183,920	3,202,102	613,242
Total primary government program revenues	27,069,263	20,594,446	24,828,801	26,318,814
Net (Expense)/Revenue				
Governmental activities	(21,437,542)	(30,831,744)	(27,516,159)	(30,027,192)
Business-type activities	406,598	87,716	2,068,044	78,148
Total primary government net expense	(21,030,944)	(30,744,028)	(25,448,115)	(29,949,044)

2012	2013	2014	2015	2016	2017
$ 5,190,638	$ 4,905,500	$ 4,825,401	$ 5,401,023	$ 4,704,899	$ 5,463,122
19,522,974	18,371,871	19,595,533	18,092,747	17,355,288	18,378,242
25,489,982	25,152,231	27,499,125	30,037,037	34,185,103	24,188,701
883,463	692,989	613,235	555,342	654,183	669,948
64,906	114,616	172,083	159,243	214,978	402,904
4,532,930	4,429,170	4,407,068	4,319,791	4,313,943	4,710,977
55,684,893	53,666,377	57,112,445	58,565,183	61,428,394	53,813,894
-	-	-	-	-	-
-	-	-	-	-	-
579,195	752,084	529,464	903,522	757,028	798,694
579,195	752,084	529,464	903,522	757,028	798,694
56,264,088	54,418,461	57,641,909	59,468,705	62,185,422	54,612,588
305,057	305,057	331,675	381,923	1,120,688	1,151,570
366,726	366,726	459,073	337,199	1,547,840	1,759,927
4,789,239	4,789,239	4,730,893	4,666,240	4,359,774	4,500,372
343,817	343,817	374,244	311,350	352,401	354,517
-	-	-	100	50	-
842,151	842,151	1,036,139	1,298,079	1,912,936	1,597,005
10,909,700	10,909,700	13,558,056	13,179,453	10,236,552	6,087,515
7,590,789	7,590,789	7,173,645	2,418,225	4,489,329	2,006,396
25,147,479	25,147,479	27,663,725	22,592,569	24,019,570	17,457,302
-	-	-	-	-	-
616,288	651,300	657,027	710,618	732,401	761,614
-	-	-	-	-	-
616,288	651,300	657,027	710,618	732,401	761,614
19,343,104	25,798,779	28,320,752	23,303,187	24,751,971	18,218,916
(36,958,077)	(28,518,898)	(29,220,373)	(35,972,614)	(37,408,824)	(36,356,592)
37,093	(100,784)	(100,784)	(192,904)	(24,627)	(37,080)
(36,920,984)	(28,619,682)	(29,321,157)	(36,165,518)	(37,433,451)	(36,393,672)

City of Citrus Heights, California
Changes in Net Position
Last Ten Fiscal Years
(Fiscal year ended June 30)
(Accrual basis of accounting)

	2008	2009	2010	2011
Continued from previous page:				
General Revenues and Other Changes in Net Position				
Governmental activities:				
Taxes:				
Property taxes	$ 2,548,605	$ 2,967,249	$ 4,259,087	$ 3,089,382
Sales and use tax	11,905,673	10,903,918	9,877,654	10,636,890
Utility users tax	2,676,557	2,785,298	2,885,300	2,883,331
Other taxes	1,210,004	1,179,418	1,419,925	1,346,658
Shared intergovernmental revenues	7,573,719	7,544,177	6,985,507	7,035,404
Investment earnings	2,107,893	1,955,836	1,105,546	448,746
Miscellaneous	82,688	-	-	-
Gain (loss) on sale of assets	12,794	(4,202)	-	-
Transfers	47,698	-	300,025	2,216,632
Extraordinary loss on dissolution of redevelopment agency	-	-	-	-
Total governmental activities	28,165,631	27,331,694	26,833,044	27,657,043
Business-type activities:				
Investment earnings	15,406	37,582	34,846	6,038
Transfers	(47,698)		(300,025)	(2,216,632)
Total business-type activities	(32,292)	37,582	(265,179)	(2,210,594)
Total primary government	28,133,339	27,369,276	26,567,865	25,446,449
Changes in Net Position				
Governmental activities	6,728,089	(2,953,150)	(683,115)	(2,370,149)
Business-type activities	374,306	125,298	1,802,865	(2,132,446)
Total primary government	$ 7,102,395	$ (2,827,852)	$ 1,119,750	$ (4,502,595)

Note: Information was not available from the City's pension plan to report both the pension liability and changes in pension liability under GASB Statement No. 68 prior to 2015. Consequently, the amounts reported above in 2014 and prior years are prior to restatement.

Source: City Finance Department

2012	2013	2014	2015	2016	2017
$ 2,117,970	$ 270,913	$ 139,634	$ 138,659	$ 946,113	$ 991,552
10,617,617	11,261,741	11,195,869	11,230,382	15,977,575	15,412,345
2,771,161	2,770,644	2,739,486	2,768,562	2,810,771	2,881,617
1,353,716	1,362,446	1,332,334	1,416,552	1,601,229	1,616,163
6,418,174	6,659,357	6,652,222	7,015,174	7,260,670	7,611,171
561,376	(299,378)	455,531	246,710	527,734	1,108,551
-	-	-	-	-	
-	-	-	-	-	-
2,334	2,918	35,125	-	-	-
(3,389,059)	-	-	-	-	-
20,453,289	22,028,641	22,550,201	22,816,039	29,124,092	29,621,399
8,754	(968)	31,715	4,158	4,913	452
(2,334)	(2,918)	-	-	-	-
6,420	(3,886)	31,715	4,158	4,913	452
20,459,709	22,024,755	22,581,916	22,820,197	29,129,005	29,621,851
(16,504,788)	(6,490,257)	(6,634,571)	(13,504,599)	(8,115,700)	(6,735,193)
43,513	(104,670)	(104,670)	159,278	(188,746)	(36,628)
$ (16,461,275)	$ (6,594,927)	$ (6,739,241)	$ (13,345,321)	$ (8,304,446)	$ (6,771,821)

City of Citrus Heights, California
Fund Balances, Governmental Funds
Last Ten Fiscal Years
(Fiscal year ended June 30)
(Modified accrual basis of accounting)

	2008	2009	2010	2011
General Fund:				
Nonspendable	$ 1,425,555	$ 8,788,942	$ 8,441,469	$ 1,293,139
Restricted	-	-	-	-
Committed	35,000,000	25,000,000	27,630,000	34,416,550
Unassigned	804,276	3,974,686	782,766	-
Total general fund	37,229,831	37,763,628	36,854,235	35,709,689
All Other Governmental Funds:				
Nonspendable	344,560	3,255,450	4,763,352	4,758,923
Restricted	4,822,425	3,026,817	4,102,253	4,414,317
Committed	-	-	-	-
Assigned	17,610,618	14,650,164	8,090,593	15,020,966
Unassigned (deficit)	-	(424,928)	(727,512)	(2,236,731)
Total all other governmental funds	22,777,603	20,507,503	16,228,686	21,957,475
Total all governmental funds	$ 60,007,434	$ 58,271,131	$ 53,082,921	$ 57,667,164

Note: Information was not available from the City's pension plan to report both the pension liability and changes in pension liability under GASB Statement No. 68 prior to 2015. Consequently, the amounts reported above in 2014 and prior years are prior to restatement.

2012	2013	2014	2015	2016	2017
$ 1,366,759	$ 1,233,199	$ 1,144,639	$ 962,457	$ 298,407	$ 32,159
-	-	6,443	14,148	14,613	25,394
32,677,537	29,080,819	27,279,124	19,395,418	18,616,257	4,559,378
172,951	855,369	925,202	64,943	146,734	1,101,504
34,217,247	31,169,387	29,355,408	20,436,966	19,076,011	5,718,435
-	512,312	643,352	-	-	-
3,696,281	3,454,581	9,994,202	9,479,154	9,723,591	10,067,839
-	-	-	-	-	-
13,451,353	9,705,971	-	1,652,198	928,925	894,318
(14)	(578,904)	950,267	(570,131)	(122,707)	(132,660)
17,147,620	13,093,960	11,587,821	10,561,221	10,529,809	10,829,497
$ 51,364,867	$ 44,263,347	$ 40,943,229	$ 30,998,187	$ 29,605,820	$ 16,547,932

City of Citrus Heights, California
Changes in Fund Balances, Governmental Funds
Last Ten Fiscal Years
(Fiscal year ended June 30)
(Modified accrual basis of accounting)

	2008	2009	2010	2011
Revenues:				
Taxes and assessments	$ 19,077,300	$ 18,557,033	$ 19,184,773	$ 26,358,981
Licenses, permits and fees	1,685,048	1,147,843	1,064,263	999,510
Fines and forfeitures	558,204	948,261	996,933	940,646
Intergovernmental	20,876,358	19,121,754	23,763,010	19,781,727
Use of money and property	2,322,306	2,492,898	1,804,746	1,951,351
Charges for services	802,028	1,960,828	747,240	582,141
Contributions	78,833	25,487	35,598	540,192
Other revenues	25,072	29,380	1,257,949	635,554
Total revenues	45,425,149	44,283,484	48,854,512	51,790,102
Expenditures:				
General government	4,523,838	4,828,988	5,020,192	5,498,176
Public safety	15,658,456	16,884,699	17,448,366	17,751,208
Public ways and facilities	7,053,043	7,080,913	9,544,682	13,457,880
Culture and recreation	339,755	346,317	557,661	639,813
Economic development	126,979	163,256	80,074	60,941
Community enhancements	3,908,565	4,146,976	5,130,586	6,671,921
Capital outlay	10,343,879	12,031,576	15,866,392	4,698,433
Debt service:				
Lease principal	-	-	-	-
Interest and fiscal charges	201,046	546,900	699,200	646,767
Total expenditures	42,155,561	46,029,625	54,347,153	49,425,139
Reconciliation of Governmental Revenues				
Less Expenditures to Fund Equity:				
Revenues over (under) expenditures	$ 3,269,588	$ (1,746,141)	$ (5,492,641)	$ 2,364,963
Other financing sources (uses):				
Extraordinary loss on dissolution of redevelopment agency	-	-	-	-
Tax sharing payments	-	-	-	-
Proceeds from sale of capital assets	12,794	9,838	4,406	2,648
Transfers in	11,103,586	9,464,433	11,259,475	19,571,032
Transfers out	(11,055,888)	(9,464,433)	(10,959,450)	(17,354,400)
Total other financing sources (uses)	60,492	9,838	304,431	2,219,280
Net change in fund balances	$ 3,330,080	$ (1,736,303)	$ (5,188,210)	$ 4,584,243
Debt service as a percentage of noncapital expenditures	0%	0%	0%	0%

Source: City Finance Department

2012	2013	2014	2015	2016	2017
$ 21,031,929	$ 20,405,852	$ 15,419,083	$ 15,582,175	$ 16,984,351	$ 16,631,964
1,056,671	1,069,757	1,162,034	1,467,405	1,524,848	1,631,147
1,013,877	898,734	947,834	1,454,939	1,084,980	1,247,094
16,424,374	22,909,194	24,645,011	19,573,316	22,748,760	19,003,009
1,786,652	803,392	890,087	577,893	874,978	1,398,709
652,637	1,080,785	6,281,132	6,197,842	6,470,344	6,598,162
24,046	26,522	25,520	27,126	1,807,470	155,409
553,348	83,037	52,826	6,031	216,226	1,082,642
42,543,534	47,277,273	49,423,527	44,886,727	51,711,957	47,748,136
4,792,560	4,472,530	4,472,814	4,732,760	4,940,481	5,547,678
18,477,602	17,944,997	18,945,346	18,954,246	19,537,621	19,631,973
12,658,660	18,506,469	12,507,432	14,809,940	16,288,336	12,303,244
690,509	682,528	608,931	560,376	667,099	724,750
64,906	114,395	171,271	159,924	223,753	405,901
4,531,696	4,406,960	4,348,398	4,388,846	4,425,724	4,714,654
4,080,252	8,278,153	12,620,848	25,084,392	7,036,250	4,144,138
-	-	-	7,638,960	-	13,749,031
49,200	-	-	-	-	-
45,345,385	54,406,032	53,675,040	76,329,444	53,119,264	61,221,369
$ (2,801,851)	$ (7,128,759)	$ (4,251,513)	$(31,442,717)	(1,407,307)	$(13,473,233)
(3,005,604)	-	-	-	-	-
(573,320)	-	-	21,387,991	-	-
76,147	24,321	105,911	109,684	14,940	415,345
3,379,196	4,938,773	3,106,136	2,642,014	2,514,601	15,236,333
(3,376,862)	(4,935,855)	(3,106,136)	(2,642,014)	(2,514,601)	(15,236,333)
(3,500,443)	27,239	105,911	21,497,675	14,940	415,345
$ (6,302,294)	$ (7,101,520)	$ (4,145,602)	$ (9,945,042)	$ (1,392,367)	$(13,057,888)
0%	0%	0%	14.91%	0%	24.09%

City of Citrus Heights, California
Assessed Value and Actual Value of Taxable Property
For the last ten fiscal years
(In thousands of dollars)

Fiscal Year Ended June 30:	City * Secured	Unsecured	Less: Exemptions	Taxable Assessed Value
2008	$ 5,912,238,802	$ 131,394,367	$ 112,128,586	$ 5,931,504,583
2009	5,993,040,915	140,108,316	110,780,314	6,022,368,917
2010	5,578,901,387	138,126,469	109,393,913	5,607,633,943
2011	5,492,388,843	142,729,454	108,551,104	5,526,567,193
2012	5,290,587,477	136,830,168	105,948,755	5,321,468,890
2013	5,155,662,329	136,454,777	103,622,986	5,188,494,120
2014	5,408,064,500	130,148,077	100,836,040	5,437,376,537
2015	5,714,275,249	129,651,989	98,948,302	5,744,978,936
2016	5,925,147,810	125,462,149	97,373,566	5,953,236,393
2017	6,194,220,242	127,456,727	130,279,664	6,191,397,305

* Due to a Revenue Neutrality law, the City has entered into a contract with the County, whereby the County will keep all of the City's property tax revenue through June 2022. Numbers above represent estimates provided by the County.

Note: In 1978 the voters of the State of California passed Proposition 13 which limited property taxes to a total maximum rate of 1% based upon the assessed value of the property being taxed. Each year, the assessed value may be increased by an "inflation factor" (limited to a maximum of 2%). With few expections, property is only reassessed at the time that it is sold to a new owner. At that point, the new assessed value is reassessed at the purchase price of the property sold. The assessed valuation data shown above represents the only data currently available with respect to the actual market value of taxable property and is subject to the limitations described above.

Source: Sacramento County Auditor-Controller

Redevelopment Agency				
Secured	Unsecured	Less: Exemptions	Taxable Assessed Value	Total Direct Tax Rate
$ 465,674,136	$ 55,457,903	$ 413,000	$ 520,719,039	0.068%
525,612,565	62,235,182	404,600	587,443,147	0.084%
601,937,210	58,833,950	410,200	660,360,960	0.084%
584,558,211	56,908,605	460,600	641,006,216	0.084%
561,092,961	53,083,982	434,000	613,742,943	0.084%
535,868,652	51,620,891	434,000	587,055,543	0.084%
521,362,337	48,319,149	420,000	569,261,486	0.084%
519,033,049	46,431,829	406,000	565,058,878	0.084%
505,368,074	38,951,421	378,000	543,941,495	0.084%
515,200,283	39,266,230	371,000	554,095,513	0.084%

City of Citrus Heights, California
Direct and Overlapping Property Tax Rates
For the last ten fiscal years
(Rate per $1,000 of assessed value)

Fiscal Year Ended June 30:	2008	2009	2010	2011	2012
Basic Levy [1]	1.00000	1.00000	1.00000	1.00000	1.00000
Grant Joint High	0.03240	0.05180	0.07270	0.06330	0.05890
Los Rios College Bond	0.00000	0.00000	0.00000	0.00000	0.01920
Los Rios College Gob	0.00660	0.00740	0.01240	0.00900	0.00000
North Sacramento Elementary Gob 2017	0.00000	0.00000	0.00000	0.00230	0.00000
Rio Linda Elementary Bond	0.00000	0.00000	0.00000	0.00000	0.06030
Rio Linda Elementary Gob	0.04530	0.08040	0.00870	0.05100	0.00000
San Juan Unified	0.07070	0.07250	0.06880	0.08130	0.09480
Twin Rivers Unified	0.00000	0.00000	0.00000	0.00000	0.00000
Total Direct & Overlapping[2] Tax Rates	**1.22020**	**1.27910**	**1.16260**	**1.20690**	**1.24770**
City's Share of 1% Levy Per Prop 13 [3]	0.0843	0.0843	0.0843	.0.8431	0.0843
Voter Approved City Debt Rate	0.0000	0.0000	0.0000	0.0000	0.0000
Redevelopment Rate[4]	1.00000	1.00000	1.00000	1.00000	1.00000
Total Direct Rate[5]	0.12115	0.12938	0.14390	0.14260	0.12715

[1] In 1978, California voters passed Proposition 13 which set the property tax rate at a 1.00% fixed amount. This 1.00% is shared by all taxing agencies for which the subject property resides within. In addition to the 1.00% fixed amount, property owners are charged taxes as a percentage of assessed property values for the payment of any voter approved bonds.

[2] Overlapping rates are those of local and county governments that apply to property owners within the City. Not all overlapping rates apply to all city property owners.

[3] City's share of 1% levy is based on the City's share of the general fund tax rate area with the largest net taxable value within the City. ERAF general fund tax shifts may not be included in tax ratio figures.

[4] Redevelopment Rate is based on the largest RDA tax rate area and only includes rate(s) from indebtedness adopted prior to 1989 per California State statute. RDA direct and overlapping rates are applied only to the incremental property values. The approval of ABX1 26 eliminated Redevelopment from the State of California for the fiscal year 2012/13 and years therafter.

[5] Total Direct Rate is the weighted average of all individual direct rates applied by the City/Agency preparing the statistical section information and excludes revenues derved from aircraft. Beginning in 2013/14 the Total Direct Rate no longer includes revenue generated from the former redevelopment tax rate areas. Challenges to recognized enforceable obligations are assumed to have been resloved during 2012/13, residual revnue is assumed to be distributed to the City/Agency in the same proportions as general fund revenue.

Source: Sacramento County Assessor 2007/08-2016/17 Tax Rate Table

Source: HDL Coren & Cone

2013	2014	2015	2016	2017
1.00000	1.00000	1.00000	1.00000	1.00000
0.08230	0.07280	0.04850	0.03060	0.06480
0.00000	0.00000	0.00000	0.00000	0.00000
0.01930	0.01810	0.01130	0.00910	0.01410
0.00000	0.00000	0.00000	0.00000	0.00000
0.05760	0.05570	0.05290	0.04890	0.05210
0.00000	0.00000	0.00000	0.00000	0.00000
0.10030	0.16300	0.15090	0.15470	0.15220
0.01170	0.00990	0.05520	0.03890	0.04810
1.28790	**1.34010**	**1.33730**	**1.29480**	**1.34810**
0.0843	0.0843	0.0843	0.0843	0.0843
0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	0.0000	0.0000	0.0000	0.0000
0.12388	0.07634	0.07664	0.07735	0.07759

City of Citrus Heights, California
Principal Property Tax Payers
Current Year and Nine Years Ago

	Fiscal Year Ended June 30:					
	2017			2008		
Property Owner	Assessed Valuation	Rank	% of Total	Assessed Valuation	Rank	% of Total
Birdcage GRF2 LLC	$ 76,409,800	1	1.21%	-	-	-
Sunrise Mall Property LLC	55,147,119	2	0.87%	-	-	-
Montage Apartments Property	54,230,960	3	0.86%	-	-	-
Lakeview Gold 101305 LP	45,073,297	4	0.71%	-	-	-
Mitchell Sippola LP Bollinger Investment *	42,346,713	5	0.67%	-	-	-
Wal-Mart/Sam's Club *	28,999,033	6	0.46%	-	-	-
Oakmont Properties Autumn Ridge LP	28,648,084	7	0.45%	-	-	-
Fairfield Sunrise LLC	27,411,749	8	0.43%	-	-	-
Marshall Field Stores Inc *	24,702,472	9	0.39%	-	-	-
Costco Wholesale Corporation *	22,632,083	10	0.36%	-	-	-
VIF Lyon Oak Creek LLC	-	-	-	$ 59,315,298	1	0.98%
MP Birdcage Marketplace LLC	-	-	-	54,370,826	2	0.90%
Ronald P. & Maureen A. Ashley	-	-	-	41,582,852	3	0.69%
National Life Accident Insurance Company	-	-	-	30,961,914	4	0.51%
Sears Roebuck & Company	-	-	-	30,184,291	5	0.50%
Grove At Sunrise LLC	-	-	-	27,298,980	6	0.45%
Lowe's HIW Inc.	-	-	-	25,134,039	7	0.42%
1158 Page State LLC 4731 Whitney LLC	-	-	-	22,780,000	8	0.38%
Wedgewood Commons Apartments LLC	-	-	-	21,423,775	9	0.35%
Trestle Commons Apartments LLC	-	-	-	21,028,851	10	0.35%
	$405,601,310		6.41%	$334,080,826		5.53%

* Pending Appeals on Parcels

Data Source: Sacramento County Assessor 2016/17 Combined Tax Rolls and the SBE Non Unitary Tax Roll

Source: Sacramento County Auditor-Controller's Office

City of Citrus Heights, California
Schedule of Top 25 Principal Sales Tax Remitters (listed in alphabetical order)
Current year and Nine Years Ago
Fiscal Year Ended June 30

Fiscal Year Ended June 30:	
2017 (represents 50.96% of total sales tax)	2008 (represents 51.36% of total sales tax)
A&A Stepping Stone Manufacturing	Best Buy
Arco AM PM Location #1	Carmichael Honda
Arco AM PM Location #2	Chevron
AT&T Mobility	Circuit City
Barnes & Nobles	Costco
Best Buy	JC Penney
Burlington Coat Factory	K Mart
Costco	Lowe's
JC Penney	Macy's
K Mart	Mervyns
Kohl's	Old Navy
Lowe's	Orchard Supply Hardware
Macy's	Pastor Auto Care
Maita Honda	Rite Aid
Marshalls	Room Source
McDonald's	Safeway
Ross	Sam's Club
Sam's Club	Sears
Sears Location #1	Shell/Texaco
Sears Location #2	Staples
Target	Steward Enterprises
Toys R Us	Target
Ulta Beauty	Tower Mart
Walgreens	Toys R Us
Walmart	Walgreens

Note: The lists above includes both public and private entities and therefore the dollar values have been omitted because the information is not public information and is not provided by HDL. Rankings are determined by the sales dollar volume.

Source: Hinderliter, de Llamas & Associates, State Board of Equalization

City of Citrus Heights, California
Property Tax Levies and Collections
For the last ten fiscal years

Fiscal Year Ended June 30:	Taxes Levied for the Fiscal Year*	Collected within the Fiscal Year of the Levy		Collections in Subsequent Years	Total Collections to Date	
		Amount	Percentage of Levy		Amount	Percentage of Levy
2008	$ 7,429,647	$ 7,429,647	100%	-	$ 7,429,647	100%
2009	7,694,494	7,694,494	100%	-	7,694,494	100%
2010	8,392,429	8,392,429	100%	-	8,392,429	100%
2011	7,015,175	7,015,175	100%	-	7,015,175	100%
2012	5,228,554	5,228,554	100%	-	5,228,554	100%
2013	3,952,063	3,952,063	100%	-	3,952,063	100%
2014	4,180,600	4,180,600	100%	-	4,180,600	100%
2015	4,481,889	4,481,889	100%	-	4,481,889	100%
2016	4,918,619	4,918,619	100%	-	4,918,619	100%
2017	4,774,258	4,774,258	100%		4,774,258	100%

* Due to a Revenue Neutrality law, the City has entered into a contract with the County of Sacramento (County), whereby the County will keep all of the City's property tax revenue through June 2022. Numbers above were provided by the County.

Note: Amounts reported and collected under the Teeter Plan in which all taxes are distributed to the City in the year of the levy with the County retaining any interest or penalties on uncollected balances.

Source: Sacramento County Auditor-Controller's Office

City of Citrus Heights, California
Direct and Overlapping Debt
Current Year
June 30, 2017

City Assessed Valuation $6,320,596,337

	Percentage [1] Applicable	Outstanding Debt 6/30/17	Estimated Share of Overlapping Debt
Overlapping Tax and Assessment Debt:			
Los Rios Community College District	3.658%	$ 340,100,000	$ 12,440,858
San Juan Unified School District	19.46%	476,114,659	92,628,107
Twin Rivers Unified School District	0.247%	67,690,000	167,194
North Sacramento School District	0.247%	361,386	893
Grant Joint Union High School District	0.193%	222,604,692	429,627
Rio Linda Union School District	0.247%	2,774,167	6,852
City of Citrus Heights		-	-
Operation and Maintenance Assessment District	6.470%	2,690,000	174,043
Total overlapping tax and assessment debt		1,112,334,904	105,847,574
Direct and Overlapping General Fund Debt:			
Sacramento County General Fund Obligations	4.457%	235,694,277	10,504,894
Sacramento County Pension Obligations	4.457%	944,016,200	42,074,802
Sacramento Board of Education Certificates of Participation	4.457%	5,675,000	252,935
Los Rios Community College District Certificates of Participation	3.658%	700,000	25,606
San Juan Unified School District Certificates of Participation	19.455%	497,741	96,836
Twin Rivers Unified School District Certificates of Participation	0.193%	66,440,000	128,229
Sacramento Metropolitan Fire District General Fund Obligations	10.669%	9,305,000	992,750
Sacramento Metropolitan Fire District Pension Obligations	10.669%	52,363,975	5,586,712
Sunrise Recreation and Park District Certificates of Participation	54.732%	6,060,000	3,316,759
Total net overlapping general fund debt		1,320,752,193	62,979,523
Total overlapping debt		$ 2,433,087,097 [2]	$ 168,827,097
Total City Direct Debt			-
Total Direct and Overlapping Debt			$ 168,827,097

[1] Percentage of overlapping agency's assessed valuation located within boundaries of the City.

[2] Excludes tax and revenue anticipation notes, enterprise revenue, mortgage revenue, tax allocation bonds, and non-bonded capital lease obligations.

Note: The City has no outstanding debt and does not anticipate any GO bonds in the future.

Ratios to 2016-17 Assessed Valuation:

Direct Debt	**0.00%**
Total Direct and OverlappingTtax and Assessment Debt	1.67%
Combined Total Debt	2.67%

Source: California Municipal Statistics, Inc.

City of Citrus Heights, California
Legal Debt Margin Information
Last Ten Fiscal Years
(Dollars in thousands)

	2008	2009	2010	2011
Assessed Value	$ 5,912,238,802	$ 5,993,040,915	$ 5,578,901,387	$ 5,492,388,843
Conversion Percentage	25%	25%	25%	25%
Adjusted Assessed Value	1,478,059,701	1,498,260,229	1,394,725,347	1,373,097,211
Debt Limit Percentage	15%	15%	15%	15%
Debt limit	221,708,955	224,739,034	209,208,802	205,964,582
Total net debt applicable to limit	-	-	-	-
Legal debt margin	$ 221,708,955	$ 224,739,034	$ 209,208,802	$ 205,964,582
Total net debt applicable to the limit as a percentage of debt limit	0%	0%	0%	0%

Notes: The Government Code of the State of California provides for a legal debt limit of 15% of grossed assessed secured tax valuation. However, this provision was enacted when assessed valuation was based upon 25% of market value. Effective with the 1981-82 fiscal year, each parcel is now assessed at 100% of market value (as of the most recent change in ownership for that parcel). The computations shown above reflect a conversion of the assessed value for each fiscal year from the current full valuation perspective to the 25% level that was in effect at the time that the legal debt margin was enacted by the State of California for local governments located within the state.

The City does not have any outstanding general obligation debt subject to the limit.

Source: City Finance Department

2012	2013	2014	2015	2016	2017
$ 5,290,587,477	$ 5,155,662,329	$ 4,392,797,873	$ 5,714,275,249	$ 4,904,511,049	$ 5,123,458,670
25%	25%	25%	25%	25%	25%
1,322,646,869	1,288,915,582	1,098,199,468	1,428,568,812	1,226,127,762	1,280,864,668
15%	15%	15%	15%	15%	15%
198,397,030	193,337,337	164,729,920	214,285,322	183,919,164	192,129,700
-	-	-	-	-	-
$ 198,397,030	$ 193,337,337	$ 164,729,920	$ 214,285,322	$ 183,919,164	$ 192,129,700
0%	0%	0%	0%	0%	0%

City of Citrus Heights, California
Ratios of Outstanding Debt by Type - Government Activities
Last Ten Fiscal Years
(Fiscal year ended June 30)

Fiscal Year Ended June 30	Capital Lease	Percentage of Personal Income	Per Capita
2008	$ -	-	$ -
2009	-	-	-
2010	-	-	-
2011	-	-	-
2012	-	-	-
2013	-	-	-
2014	-	-	-
2015	13,749,031	652.44%	162.61
2016	13,749,031	651.70%	159.33
2017	-	-	-

Source: City of Finance Department

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City of Citrus Heights, California
Demographic and Economic Statistics
Last Ten Calendar Years

Calendar Year	Population	Personal Income (In Thousands)	Per Capita Personal Income	Unemployment Rate
2008	87,012	$ 2,157,200	$ 24,792	3.7%
2009	87,205	2,176,945	24,964	5.0%
2010	87,615	2,140,047	24,426	8.0%
2011	88,115	2,153,002	24,434	9.0%
2012	83,881	2,150,709	25,640	8.5%
2013	84,345	2,168,257	25,707	5.8%
2014	84,544	2,163,481	25,590	4.9%
2015	84,550	2,107,324	24,924	7.7%
2016	86,291	2,109,711	24,448	6.3%
2017	87,013	2,097,135	24,101	5.6%

Notes and Data Sources:

Population: California State Department of Finance. Unemployment Data: California Employment Development Department

2007-2009 Income, Age and Education Data: ESRI - Demographic Estimates are based on the last available Census. Projections are developed by incorpating all of the prior census data released to date. Demographic Data is totaled form Census Block Grous that overlap the City's boundaries.

2010 and later - Income, Age and Education Data - US Census Bureau, most recent American Community Survey

Median Age	% of Pop 25+ w/ High School Degree	% of Pop 25+ w/ Bachelor's Degree
-	-	-
-	-	-
35.9	89.3%	20.3%
36.6	89.2%	18.8%
36.7	89.0%	18.9%
37.1	89.2%	18.5%
37.0	89.9%	19.2%
37.0	89.2%	18.9%
37.8	89.2%	18.9%
37.3	89.9%	18.8%

City of Citrus Heights, California
Principal Employers
Current Year and Nine Years Ago

Employer	2017* Employees	2017* Rank	2017* Percentage of Top 10 Employment	2008* Employees	2008* Rank	2008* Percentage of Top 10 Employment
Sutter Health Sacramento Sierra Region	16,275	1	23.57%	7,140	4	5.12%
Kaiser Permanente	16,244	2	23.53%	6,260	6	4.49%
Dignity Health	8,039	3	11.64%	-	-	-
Intel Corp	6,000	4	8.69%	6,000	7	4.31%
Raley's Inc	5,244	5	7.59%	-	-	-
Apple Inc	5,000	6	7.24%	-	-	-
Safeway	3,573	7	5.17%	-	-	-
Health Net Inc	3,000	8	4.34%	-	-	-
VSP Global	2,927	9	4.24%	-	-	-
PGE	2,747	10	3.98%	-	-	-
State of California	-	-	-	73,872	1	53.01%
Sacramento County	-	-	-	14,513	2	10.41%
UC Davis/US Davis Health System	-	-	-	7,927	3	5.69%
Sacramento Unified School Distruct	-	-	-	7,000	5	5.02%
Los Rios Community College District	-	-	-	6,000	7	4.31%
Mercy/Catholic Healthcare West	-	-	-	5,647	8	4.05%
San Juan Unified School District	-	-	-	4,999	9	3.59%
Total	69,049		100.00%	139,358		100.00%

Notes:

* Information presented is for the Sacramento Region Major Private-Sector Employers, since separate data is not available for the City of Citrus Heights.

Source: Sacramento Business Journal

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City of Citrus Heights, California
Full-time and Part-time City Employees by Function
Last Ten Fiscal Years
(Fiscal year ended June 30)

Function	2008	2009	2010	2011
General government	30	31	27	27
Public safety	123	145	153	150
Public works	21	24	22	22
Community development	18	21	16	16
Community Center	-	-	8	9
Total	192	221	226	224

Source: City Finance Department

2012	2013	2014	2015	2016	2017
22	22	22	22	25	28
150	141	150	145	144	144
23	27	25	25	20	18
17	19	16	17	18	18
10	11	15	14	14	11
222	220	228	223	221	219

City of Citrus Heights, California
Operating Indicators by Function
Last Ten Fiscal Years
(Fiscal year ended June 30)

Function	2008	2009	2010	2011
Police				
Arrests	3,328	3,542	3,705	3,882
Parking citations issued	1,089	2,119	1,792	1,415
Total police actions	4,417	5,661	5,497	5,297
Fire **	n/a	n/a	n/a	n/a
Public works				
Street resurfacing (miles)	2	3	4	3
Parks and recreation **	n/a	n/a	n/a	n/a
Water **	n/a	n/a	n/a	n/a
Sewer **	n/a	n/a	n/a	n/a
Building:				
Commercial/Industrial Construction	2	4	2	-
Residential Construction	21	29	18	30
Total building actions	23	33	20	30

** Services are provided by Special Districts, which are separate from the City. Information not available.

2012	2013	2014	2015	2016	2017
3,176	3,276	3,348	3,185	2,990	2730
803	724	539	685	520	650
3,979	4,000	3,887	3,870	3,510	3,380
n/a	n/a	n/a	n/a	n/a	n/a
1	1	4	2	4	1
n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a
3	2	1	3	12	2
6	7	10	43	28	9
9	9	11	46	40	11

City of Citrus Heights, California
Capital Asset Statistics by Function
Last Ten Fiscal Years
(Fiscal year ended June 30)

Function	2008	2009	2010	2011
Police:				
Stations	1	1	1	1
Fire *				
Fire stations	5	5	5	5
Public works				
Streets (miles)	237	237	237	237
Streetlights	4,250	4,250	4,264	4,283
Parks and recreation				
Parks *	12	12	12	12
Community centers	-	-	1	1
Water *				
Water mains (miles)	225	225	225	225
Daily average consumption in MGD **	17.8	17.8	17.8	17.8
Sewer *				
Sanitary sewers (miles)	235	235	235	235
Number of pump stations	1	1	1	1
Building				
Commercial/Industrial Construction Value	$ 173,738	$ 10,900,000	$ 3,434,750	$ -
Residential Construction Value	4,610,952	5,917,307	3,689,820	5,316,613

* Services are provided by Special Districts, which are separate from the City. The data provided are for those portions of the system located within the City of Citrus Heights.

** MGD = Million Gallons per Day.

Source: City Finance Department

2012	2013	2014	2015	2016	2017
1	1	1	1	1	1
5	5	5	5	4	4
237	237	237	237	237	237
4,289	4,337	4,365	4,407	4,497	4,480
12	14	14	14	15	15
1	3	3	3	3	3
225	225	225	225	225	225
17.8	17.8	17.8	17.8	12	12
235	235	235	235	235	235
1	1	1	1	1	1
$ 2,093,500	$ 1,202,480	$ 1,600,000	$ 4,387,549	$ 22,135,000	$ 7,105,826
468,007	1,275,716	1,675,004	10,993,691	6,898,647	6,306,226

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CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Ronda Rivera, Assistant City Manager
Amy Van, City Clerk

SUBJECT: **Appoint a Representative to the Public Agency Risk Sharing Authority of California Board of Directors**

Summary and Recommendation

On June 8, 2017, the City Council adopted Resolution No. 2017-033 appointing the Human Resources and City Information Director as the Director on the Public Agency Risk Sharing Authority of California (PARSAC) Board of Directors; and appointing the City Clerk to serve as Alternate Director. The City created the classification of Assistant City Manager who will act on behalf of the City as the representative (Director) on the PARSAC Board of Directors. The City Clerk will continue to serve as the Alternate Director.

Staff recommends the City Council adopt Resolution No. ___ A Resolution of the City Council of the City of Citrus Heights, California, to Appoint a Representative to the PARSAC Board of Directors.

Fiscal Impact

There is no fiscal impact related to this item.

Background and Analysis

The City of Citrus Heights is self-insured for insurance and is a member of PARSAC in order to be a part of a joint purchasing program and to pool risks with other similar entities. The City's membership in PARSAC was established on July 1, 1998. PARSAC currently has 37 member agencies.

Each member agency has one seat with one vote on the Board of Directors. Member agencies appoint a representative to act as a Director on the PARSAC Board of Directors who votes on behalf of the member agency. In the event the Director is not able to attend a Board of Directors' meeting, the member agency appoints an Alternate Director to act with the same authority as the Director. Each one is eligible to serve on any and all committees established by

the PARSAC Board of Directors. Both the Director and the Alternate may attend all PARSAC meetings but only one vote per member agency is permitted.

The City recently created the classification of Assistant City Manager who will act on behalf of the City as Director on the PARSAC Board of Directors. The City Clerk will continue to serve as the Alternate Director.

Attachments: (1) Resolution to Appoint a Representative to the PARSAC Board of Directors

RESOLUTION NO. 2018-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS TO APPOINT A REPRESENTATIVE TO THE PUBLIC AGENCY RISK SHARING AUTHORITY OF CALIFORNIA (PARSAC) BOARD OF DIRECTORS

WHEREAS, the City of Citrus Heights is a Member Entity of the Public Agency Risk Sharing Authority ("PARSAC"), a joint powers agency providing risk management services, claims pooling and joint insurance purchase benefits to its member cities; and

WHEREAS, pursuant to the Joint Powers Agreement, each Member Agency of PARSAC is required to appoint representatives of the City to act on its behalf as if the City itself were present and acting on the PARSAC Board of Directors for all matters which come before such Board of Directors, and also for the Director to be eligible for serving on the PARSAC sub committees; and

WHEREAS, the Bylaws of PARSAC further require the City appoint its representatives by resolution identifying a Board Director and an Alternate Director to act in the Director's absence, which may be employees, elected officials, or a combination of both.

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS hereby appoints the Assistant City Manager as the Director on the PARSAC Board of Directors to act on behalf of the City; and appoints the City Clerk to serve as Alternate Director in the absence of the Director.

BE IT FURTHER RESOLVED that the City Manager, or a designee, be instructed to inform the Secretary of PARSAC of the above appointment by sending a certified copy of this Resolution to PARSAC's business office.

PASSED AND ADOPTED by the City Council of the City of Citrus Heights, California, this 8th day of February 2018, by the following vote, to wit:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
STEVE MILLER, Mayor

ATTEST:

_____
AMY VAN, City Clerk

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Ronda Rivera, Assistant City Manager

SUBJECT: **Audited Financial Statements and Compliance Report for Transportation Development Act Funds**

Summary and Recommendation
Staff recommends that the Council accepts and files the City of Citrus Heights Transportation Development Act Funds Audited Financial Statements and Compliance Report for fiscal year ended June 30, 2017.

Fiscal Impact
No fiscal impact.

Background and Analysis
The accounting firm of Richardson & Company, LLP was hired by the Sacramento Area Council of Governments (SACOG) to audit the transportation funds received by member agencies for the fiscal year ended June 30, 2017. They have determined that the City of Citrus Heights Transportation Fund financial statements present fairly, in all material respects, the financial position of the Transportation Development Act Funds of the City of Citrus Heights as of June 30, 2017. The statements are in conformity with generally accepted accounting principles.

Conclusion
The attached report reflects the financial position of the Transportation Development Act Funds of the City of Citrus Heights at June 30, 2017.

Attachment: (1) City of Citrus Heights Transportation Development Act Funds – Audited Financial Statements and Compliance Report as of June 30, 2017

CITY OF CITRUS HEIGHTS

TRANSPORTATION DEVELOPMENT ACT FUNDS

Audited Financial Statements
and Compliance Report

June 30, 2017

CITY OF CITRUS HEIGHTS

TRANSPORTATION DEVELOPMENT ACT FUNDS

Audited Financial Statements
and Compliance Report

June 30, 2017

Audited Financial Statements

Compliance Report

RICHARDSON & COMPANY LLP
CERTIFIED PUBLIC ACCOUNTANTS

550 Howe Avenue, Suite 210
Sacramento, California 95825

Telephone: (916) 564-8727
FAX: (916) 564-8728

INDEPENDENT AUDITOR'S REPORT

To the City Council
City of Citrus Heights, California

Report on the Financial Statements

We have audited the accompanying financial statements of the Transportation Development Act Funds (the Funds) of the City of Citrus Heights, as of and for the year ended June 30, 2017, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America, and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Transportation Development Act Funds of the City of Citrus Heights as of June 30, 2017, and the changes in financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis-of-Matter

As discussed in Note B, the financial statements present only the Transportation Development Act Funds of the City of Citrus Heights and do not purport to, and do not, present fairly the financial position of the City of Citrus Heights as of June 30, 2017, the changes in financial position, or where applicable, its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Prior Year Comparative Information

We have previously audited the June 30, 2016 Transportation Development Act Funds of the City of Citrus Heights' financial statements dated December 21, 2016. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2016 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Required Supplementary Information

Management has omitted management's discussion and analysis and budgetary comparison information that accounting principles generally accepted in the United States of America require to be presented to supplement the financial statements. Such missing information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. Our opinion on the financial statements is not affected by this missing information.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated January 9, 2018 on our consideration of the City's internal control over financial reporting related to the Funds and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters, and the Transportation Development Act. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over financial reporting and compliance.

Richardson & Company, LLP

January 9, 2018

CITY OF CITRUS HEIGHTS

TRANSPORTATION DEVELOPMENT ACT FUNDS

BALANCE SHEETS

June 30, 2017
(With Prior Year Data For Comparative Purposes Only)

	2017			(Comparative Purposes Only)
	Transit	Non-Transit	Total	2016
ASSETS				
Cash and investments	$ 619,663	$ 169,079	$ 788,742	$ 694,266
Interest receivable	337	167	504	1,110
Due from other governments	235,797		235,797	510,467
TOTAL ASSETS	$ 855,797	$ 169,246	$ 1,025,043	$ 1,205,843
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES				
LIABILITIES				
Accounts payable	$ 3,827		$ 3,827	$ 6,750
Salaries and benefits payable	62		62	
Due to other governments	523,315		523,315	802,487
TOTAL LIABILITIES	527,204		527,204	809,237
DEFERRED INFLOWS OF RESOURCES				
Unavailable revenues	67,751		67,751	266,762
FUND BALANCES				
Restricted for contracted transit services	260,842		260,842	
Restricted for pedestrian and bicycle facilities		$ 169,246	169,246	199,814
Unassigned (deficit)				(69,970)
TOTAL FUND BALANCES (DEFICIT)	260,842	169,246	430,088	129,844
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 855,797	$ 169,246	$ 1,025,043	$ 1,205,843

The accompanying notes are an integral part of these financial statements.

CITY OF CITRUS HEIGHTS

TRANSPORTATION DEVELOPMENT ACT FUNDS

STATEMENTS OF REVENUES, EXPENDITURES
AND CHANGES IN FUND BALANCES

For the Year Ended June 30, 2017
(With Prior Year Data For Comparative Purposes Only)

	2017			(Comparative Purposes Only)
	Transit	Non-Transit	Total	2016
REVENUES				
Local Transportation Funds				
Contracted transportation and administration	$ 3,218,179		$ 3,218,179	$ 3,077,419
Pedestrian Crossing Improvements Project				92,027
Pedestrian and bicycle				66,726
State Transit Assistance Fund	484,797		484,797	259,358
Other revenue				306,017
Interest		$ 457	457	3,848
TOTAL REVENUES	3,702,976	457	3,703,433	3,805,395
EXPENDITURES				
Purchased transportation	3,139,893		3,139,893	3,209,974
Administration	232,271		232,271	242,648
Pedestrian and bicycle facilities		31,025	31,025	112,652
Sunrise Boulevard Complete Streets Phase 3A project				38,167
TOTAL EXPENDITURES	3,372,164	31,025	3,403,189	3,603,441
NET CHANGE IN FUND BALANCES	330,812	(30,568)	300,244	201,954
Fund balances (deficit) at beginning of year	(69,970)	199,814	129,844	(72,110)
FUND BALANCES (DEFICIT) AT END OF YEAR	$ 260,842	$ 169,246	$ 430,088	$ 129,844

The accompanying notes are an integral part of these financial statements.

CITY OF CITRUS HEIGHTS

TRANSPORTATION DEVELOPMENT ACT FUNDS

NOTES TO FINANCIAL STATEMENTS

June 30, 2017

NOTE A – ORGANIZATION

The City of Citrus Heights (the City) receives funds under the provisions of the Transportation Development Act (TDA) from the Sacramento County Local Transportation Fund (LTF) under Article 8, Section 99400(c) and 99400(d), the State Transit Assistance Fund (STAF) under Article 4, Section 6730(a) and 6731(b) for transit purposes and Article 3, Section 99234 for pedestrian and bicycle facilities. The City's Article 8 LTF funds are for the support of public transportation as defined in the TDA. The City contracts with the Sacramento Regional Transit District for the operation of transit services in the City. The City of Citrus Heights' Transit Fund is used to account for these TDA funds received by the City. The City's Article 3 LTF funds represent amounts set aside by the Sacramento Area Council of Governments, the transportation planning agency administering TDA funds, to be allocated for pedestrian and bicycle facilities within the jurisdictions of Sacramento County and represent up to 2% of the available funds countywide. The City of Citrus Heights' Transit Fund and Transportation Development Act Fund (the Funds) are used to account for Transit and non-transit TDA funds, respectively, received by the City.

NOTE B – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation: The financial statements of the Transportation Development Act Funds (the Funds) have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

Reporting Entity: The financial statements are intended to present the financial position and results of operations of only those transactions recorded in the Funds. The Funds are included in the financial statements of the City.

Fund Accounting: The accounts of the City are organized on the basis of funds. A fund is an accounting entity with a self-balancing set of accounts established to record the financial position and results of operations of a specific governmental activity.

The City utilizes the special revenue fund type of the governmental fund group to account for the activities of the Funds. Special revenue funds are used to account for the proceeds of specific revenue sources that are legally restricted to expenditures for specific purposes.

Basis of Accounting: The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. A special revenue fund is accounted for using a current financial resources measurement focus. With this measurement focus, only current assets, deferred outflows of resources, liabilities and deferred inflows of resources are generally included on the balance sheet. Operating statements of these funds present increases (i.e., revenues and other financing sources) and decreases (i.e., expenditures and other financing uses) in net current assets.

The modified accrual basis of accounting is used by special revenue funds. Under the modified accrual basis of accounting, revenues are recognized when susceptible to accrual, i.e., when they become both measurable and available. "Measurable" means the amount of the transaction can be determined and "available" means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period, which is generally 90 days. TDA revenues are recognized when all eligibility requirements have been met. Expenditures are recorded when the related fund liability is incurred.

When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, then unrestricted resources as they are needed.

NOTE B – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Deferred inflow of Resources: Deferred inflow of resources in governmental funds arise when a potential revenue source does not meet both the "measurable" and "available" criteria for recognition in the current period. Deferred inflows of resources consisted of STAF revenues for which all eligibility requirements had been met at year end, but the amounts were not received from Sacramento County Auditor – Controller's Office within the 90 day availability period.

Fund Balance: Restrictions of fund balance represent amounts that can be spent only for the specific purposes stipulated by constitution, external resource providers or through enabling legislation. The restrictions of fund balance are according to the provisions of the Transportation Development Act and the purpose of each restriction is indicated by the account title on the face of the balance sheets.

Use of Estimates: The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Comparative Financial Statements: The financial statements include certain prior-year summarized comparative information in total, but not by individual fund. Such information does not include sufficient detail to constitute a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the Funds financial statements for the year ended June 30, 2016, from which the summarized information was derived.

NOTE C – CASH AND INVESTMENTS

Investment policy: The City's investment policy may be found in the notes to City's basic financial statements.

Investment in the City's Investment Pool: The Funds' cash is held in the City's investment pool. The City maintains an investment pool and allocates interest to the various funds based upon the average daily cash balances. Investments held in the City's investment pool are available on demand to the Funds and are stated at fair value.

Interest rate risk: Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment, the greater the sensitivity of its fair value to changes in market interest rates. As of June 30, 2017, the weighted average maturity of the investments contained in the City of Citrus Heights investment pool was approximately 1,152 days.

Credit Risk: Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. The City's investment pool does not have a rating provided by a nationally recognized statistical rating organization.

Custodial credit risk: Custodial risk is the risk that the government will not be able to recover its deposits or the value of its investments that are in the possession of an outside party. Custodial credit risk does not apply to a local government's indirect deposits or investment in securities through the use of government investment pools (such as the City's investment pool).

NOTE D – DUE FROM OTHER GOVERNMENTS

The due from other governments consists of the following at June 30, 2017:

	Transit	Non-Transit	2017	(Comparative Purposes Only) 2016
Transportation Development Act:				
Local Transportation Fund				
Fiscal Year 2016/17	$ 155,549		$ 155,549	
Fiscal Year 2015/16				$ 150,945
State Transit Assistance Fund				
Fiscal Year 2016/17	80,248		80,248	
Fiscal Year 2015/16				266,762
Sacramento Regional Transit District				92,760
Total due from other governments	$ 235,797	$ -	$ 235,797	$ 510,467

NOTE E – FARE REVENUE RATIO

Transit operators are required to maintain a fare revenue to operating expenses ratio in order to be eligible for TDA funding. The fare revenue ratio for the Transit Fund is calculated on a consolidated basis with the Sacramento Regional Transit District, which provides transit services within the City.

NOTE F – CONCENTRATIONS

The Funds receive a substantial amount of their support from a statewide retail sales tax from the LTF and STAF created by the TDA. A significant reduction in the level of this support, if this were to occur, may have a significant effect on the Funds' activities.

NOTE G – SUBSEQUENT EVENT

In December 2017, the City Council approved an extension of the agreement for bus services with the Sacramento Regional Transportation District (SRTD) through December 31, 2019. The agreement calls for compensation of SRTD for bus services equal to the City's LTF and STAF allocations from SACOG less the City's allowable administration fee, subject to certain adjustments. The agreement has a provision for cost sharing of specified capital improvements between the City and SRTD. The agreement may be terminated by either party with advance notice of eighteen months.

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INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS* AND THE TRANSPORTATION DEVELOPMENT ACT

To the City Council
City of Citrus Heights, California

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of the City of Citrus Heights' (the City) Transportation Development Act Funds, as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the Fund's basic financial statements, and have issued our report thereon dated January 9, 2018.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be a material weakness. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the City's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. Our audit was further made to determine that Transportation Development Act (TDA) funds allocated and received by the City were expended in conformance with the applicable statutes, rules and regulations of the TDA and Section 6666 and 6667 of the California Code of Regulations. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards* or the TDA.

To the City Council
City of Citrus Heights, California

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* and the TDA in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Richardson & Company, LLP

January 9, 2018

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Ronda Rivera, Assistant City Manager
Monica Alejandrez, Human Resources Manager

SUBJECT: **Adopt Resolution Authorizing the City Manager to Execute a Consulting Service Agreement with Municipal Resource Group, LLC**

Summary and Recommendation

Due to the recent restructure and reorganization of the Finance Division and General Services Department, the City is seeking the professional guidance and expertise of Municipal Resource Group, LLC (MRG) consultants to assist Finance staff with establishing appropriate processes and procedures related to the City's finances and budget. In addition, the General Services Department is seeking a high level of technical assistance with a number of public works projects and programs.

Staff recommends the City Council approve Resolution No. 2018-___ a resolution authorizing the City Manager to execute a consulting service agreement with Municipal Resource Group, LLC for professional services.

Fiscal Impact

The total service agreement will not exceed $200,000 and will expire at the end of the 2018 calendar year. There will be no fiscal impact to the current FY 2017/2018 budget. Funding for FY 2018/2019 will be programmed into the budget.

Background and Analysis

The City has recently undergone a reorganization of its Finance Division and General Services Department. As a result, the City is seeking the technical guidance and assistance of MRG consultants who have expertise in the fields of Finance and Public Works. MRG consultants will assist the City's Finance staff on a variety of assignments, which include, but are not limited to, assistance with the City's annual budget process, development of financial policies and procedures, and staff training. General Service's staff will receive guidance and assistance on a number of projects and programs related to storm water, drainage, transportation and traffic.

Conclusion

Staff recommends the City Council approve the resolution authorizing the City Manager to execute a Consulting Services Contract with MRG for a not-to-exceed amount of $200,000.

Attachments: (1) Consultant Services Agreement
(2) MRG Scope of Work
(3) Resolution No. 2018-___ Consulting Services Agreement with MRG

CONSULTING SERVICES AGREEMENT BETWEEN
THE CITY OF CITRUS HEIGHTS AND
MUNICIPAL RESOURCE GROUP, LLC (MRG)
(Standard Agreement)

THIS Agreement ("Agreement") for consulting services is made by and between the City of CITRUS HEIGHTS ("City") and Municipal Resource Group ("Consultant") (together referred to as the "Parties") as of February 12, 2018 (the "Effective Date").

Section 1. **SERVICES**. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to City the services described in the Scope of Work attached as Exhibit A, and incorporated herein, at the time and place and in the manner specified therein.

1.1 **Term of Services.** The term of this Agreement shall begin on the Effective Date and shall end on December 31, 2018 or the date the Consultant completes the services specified in Exhibit A, whichever occurs first, unless the term of the Agreement is otherwise terminated or extended, as referenced herein.

1.2 **Standard of Performance.** Consultant shall perform all services required pursuant to this Agreement according to the standards observed by a competent practitioner of the profession in which Consultant is engaged.

1.3 **Assignment of Personnel.** Consultant shall assign only competent personnel to perform services pursuant to this Agreement. In the event that City, in its sole discretion, at any time during the term of this Agreement, requests in writing the reassignment of any such persons to ensure Consultant performs services in accordance with the Standard of Performance, Consultant shall, immediately upon receiving City's request, reassign such persons.

1.4 **Time.** Consultant shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided herein above and to satisfy Consultant's obligations hereunder.

Section 2. **COMPENSATION.** City hereby agrees to pay Consultant a sum not to exceed Two Hundred Thousand Dollars $(200,000.00), as set forth in Exhibit B, attached hereto and incorporated herein for services to be performed and reimbursable expenses incurred under this Agreement. This dollar amount is not a guarantee that the City will pay that full amount to the Consultant, but is merely a limit of potential City expenditures under this Agreement.

Consultant and City acknowledge and agree that compensation paid by City to Consultant under this Agreement is based upon Consultant's estimated costs of providing the services required hereunder, including salaries and benefits of employees and subcontractors of Consultant. Consequently, the parties further agree that compensation hereunder is intended to include the

costs of contributions to any pensions and/or annuities to which Consultant and its employees, agents, and subcontractors may be eligible. City therefore has no responsibility for such contributions beyond compensation required under this Agreement.

2.1 **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information, unless waived by the City Manager, or his or her designee:

- Serial identifications of progress bills; i.e., Progress Bill No. 1 for the first invoice, etc.;
- The beginning and ending dates of the billing period;
- A Task Summary containing the original contract amount, the amount of prior billings, the total due this period, the balance available under the Agreement, and the percentage of completion;
- At City's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense;
- The total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder;
- The Consultant's signature.

2.2 **Monthly Payment.** City shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. City shall pay undisputed invoices that comply with the above requirements within 30 days from the receipt of the invoice.

2.3 **Final Payment.** Consultant shall submit its final invoice within 60 days of completing its services. Consultant's failure to submit its final invoice within this 60 day period shall constitute Consultant's waiver of any further billings to, or payments from, City.

2.4 **Reimbursable Expenses.** Reimbursable expenses, if any, are specified in Exhibit B and included in the total compensation referenced in Section 2. Expenses not listed in Exhibit B are not chargeable to, or reimbursable by, City.

2.5 **Payment of Taxes.** Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

2.6 **Authorization to Perform Services.** The Consultant is not authorized to perform any services or incur any costs whatsoever under the terms of this

Agreement until receipt of a written authorization from the City Manager, or his or her designee.

Section 3. **FACILITIES AND EQUIPMENT.** Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement

Section 4. **INSURANCE REQUIREMENTS.** Before beginning any services under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance specified herein and maintain that insurance throughout the term of this Agreement. The cost of such insurance shall be included in the Consultant's bid or proposal. Consultant shall be fully responsible for the acts and omissions of its subcontractors or other agents.

4.1 **Workers' Compensation.** Consultant shall, at its sole cost and expense, maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant in the amount required by applicable law. The requirement to maintain Statutory Workers' Compensation and Employer's Liability Insurance may be waived by the City upon written verification that Consultant is a sole proprietor and does not have any employees and will not have any employees during the term of this Agreement.

4.2 **Commercial General and Automobile Liability Insurance.**

4.2.1 **General requirements.** Consultant, at its own cost and expense, shall maintain commercial general and automobile liability insurance for the term of this Agreement in an amount not less than $2,000,000 per occurrence and $4,000,000 aggregate, combined single limit coverage for risks associated with the work contemplated by this Agreement.

4.2.2 **Minimum scope of coverage.** Commercial general coverage shall be at least as broad as Insurance Services Office Commercial General Liability occurrence form CG 0001 (most recent edition) covering comprehensive General Liability on an "occurrence" basis. Automobile coverage shall be at least as broad as Insurance Services Office Automobile Liability form CA 0001 (most recent edition) covering any auto (Code 1), or if Consultant has no owned autos, hired (code 8) and non-owned autos (Code 9). No endorsement shall be attached limiting the coverage.

4.2.3 **Additional requirements.** Each of the following shall be included in the insurance coverage or added as a certified endorsement to the policy:

a. The Commercial General and Automobile Liability Insurance shall cover on an occurrence basis.

b. City, its officers, officials, employees, agents, and volunteers shall be covered as additional insureds for liability arising out of work or operations on behalf of the Consultant, including materials, parts, or equipment furnished in connection with such work or operations; or automobiles owned, leased, hired, or borrowed by the Consultant. Coverage can be provided in the form of an endorsement to the Consultant's insurance at least as broad as CG 20 10 11 85, or both CG 20 10 10 01 and CG 20 37 10 01.

c. For any claims related to this Agreement or the work hereunder, the Consultant's insurance covered shall be primary insurance as respects the City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees, agents or volunteers shall be excess of the Consultant's insurance and non-contributing.

d. The policy shall cover inter-insured suits and include a "separation of Insureds" or "severability" clause which treats each insured separately.

e. Consultant agrees to give at least 30 days prior written notice to City before coverage is canceled or modified as to scope or amount.

4.3 Professional Liability Insurance.

4.3.1 General requirements. Consultant, at its own cost and expense, shall maintain for the period covered by this Agreement professional liability insurance for licensed professionals performing work pursuant to this Agreement in an amount not less than $1,000,000 per occurrence or claim covering the Consultant's errors and omissions.

4.3.2 Claims-made limitations. The following provisions shall apply if the professional liability coverage is written on a claims-made form:

a. The retroactive date of the policy must be shown and must be before the date of the Agreement.

b. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the Agreement or the work.

c. If coverage is canceled or not renewed and it is not replaced with another claims-made policy form with a retroactive date that precedes the date of this Agreement, Consultant must purchase an extended period coverage for a minimum of five (5) years after completion of work under this Agreement.

d. A copy of the claim reporting requirements must be submitted to the City for review prior to the commencement of any work under this Agreement.

4.4 All Policies Requirements.

4.4.1 Submittal Requirements. Consultant shall submit the following to City prior to beginning services:

a. Certificate of Liability Insurance in the amounts specified in this Agreement; and

b. Additional Insured Endorsement as required for the General Commercial and Automobile Liability Polices.

4.4.2 Acceptability of Insurers. All insurance required by this Agreement is to be placed with insurers with a Bests' rating of no less than A:VII.

4.4.3 Deductibles and Self-Insured Retentions. Insurance obtained by the Consultant shall have a self-insured retention or deductible of no more than $100,000.

4.4.4 Wasting Policies. No policy required herein shall include a "wasting" policy limit (i.e. limit that is eroded by the cost of defense).

4.4.5 Waiver of Subrogation. Consultant hereby agrees to waive subrogation which any insurer or contractor may require from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsements that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer.

The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Consultant, its employees, agents, and subcontractors.

4.4.6 Subcontractors. Consultant shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements

for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein, and Consultant shall ensure that City, its officers, officials, employees, agents, and volunteers are covered as additional insured on all coverages.

4.4.7 **Excess Insurance.** If Consultant maintains higher insurance limits than the minimums specified herein, City shall be entitled to coverage for the higher limits maintained by the Consultant.

4.5 **Remedies.** In addition to any other remedies City may have if Consultant fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, City may, at its sole option: 1) obtain such insurance and deduct and retain the amount of the premiums for such insurance from any sums due under the Agreement; 2) order Consultant to stop work under this Agreement and withhold any payment that becomes due to Consultant hereunder until Consultant demonstrates compliance with the requirements hereof; and/or 3) terminate this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 **General Requirement.** To the fullest extent permitted by law, Consultant shall indemnify, defend with counsel acceptable to City, and hold harmless City and its officers, officials, employees, agents and volunteers (collectively, "Indemnitees") from and against any and all liability, loss, damage, claims, expenses, and costs, including without limitation, attorney's fees, costs and fees of litigation, (collectively, "Liability") of every nature arising out of or in connection with Consultant's performance of the services under this Agreement, or its failure to comply with any of its obligations contained in this Agreement, or its failure to comply with any applicable law or regulation, except such Liability caused by the sole negligence or willful misconduct of City.

Acceptance by City of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damage or claims for damages whether or not such insurance policies shall be been determined to apply.

5.2 **PERS Indemnification.** In the event that Consultant or any employee, agent, or subcontractor of Consultant providing services under this Agreement is determined by a court of competent jurisdiction or the California Public Employees Retirement System (PERS) to be eligible for enrollment in PERS as an employee of City, Consultant shall indemnify, defend, and hold harmless City for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as

well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of City.

Section 6. STATUS OF CONSULTANT.

6.1 Independent Contractor. At all times during the term of this Agreement, Consultant shall be an independent contractor and shall not be an employee of City.

6.2 Consultant Not an Agent. Except as City may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind City to any obligation whatsoever.

Section 7. LEGAL REQUIREMENTS.

7.1 Governing Law. The laws of the State of California shall govern this Agreement.

7.2 Compliance with Applicable Laws. Consultant and any subcontractors shall comply with all laws applicable to the performance of the work hereunder. Consultant shall also, to the extent required by the California Labor Code, pay not less than the latest prevailing wage rates as determined by the California Department of Industrial Relations.

7.3 Licenses and Permits. Consultant represents and warrants to City that Consultant and its employees, agents, and any subcontractors have, and will maintain at their sole cost and expense, all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required to practice their respective professions. In addition to the foregoing, Consultant and any subcontractors shall obtain and maintain during the term of this Agreement valid business licenses from City.

7.4 Nondiscrimination and Equal Opportunity. Consultant shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, genetic information, marital status, sex, sexual orientation, gender or gender identity, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or programs provided by Consultant under this Agreement. Consultant shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the

provision of any services that are the subject of this Agreement, including but not limited to the satisfaction of any positive obligations required of Consultant thereby.

Section 8. TERMINATION AND MODIFICATION.

8.1 **Termination.** Upon ten days' prior written notice, City may cancel this Agreement at any time and without cause upon such written notification to Consultant. In the event of termination, Consultant shall be entitled to compensation for services performed to the effective date of termination; City, however, may condition payment of such compensation upon Consultant delivering to City any or all documents, photographs, computer software, video and audio tapes, and other materials provided to Consultant or prepared by or for Consultant or the City in connection with this Agreement.

8.2 **Amendments.** The parties may amend this Agreement only by a writing signed by the parties hereto.

8.3 **Assignment and Subcontracting.** City and Consultant recognize and agree that this Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to City for entering into this Agreement was and is the professional reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the City Manager, or his or her designee. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors noted in the proposal, without prior written approval of the City Manager, or his or her designee.

8.4 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between City and Consultant, including but not limited to the provisions of Section 5, shall survive the termination of this Agreement.

8.5 **Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, City's remedies shall include, but not be limited to, the following:

8.5.1 Immediately terminate the Agreement;

8.5.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;

8.5.3 Retain a different consultant to complete the work described in Exhibit A not finished by Consultant; or

8.5.4 Charge Consultant the difference between the cost to complete the work described in Exhibit A that is unfinished at the time of breach and the amount that City would have paid Consultant pursuant to Section 2 if Consultant had completed the work.

8.5.5 The remedies mentioned in this Agreement are not exclusive of any other right, power or remedy permitted by law. The City's failure or delay in exercising any remedy shall not constitute a waiver of such remedy or preclude the further exercise of City's rights.

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 **Records Created as Part of Consultant's Performance.** All final versions of reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the City. Consultant hereby agrees to deliver those documents to the City upon termination of the Agreement, and the City may use, reuse or otherwise dispose of the documents without Consultant's permission. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for the City and are not necessarily suitable for any future or other use. City and Consultant agree that, until final approval by City, all data, plans, specifications, reports and other documents are confidential drafts and will not be released to third parties by Consultant without prior written approval of City.

9.2 **Consultant's Books and Records.** Consultant shall maintain any and all records or documents evidencing or relating to charges for services or expenditures and disbursements charged to the City under this Agreement for a minimum of 3 years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement. All such records shall be maintained in accordance with generally accepted accounting principles and shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the City. Pursuant to Government Code Section 8546.7, the Agreement may be subject to the

examination and audit of the State Auditor for a period of 3 years after final payment under the Agreement.

Section 10 MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the parties agree that trial of such action shall be vested exclusively in the state courts of California in Sacramento County or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 **No Implied Waiver of Breach**. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the parties.

10.6 **Conflict of Interest.** Consultant may serve other clients, but none whose activities within the corporate limits of City or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Consultant shall not employ any City official in the work performed pursuant to this Agreement. No officer or employee of City shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

10.7 **Solicitation.** Consultant agrees not to solicit business at any meeting, focus group, or interview related to this Agreement, either orally or through any written materials.

10.8 **Notices.** Any notice, demand, request, consent or approval that either party is required to give the other pursuant to this Agreement, shall be in writing and may be given by either (i) personal service, or (ii) certified United States mail, postage prepaid, return receipt requested,. Notice shall be effective upon personal delivery or delivery to the addresses specified below, as reflected on the receipt of delivery or return receipt, as applicable.

Consultant : Municipal Resource Group, LLC (MRG)
PO Box 561
Wilton, CA 95693
ATTN: Mary Egan

City: City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621
ATTN: City Manager

10.9 **Professional Seal.** Where applicable in the determination of the City Manager, or his or her designee, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation. The stamp/seal shall be in a block entitled "Seal and Signature of Registered Professional with report/design responsibility."

10.10 **Integration.** This Agreement, including the scope of work attached hereto and incorporated herein as Exhibits A and B represents the entire and integrated agreement between City and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. To the extent there are any inconsistences between this Agreement, the Exhibits, and Consultant's proposal, the Agreement shall control To the extent there are any inconsistences between the Exhibits and the Consultant's Proposal, the Exhibits shall control.

Exhibit A Scope of Services
Exhibit B Compensation Schedule

10.11 **Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

10.12 **Construction of Agreement.** Each party hereto has had an equivalent opportunity to participate in the drafting of the agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

10.13 **No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any third parties.

SIGNATURES ON FOLLOWING PAGE

The Parties have executed this Agreement as of the Effective Date.

CITY OF CITRUS HEIGHTS	**CONSULTANT**
_____	_____
Christopher W. Boyd, City Manager	Mary Egan, Municipal Resource Group, LLC. Partner

Attest:

_____
Amy Van, City Clerk

Approved as to Form:

_____
Ruthann G. Ziegler, City Attorney

EXHIBIT A

SCOPE OF SERVICES
(insert here)

EXHIBIT B

COMPENSATION SCHEDULE
(insert here)

CERTIFICATE OF COMPLIANCE WITH LABOR CODE § 3700

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

CONSULTANT

By: _____

Title: _____

2699908.6

January 25, 2018

Ronda Rivera
Human Resources/City Information Director
City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621

VIA ELECTRONIC MAIL: *RRivera@citrusheights.net*

RE: Proposed services for the City of Citrus Heights

Dear Ms. Rivera:

Thank you very much for requesting a scope of work from Municipal Resource Group, LLC (MRG). MRG consultant, Bill Zenoni will continue his work with the HR/Finance Departments. Rudolph Ohlemutz will provide technical assistance to the Public Works Department.

MRG anticipates that Bill will be needed approximately 16 hours a week through the end of the calendar year and Rudolph approximately 30 hours per week through the fiscal year. Rudolph understands from his on-site meeting that he would be supporting the City on site two days per week and available off-site the remainder for research and technical review.

MRG will invoice for actual hours for Bill Zenoni at $165 per hour and mileage as needed for on-site project work and Rudolph (Rolf) at $135 per hour and mileage. The entire MRG team of subject matter experts in other areas of local government services is available if needed.

Thank you for this opportunity to serve the City of Citrus Heights.

Sincerely,

Mary Egan

Mary Egan, Partner
Human Resources Consultant
MRG, LLC
(916) 261-7547
egan@solutions-mrg.com

Bill Zenoni
High Level Technical Support and Assessment
HR/Finance Departments 16 hours per week through Calendar year

Scope of work - Continue to provide high level technical assistance with:

- City annual budget process and document for City Manager and City Council
- Oversee and fine tune Financial forecasting models
- Development of financial policies
- Review current financial procedures and development of recommendation of best practices
- Financial and City Staff training as necessary to enhance Finance Department operations

Rudolph (Rolf) Ohlemutz
High Level Technical and Project Management Support and Assessment
Public Works 30 hours per week through Fiscal year

Scope of work - Provide high level technical assistance with the following:

1. Storm Water Regulatory Program
    a. Attend monthly storm water partnership meetings as appropriate
    b. Review and evaluate SWPPP inspection program
    c. Compile, analyze and document non-compliance incidents
    d. Provide training for City department managers in program responsibilities, deliverable and deadlines
2. Storm Drainage Operations and Maintenance Program
    a. Review previous maintenance work and recommend 2018 work program
    b. Review and evaluate storm drain maintenance contractor operations
    c. Develop Routine Maintenance Agreement
3. Storm Drainage Master Plan and Capital Improvement Program
    a. Review consultant developed CIP
    b. Review bid documents for CIP projects.
    c. Expedite processing of various required permits
4. Transportation Capital Improvement Program
    a. Review consultant developed CIP
    b. Expedite Federally required project documentation for various project in accordance with the Local Assistance Program Manual (i.e. Request for Authorization, Project Award Packet)

    c. Recommend RFQ process to select Pavement Management System Consultant (consultant is needed to perform street rating for development of upcoming resurfacing program)
5. Traffic Engineering Program
    a. Recommend RFQ process to select "As-Needed" Traffic Engineering Consultant.
6. Encroachment Permit Processing Program
    a. Update City's Standard Provisions for Encroachment Permits
7. Flood Plain Management Program
    a. Review FIRM Map revision process

RESOLUTION NO. 2018- ___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS, CALIFORNIA, AUTHORIZING THE CITY MANAGER TO EXECUTE A CONSULTING SERVICE AGREEMENT WITH MUNCIPAL RESOURCE GROUP, LLC FOR PROFESSIONAL SERVICES

WHEREAS, the City seeks the assistance of subject matter experts to provide high level technical and professional consultant services to the City's Finance Division and General Services Department; and

WHEREAS, Municipal Resource Group has a number of subject matter experts to provide high level technical and professional assistance to City staff; and

WHEREAS, a consultant services agreement has been developed and agreed to by both the City of Citrus Heights and Municipal Resource Group for an amount not-to-exceed $200,000.

NOW THEREFORE BE IT RESOLVED AND ORDERED that the City of Citrus Heights does hereby authorizes the City Manager to execute a service agreement with Municipal Resource Group for consulting services not-to-exceed $200,000.

The City Clerk shall certify the passage and adoption of this Resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Citrus Heights, California, this 8th day of February 2018 by the following vote, to wit:

AYES: Council Members:
NOES: Council Members:
ABSTAIN: Council Members:
ABSENT: Council Members:

Steve Miller, Mayor

ATTEST:

Amy Van, City Clerk

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Rhonda Sherman, Community Services Director
Stuart Hodgkins, Interim City Engineer

SUBJECT: **Adoption of Mitigated Negative Declaration and Adoption of the Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study**

Summary and Recommendation

Since taking over full responsibility for maintenance of the City-wide drainage system in 2010, the City has been committed to developing a comprehensive drainage Capital Improvement Program to reduce or eliminate flooding and drainage problems. Eliminating flooding and drainage problems enables residents to experience an improved quality of life in the City.

In keeping with the commitment to eliminate drainage issues, a Drainage Master Plan Study for City Neighborhoods 8, 9, and 10 (Master Plan) was completed in February 2016. The Master Plan proposes several capital improvements to the City's storm water drainage system within the designated problem locations (Proposed Project).

A project-level Initial Study/Mitigated Negative Declaration (MND) has been prepared for the Proposed Project in accordance with California Environmental Quality Act (CEQA). The MND concludes the project will not have a significant impact on the environment with the inclusion of mitigation measures as defined in the Mitigation and Monitoring and Reporting Program (MMP).

Staff recommends the City Council adopt Resolution No. 2018-___ a resolution adopting the Citrus Heights Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study and adopting a Mitigated Negative Declaration.

Fiscal Impact

Adoption of the MND and Master Plan has no fiscal impact. This Master Plan includes project goals, objectives and conceptual estimates for improving storm water handling, yet the fiscal

impact of each of the proposed improvements will be considered by the City Council as each is brought forward for construction.

Background and Analysis

The City has contracted with Sacramento County for maintenance of our storm drainage facilities since incorporation. In 2010, the City took over full responsibility for the drainage system and began developing a comprehensive drainage Capital Improvement Program to reduce or eliminate flooding and drainage problems. As part of this process the City retained West Yost Associates (West Yost) to develop a drainage master planning study for City Neighborhoods 8, 9, and 10.

West Yost solicited public input at the beginning of the plan development process through a public workshop in April 2012. The final Master Plan was completed in February 2016. The Master Plan proposes twelve specific capital improvements to the City's storm water drainage system within the Proposed Project. The estimated cost to construct the Proposed Project is $4,945,000. More detailed information about each individual improvement project and its estimated costs may be found in Chapter 7 of the Master Plan included as Exhibit A-2 to the resolution attached hereto.

In 2017, Dokken Engineering (Dokken) was retained to prepare an environmental document for the Proposed Project. A project-level MND (Exhibit A-1 to the resolution attached hereto) was prepared for the Proposed Project to satisfy the requirements of the California Environmental Quality Act (CEQA). This determination has been made based on comments received from interested agencies and the public during the 30-day public circulation of the Initial Study from October 13th to November 13th, 2017. This determination concludes the project will not have a significant impact on the environment with the inclusion of appropriate avoidance, minimization, and mitigation measures as defined in the MMP.

Conclusion

Staff recommends the City Council approve the attached resolution adopting the MND and accompanying MMP and adopting the Master Plan.

Attachment:

Resolution 2018-___ with the following exhibits:

- A-1 – Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program
- A-2 – Neighborhoods 8, 9 and 10 Storm Drainage Master Plan Study

RESOLUTION NO. 2018- ___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS, CALIFORNIA, ADOPTING THE CITRUS HEIGHTS NEIGHBORHOODS 8, 9, AND 10 STORM DRAINAGE MASTER PLAN STUDY AND ADOPTING A MITIGATED NEGATIVE DECLARATION

WHEREAS, in 2010, the City assumed full responsibility for maintenance and operations of its storm drainage facilities from Sacramento County and began developing a comprehensive drainage Capital Improvement Program to reduce or eliminate flooding and drainage problems; and

WHEREAS, the Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study was completed in February 2016; and

WHEREAS, the Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study proposes a project consisting of twelve (12) separate improvements to the City's storm drainage system to eliminate flooding and other drainage problems in the subject neighborhoods; and

WHEREAS, the City Council held a public hearing on February 8, 2018, wherein public testimony was taken and based upon the Initial Study and comments received, potential impacts could be avoided or reduced to a level of insignificance by mitigation measures; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the City Council of the City of Citrus Heights finds as follows:

1. An Initial Study was prepared for the Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study project and proper notice was provided in accordance with CEQA and local guidelines.

2. That, based upon the Initial Study, potential impacts resulting from the project have been identified. Mitigation measures have been proposed that will reduce the potential impacts to less than significant. In addition, there is no substantial evidence that supports a fair argument that the project, as mitigated, would have a significant effect on the environment.

3. That the project does not have the potential to have a significant adverse impact on wildlife resources as defined in the State Fish and Game Code, either individually or cumulatively and is not exempt from Fish and Game filing fees.

4. That the project is not located on a site listed on any Hazardous Waste Site List compiled by the State pursuant to Section 65962.5 of the California Government Code.

5. That the City Council reviewed the Initial Study and considered public comments before making a recommendation on the project.

6. That a Mitigation Monitoring and Reporting Program has been prepared to ensure compliance with the adopted mitigation measures, which Mitigation Monitoring Program was considered by the Citrus Heights City Council and which Mitigation Monitoring Program is made a part of this resolution.

7. That the Mitigated Negative Declaration prepared concerning the Citrus Heights Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study project reflects the independent judgment and analysis of the City Council of the City of Citrus Heights.

8. The City Council hereby adopts as "final" the Citrus Heights Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study project Mitigated Negative Declaration comprised of: the draft Mitigated Negative Declaration and the Mitigation Monitoring and Reporting Program (attached as Exhibit A-1).

9. That the record of proceedings of the decision on the project is available for public review at the City of Citrus Heights General services Department, 6360 Fountain Square Drive, Citrus Heights CA, 95621.

BE IT FURTHER RESOLVED that the Citrus Heights City Council, in reference to the potential impacts identified in the Initial Study, hereby adopts the Mitigated Negative Declaration prepared for the Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study project including the mitigation measures (contained within the attached Negative Declaration and Mitigation Monitoring and Reporting Program) and included in this resolution by reference.

BE IT FURTHER RESOLVED that the Citrus Heights City Council hereby adopts the Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study (Exhibit A-2).

The City Clerk shall certify the passage and adoption of this Resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Citrus Heights, California, this 8th day of February, 2018 by the following vote, to wit:

AYES: Council Members:
NOES: Council Members:
ABSTAIN: Council Members:
ABSENT: Council Members:

Steve Miller, Mayor

ATTEST:

Amy Van, City Clerk

EXHIBIT A-1

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Citrus Heights Storm Drainage Master Plan Project

February 2018

Lead Agency:

CITRUS HEIGHTS
CALIFORNIA

6360 Fountain Square Drive

Citrus Heights, CA 95621
Contact: Stuart Hodgkins
(916) 727- 4770

Prepared by:

Dokken Engineering
110 Blue Ravine Road, Suite 200
Folsom, California 95630
(916) 858-0642

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MITIGATED NEGATIVE DECLARATION

PROJECT TITLE:	Storm Drainage Master Plan Project
PROJECT LOCATION:	Neighborhoods 8, 9, and 10 the City of Citrus Heights, Sacramento County, California
DATE:	February 8, 2018
PROJECT APPLICANT:	City of Citrus Heights
LEAD AGENCY:	City of Citrus Heights
CONTACT PERSON:	Stuart Hodgkins, P.E., Principal Civil Engineer (916) 727-4770

PROJECT DESCRIPTION:

The Proposed Project consists of the capital improvements to the City's stormwater drainage system through engineering, regulatory compliance, operations and maintenance, and restoration of the City's storm drain system and natural creeks/channels and detention/water quality basins which convey and store stormwater within the designated problem locations. The completed project will reduce or eliminate flooding and drainage problems within the City of Citrus Height, Neighborhoods 8, 9 and 10.

DETERMINATION

The City has adopted a Mitigated Negative Declaration for this project. This determination has been made based on comments received from interested agencies and the public during the 30-day public circulation of the Initial Study from October 13th, 2017 to November 13th, 2017.

This determination concludes that the project will not have a significant impact on the environment with the inclusion of appropriate avoidance, minimization, and mitigation measures (provided in this document). From the results of the Initial Study, The City has determined the project would not have a significant impact on the environment for the following reasons: The proposed project will have no impact on aesthetics, agriculture and forest resources, land use and planning, mineral resources, population and housing, or recreation. The proposed project will have a less than significant impact on air quality, greenhouse gas emissions, public services, and utilities and service systems.

The proposed project will have a less than significant impact with mitigation incorporated into the project design on; biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, and tribal cultural resources.

Stuart Hodgkins, P.E.
Principal Civil Engineer
City of Citrus Heights

Date

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Initial Study/Mitigated Negative Declaration

The City of Citrus Heights Storm Drainage Master Plan Project

Lead Agency:

City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621

Prepared by:

Dokken Engineering
110 Blue Ravine Road, Suite 200
Folsom, California 95630

February 2018

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1.0 INTRODUCTION

This project-level IS/MND has been prepared for the City of Citrus Heights (City) Neighborhoods 8, 9 and 10 Storm Drainage Master Plan Project (Proposed Project) to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 *et seq.*) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 *et seq.*). The City is the lead agency for this project under CEQA.

1.1 Initial Study Purpose

CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant impact on the environment. If it is determined that the Proposed Project may have a significant impact on the environment, but that these impacts would be reduced to a Less Than Significant Level through implementation of specific recommended mitigation measures, a Mitigated Negative Declaration shall be prepared.

This IS/MND has been prepared to identify and assess the anticipated environmental impacts of the City of Citrus Heights' Storm Drainage Master Plan Project and relies on the analysis set forth in this document to address in detail the effects or impacts associated with the Proposed Project.

This IS/MND is a public information document that describes the Proposed Project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the Proposed Project. It is intended to inform decision-makers of the Proposed Project's compliance with CEQA and the State CEQA Guidelines.

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the Proposed Project and applicable general plans and regional plans.

1.2 Review Process

This IS/MND was circulated for public review and comment between October 13th, 2017 and November 13th, 2017. The document was submitted to the State Clearinghouse for distribution to state agencies and public notices were sent to all property owners within 500 feet of the project. All comments received during the public review period and responses to each comment are included in Appendix F.

2.0 PROJECT DESCRIPTION

The following sections provide background information on The City of Citrus Height's Storm Drainage Master Plan Project activities discussed in this document.

2.1 Project Location

The project is located in northern Sacramento County, within the City of Citrus Heights (City). The project includes 12 problem locations within the City that experience area flooding during winter storm events. 11 locations are located within Citrus Heights Neighborhoods 8, 9 and 10, and 1 site is located along Wonder Street (Neighborhood 6). The 12 designated sites are located within the Mount Diablo Meridian, in portions of Sections 19, 25, 26 and 30, Township 10 North, Range 6 and 7 East in Sacramento County, just west of the Placer County line. All project locations are within the Citrus Heights, California 7.5-minute U.S. Geological Survey (USGS) quadrangle (USGS 2017). All problem locations are located within the central and eastern portion of the City (Figure 1 Project Vicinity, Figure 2 Project Locations). The project area is comprised of rolling terrain that drains to one of the three major creeks traversing the area: Cripple Creek, Arcade Creek, and San Juan Creek.

2.2 Project Description

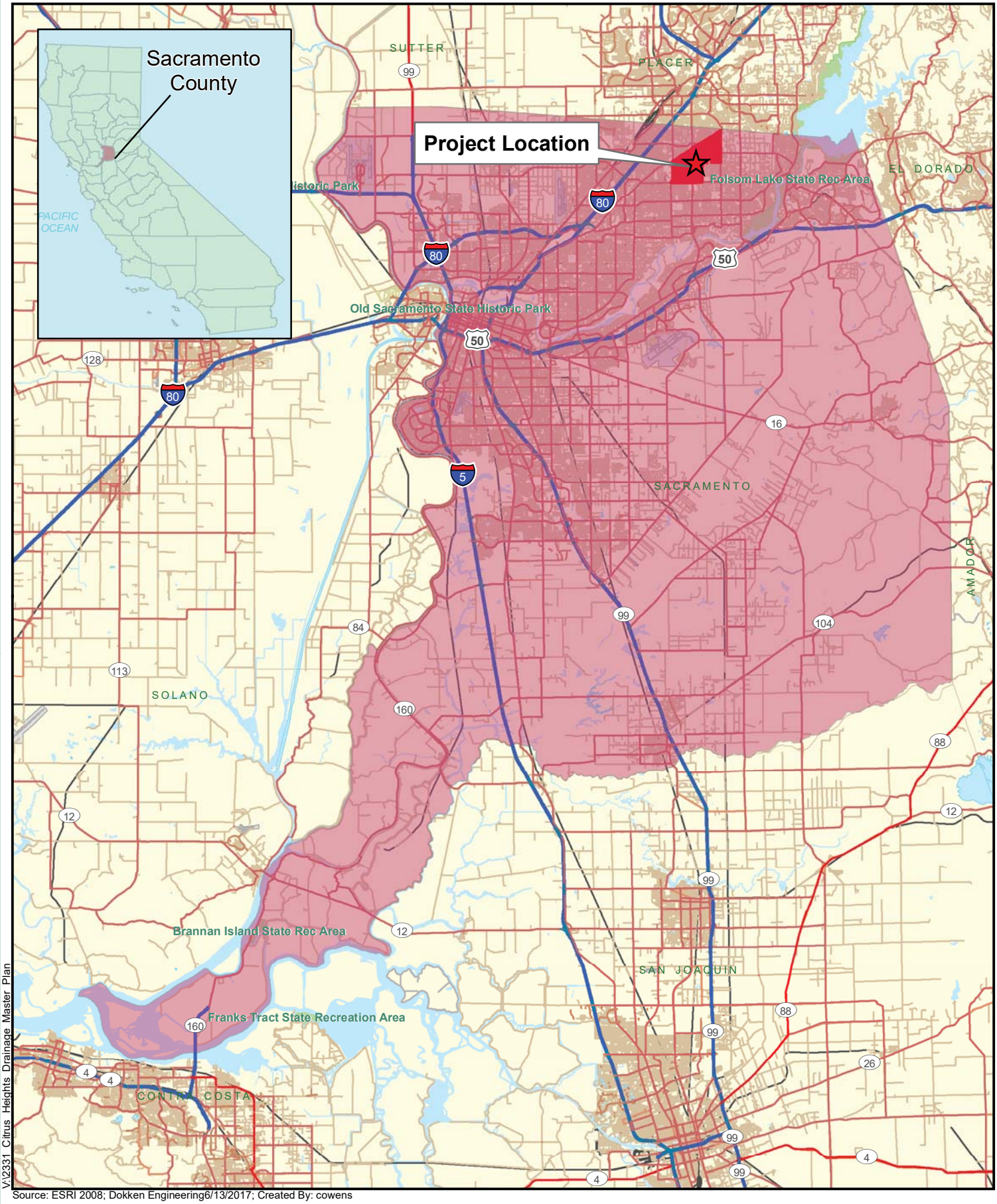
The City of Citrus Heights recently completed the Storm Drainage Master Plan Study (Study) for Neighborhoods 8, 9, and 10. The Study identified and designated problem locations as areas that experience flooding events during large storms. The Study provided an inventory and condition assessment of key portions of the existing drainage system, assessed the flood control performance of the existing drainage system, and provided improvement recommendations to eliminate or reduce recurring local flooding events and drainage problems. The designated problem locations identified in the Study have been incorporated into the City's Capital Improvement Program (CIP).

The CIP provides a prioritized list of the recommended improvements along with estimated implementation costs and an implementation schedule. The recommended improvements have been separated into three categories: high priority; medium priority; and low priority. The criteria used to define the priority of a given set of improvements are as follows:

High: The high priority improvements include those that address potential structure flooding, threats to health and safety, serious traffic hazards, and those that have a very high benefit to cost ratio. The benefit-cost ratios were determined qualitatively; formal determinations of damages and benefits were not performed.

Medium: Medium priority improvements include those that address potential flooding of lesser structures (e.g., garages, outbuildings), chronic ponding over large areas, and problems that require excessive maintenance.

Low: Low priority improvements include those that address minor or occasional ponding and nuisance drainage issues.



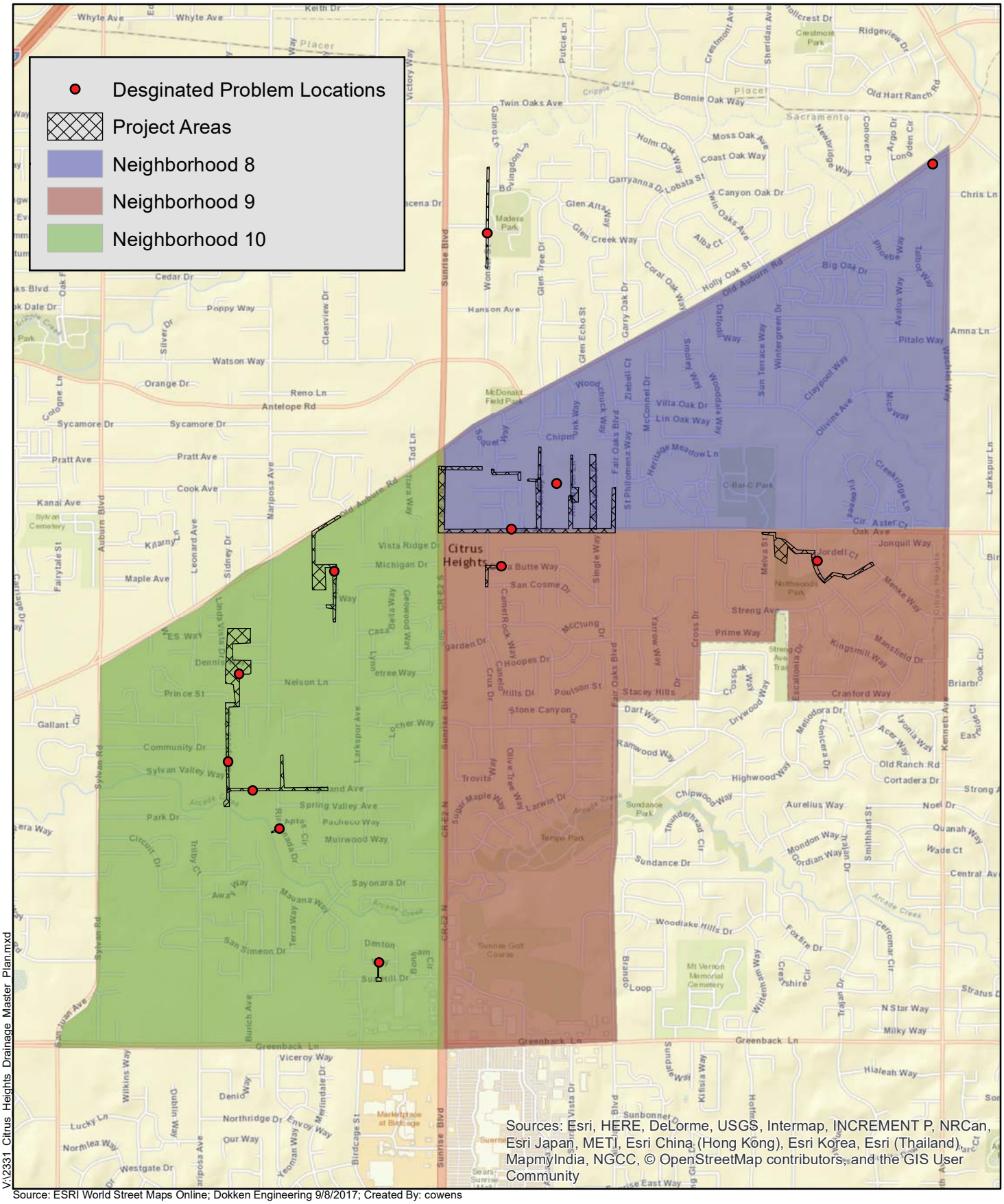
V:\2331 Citrus Heights Drainage Master Plan

Source: ESRI 2008; Dokken Engineering6/13/2017; Created By: cowens

0 5 10 15 Miles

FIGURE 1
Project Vicinity

Citrus Heights Neighborhood 8,9, and 10 Storm Drain Master Plan Project
City of Citrus Heights, Sacramento County, California



V:\2331 Citrus Heights Drainage Master Plan.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 9/8/2017; Created By: cowens

0 0.25 0.5 0.75 1 Miles

FIGURE 2
Project Locations
Citrus Heights Neighborhood 8, 9 and 10 Storm Drain Master PLan Project
City of Citrus Heights, Sacramento County, California

The priority level of each Problem Location and a brief description of the build alternative for each Location is identified on Table 1 below.

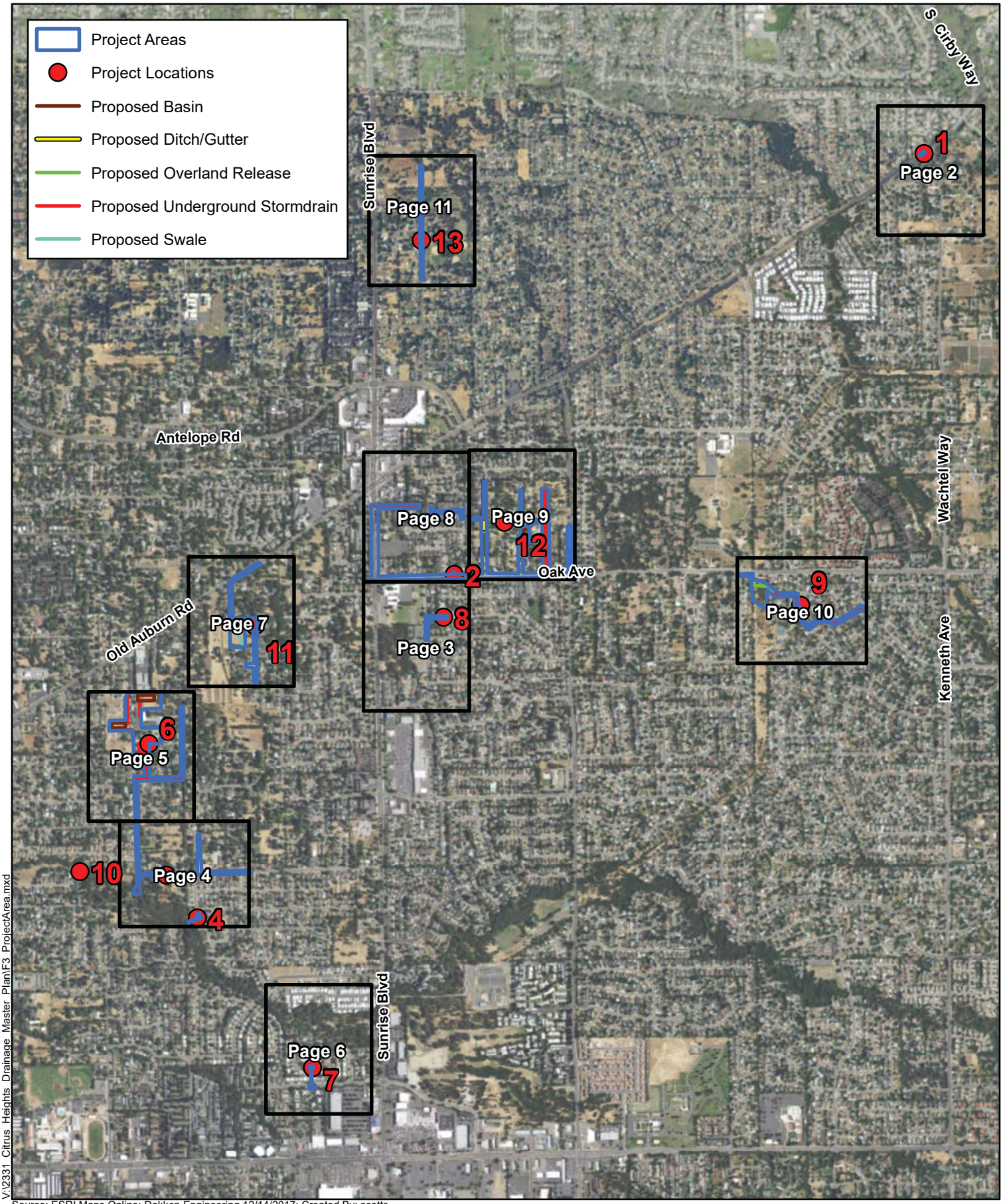
Table 1: Problem Location Priority Levels

Problem Location	Build Alternative Description	Figure Illustrating Improvements
High Priority		
3 & 4	Highland Ave. pipe system and Rinconada overland release (Option 2)	Figure 3, Page 4
6 & 10	Pipe improvements along Mariposa Ave. from Glenacre Way to Arcade Creek (Option 2)	Figure 3, Page 4 & 5
7	Overland release structure from Denton Way to Sun Hill Dr.	Figure 3, Page 7
9	Underground storage at Amsell Ct., pipe improvements to Blayden Court., and detention basin in power line corridor (Option 2)	Figure 3, Page 9
11	Pipe improvements along Maretha St., Bonita Way, and Old Auburn Rd., curb and gutter on Maretha St. and Dow Ave.	Figure 3, Page 9
12	Pipe improvements between Minnesota Dr. and Anderson Ln. and near Canady Ln., overland release structure near Saginaw Way	Figure 3, Page 10
Medium Priority		
1	Ditch and driveway culvert on Auburn Blvd.	Figure 3, Page 2
8	Upsize pipe on Dana Butte Way and Canelo Hills Drive	Figure 3, Page 3
Low Priority		
2	Under sidewalk drain on Oak Ave.	Figure 3, Page 3
Undetermined Priority		
13	Wonder Street	Figure 3, Page 10

2.3 Project Background

Citrus Heights is situated within several drainage basins that include Arcade and Cripple Creeks and their tributaries; including Brooktree, Mariposa, San Juan and Coyle Creeks. The City's storm drainage system empties into these creeks which flow generally west into the Natomas Main Drainage Canal and then finally to the Sacramento River. The streams in Citrus Heights are primarily natural substrate channels with narrow riparian corridors (The City of Citrus Heights General Plan 2011). Arcade and Cripple Creek have relatively small hydraulic capacity and can be quickly overtopped during severe storm run-off events, leading to overflow of the stream banks and the temporary inundation of floodplain and adjacent low-lying areas.

The City was incorporated in 1997. However, up until 2010 the storm drainage facilities that serve the City were maintained by the County of Sacramento. The City's stormwater drainage and water quality programs are administered by the City's General Services Department since taking over the operation and maintenance of the drainage system in 2010. In addition to the Stormwater Program, the City works with other regional municipalities in order to coordinate regional drainage strategies under the Sacramento Stormwater Quality Partnership.



V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 1,750 feet

0 920 1,840 2,760 3,680 Feet

FIGURE 3
Project Study Area
Page 1 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 2 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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FIGURE 3
Project Study Area
Page 3 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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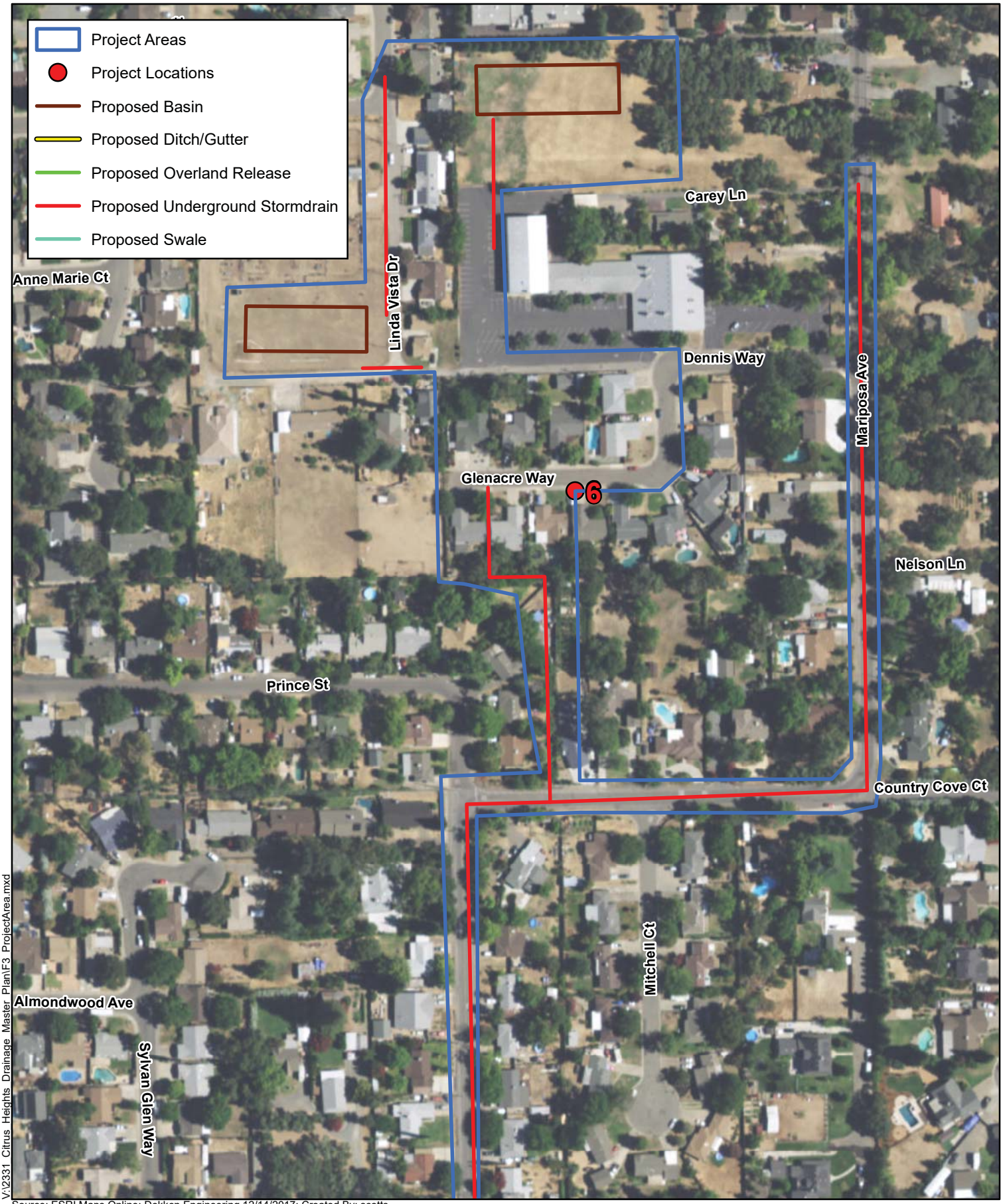
FIGURE 3
Project Study Area
Page 4 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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FIGURE 3
Project Study Area
Page 5 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

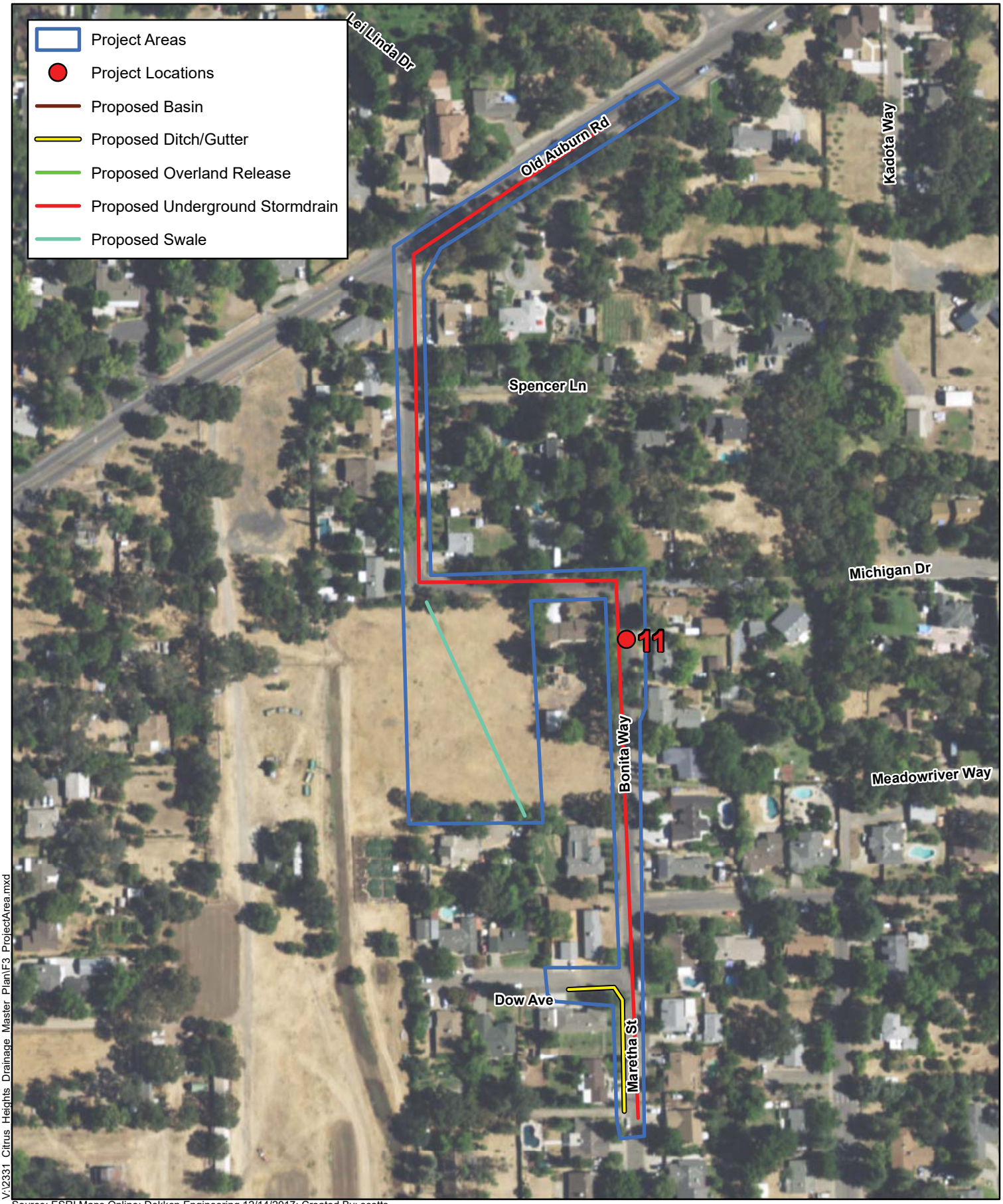
Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 6 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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FIGURE 3
Project Study Area
Page 7 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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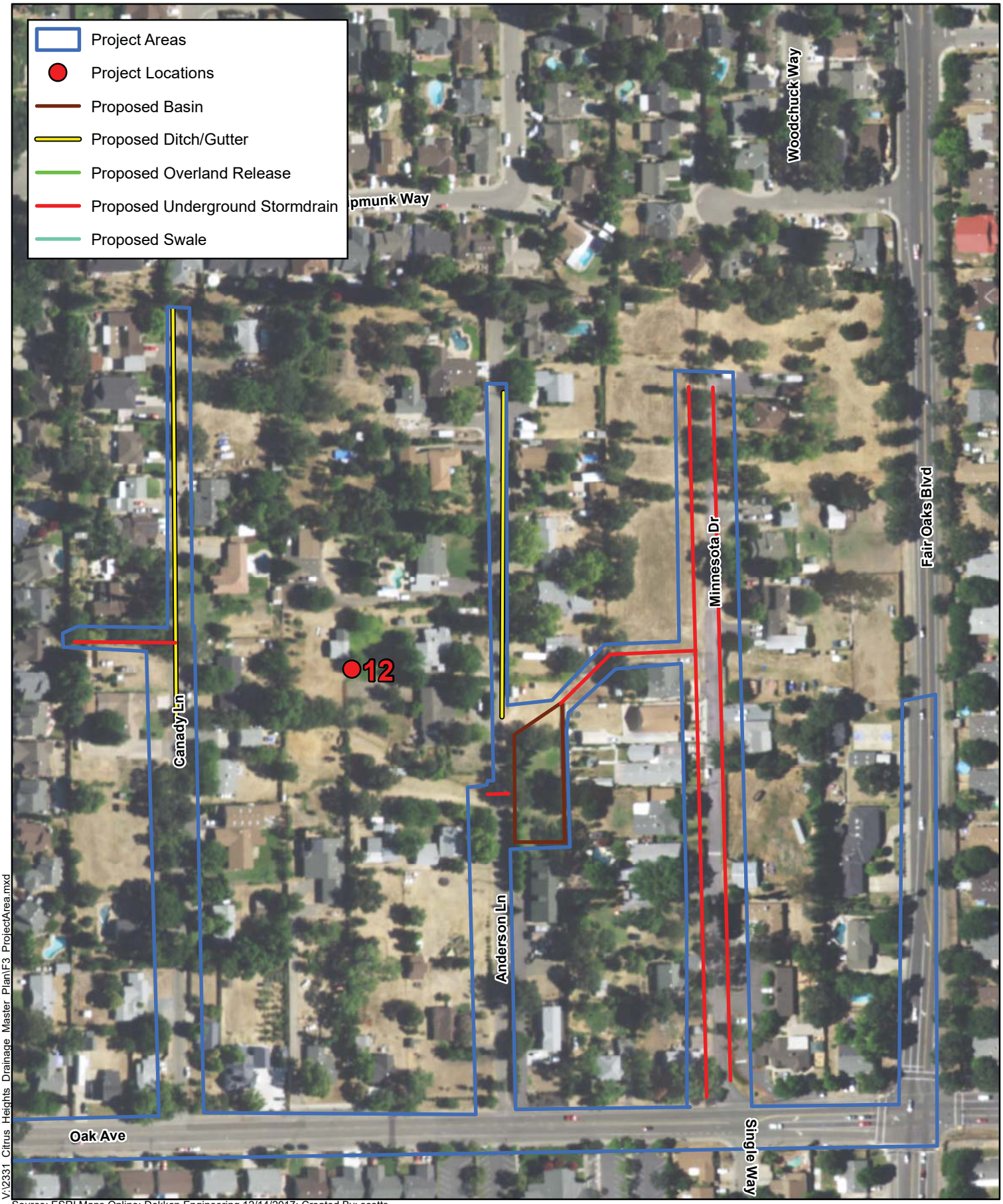
FIGURE 3
Project Study Area
Page 8 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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FIGURE 3
Project Study Area
Page 9 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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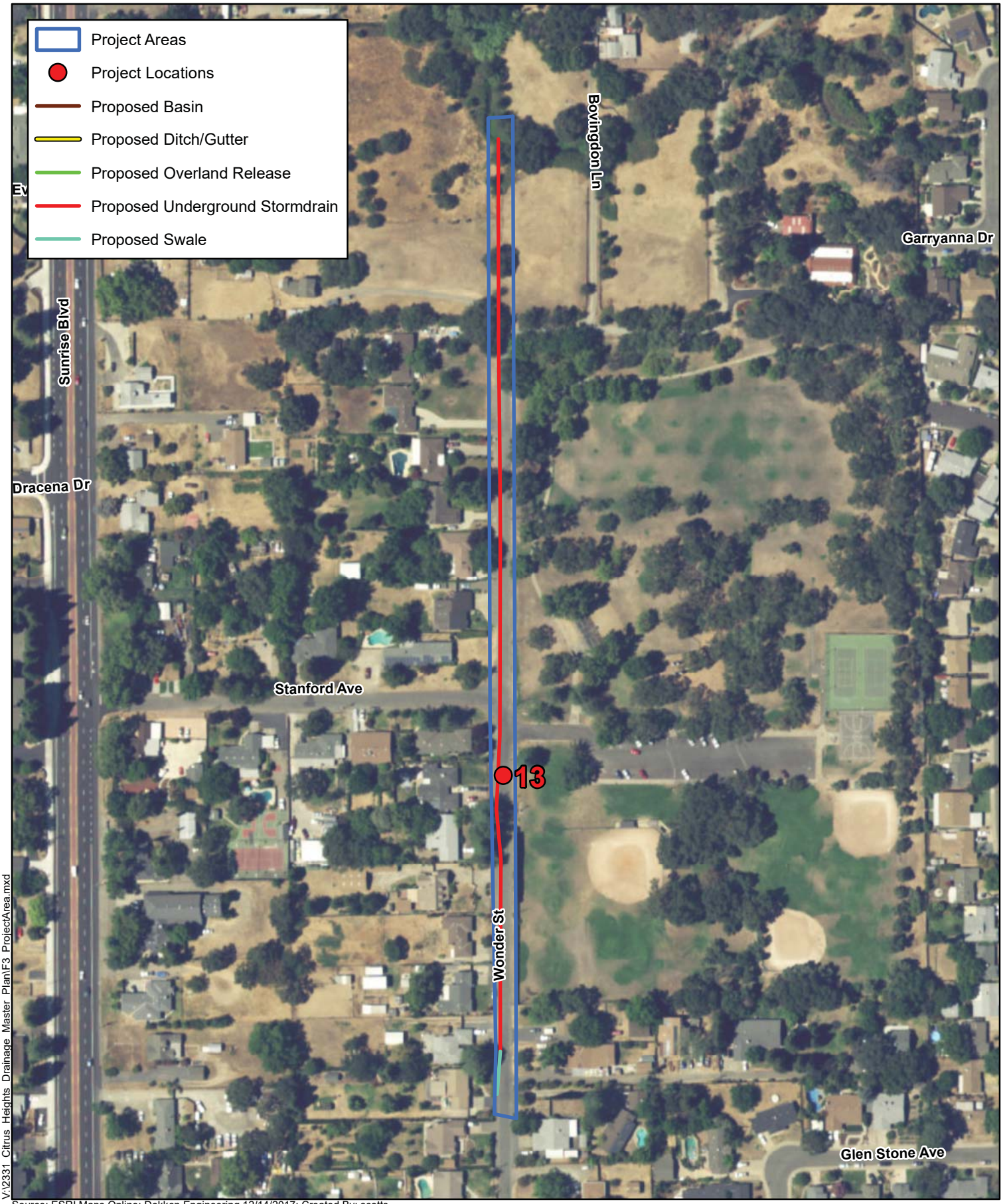
FIGURE 3
Project Study Area
Page 10 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 11 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

The City's Stormwater Program has been actively working to improve stormwater management within the area. Due to increasing and severe flooding events in locations around the City, Citrus Heights has developed a comprehensive drainage plan to reduce or eliminate flooding and drainage problems. The City's stormwater program staff developed a Storm Drainage Master Plan by evaluating the City's existing drainage issues, assessing the flood control performance of key elements of the existing drainage system, and prioritizing the implementation of the improvements. The analysis has been split into 4 phases. In March of 2012, the City completed the first phase of the Drainage Master Plan. Neighborhood Areas 6 and 7 were selected as the first phase of the project due to the lack of defined drainage systems in that quadrant of the city. In May of 2016, the city completed the Phase 2 Master Plan Study for Neighborhood Areas 8, 9, and 10. This IS/MND discusses the Phase 2 designated problem locations.

2.3.1 Project Purpose

The primary purpose of the Proposed Project is to reduce or eliminate flooding events in the designated problem locations, while improving the City's flood plan and establishing sufficient flood protection storm drainage infrastructures. To address the inadequate storm drainage issues, objectives of the project would be met by examining the design capacity of creeks, drainage channels and other physical structures within City limits and altering storm drainage systems.

2.3.1 Need

The improved storm drainage system is needed to protect against structure flooding, threats to health and safety, as well as, serious traffic hazards.

2.4 Discussion of Problem Locations and Build Alternatives

Through the development of a Storm Drainage Master Plan Project and the CIP, the City originally proposed to improve stormwater drainage at 13 designated problem locations. Based on preliminary environmental analysis, Location 5 was determined to be Categorically Exempt and is not included in this Initial Study.

2.4.1 Description of Problem Location 1

Problem Location 1 is in the northeast corner of Neighborhood 8, along Old Auburn Road (Figure 3, Page 2). Runoff from a small watershed (approximately 2.3 acres) flows to the northwest corner of a lot located near the intersection of Old Auburn Road and Wachtel Way. The runoff does not effectively drain from the lot because it is blocked by a driveway located just west of the lot along Old Auburn Road. The runoff is intended to drain into a roadside ditch along Old Auburn Road and flow under the driveway in a culvert. However, the roadside ditch is not well defined and the existing culvert under the adjacent driveway has been buried and no longer functions as intended.

Problem Location 1 Build Alternative

The Build Alternative for Project Location 1 includes re-grading the roadside ditch along Old Auburn Road in front of the problem location and constructing a new culvert underneath the adjacent

driveway. The ditch shall have an increased bottom width, 1:1 side slopes, and an increased minimum depth. Also, a concrete culvert constructed under the driveway would be constructed.

2.4.2 Description of Problem Location 2

Problem 2 is located in the southwest corner of Neighborhood 8 on a residential lot on Fox Hills Drive (Figure 3, Page 8). The drainage problems at this location have been due to large amount of runoff entering the lot from surrounding properties and poor drainage within the property owner's backyard. The resident has constructed a drainage swale in the backyard to compensate for the excess runoff; however, the ditch does not have sufficient depth to effectively convey runoff and a sidewalk within the public right of way is too high to allow effective drainage of the property.

Problem Location 2 Build Alternative

The Build Alternative for Problem Location 2 is to provide an under sidewalk drain along the south side of the residential lot. This would provide the resident with the ability to create a deeper swale or ditch to drain the backyard. The location of the sidewalk drain would be coordinated with the property owner prior to construction. This solution was developed qualitatively; no hydrologic or hydraulic modeling was performed.

2.4.3 Description of Problem Location 3 and 4

Problem Locations 3 and 4 are located adjacent to each other and the proposed solution is discussed together below.

Description of Problem Location 3

Problem 3 is located in the center of Neighborhood 10 along Highland Avenue (Figure 3, Page 4). Highland Avenue at this location is drained by a ditch system that conveys runoff from the surrounding areas to the west. The Study indicated that the ditch is too small and cannot provide adequate drainage capacity to service the area. Flooding has been reported by several residents along Highland Avenue west of Beam Drive. In addition, Beam Drive is drained by a small ditch between the northbound and southbound lanes. This ditch conveys runoff south to Highland Avenue. The ditch is small, shallow and does not provide adequate drainage capacity. During large storms, overflow from the ditch causes property flooding along the west side of Beam Drive.

Description of Problem Location 4

Problem 4 is also located in the center of Neighborhood 10 along Rinconada Drive, where several flooding events have been reported (Figure 3, Page 4). Flooding occurs in this location due to a low point along the roadway south of Aptos Circle that contains very small inlets that drain into a pipe system. The Aptos Circle pipe system coveys runoff east between two lots and then into Arcade Creek. During large storms, the runoff exceeds the capacity of the pipe system, and the excess flows forms a pond in the street. As there is no overland release path to allow the excess flow to be safely conveyed to the creek, some of the lower lying homes are at risk of flooding during large storm events. Additionally, a contributing factor to the flooding problem is that, during large storms, runoff

that exceeds the capacity of the Highland Avenue drainage system (Problem Location 3) flows over Highland Avenue and continues south to the low point on Rinconada Drive (Problem Location 4). Because the designated problem locations 3 and 4 are approximately 600 feet apart, it has been reported that drainage issues in the area create a large amount of standing water during large storm events.

Problem Locations 3 and 4 Build Alternative

The build alternative for Problem Location 3 and 4 includes a new underground storm drain pipe along Highland Avenue between Pacheco Way and Mariposa Avenue. The existing roadside ditch on the north side of Highland Drive between Beam Drive and Mariposa Avenue would be filled and replaced with a gutter to collect runoff and direct water to inlets connected to the pipe system. Water from the new storm drain would be directed to an existing storm drain approximately 380 feet east of Mariposa Avenue. This allows more runoff to be diverted into the Highland Avenue pipe system that would otherwise flow to the problem area on Rinconada Drive. The existing pipe on Pacheco Way between Highland Avenue and Spring Valley Avenue would be plugged and abandoned.

In addition, a concrete v-ditch along Beam Drive would replace the existing shallow earthen ditch between the northbound and southbound lanes. This v-ditch would have side slopes of 3:1 (H:V), and would have an increased depth and width. This ditch would convey flows up to the 10-year peak flow of 7.2 cubic feet per seconds (cfs). The ditch design would need to accommodate traffic safety features since it is between the northbound and southbound travel lanes of Beam Drive. The v-ditch on Beam Drive would convey runoff south to the new storm drain along Highland Avenue.

To help reduce the flooding at Problem Location 4, runoff entering the existing inlet at the southeast corner of Highland Avenue and Rinconada Drive would be re-directed into the new Highland Avenue pipe system instead of the pipe that conveys runoff south along Rinconada Drive. The existing pipe on Rinconada Drive would be abandoned between Highland Avenue and Spring Valley Avenue. Additional improvements to reduce the flooding risk on Rinconada Drive include installing a 30” storm drain pipe through the existing 21-inch pipe between two residential lots using pipe bursting technology, and replacing storm drain inlets on Rinconada Drive. Pipe bursting would also necessitate replacement of the existing outfall structure in Arcade Creek.

2.4.4 Description of Problem Location 6

Problem 6 is located within Neighborhood 10 in the northwestern region near Glenacre Way (Figure 3, Page 5). The residents along Glenacre Way have reported multiple flooding instances ranging from flooded garages to flooded homes. A small storm drain collects runoff from the eastern portion of Glenacre Way and conveys it to a low point near the west end of the road. From this point, runoff is conveyed south between two residential lots in a storm drain. A storm drain from the north also conveys runoff to the southern drainage pipe on Glenacre Way. The northern drainage pipe has the ability to convey drainage from a watershed of approximately 50 acres. The drainage problem is due to the fact that the roadway and the homes on the south side of Glenacre Way lie relatively low in comparison to the surrounding topography. Currently, there is not an overland release path for

conveyance of flows in excess of the drainage system capacity. During large storm events, runoff collects in the street, and causes flooding.

To assist with evaluating the problem, a XP-SWMM hydraulic model was originally prepared for the Glenacre Way drainage system. Due to the fact Glenacre Way is tributary to trunk pipe SD6, the modeling prepared for SD6 was extended upstream to the Glenacre Way area. Upon completion of the topographic mapping for the project site, an updated hydraulic model was prepared in StormCAD and SWMM for the Glenacre Way area and the existing trunk pipe SD6 to the south. Model results for existing conditions indicate that five building pads on the south side of Glenacre Way could be inundated during a 100-year storm event.

Problem Location 6 — Build Alternative 1

For Build Alternative 1, the flooding at Problem Location 6 would be addressed by upsizing and realigning the main storm drainage truck line from Glenacre Way south to Sylvan Valley Way. This option increases the capacity of the main storm drainage truck line serving the watershed to alleviate flooding. This option also proposes to keep the existing 30-inch storm drain functional for additional capacity during large storm events.

Problem Location 6 — Build Alternative 2

For Build Alternative 2, it is proposed to incorporate two detention basins in the upper watersheds to help minimize peak flow into the drainage system. Runoff from watershed 1 is proposed to be routed to a new detention basin at the corner of Dennis Way and Linda Vista Drive, providing 2.5 acre-feet of storage. Runoff from watershed 2 is proposed to be routed to a new detention basin on the vacant field of the Church of Christ property, providing 2.5 acre-feet of storage. This alternative will require the acquisition of easements or land rights for the proposed detention basins. A new storm drain line connecting the existing drainage system in Linda Vista Drive to the Watershed 1 detention basin and a new storm drain line connecting the basin outfall to the existing storm drainage trunk line on Dennis Way will be constructed.

Problem Location 6 — Build Alternative 3

For Build Alternative 3, it is proposed to construct a new 24-inch bypass storm drain pipeline in Mariposa to separate the flows from Watersheds 4 and 5 and a new 42-inch truckline in Mariposa down to Sylvan Valley Way. Flooding at Glenacre Way is decreased by separating the Watershed 5 flows from Watershed 4.

Problem Location 6 — Build Alternative 4

For Build Alternative 4, several large parking lots within the watershed are proposed to be reconstructed with pervious pavement. The pervious pavement would be underlain by a gravel drain rock section containing a volume of runoff needed to effectively reduce flows to the storm drainage system. Storm water is expected to eventually infiltrate into the native soils. Geotechnical testing is recommended to confirm if this is a viable alternative. This alternative also includes the

improvements proposed in Alternative 3 above, but provides the advantage of providing water quality treatment and incorporation of LID features.

2.4.5 Description of Problem Location 7

Problem 7 is located within the southeastern corner of Neighborhood 10 (Figure 3, Page 6). Runoff on Denton Way flows to a low point in the street where a small storm drain collects the runoff and conveys it south through two residential lots. There is not an adequate overland release path for flows that exceed the capacity of the pipe system and flooding along the street has been reported.

Problem Location 7 Build Alternative

The Build Alternative for Problem Location 7 is to construct an overland release structure between Denton Way and Sun Hill Drive. The overland release structure would consist of a 12-inch by 36-inch concrete box culvert constructed over the top of the existing storm drain within the existing drainage easement. The existing 10-inch underground storm drain would remain in place.

2.4.6 Description of Problem Location 8

Designated Problem Location 8 is located within the northwestern corner of Neighborhood 9 (Figure 3, Page 3). Runoff is collected at a low point at the intersection of Dana Butte Way and Alma Mesa Way. A storm drain system conveys runoff west to Canelo Hills Drive. Runoff exceeds the storm drain system and several reports of street flooding have been made along the low point on Dana Butte Way.

Problem Location 8 Build Alternative

The build alternative for Problem Location 8 is to replace the existing storm drains from the intersection of Dana Butte Way and Alma Mesa Way, through the intersection of Canelo Hills Drive and San Cosme Drive. Existing storm drain pipes would be upsized.

2.4.7 Description of Problem Location 9

The problem location is found within the northeastern corner of Neighborhood 9 (Figure 3, Page 10). Currently, a storm drain system conveys runoff to the west end of Amsell Court where it continues through residential lots on Old Ranch Road. The storm drain continues north along Old Ranch Road, then west on Blayden Court and between two lots at the turn in Blayden Court, approximately 220 feet from the intersection with Old Ranch Road. From there it continues to the northwest to C-Bar-C Park. Drainage problems occurring this area because there is not an adequate overland release path at the west end of Amsell Court for flows that exceed the capacity of the pipe system. As a result, flooding has been reported at this location. The same problem occurs at the turn of Blayden Court where flooding has also been reported.

Problem Location 9 Build Alternatives

The build alternative for Project Location 9 would include upsizing the existing 24-inch pipe at Blayden Court with a 36-inch pipe, upsizing the existing 12-inch pipe at Amsell Court with 36-inch pipe, and installing a 3.5' x 6' reinforced concrete box (RCB) at Amsell Court for storage.

In addition, two detention basins will be installed to intercept and collect a portion of the runoff from the SMUD easement west of Blayden Court and from Northwoods Park south of Blayden Court. The first basin would be located within the SMUD easement west of Blayden Court near the outlet of an existing overland release that drains the north end of Blayden Court, approximately 150 south of Oak Avenue. This basin would collect and temporarily store stormwater from Blayden Court and the SMUD easement and slowly release it downstream. The second basin would be located in Northwoods Park south of Blayden Court and would intercept a portion of the runoff from the tennis courts and other improvements within the Park. A new pipe would be installed within the SMUD easement to drain the second detention basin into the first.

The basins will be approximately 1-3 feet in depth and will be contoured to match existing topography. The basins will moderate inflow to existing stormwater infrastructure by collecting and temporarily storing water before slowly releasing it. Shallow swales would be excavated and used to direct overland flow to the new basins.

2.4.8 Description of Problem Location 10

Problem Location 10 is at the intersection of Mariposa Avenue and Sylvan Valley Way in Neighborhood 10 (Figure 3, Page 4). Drainage issues occur in this area due to a residential lot on the east side of Mariposa Avenue established at a lower topography than the roadway. This problem was identified during the trunk drain modeling performed for trunk drain SD6. Updated StormCAD modeling was completed for Location 10 utilizing the site specific topographic mapping that was completed. Results from the Study predict this area to be at risk of flooding during a large storm that exceeds the capacity of the nearby trunk pipe system, which is trunk drain SD6.

Problem Location 10 Build Alternative

The build alternative would construct a new 42-inch pipeline under Mariposa Avenue from Sylvan Valley Way south to an outfall at Arcade Creek. Flooding due to hydraulic insufficiencies of the conveyance system at the corner of Highland Avenue and Mariposa Avenue will be eliminated by this alternative.

2.4.8 Description of Problem Location 11

Problem Location 11 is found within the northeastern corner of Neighborhood 10 (Figure 3, Page 7). The storm drainage system at this problem location consists of a combination of underground pipes, channels, and roadside ditches. The existing system is inadequately sized and property flooding has been reported on Bonita Way and Dow Avenue during large storm events.

Problem Location 11 Build Alternative

The recommended solution for Problem Location 11 is to construct a new storm drain along Maretha Street and Bonita Way, as well as a new storm drain along Old Auburn Road. The new pipe would replace an existing pipe on Maretha Street. The existing pipe that drains west along Dow Avenue would be plugged at the newly established manhole at the intersection of Maretha Street and Dow Avenue. On the west side of Maretha Street, the existing curb would be extended north to Dow Avenue and along Dow Avenue to a new inlet and pipe. The new inlet and pipe would collect runoff and convey it to the new storm drain system on Bonita Way. The purpose of the curb is to convey flow that exceeds the pipe capacity in Maretha Street into the Bonita Way Storm Drain without flowing across the property at the southwest corner of the intersection. The existing roadside ditch along Bonita Way would be reconstructed as a valley gutter with periodic field inlets and would be used to collect runoff from the adjacent lots and to convey flows to the new Bonita Way storm drain. On Old Auburn Road, the new pipe would replace the existing ditch that is currently eroding. The ditch would be filled in and a valley gutter would remain in its place.

2.4.9 Description of Problem Location 12

The problem location is found within the northwestern corner of Neighborhood 8 (Figure 3, Page 9). An existing pipe collects runoff at Minnesota Drive and coveys it west to a ditch system near Anderson Lane. The pipe is inadequately sized for large storm events and the overland release path is inadequate to convey flows in excess of the pipe capacity. The ditch system that begins near Anderson Lane conveys runoff west to a pipe system that begins just west of Canady Lane. This ditch system also lacks capacity for larger storm events and structure flooding has occurred at several locations. In addition, both Anderson Lane and Canady Lane receive runoff from adjacent properties. Due to the fact there are inadequate conveyance facilities along these roads (e.g., curb and gutter or road side ditch), during large storm events, runoff crosses the road and flows through properties on the opposite side of the road causing property flooding.

Problem Location 12 Build Alternative

The proposed improvements include upsizing existing underground storm drain pipes in the downstream section of the system along Canady Lane, Saginaw Way, and through the Sunrise Oaks Apartments parking lot. Additional storm water storage would be added by constructing a 0.36 acre detention basin along Anderson Lane and installing 24-inch stormdrain pipes with weirs along both sides of Minnesota Drive. The new Minnesota Drive stormdrain system would be drained to the west by a new 24-inch underground pipe that feeds into the detention basin along Anderson Lane.

2.4.10 Description of Problem Location 13

The problem location is found within the southern portion of Neighborhood 6, along Wonder Street (Figure 3, page 11). Wonder Street is not improved with underground drainage facilities or curb and gutter. In the current condition, stormwater collects and sheet flows from properties on the east side of the street, crosses the paved road then continues to sheet flow through the properties on the west side of the street. Water flows into front yards and driveways and eventually, the stormwater makes

its way out to Sunrise Blvd through unimproved channels.

Problem Location 13 Build Alternative

The Build Alternative to accommodate stormwater runoff during a high storm event is to install approximately 1500 linear feet of storm drain pipe and associated structures along the west side of Wonder Street. 10 to 15 inch diameter pipe with grate inlets would be installed within the roadway right of way. The new pipe would be installed from 8013 Wonder Street and would proceed north to a new outfall into Cripple Creek.2.5.

2.5 No Build Alternative

The State CEQA Guidelines (Section 15126[e]) require consideration of a No-Project alternative that represents the existing conditions, as well as what would reasonably be expected to occur in the foreseeable future if the Project were not approved. Under the No-Build, or "Do Nothing" Alternative, the City's Storm Drainage Master Plan would not be implemented. Without the build-alternatives, flooding events within the City's Neighborhoods 8, 9 and 10 would continue and residential properties would remain vulnerable to damage during large storm events.

2.6 Required Permits and Approvals

The following permits and/or approvals may apply to the Proposed Project depending on the details of the individual project location:

- For proposed construction activities within jurisdictional waters of the United States, a Clean Water Act Section 404, Nationwide Permit 7 from the United States Army Corps of Engineers would be required.
- Work within jurisdictional waters of the United States would also require a Clean Water Act Section 401 Clean Water Certification from the Regional Water Quality Control Board would be required.
- For proposed construction activities within jurisdictional waters of the State, a Section 1600 Streambed Alteration Agreement would be required from the California Department of Fish and Wildlife.

3.0 INITIAL STUDY CHECKLIST

CEQA Guidelines recommend that lead agencies use an Initial Study checklist to determine the potential impacts of the Proposed Project on the physical environment. The checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by the Proposed Project. This section of the Initial Study incorporates a portion of the Appendix "G" environmental checklist form, contained in CEQA Guidelines (revised 2016). Impact questions and responses are included in both tabular and narrative formats for each of the 17 environmental topic areas. There are four possible answers to the environmental impacts checklist questions on the following pages. Each possible answer is explained herein:

1. A "**Potentially Significant Impact**" is appropriate if there is enough relevant information and reasonable inferences from that information that a fair argument can be made to support a conclusion that a substantial or potentially substantial adverse change may occur to any of the physical conditions within the area affected by the Proposed Project. When one or more "Potentially Significant Impact" entries are made, an EIR is required.
2. A "**Less Than Significant With Mitigation Incorporated**" answer is appropriate when the Applicant has agreed to incorporate a mitigation measure to reduce an impact from "Potentially Significant" to "Less Than Significant." For example, impacts to flood waters could be reduced from a "Potentially Significant Impact" to a "Less Than Significant Impact" by relocating a building to an area outside the floodway. The lead agency must describe the mitigation measures, and briefly explain how the measures would reduce the impact to a "Less Than Significant Level."
3. A "**Less Than Significant Impact**" is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant or the application of development policies and standards to the project would reduce the impact(s) to a "Less Than Significant Level." For example, the application of the City's Improvement Standards reduces potential erosion impacts to a "Less Than Significant Impact."
4. A "**No Impact**" answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For example, a project in the center of an urbanized area would clearly not have an adverse effect on agricultural resources or operations.

All answers must take into account the whole action involved, including off-site as well as on-site, cumulative, as well as project-level, indirect as well as direct, and construction as well as operational impacts, except as provided for under CEQA Guidelines Section 15183 and CEQA Section 21083.3.

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the parentheses following each response. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

The environmental factors checked below would be potentially affected by this project, involving at

least one impact that is “less than significant with mitigation incorporated” as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☒	Geology/ Soils
☒	Greenhouse Gas Emissions	☒	Hazards and Hazardous Materials	☒	Hydrology/ Water Quality
☐	Land Use/ Planning	☐	Mineral Resources	☒	Noise
☐	Population/ Housing	☐	Public Services	☐	Recreation
☒	Transportation/ Traffic	☒	Tribal Cultural Resources	☐	Utilities/ Service Systems
☒	Mandatory Findings of Significance				

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Proposed Project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the Proposed Project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR OR NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Date

City of Citrus Heights

Organization

Stuart Hodgkins, P.E.
Principal Civil Engineer

3.1 Aesthetics

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☒

REGULATORY SETTING

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities (CA Public Resources Code Section 21001[b])."

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The 13 Proposed Project areas are not located immediately adjacent to any state eligible scenic highways. State route (SR) 160, the closest highway that is designated as a part of the State Scenic Highway System. SR 160 runs from the Contra Costa County line to the southern city limit of Sacramento. The end of SR160 is approximately 10 miles from the project areas.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. The City has not designated any specific scenic vistas to be protected in the City of Citrus Heights, and there is not a state-designated scenic highway in the Proposed Project vicinity (Caltrans 2011). The closest designated scenic highway is the River Road Highway, which begins at the Contra Costa County line and continues until the southern city limits of Sacramento. The River Road scenic highway is approximately 10 miles southwest of the project locations. There would be ***No Impact*** to scenic vistas or state-designated scenic highway, therefore, no mitigation is proposed.

c.) No Impact. Construction of the proposed improved stormwater infrastructures will occur primarily underground and/or within existing roadways and drainage systems. Tree removal is not anticipated. There would be ***No Impact*** to the visual character, quality of the site or the surrounding areas would occur; therefore, no mitigation is required.

d.) **No Impact**. Drainage improvement activities would occur during daylight hours. No night work is anticipated to take place during construction activities. Furthermore, the Project does not include new lighting or any other feature that could increase light or glare in the project areas. There would

be ***No Impact*** to light and glare; therefore, no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impacts*** to environmental effects relating to aesthetic resources.

3.2 Agriculture and Forest Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are administered in a matter that is compatible with state and local units of government, and private programs and policies to protect farmland (7 U.S.C. § 4201). The Natural Resources Conservation Service (NRCS), is responsible for the implementation of the FPPA, categorizes farmland in a number of ways. These categories include: prime farmland, farmland of statewide importance, and unique farmland. Prime farmland is considered to have the best possible features to sustain long-term productivity. Farmland of statewide importance includes farmland

similar to prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique farmland is characterized by inferior soils and generally needs irrigation depending on climate.

State Regulations

The Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state's farmland to and from agricultural use, was established by the Department of Conservation (DOC), under the Division of Land Resource Protection (DLRP). The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years. The FMMP is an informational service only and does not constitute state regulation of local land use decisions.

The four categories of farmland, which include Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, are considered valuable and any conversion of land within these categories is typically considered to be an adverse impact. The DOC provides the following definitions for these categories of farmland:

- Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland with a good combination of physical and chemical features but with minor shortcomings such as greater slopes or with less ability to hold and store moisture.
- Land on which the existing vegetation is suited to the grazing of livestock.

Williamson Act

The Williamson Act is a State program that was implemented to preserve agricultural land. Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the county to maintain agricultural or open space use of their lands in return for reduced property tax assessments. The contract is self-renewing; however, the landowner may notify the county at any time of intent to withdraw the land from its preserve status. Withdrawal from a Williamson Act contract involves a gradual tax adjustment to full market value over a ten-year period before protected agricultural/open space land can be converted to urban uses (DOC 2009). In certain situations, immediate termination is sometimes granted.

In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the DOC as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental impacts, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State’s inventory of forest land, including the forest and Range Assessment Project and the Forest Legacy Assessment Project; the forest

carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Impacts to agricultural or forest resources are considered significant if the project would:

- Convert Prime farmland, Unique farmland, or Farmland of Statewide Importance to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned Timberland Production;
- Result in the loss of forest land or conversion of forest land to non-forest use; and/or
- Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to nonagricultural use.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project area is located in the urban areas of the City of Citrus Heights. The Proposed Project locations are not within proximity to prime farmland or unique farmland. There are no Williamson Act contracts within proximity to the project site. No forest land, timberland, or timberland zoned Timberland Production occurs within proximity to the project site.

DISCUSSION OF CHECKLIST ANSWERS:

a-e.) No Impact. According to the General Plan Community Development chapter, there are no agricultural areas within City limits. Additionally, as disclosed by the State Farmland Mapping and Monitoring Program, the City is predominantly mapped as “Urban and Built-up Land” (CDC 2014).
No Williamson Act Land, timberlands or timberland zones occur within the project areas. Also, no farmland occurs within or adjacent to the Proposed Project areas. There would be No Impact to agriculture and forest resources, therefore, no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impacts*** to environmental effects relating to agriculture and forest resources.

3.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

REGULATORY SETTING

The Clean Air Act (CAA) as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

Regional level conformity in California is concerned with how well the region is meeting the standards set for CO, NO_2, O_3, and PM. California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP[s]) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as the San Joaquin Valley Air Pollution Control District for Stanislaus County and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in conformity with the State Implementation Plan for achieving the

goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the Proposed Project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Federal and State Ambient Air Quality Standards

California and the federal government have established standards for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). The pollutants of greatest concern in the project area are ozone, particulate matter-2.5 microns ($PM_{2.5}$) and particulate matter-10 microns (PM_{10}).

State Regulations

Responsibility for achieving California's air quality standards, which are more stringent than federal standards, is placed on the California Air Resources Board (CARB) and local air districts, and is to be achieved through district-level air quality management plans that will be incorporated into the State Implementation Plan (SIP). In California, the Environmental Protection Agency (EPA) has delegated authority to prepare SIPs to the CARB, which, in turn, has delegated that authority to individual air districts.

The CARB has traditionally established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving state implementation plans.

Responsibilities of air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by CEQA.

The California CAA of 1988 substantially added to the authority and responsibilities of air districts. The California CAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The California CAA focuses on attainment of the state ambient air quality standards, which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards.

The California CAA requires designation of attainment and nonattainment areas with respect to state ambient air quality standards. The California CAA also requires that local and regional air districts expeditiously adopt and prepare an air quality attainment plan if the district violates state air quality standards for CO, SO_2, NO_2, or ozone. These Clean Air Plans are specifically designed to attain these standards and must be designed to achieve an annual 5% reduction in district-wide emissions

of each nonattainment pollutant or its precursors. Where an air district is unable to achieve a 5% annual reduction, the adoption of "all feasible measures" on an expeditious schedule is acceptable as an alternative strategy (Health and Safety Code Section 40914(b)(2)). No locally prepared attainment plans are required for areas that violate the state PM_{10} standards.

The California CAA requires that the state air quality standards be met as expeditiously as practicable but, unlike the federal CAA, does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards.

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides the Air Resource Board (ARB) recommendations for the siting of new sensitive land uses (including residences) near freeways, distribution centers, ports, refineries, chrome plating facilities, dry cleaners, and gasoline stations. The handbook recommends that new development be placed at distances from such facilities.

Local Regulations

The City lies within the southeastern edge of the Sacramento Valley Air Basin (SVAB) (CARB 2014). The Sacramento Metropolitan Air Quality Management District (SacMetro AQMD) is responsible for implementing emissions standards and other requirements of federal and state laws in the Proposed Project area. As required by the California Clean Air Act (CCAA), SacMetro AQMD has published various air quality planning documents as discussed below to address requirements to bring the SacMetro AQMD into compliance with the State Ambient Air Quality Standards (SAAQS). The Air Quality Attainment Plans (AQAP) are incorporated into the State Implementation Plan (SIP), which is subsequently submitted to the U.S. Environmental Protection Agency (EPA), the federal agency that administrates the Federal Clean Air Act of 1970, as amended in 1990.

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe to protect the public health and welfare.

In order to work towards attainment for ozone and PM_{10}, the EPA Office of Air Quality Planning and Standards requires that each state containing nonattainment areas develop a written plan for cleaning the air in those areas. The plans developed are called SIPs. Through these plans, the states outline efforts they will make to correct the levels of air pollution and bring their areas back into attainment.

AFFECTED ENVIRONMENT

Citrus Heights resides within the Sacramento Valley and is characterized as having a Mediterranean climate, with hot dry summers and mild rainy winters. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north.

The mountains surrounding the Sacramento Valley create an airflow barrier, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. Air stagnation in the autumn and early winter occurs when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with increased levels of smoke or when temperature inversions trap cool air, fog and pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the Delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. This phenomenon's effect exacerbates the pollution levels in the area and increases the likelihood of violating the federal and state air quality standards.

Sacramento County is located within the boundaries of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin is bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The intervening terrain is flat. Sacramento is often described as a bowl shaped valley. The Sacramento Valley's climate and topography contribute to the formation and transport of photochemical pollutants throughout the region. The region experiences temperature inversions that limit atmospheric mixing and trap pollutants, resulting in high pollutant concentrations near the ground surface. Generally, the lower the inversion base height from the ground and the greater the temperature increase from base to top, the more pronounced the inhibiting effect of the inversion will be on pollutant dispersion. Consequently, the highest concentrations of photochemical pollutants occur from late spring to early fall when photochemical reactions are greatest because of more intense sunlight and the lower altitude of daytime inversion layers. Surface inversions (those at altitudes of 0–500 ft above sea level) are most frequent during winter, and subsidence inversions (those at 1,000–2,000 ft above sea level) are most common in summer.

Existing air quality conditions in the project area can be characterized in terms of the ambient air quality standards that the state of California (California Ambient Air Quality Standards [CAAQS]) and the federal government NAAQS that have been established for several different pollutants. Most pollutant standards have been established to protect public health. For other pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). Ambient air pollutant concentrations are measured at 35 permanent monitoring stations throughout the Sacramento Valley Air Basin. The federal and state governments have established ambient air quality standards for six criteria pollutants: ozone, CO, NO_2, SO_2, particulate matter ($PM_{2.5}$ and PM_{10}), and lead. Sacramento County is in State designated nonattainment for ozone (8-hour and 1-hour) and PM_{10}. The project location is in attainment or

unclassified for all other CAAQS criteria pollutants. Table 3 summarizes the CAAQS criteria pollutants and the attainment status of the project location. Table 4 summarizes ambient air quality standards.

Table 2. CAAQS Criteria Pollutant Attainment Status at the Project Location

Pollutant	State Standards Designation/Classification
Ozone – 8-Hour	Nonattainment
Ozone – 1-Hour	Nonattainment
PM_{10}	Nonattainment
$PM_{2.5}$	Attainment
Carbon Monoxide	Attainment
Nitrogen Dioxide	Attainment
Sulfur Dioxide	Attainment
Sulfates	Attainment
Lead	Attainment
Hydrogen Sulfide	Unclassified
Visibility Reducing Particles	Unclassified
Sources: CARB 2016a	

Table 3. Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[8]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

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1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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ENVIRONMENTAL CONSEQUENCES

Construction Emissions

The Proposed Project would involve clearing, cut-and-fill activities, grading, removing or improving existing drainage and pipelines, and repaving roadway surfaces. If not properly controlled, construction would temporarily generate PM_{10} and $PM_{2.5}$, and small amounts of CO, SO_2, NO_x, and VOCs. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions. Construction activities will not increase traffic congestion in the area, so CO and other emissions from traffic would not temporary increase slightly in the immediate area surrounding the construction site.

SO_2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting federal standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and CARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel, therefore, SO_2-related issues due to diesel exhaust will be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases.

DISCUSSION OF CHECKLIST ANSWERS

a.) Less Than Significant Impact. The project is located within the jurisdiction of the SacMetro AQMD within the SVAB. The SVAB is currently in nonattainment for O_3 and PM_{10}. In order to address the federal non-attainment status for ozone, SacMetro AQMD, along with other local air districts in the SVAB, is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal ozone standards (CARB 2013). As such, SacMetro AQMD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Plan) in December 2008 (CARB 2014). The California Air Resources Board (CARB) determined that the Plan meets Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP. Accordingly, the Plan is the applicable air quality plan for the proposed project site.

The Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the federal Clean Air Act requirements, including the National Ambient Air Quality standards (NAAQS). Adoption of all reasonably available control measures is required for attainment. Measures could include, but are not limited to the following: regional mobile incentive programs; urban forest development programs; and local regulatory measures for emission reductions related to architectural coating, automotive refinishing, natural gas production and processing, asphalt concrete, and various others.

A conflict with, or obstruction of, implementation of the Plan could occur if a project generates greater emissions than what has been projected for the site in the emission inventories of the Plan. Emission inventories are developed based on projected increases in population, employment, regional vehicle miles traveled (VMT), and associated area sources within the region, which are based on regional projections that are, in turn, based on the General Plan Land Use and Zoning Designations for the region. In addition, general conformity requirements of the Plan include whether a project would cause or contribute to new violations of any NAAQS, increase the frequency or severity of an existing violation of any NAAQS, or delay timely attainment of any NAAQS.

Construction of the build alternative would not modify existing land use and would consist of installing new stormwater facilities within the City. Emissions of O_3 and PM_{10} would increase during construction; however, emissions would be temporary and would not exceed thresholds of significance. The proposed project would not conflict with the emissions inventories of the Plan, and would be considered consistent with the Plan. Because the Proposed project would not conflict with the emissions inventories of the Regional Air Quality Plan, would result in emissions below the thresholds of significance, and would not conflict with or obstruct implementation of the applicable Air Quality Plan, impacts would be considered ***Less Than Significant***. No mitigation is required.

b.) Less Than Significant Impact. Construction of the build alternative would generate temporary construction emissions. The project site is within the SVAB and within the jurisdiction of SacMetro AQMD which has adopted thresholds of significance for temporary construction-related pollutant emissions. Construction emissions would be primarily associated with exhaust from construction equipment and dust from ground disturbance. Construction emissions were estimated using the SacMetro AQMD Roadway Construction Emissions Model. Significance thresholds and estimated construction emissions are included in Table 4 below.

Table 4: Maximum Daily Construction Emissions and Local Thresholds

Pollutant	Maximum Daily Emission	Significance Threshold	Significant Impact?
ROG	3.04	None	--
NO_X	28.74	85	No
PM_{10}	6.83	80	No
$PM_{2.5}$	2.75	82	No

Construction emissions would not exceed the SacMetro thesholds of significance. Construction of the build alternative would result in a less than significant impact to air quality.

c.) Less Than Significant Impact. The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. The area air quality attainment status of the SVAB and the City is shown on Table 5.

Table 5: SVAB/Sacramento County Attainment Status

Pollutant	State of California Attainment Status
Ozone (O_3)	Nonattainment
Respirable Particulate Matter (PM_{10})	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment
Carbon Monoxide (CO)	Attainment
Nitrogen Dioxide (NO_2)	Attainment
Lead (Pb)	Attainment
Sulfur Dioxide (SO_2)	Attainment
Sulfates (So_x)	Attainment
Hydrogen Sulfide (H_2S)	Unclassified
Visibility Reducing Particles	Unclassified

Source: (CARB 2017a)

The SVAB portion of Sacramento County is currently in nonattainment for state ozone and PM_{10} standards. Concentrations of all other pollutants meet state standards.

Ozone is not emitted directly into the environment, but is generated from complex chemical reactions between ROG, or non-methane hydrocarbons, and NO_x that occur in the presence of sunlight. ROG and NO_x generators in Sacramento County include motor vehicles, other transportation sources, and stationary/area sources (industrial, manufacturing, and commercial facilities).

PM_{10}, or particulate matter, is a complex mixture of primary or directly emitted particles, and secondary particles or aerosol droplets formed in the atmosphere by precursor chemicals. The main sources of fugitive dust are construction dust, unpaved road dust, and paved road dust.

Construction of the build alternative would result in release of non-attainment criteria air pollutants O_3 and PM_{10}; however, release of air pollutants would be associated with construction and no operational emissions are anticipated. As shown in Table 4, construction emissions would be below the SacMetro AQMD thresholds of significance. Project impacts would be considered ***Less Than Significant***. No mitigation is required.

d.) Less Than Significant Impact. Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses (SacMetro AQMD 2016). The majority of problem locations are located in single family residential areas. Problem Location 8 is located adjacent to the Sun Oaks Assisted Living Facility. Construction of the build alternative would result in increased pollutants from the use of diesel powered construction equipment; however, construction related air pollutants would be temporary and would result in a ***less than significan***t exposure of sensitive receptors to substantial pollutant concentrations.

e.) Less Than Significant Impact. Operation odors are not expected to occur as a result of the project. Repaving following storm drain installation may generate odors typically associated with asphalt paving during construction. Odor generation would be temporary, limited to the number of days required to repave following drainage improvements, and less than significant.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

All construction impacts on air quality are short-term in duration and, therefore, will not result in adverse or long-term impacts. No potentially significant impacts to air quality have been identified; however, the following Basic Construction Emission Control Practices recommended by the SacMetro AQMD would be adhered to:

AQ-1: Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

AQ-2: Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

AQ-3: Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.

AQ-4: Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

AQ-5: All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

AQ-6: Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

FINDINGS

All potentially significant environmental effects of the project relating to air quality can be mitigated to a ***less-than-significant*** level.

3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

REGULATORY SETTING

This section describes the Federal, State, and local plans, policies, and laws that are relevant to biological resources within the BSAs.

Federal Regulations

National Environmental Policy Act

NEPA provides an interdisciplinary framework for environmental planning by Federal agencies and contains action-forcing procedures to ensure that Federal agency decision makers take environmental factors into account. NEPA applies whenever a Federal agency proposes an action, grants a permit, or agrees to fund or otherwise authorize any other entity to undertake an action that could possibly affect environmental resources. Caltrans, under delegation from the FHWA, is the NEPA lead agency for this project.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 (16 U.S.C. section 1531 et seq.) provides for the conservation of endangered and threatened species listed pursuant to Section 4 of the Act (16 U.S.C. section 1533) and the ecosystems upon which they depend. These species and resources have been identified by U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS).

Clean Water Act

The Clean Water Act (CWA) was enacted as an amendment to the Federal Water Pollutant Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the U.S. CWA serves as the primary Federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. CWA empowers the EPA to set national water quality standards and effluent limitations, and includes programs addressing both point-source and non-point-source pollution. Point-source pollution originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Non-point-source pollution originates over a broader area and includes urban contaminants in stormwater runoff and sediment loading from upstream areas. CWA operates on the principle that all discharges into the nation's waters are unlawful unless they are specifically authorized by a permit; permit review is CWA's primary regulatory tool. This project will require a CWA Section 402 National Pollutant Discharge Elimination System (NPDES) Permit regulated by the EPA.

The USACE regulates discharges of dredged or fill material into waters of the U. S. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations).

The Regional Water Quality Control Board (RWQCB) has jurisdiction under Section 401 of the CWA and regulates any activity which may result in a discharge to surface waters. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of USACE (i.e., waters of the U.S. including any wetlands). The RWQCB also asserts authority over "waters of the State" under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act.

Executive Order 13112: Prevention and Control of Invasive Species

Executive Order (EO) 13112 (signed February 3, 1999) directs all Federal agencies to prevent and control introductions of invasive species in a cost-effective and environmentally sound manner. The EO and directives from the FHWA require consideration of invasive species in NEPA analyses, including their identification and distribution, their potential impacts, and measures to prevent or eradicate them.

Executive Order 13186: Migratory Bird Treaty Act

EO 13186 (signed January 10, 2001) directs each Federal agency taking actions that could adversely affect migratory bird populations to work with USFWS to develop a Memorandum of Understanding that will promote the conservation of migratory bird populations. Protocols developed under the Memorandum of Understanding will include the following agency responsibilities:

- avoid and minimize, to the maximum extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- restore and enhance habitat of migratory birds, as practicable; and,
- prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

The EO is designed to assist Federal agencies in their efforts to comply with the Migratory Bird Treaty Act (MBTA) (50 Code of Federal Regulations [CFR] 10 and 21) and does not constitute any legal authorization to take migratory birds. Take is defined under the MBTA as "the action of or attempt to pursue, hunt, shoot, capture, collect, or kill" (50 CFR 10.12) and includes intentional take (i.e., take that is the purpose of the activity in question) and unintentional take (i.e., take that results from, but is not the purpose of, the activity in question).

State Regulations

California Environmental Quality Act

California State law created to inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities and to work to reduce these negative environmental impacts. The County of Stanislaus is the CEQA lead agency for this project.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Department Fish and Game (CDFG) Code Section 2050 et seq.) requires the CDFW to establish a list of endangered and threatened species (Section 2070) and to prohibit the incidental taking of any such listed species except as

allowed by the Act (Sections 2080-2089). In addition, CESA prohibits take of candidate species (under consideration for listing).

CESA also requires the CDFW to comply with CEQA (Pub. Resources Code Section 21000 et seq.) when evaluating incidental take permit applications (CFG Code Section 2081(b) and California Code Regulations, Title 14, section 783.0 et seq.), and the potential impacts the project or activity for which the application was submitted may have on the environment. CDFW's CEQA obligations include consultation with other public agencies which have jurisdiction over the project or activity [California Code Regulations, Title 14, Section 783.5(d)(3)]. CDFW cannot issue an incidental take permit if issuance would jeopardize the continued existence of the species [CFG Code Section 2081(c); California Code Regulations, Title 14, Section 783.4(b)].

Section 1602: Streambed Alteration Agreement

Under CFG Code 1602, public agencies are required to notify CDFW before undertaking any project that will divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occurs during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

Section 3503 and 3503.5: Bird and Raptors

CFG Code Section 3503 prohibits the destruction of bird nests and Section 3503.5 prohibits the killing of raptor species and destruction of raptor nests. Trees and shrubs are present in and adjacent to the study area and could contain nesting sites.

Section 3513: Migratory Birds

CFG Code Section 3513 prohibits the take or possession of any migratory non-game bird as designated in the MBTA or any part of such migratory non-game bird except as provided by

AFFECTED ENVIRONMENT

Prior to field work, literature research was conducted through the USFWS Species List, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants (Appendix B: Biological Database Search Results) to identify habitats and special-status species having the potential to occur within the designated project locations.

Field surveys were conducted on April 27th, 2017 and August 15, 2017 by Dokken Engineering biologists Scott Salembier and Courtney Owens. The purpose of the survey was to identify habitat types, map jurisdictional waters and assess habitat suitability for rare or special status species. Field methods included walking meandering transects throughout the designated project locations, observing plants and wildlife, mapping soil types and mapping the extent of both jurisdictional waters

of the United States and State of California.

The Proposed Project has designated 13 separate problem locations located within Citrus Heights. 12 designated locations are within Neighborhoods 8, 9 10, and 1 location is within Neighborhood 6. The project locations include all permanent and temporary impacts including construction easements, cut and fill limits, and potential staging areas. Problem locations within a designated riparian zone would receive an approximate 100 foot buffer. There is one problem location that falls within a riparian zone and that is location 10, found on the east side of Mariposa Avenue (Figure 3, Page 4).

The City's topography is generally flat and has an elevation of 51 meters above mean sea level (msl) (Figure 4: Topography of Project Area). The Proposed Project's designated problem locations contain a mix of low density rural residences, medium density residential subdivisions, and undeveloped open space. The project areas are highly disturbed by human activity and the majority of vegetative is comprised of non-native species. Areas without natural vegetation within the BSAs include: existing pavement, barren areas, medium density residential developments, rural residential, planted ornamentals, and ruderal/disturbed. Natural communities within the project locations include: annual grassland, riparian, oak woodlands, and waters.

Barren/Developed

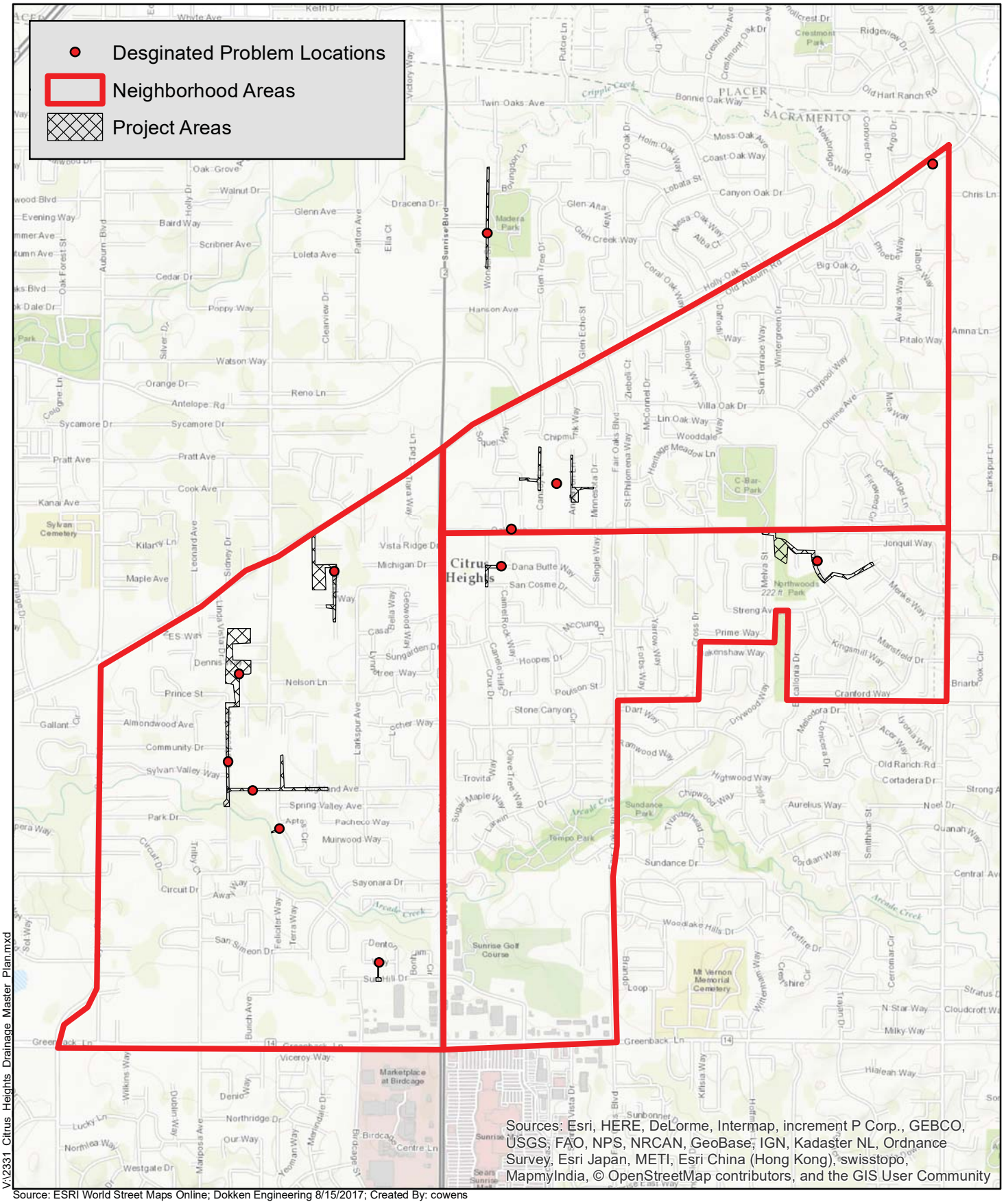
Barren/developed areas include buildings, parking lots, hardscape, concrete lining, rip-rap, or other areas with little vegetative cover. These areas are defined by the absence of vegetation with less than 2% total vegetative cover by herbaceous growth and less than 10% cover by trees or shrubs.

Valley Foothill Riparian

The valley foothill riparian community is typified by a dense, deciduous, riparian forest, with a canopy often composed of cottonwoods (*Populus* spp.), valley oak, and California sycamore (*Platanus racemosa*), while the sub-canopy is often composed of box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). The understory is shade tolerant and typically composed of wild grape (*Vitis californica*), California blackberry (*Rubus ursinus*), buttonbush (*Cephalanthus occidentalis*), elderberry (*Sambucus* spp.), poison oak (*Toxicodendron diversilobum*), wild rose (*Rosa* spp.) and willows (*Salix* spp.). This habitat is most commonly found along river/creek channels and flood plains with fine-textured alluvium where flooding occurs and is commonly found at elevations between sea level and 3,000 feet above msl (Mayer and Laudenslayer 1988). This habitat type is found adjacent to creeks, channels and basins.

Ruderal/Disturbed Annual Grassland

A portion of the problem locations include ruderal/disturbed annual grassland vegetation. Annual grassland is an herbaceous community dominated by non-native naturalized grasses with intermixed perennial and annual forbs. Previous disturbance and associated compaction of soils is



V:\2331 Citrus Heights Drainage Master Plan.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 8/15/2017; Created By: cowens

0 0.25 0.5 0.75 1 Miles

FIGURE 4
Topography of Project Area
Citrus Heights Neighborhood 8, 9 and 10 Storm Drain Master PLan Project
City of Citrus Heights, Sacramento County, California

greatest along localized anthropogenic activities associated within the immediate vicinity of local homes, roadways and other developments. Ruderal/disturbed annual grassland in the City includes but is not limited to, undeveloped slopes, fallow lots and narrow strips along existing roadways.

Mixed Oak Woodland

Mixed oak woodland typically is characterized by mixed hardwoods, conifers, and shrubs. Tree species associated with the habitat include blue oaks (*Quercus douglasii*), valley oaks (*Quercus lobata*), California buckeye (*Aesculus californica*), and interior live oaks (*Quercus wislizeni*), while the understory usually is comprised of patches of shrubs and annual grasses (Mayer and Laudenslayer 1988). Dominant plant species specific to mixed oak woodland within the City include blue oak, valley oak, interior live oak, California buckeye, and gray pine (*Pinus sabiniana*).

Waters

Hydrological water features observed within the project locations include creeks and man-made concrete lined channels. The project area is comprised of rolling terrain that drains to one of the three major creeks traversing the area: Cripple Creek, Acrade Creek, and San Juan Creek. Cripple Creek enters the study area at the intersection of Kenneth Avenue and Oak Avenue. The creek generally conveys runoff north through Neighborhood 8 before exiting the project area at Old Auburn Road. Arcade Creek enters the project area at Fair Oaks Boulevard in the southwest portion of Neighborhood 9. It conveys storm runoff west through Neighborhoods 9 and 10 before exiting the project area at Sylvan Road. San Juan Creek flows through the southern portion of Neighborhood 10 and joins Arcade Creek just downstream of Sylvan Road. All three creeks have the potential to overflow their banks during large storm events. The Federal Emergency Management Agency (FEMA) has prepared flood maps that show the floodplain along the two creeks. The floodplain defined by FEMA is presented in Appendix D.

Special-Status Species

"Special status species" include any species that has been afforded special recognition by federal, state or local resources agencies (e.g., U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Wildlife [CDFW], etc.), and/or resource conservation organizations (e.g., CNPS). The term "special-status species" excludes those avian species solely identified under Section 10 of the Migratory Bird Treaty Act (MBTA) for federal protection. MBTA Section 10 protected species are afforded avoidance and minimization measures per state and federal requirements

Prior to field surveys, a search of CNDDB, USFWS and NMFS online databases generated a complete list of regional species of concern. Based on the records search, 21 special-status species were found to have the potential to occur in the vicinity of the project locations. A complete list of species found to have the potential to occur in the vicinity of the project locations, as well as rational for each species occurrence potential, can be found in Appendix C: Special Status Species Potential Table. Only those special-status plants and wildlife species that have a high, moderate, or low potential of occurring within the project locations will be discussed in further detail below. The following set of criteria has been used to determine each species potential for occurrence on the site:

High: Species known to occur within or near the project locations (based on numerous recent CNDDB, CNPS, or ebird.org records within project location boundaries) and there is suitable habitat for the species within the project locations.

Moderate: Species known to occur within or near the project locations (based on few recent CNDDB occurrences within the project locations or within 5 miles of project location boundaries) and there is suitable habitat for the species within the City.

Low: Species known to occur in the vicinity of the project locations (based on no CNDDB occurrences of the species within the project locations and very few occurrences of the species within 5 miles of the project locations –or– limited occurrences of the species within 5 miles and, the project locations appear to be on the periphery of the known distribution of the species) and there is suitable habitat for the species

Absent: Species is not known or expected to occur within the project locations. This may be based on a lack of recent occurrences within 5 miles of the project locations, lack of suitable habitat, the project locations being located outside of ecological subsections associated with the species, or the City being located outside of the known geographic range of the species.

Special-Status Plant Species

Prior to field surveys, a review of CNDDB, CNPS and online databases found 1 special status plant species with the potential to occur in the project vicinity. Biological surveys conducted April 27th, 2017 and August 15, 2017 included habitat assessments for special status rare plants which determined that low quality Sanford's arrowhead habitat is present within creeks and channels that would be affected by the proposed storm drain improvements.

Sanford's arrowhead is a perennial rhizomatous herb found in freshwater marshes, swamps, ponds, and ditches from 0 to 2,150 feet above sea level. The species generally blooms May through October (CNPS 2016). The species is not listed as threatened or endangered under either the Federal or California Endangered Species Act but it has been designated as a rank 1B.2 rare plant by the CNPS.

Sandford's arrowhead is considered to have a low potential of occurring due to presence of potentially suitable stream channel and freshwater marsh habitat at potential new creek outfalls associated with Problem Location 4, 10, and 13. There is one documented CNDDB occurrence of the species within the project area boundaries, recorded in 1994, which was located in the north portion of Neighborhood 8, along Old Auburn Road. However, initial biological surveys did not detect any individuals directly within any of the project locations.

Special-Status Wildlife Species

Prior to field surveys, a search of CNDDB, USFWS and NMFS online databases found 3 species have a low potential of occurring within the project locations, including: Swainson's hawk (*Buteo swainsoni*), purple martin (*Progne subis*), and Western pond turtle (*Emys marmorata*). The records

search also indicated that white-tailed kite (*Elanus leucurus*), has a moderate potential of occurring within the project locations.

Swainson's Hawk

Swainson's hawk is not listed as endangered or threatened under FESA but is listed as threatened under CESA. Swainson's hawk migrates annually from wintering areas in South America to breeding locations in northwestern Canada, the western U.S., and Mexico. In California, Swainson's hawks nest throughout the Sacramento Valley in large trees in riparian habitats and in isolated trees in or adjacent to agricultural fields. The breeding season extends from late March through late August, with peak activity from late May through July (England *et al.* 1997). In the Sacramento Valley, Swainson's hawks forage in large, open agricultural habitats, including alfalfa and hay fields (CDFG 1994). The breeding population in California has declined by an estimated 91% since 1900; this decline is attributed to the loss of riparian nesting habitats and the conversion of native grassland and woodland habitats to agriculture and urban development (CDFG 1994).

Potentially suitable riparian forest roosting and nesting habitat is present along the creeks and channels within the City. In addition, potentially suitable grassland foraging habitat for Swainson's hawk is present on undeveloped parcels and other open areas within the City. There is one recent occurrence of the species within City boundaries and multiple occurrences within 5 miles. The species is considered to have a low potential of occurring near the project locations based on presence of potentially suitable nesting and foraging habitat and a recent occurrence within City boundaries.

Purple Martin

The purple martin is listed by CDFW as a SSC and is protected under the MBTA. This species is distributed throughout much of eastern North America and locally in the Pacific Coast at low to intermediate elevations (Shuford and Gardali 2008). The species is a summer migrant in California, arriving in March and departing late September, with the breeding season occurring from May to mid-August. Purple martins inhabit riparian habitats with tall, old, isolated trees for nesting, in proximity to a body of water with abundance of dragon flies, and other aerial insects (Zeiner 1988-1990). They also inhabit manmade structures like hollow box bridges in Sacramento, which house some of the species largest colonies in the western U.S. (Shuford and Gardali 2008).

The species is considered to have a low potential of occurring within riparian habitats within City based on presence of potentially suitable riparian habitat and a single CNDDB occurrence of the species recorded within the City in 2007. Potentially suitable riparian habitat for the species is present within Project Locations 4 and 6.

White-tailed Kite

White-tailed kite is a fully protected species under Fish and Game Code Section 3511. This level of protection dictates that no individuals of this species may be impacted in any way. The species has

a restricted distribution in the United States, occurring only in California and western Oregon and along the Texas coast (American Ornithologists' Union 1983). The species is fairly common in California's Central Valley margins within scattered oaks and river bottomlands. White-tailed kites nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. The species uses nearby treetops for perching and nesting sites. Voles and mice are common prey species for the white-tailed kite.

Potentially suitable riparian and urban forest roosting and nesting habitat is present within or adjacent to all Problem Locations discussed in Chapter 2. In addition, potentially suitable grassland foraging habitat for white-tailed kite is present in isolated patches throughout the City in the form of undeveloped parcels, large rural properties, and City parks. There is one CNDDB occurrence of the species within City boundaries as well as scattered occurrences of the species within 5 miles of the project location. The species is considered to have a moderate potential of occurring within mature trees near the Problem Locations based on presence of potentially suitable habitat and recent CNDDB occurrences of the species.

Western Pond Turtle

The western pond turtle is not a State or Federally listed species, but is a CDFW SSC. The western pond turtle is a fully aquatic turtle; inhabiting ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. The species requires suitable basking sites such as logs, rocks and exposed banks and associated upland habitat consisting of sandy banks or grassy open fields for reproduction. The species is omnivorous, consuming aquatic wildlife and vegetation for dietary requirements. The western pond turtle is known to hibernate underwater beneath a muddy bottom in colder climates, and reproduce from March to August (Zeiner 1990).

There are no CNDDB occurrences of the species within or adjacent to any of the Problem locations but there are occurrences recorded within 5 miles, along the American River. Potentially suitable stream channel habitat is degraded by high levels of human activity, pollutants associated with urban runoff, and the shallow ephemeral nature of most streams within the City. The species is considered to have a low potential of occurring within creeks and stream channels within the City. Potentially suitable western pond turtle habitat intersects the project locations for Problem Locations 4, 10, and 13. The species is considered to have a low potential of occurring within these Problem Locations due to presence of low quality potentially suitable habitat and regional occurrences of the species.

DISCUSSION OF CHECKLIST ANSWERS:

a). Less Than Significant Impact With Mitigation Incorporated. Project effects to special status species would be less than significant with mitigation incorporated. Species specific discussions are included below.

<u>Sanford's Arrowhead</u>

Sandford's arrowhead is considered to have a low potential of occurring within the low flow channels, pools, or other mesic areas within stream channels and open drainages within the City. The species

was not observed during field surveys which were conducted during the bloom period for the species but is still considered to have a low potential of occurring within work areas associated with installation of the proposed new outfalls associated with Problem locations 4, 10, and 13. Implementation of Measures **BIO-9** would avoid direct impacts to individual Sanford's arrowhead that may establish prior to construction by requiring that any Sanford's arrowhead discovered prior to construction be either protected in place or relocated to CDFW approved location. Proposed outfall structures and any necessary bank stabilization would be installed above the low flow channel and would not permanently affect Sanford's arrowhead habitat. Project effects to Sanford's arrowhead would be ***less than significant with mitigation incorporated***.

Swainson's Hawk

Swainson's hawk is considered to have a low potential of occurring within the City. Swainson's hawk was not observed during field surveys but proposed outfall locations for Problem Locations 4 and 6 would intersect marginal mature riparian forest nesting habitat along Arcade Creek. Construction of outfalls is not anticipated to remove any large potential nesting trees but presence of construction equipment and increased noise levels commonly associated with construction may affect the species. Swainson's hawk electing to nest within the City are likely at least somewhat desensitized to human presence but may still be disturbed by construction activity. Implementation of Measure **BIO-11** would reduce potential impacts to Swainson's hawk by requiring a pre-construction nesting survey and no-disturbance buffers should an active nest be found. Project effects to Swainson's hawk would be ***less than significant with mitigation incorporated***.

Purple Martin

Purple martin is considered to have a low potential of occurring within the City. The species was not observed during field surveys but proposed outfall locations for Problem Locations 4 and 6 would intersect marginal mature riparian forest nesting habitat along Arcade Creek. Construction of outfalls is not anticipated to remove any large potential nesting trees but presence of construction equipment and increased noise levels commonly associated with construction may affect the species. Purple martin electing to nest within the City are likely at least somewhat desensitized to human presence but may still be disturbed by construction activity. Implementation of Measure **BIO-11** would reduce potential impacts to purple martin by requiring a pre-construction nesting survey and no-disturbance buffers should an active nest be found. Project effects to purple martin would be ***less than significant with mitigation incorporated***.

White-tailed Kite

The white-tailed Kite is considered to have a moderate potential of occurring within the City. The species was not observed during field surveys but riparian and urban forests found within or adjacent to each Problem Location may provide potentially suitable habitat for the species. Construction of storm drain improvements are not anticipated to require the removal of any large potential nest trees but presence of construction equipment and increased noise levels commonly associated with construction may affect any nesting pairs in adjacent trees. Implementation of Measure **BIO-11** would reduce potential impacts to white-tailed kite by requiring a pre-construction nesting survey and

no-disturbance buffers should an active nest be found. Project effects to white-tailed kite would be ***less than significant with mitigation incorporated***.

Western Pond Turtle

Western pond turtle is considered to have a low potential of occurring within the City. The species was not observed during field surveys but stream channels within Problem Locations 4, 10, and 13 may provide aquatic habitat for the species. Construction of new storm drain outfalls at these Problem Locations would temporarily affect potential habitat for the species but with the inclusion of measures **BIO-1**, **BIO-2**, and **BIO-8**, impacts to individuals of the species are not anticipated. Project effects to western pond turtle would be ***less than significant with mitigation incorporated***.

b.) Less Than Significant Impact With Mitigation Incorporated. Proposed storm drain improvements would predominantly occur within existing roadways and developed drainage facilities; however, new outfalls proposed for Problem Locations 4, 10, and 13 would be constructed within riparian corridors associated with Arcade Creek and Cripple Creek. Construction of these outfalls is not anticipated to require removal of large trees and each outfall is anticipated to permanently modify less than 0.01 acres of riparian habitat. Potential impacts to riparian habitat would be further minimized by incorporating Measures **BIO-3**, through **BIO-7**. Impacts to sensitive natural communities would be ***less than significant with mitigation incorporated***.

c.) No Impact. Biological surveys and a USFWS National Wetlands Inventory records search confirmed that designated problem locations do not occur within any designated wetlands (https://www.fws.gov/wetlands/data/mapper.html). Furthermore, construction activities will occur predominately within existing roadways and developed drainage facilities. Therefore, ***No Impact*** to wetlands is anticipated, and no mitigation is required.

d.) Less Than Significant Impact With Mitigation Incorporated. The project will not permanently interfere with the movement of any native resident or wildlife species. Potential impacts to aquatic wildlife would be minimized by restricting in channel work to low/no flow periods as described in measure **BIO-10**. Creek riparian corridors likely serve as a movement corridor for terrestrial animals within the City. Construction of three new outfalls would not alter the functionality of the creeks as movement corridors. Project effects to wildlife movements would ***less than significant with mitigation incorporated***.

e.) No Impact. Proposed storm drain improvements are subject to the City's Tree Preservation Ordinance (City of Citrus Heights Municipal Code Chapter 106.39). All proposed work will be conducted in full compliance with the City's Tree Preservation Ordinance. Most of the Proposed Project's work will predominately occur within existing roadways and removal of native oak trees equal or greater than 6 inches diameter at breast height (dbh) is not anticipated. ***No impact*** to local policies protecting biological resources is anticipated.

f.) No Impact. The City is not located within an adopted habitat conservation plan. ***No impact*** to habitat conservation plans is anticipated.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following mitigation measures would be incorporated to reduce impacts to a less than significant level:

BIO-1: If wildlife is encountered during construction activities, work will stop within the area and the animal will be allowed to leave the project area un-harassed.

BIO-2: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.

BIO-3: Soil disturbance within the bed, bank and channel of creeks will be limited to the minimum area necessary to complete construction activities. Existing vegetation will be protected where feasible and disturbed/exposed soils will be stabilized to prevent erosion and sedimentation

BIO-4: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur outside creek channels and drainage facilities and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over secondary containment.

BIO-5: Prior to arrival at a project location site, the City must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.

BIO-6: Where ground disturbance occurs, the surface of temporarily impacted riparian habitat will be regraded and restored to pre-construction contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.

BIO-7: The City would implement provisions of the Native Oak Tree Ordinance to compensate for the removal of protected oaks by planting new trees or by payment of an in-lieu fee pursuant to City of Citrus Heights Municipal Code: Section 106.39.020.

- The City would implement provisions of the Tree Ordinance to compensate for the removal of protected trees by planting new trees or by payment of an in-lieu fee pursuant to Sec. 106.39.060
- The amount of encroachment within the protected zone and tree removal of City protected trees will be minimized to the greatest extent practicable.

BIO-8: Prior to beginning work within a creek corridor, the City construction supervisors and crews who would be completing the work must be trained by qualified personnel to identify and avoid harm to sensitive resources, special status species and their habitats. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats

and species that may occur during the proposed work. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Permittee shall prepare and distribute wallet-sized cards or a fact sheet that contains this information for workers to carry on-site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures.

BIO-9: Prior to the proposed work being conducted within rare plant habitat, pre-construction rare plant surveys may be required. If it is determined that there is a potential for rare plants to occur, construction areas would be surveyed for rare plants by a City appointed biologist during the appropriate bloom period for Sanford's arrowhead (May – October). If Sanford's arrowhead populations are discovered onsite, they will either be protected in place with orange ESA fencing or relocated to a CDFW approved location.

BIO-10: The time period for completing the work within the wetted channel of Arcade Creek, Cripple Creek, their tributaries, and all other stream systems shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of May 1st to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.

BIO-11: If possible, vegetation removal and ground disturbance should occur outside the nesting season for all bird species (September 1st – January 31st). If vegetation removal is to take place during the nesting season (February 1st – August 31st), a pre-construction nesting bird survey will be conducted within 7 days prior to any vegetation removal or ground disturbance activities occurring within the designated project locations. The nesting survey area will include the anticipated work area plus an approximate 100 foot buffer.

A 100-foot no disturbance buffer will be established around active bird nests protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503 and 3503.5. A modified buffer may be appropriate if agreed upon on a case by case basis by CDFW. The no disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. If there is a break in construction activity of more than 7 days during the nesting season, subsequent surveys should be conducted.

FINDINGS

Implementation of mitigation measures **BIO-1** through **BIO-11** would reduce impacts to special-status species to less than significant level. Therefore, impacts to all special-status species are considered to be ***Less Than Significant Impact With Mitigation Incorporated***.

3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

REGULATORY SETTING

CEQA established statutory requirements for establishing the significance of historical resources in PRC Section 21084.1. The CEQA Guidelines (Section 10564.5[c]) also require consideration of potential project impacts to "unique" archaeological sites that do not qualify as historical resources. The statutory requirements for unique archaeological sites that do not qualify as historical resources are established in PRC Section 21083.2. These two PRC sections operate independently to ensure that significant potential effects on historical and archaeological resources are considered as part of a project's environmental analysis. Historical resources, as defined in Section 15064.5 as defined in the CEQA regulations, include 1) cultural resources listed in or eligible for listing in the California Register of Historical Resources; 2) cultural resource included in a local register of historical resources; 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in one of several historic themes important to California history and development.

Under CEQA, a project may have a significant effect on the environment if the project could result in a substantial adverse change in the significance of a resource, meaning the physical demolition, destruction, relocation, or alteration of the resource would be materially impaired. This would include any action that would demolish or adversely alter the physical characteristics of an historic resource that convey its historic significance and qualify it for inclusion in the CRHR or in a local register or survey that meets the requirements of PRC Section 5020.1(l) and 5024.1(g). PRC Section 5024 also requires state agencies to identify and protect sate-owned resources that meet.

National Register of Historic Place listing criteria. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocation, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California

Historical Landmarks.

CEQA and the CEQA Guidelines also recommend provisions be made for the accidental discovery of archaeological sites, historical resources, or Native American human remains during construction (PRC Section 21083.2(i) CCR Section 15064.5[d and f]).

AFFECTED ENVIRONMENT

The area of potential effects (APE) was defined to include all ground disturbing activities required for construction of the various storm drain project area. Much of the project involves replacing the underground storm drain in place by pushing the new storm drain through the existing drain. Above ground activities include the construction of ditches and gutters, swales, overland releases, and a proposed basin. The ditches and gutters will be along existing streets, while the swales, overland releases, and basins will be conducted in open fields and through lawn areas.

Throughout the majority of the project area, the vertical APE would be less than five feet to accommodate clearing/grubbing, grading, and roadway improvement depths. The areas where the vertical APE would be deeper for the basins at 4 feet deep and for the storm drain replacement, which could be as deep as 12 feet. The APE encompasses approximately 22 acres.

Efforts to identify potential cultural resources in the APE included background research, a search of previously recorded archaeological site records and cultural resource identification reports on file at the California Historical Resources Information System North Central Information Center (NCIC), efforts to coordinate with Native American representatives, efforts to coordinate with local historical organizations, and a pedestrian ground surface survey.

On August 15, 2017 Dokken Engineering archaeologist Dr. Brian Marks conducted a ground surface inventory of the APE. Five-meter and ten-meter wide pedestrian transects were used, where appropriate, to inspect the ground surface. All cut banks, burrow holes, and other exposed sub-surface areas were visually inspected for the presence of archaeological resources, soil color change, and/or staining that could indicate past human activity or buried deposits.

No prehistoric or historic cultural resources were identified during the August 15, 2017 surface inventory. The various project areas are all within residential subdivisions, though some are associated with an adjacent church, park, and pumpkin patch. The surface visibility was limited throughout the project areas as much of the impact areas are paved over or within landscaped areas of people's yards. Surface visibility within the open fields varied between 20 and 100 percent, but averaged approximately 70 percent. The ditches had surface visibility of over 60 percent. Many of the ditch and creek walls were examined and scraped to view the profile. No

visible soil coloration was observed that would have indicated past human occupation.

Buried Archaeological Resource Potential

The record search results indicated that no prehistoric-era cultural resources and 11 historic-era structures have been previously recorded within a one-quarter-mile radius of the project areas. Prior to historic development, the area is considered to be depositional nature; therefore, the buried cultural deposit potential for the project vicinity would also be considered high. However, due to historic development and installation of utilities, much of the project area is heavily disturbed.

Additionally, many of the areas that had not been affected by residential development had once been used for agriculture, especially for orchards. These trees had been removed, disturbing the upper 3 three feet of sediment, which would have also disturbed any buried archaeological sites within that depth, if they were present.

No modified material, soil discoloration, human remains, or other indicator of prehistoric human activity were observed in the 2017 survey. Lastly, these areas have been heavily disturbed since the mid-1960s. Sewer pipes, reclaimed water pipes, and storm water pipes and are located 5 to 10 feet below ground surface in many of these roads.

Overall, the potential for buried archaeological resources throughout the project area is low due to disturbances. However, areas where there are no existing utilities and disturbances will be below three feet there is a moderate potential for encountering buried archaeological resources. Archaeological testing in these areas is not possible due to the paving of the area.

DISCUSSION OF CHECKLIST ANSWERS:

a.) No Impact. A record search was obtained for the entire City of Citrus Heights (File # SAC-17-75) on June 21, 2017, which included the project area. The record search was conducted by Nathan Hallam, Researcher at the NCIC. The search examined the National Register, the California Register of Historical Resources (California Register), the Directory of Properties in the Historic Property Data File, the *California Historic Landmarks* (1996), the *California Inventory of Historic Resources* (1976), and the *California Points of Historical Interest* listing (May 1992 and updates). Additional research efforts conducted outside the NCIC included a review of the Caltrans State and Local Bridge Survey (1989 and updates), historic USGS topographic maps, and other pertinent historic data specific to Placer County. Using this data, previously recorded sites and previous surveys within a one-quarter-mile radius of the APE of the 12 Problem Locations were obtained.

The NCIC identified five previous cultural resource investigations previously conducted within the project area. These previous surveys covered approximately 10 percent of the current APE. Twenty additional cultural resource investigations have been conducted within a one-quarter-mile radius of the APE. Table 4 below details all investigations within one-quarter mile of the APE, including the surveys within the APE.

Table 6: Previous Cultural Resource Studies within One-Quarter-Mile of the APE

NCIC #	TITLE	AUTHOR	DATE	INCLUDES APE (Y/N)	RESOURCES RECORDED IN APE?
SA-000383	An Archeological Survey of the Proposed Creekside Village Condominiums (Control 87-CP-RZ-UP-2010).	Warner, Laurie E.	1988		No
SA-000417	Cultural Resource Assessment of Sacramento Municipal Utility District's Project B, Phase I, 230kV Tansmission Line, the Orangevale Tap, Placer County, to Orangevale Substation, Sacramento County, California.	Peak, Ann S. and Associates	1979	Yes	No
SA-000430	A Cultural Resource Study of the Arcade Creek Project, Sacramento County, California.	Derr, Elearnor H.	1980		No
SA-000594	Field Survey on the Proposed Creekridge Subdivision Lands, Sacramento County.	Peak, Ann S. and Associates	1980		No
SA-001841	Cultural Resource Assessment of the Proposed Old Auburn Estates Project.	Peak and Associates	1981		No
SA-002668	Historic Property Survey Report for the Auburn Boulevard/Sylvan Road Intersection Improvement Project, City of Citrus Heights, California	Tracy Bakic	2001		No
SA-003025	Draft Environmental Impact Report, Antelope Road Widening, Auburn Boulevard to Old Auburn Road	Robert Caikoski and Antonia Barry	1994		No
SA-003028	Draft Environmental Impact Report for Greenback Lane Widening, San Juan Avenue to Birdcage Street, A Distance of .86 Miles	Barry, Antonia	1992		No
SA-003045	Draft Environmental Impact Report for Stock Ranch General Plan Amendment Community Plan Amendment and Rezone	Catherine Hack	1991		No
SA-	NEPA Screening for Wireless Telecommunications Site-Kenneth	Edmands, Jesse	2002		No

NCIC #	TITLE	AUTHOR	DATE	INCLUDES APE (Y/N)	RESOURCES RECORDED IN APE?
006252	Cell Site				
SA-006267	Historical and Cultural Resource Assessment: Proposed Telecommunications Facility, Oak & Wachtel Way	Pastron, Allen G.	2001		No
SA-006268	Department of Environmental Review and Assessment Intial Study.	Newton Associates	1992		No
SA-006277	Fifteen SureWest Tower Sites in Sacramento, Placer, El Dorado, San Joaquin, Yolo and Sutter Counties.	Peak & Associates,Inc	2001		No
SA-006285	Fouteen SureWest Tower Sites in Sacramento, Placer and El Dorado counties	Peak & Associates, Inc.	2001		No
SA-006287	Cultural Resources Inventory of Miry Estates Project	PAR Environmental Services, Inc.	2004	Yes	No
SA-006291	A Cultural Resources Study for The San Juan Suburban Water District Pipeline Project Intial Study.	Derr, Eleanor H.	1993	Yes	No
SA-006326	Archaeological Survey of the Mauel and Consuelo Gomez Parcel Map Control No: 90-PMR-0931	Warner, Laurie	1991		No
SA-007130	Roseville Energy Facility Cultural Resources	Brian Hatoff and R. Egherman	2002	Yes	No
SA-008619	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California	Cindy Arrington et al	2006		No
SA-008678	A Cultural Resource Evaluation of the Old Auburn Road-Cirby Way Intersection, Roseville, California	Daniel G. Foster and John W. Foster	1987		No
SA-	Arcade Creek Park Preserve Project	Sean Michael	2008		No

NCIC #	TITLE	AUTHOR	DATE	INCLUDES APE (Y/N)	RESOURCES RECORDED IN APE?
009894		Jensen			
SA-010382	City of Citrus Heights Historical Resources Survey	Carol Roland, Ph.D.	2006	Yes	No
SA-011137	Arcade Creek Park Preserve Cultural Resources Inventory & Evaluation Citrus Heights, Sacramento County, California	Ric Windmiller	2013		No
SA-011616	Arcade Creek Park Preserve Cultural Resources Inventory & Evaluation Citrus Heights, Sacramento County, California.	Ric Windmiller	2013		No
SA-012183	Cultural Resources Inventory Report: Mitchell Farms, Sacramento County, California	Megan Webb	2016		No

No previously recorded cultural resources have been recorded within anticipated. There have been 11 previously recorded cultural resources reported to the NCIC within one-quarter-mile of the APE. These resources are comprised of 11 historic-era structures.

The proposed storm drain improvements would have no impact on historical resources as defined in §15064.5; properties in the APE are also ineligible for listing in the California Register/National Register or lack integrity to qualify as a historical resource or historic property. The State Historic Preservation Officer (SHPO) will also be consulted on the California Register/National Register eligibility determinations. It is anticipated that the SHPO will concur on these findings. With the findings of the visual survey, record search, and historic land use within the area, therefore, **No Impacts** are anticipated for the proposed Project related to historic resources. No mitigation is required.

b.) Less Than Significant With Mitigation Incorporated. A record search was obtained for the entire City of Citrus Heights (File # SAC-17-75) on June 21, 2017, which included the project area. The record search was conducted by Nathan Hallam, Researcher at the NCIC. The search examined the National Register, the California Register of Historical Resources (California Register), the Directory of Properties in the Historic Property Data File, the *California Historic Landmarks* (1996), the *California Inventory of Historic Resources* (1976), and the *California Points of Historical Interest* listing (May 1992 and updates). Additional research efforts conducted outside the NCIC included a review of the Caltrans State and Local Bridge Survey (1989 and updates), historic USGS topographic maps, and a pedestrian survey of all 12 Problem Locations by Brian S. Marks, Ph.D. on August 15th, 2017. Based on the results of these identification efforts, there are no archaeological resources

located within the Project Area; therefore, the project would have no impact to archaeological resources.

While there are no archaeological resources identified within the Project Area, as with any project that involves subsurface excavation, the potential exists for the discovery of previously unknown archaeological resources. Mitigation measures **CR-1** through **CR-4** would reduce potentially significant impacts as a result of discovery of archaeological resources during construction. Project impacts to archaeological resources would be ***less than significant with mitigation incorporated***.

c.) Less than significant with Mitigation. Unique paleontological resources or unique geologic features are not documented within the Project Area. There is a possibility of unanticipated and accidental paleontological discoveries during subsurface excavation. Mitigation measures **CR-1** through **CR-4** would reduce potentially significant impacts as a result of discovery of paleontological resources during construction to ***less than significant with mitigation incorporated***.

d.) Less than Significant with Mitigation. With any project requiring ground disturbance, there is always the possibility that unmarked burials may be unearthed during construction. This impact is considered potentially significant. Implementation of Mitigation Measure **CR-2** would reduce this impact to a ***less-than significant with mitigation incorporated***l.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

CR-1: Prior to construction, cultural resource awareness and sensitivity training shall be provided to all construction crew members to ensure that the crew members are aware of the potential for sensitive cultural resources to be present onsite. The awareness and sensitivity training would also include an established protocol for informing the resident engineer of any accidentally discovered cultural resources.

Treatment of Discoveries:

CR-2: If significant historical, paleontological, archaeological, or tribal cultural resources are discovered within the APE, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor, a representative of the appropriate Native American Tribe(s) (if discovery is prehistoric), and the City shall confer regarding mitigation of the discovered resource(s). All discovered archaeological resources should be documented by field notation, analysis, photography, and GPS mapping. Work shall not resume in the area until mitigation has been completed or it has been determined that the archaeological resource(s) is not significant.

Disposition of Discoveries:

CR-3: If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative,

the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CR-4: In the event that Native American cultural resources are inadvertently discovered during the course of construction, the City shall relinquish ownership of all Native American cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to Native American cultural resources. Prior to relinquishment, all discovered archaeological resources should be documented by field notation, photography, and GPS mapping. After consultation with the appropriate Native American Tribe(s), non-destructive analysis may be conducted.

FINDINGS

The project would have ***less than significant*** impacts with mitigation incorporated relating to cultural resources.

3.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic groundshaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Section 1803.5.3 of the 2010 CBC, creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

REGULATORY SETTINGS

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the CEQA.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Geology and Topography

The Project area is situated within two geomorphic provinces: the Great Valley Geomorphic Province to the west and Sierra Nevada Geomorphic Province to the east (California Geological Survey 2002). The Great Valley of California, also called the Central Valley, is a nearly flat alluvial plain extending from the Tehachapi Mountains in the south to the Klamath Mountains in the north, and from the Sierra Nevada in the east to the Coast Ranges in the west. The valley is about 450 miles long and averages about 50 miles wide. Elevations of the alluvial plain are generally just a few hundred feet above msl, with extremes ranging from a few feet below msl to about 1,000 feet above msl (Hackel 1966). The Sierra Nevada is a strongly asymmetric mountain range with a long gentle western slope and a high, steep eastern escarpment. The range averages 50 to 80 miles wide, and it runs west to north through eastern California for more than 400 miles, from the Mojave Desert to the south to the Cascade Range and Modoc Plateau to the north (Bateman and Wahrhaftig 1966).

The Proposed Project locations are located in the transition area between the Sacramento Valley and the western foothills of the Sierra Nevada mountain range. Elevation for the project area is ranges from approximately 150 feet above msl in the southwest portion of the project to approximately 200 feet above msl in the northeastern end of the project. The overall topography of the City of Citrus Heights, as well as the Proposed Project sites, is relatively flat. As a result, no landslides or landslide deposits have been mapped within the City.

Soil

The Soil Survey of Sacramento County, prepared by the United States Department of Agriculture (USDA), NRCS maps soil types in most of Sacramento County, including the Citrus Heights area. Two types of soils are found within the project locations: Urban Land-Xerarents-Fiddyment Complex and Fiddyment-Orangevale Complex, 2 to 8% slope (NCRS 2017). Characteristics of these soils are summarized in the table below.

Table 7: Soil Characteristics within the Project Locations

Soil Type	Soil Slope	Erosion Hazard	Shrink/Swell
Urban Land-Xerarents Fiddyment Complex	0-8%	Slight	Moderate
Fiddyment-Orangevale Complex	2-8%	Slight to moderate	Moderate

Source: NCRS 2017

Fiddyment's surface layer is brown sandy loam. The subsoil is a claypan consisting of brown clay loam. The next layer is silica-cemented hardpan approximately 12" thick over siltstone. Water sometimes perches in Fiddyment for short periods after heavy storms. Orangevale is a deep and well-drained soil. The surface layer is a yellowish brown coarse sandy loam about 15" thick. Underlying layers consist of sandy clay loam and coarse sandy loam.

The majority of shrink/swell (or expansive) soils in the City of Citrus Heights, including those found on the project site, have moderate shrink-swell potential. Shrink-swell potential refers to the soils ability to expand when wet and contract when dry. Shrinking and swelling of soil can damage roads, dams, building foundations and other structures.

Erosion is a natural geologic process where landforms are worn down or reshaped over time by natural factors such as wind or water. The Citrus Heights area has slight to moderate erosion ratings. In general, erosion occurs where there are steep slopes and the soil is continually exposed to wind and rain. The primary areas on the project site prone to erosion are the banks of Arcade Creek and San Juan Creek.

Seismicity

The project is not located within ½ miles of an Alquist Priolo Earthquake Fault Zone. The closest fault mapped by the California Division of Mines and Geology is the Foothills Fault Zone about 15 miles to the northeast, and no significant seismic event has been recorded in the area since 1908 (CDC 2015).

The potential for liquefaction occurs when saturated soils are subjected to ground shaking. The Proposed Project has a low and very low probability of seismic-related failure including liquefaction.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less than significant. The project would not expose people or structures to potential substantial adverse effects:

i.) According to the City's General Plan (2011), no active faults occur within or near City limits; therefore, no Alquist-Priolo Earthquake Fault Zone exists within the Proposed Project areas. The closest fault mapped by the California Division of Mines and Geology is the Foothills Fault Zone about 15 miles to the northeast, and no significant seismic event has been recorded in the area since 1908 (CDC 2015). The proposed construction activities would not expose people or structures to rupture of a known earthquake fault.

ii.) Construction of the proposed storm drain improvements would require trenching or pipe bursting and may temporarily expose people or structures adjacent to improvements to ground shaking during construction. Ground shaking would be temporary and is not anticipated to damage any structures.

iii). The potential for liquefaction occurs when saturated soils are subjected to ground shaking. Seismic-related failure, including liquefaction, is determined to have no impact to the predominantly flat project areas that contain well drained soil with deep groundwater. The Proposed Project will improve stormwater drainage which potentially reduces the risk of liquefaction.

iv.) Pursuant to the Community Health Element of the City General Plan (2011) and the CDC Landslide Inventory, the City and the surrounding Sacramento region is not an area at risk for Landslides (City of Citrus Heights 2011, CDC 2015, CDC 2015b). In addition, the Proposed Project will be conduction work within the City's creeks, drainages and residential streets, and therefore would not create a substantial risk of landslides.

b.) Less Than Significant Impact with Mitigation Incorporated. Stormwater discharges within portions of Sacramento County, including the City, are permitted under Phase II of the NPDES small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Regional Water Quality Control Boards. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). As a requirement, the Proposed Project would comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of Low Impact Development (LID) practices, where applicable. Further, the Proposed Project would comply with the City's Design and Construction Standards on standard erosion control and BMPs. Additionally, the Proposed Project will comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will adequately control erosion and effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b).

Construction activities discussed in Chapter 2 such as grading and earthwork may result in erosion and sedimentation. This impact would be mitigated through implementation of the Stormwater Pollution Prevention Plan (SWPPP) which would incorporate erosion control methods. Measure **GEO-1** details this. Therefore, impacts concerning substantial soil erosion or loss of top soil would be considered to be ***less than significant with mitigation incorporated.***

c.) No Impact. Pursuant to the Community Health Element of the City General Plan, the City's geographic location, soil conditions, and surface terrain combine to minimize risk of major damage from landslides, subsidence (gradual shrinking of the earth's surface due to underground resource extraction), or other geologic hazards resulting from seismic activity and related natural forces (City of Citrus Heights General Plan 2011). Therefore, there is no potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. ***No Impact*** would result from the Proposed Project.

d.) No Impact. Problem Locations are not located in an area of expansive soils and would not expose people to risk related to potential geologic impacts. Therefore, ***No Impact*** relating to expansive soils would result from the Proposed Project. No mitigation is required.

e.) No Impact. The Proposed Project would not use a septic tank system. Sewage collection and disposal is not required for the proposed activities. Therefore, ***No Impact*** on soils related to the use of septic tanks would occur. No mitigation is required.

The following mitigation measures would be incorporated to reduce impacts to a less than significant level:

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

GEO-1 The County and contractor shall implement a SWPPP to include erosion control methods. This SWPPP shall be prepared for the Section 402 permit, NPDES General Permit for Discharges of Stormwater Associated with Construction Activity.

FINDINGS

All potentially significant environmental effects of the project relating to geology and soils can be mitigated to a ***less than significant with mitigation incorporated*** level.

3.7 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

Climate change and Green House Gases (GHG) reduction is a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the EPA to regulate GHG as a pollutant under the CAA (Massachusetts vs. [EPA] et al., 549 U.S. 497 (2007). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)--in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will took effect in 2012.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's

National Highway Safety Administration on September 15, 2009.

State Regulations

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts from the State of California devoted to GHG emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include CO_2, CH_4, NO_X, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change at the state level. AB 1493 requires the CARB develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the EPA. The waiver was denied by the EPA in December 2007 and efforts to overturn the decision had been unsuccessful. See California v. Environmental Protection Agency, 9th Cir. Jul. 25, 2008, No. 08-70011. On January 26, 2009, it was announced that EPA would reconsider their decision regarding the denial of California's waiver. On June 30, 2009 EPA granted California the waiver. On September 24, 2009, the ARB adopted amendments to the "Pavley rule" regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are efforts made in part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. ARB's September amendments cemented California's enforcement of the "Pavley rule" while providing vehicle manufacturers with new compliance flexibility. The objective of the amendments was to prepare California to harmonize its rules with the federal rules for passenger vehicles.

Since the passing of AB 1493, several EO concerning California's Climate Change reduction efforts have been signed. December 14, 2004, EO-S-3-05 was signed, which created a Low Carbon Fuel Standard (LFCS). The objective of this standard is to reduce the carbon intensity of California's passenger vehicle fuels by at least 10% by 2020. On June 1, 2005, EO-S-3-05 was signed. The goal of this EO is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In April of 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." EO-S-20-06, signed in October of 2006, further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team. With EO-S-01-07, signed in January of 2007, set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020. In March of 2012, EO-B-16-12

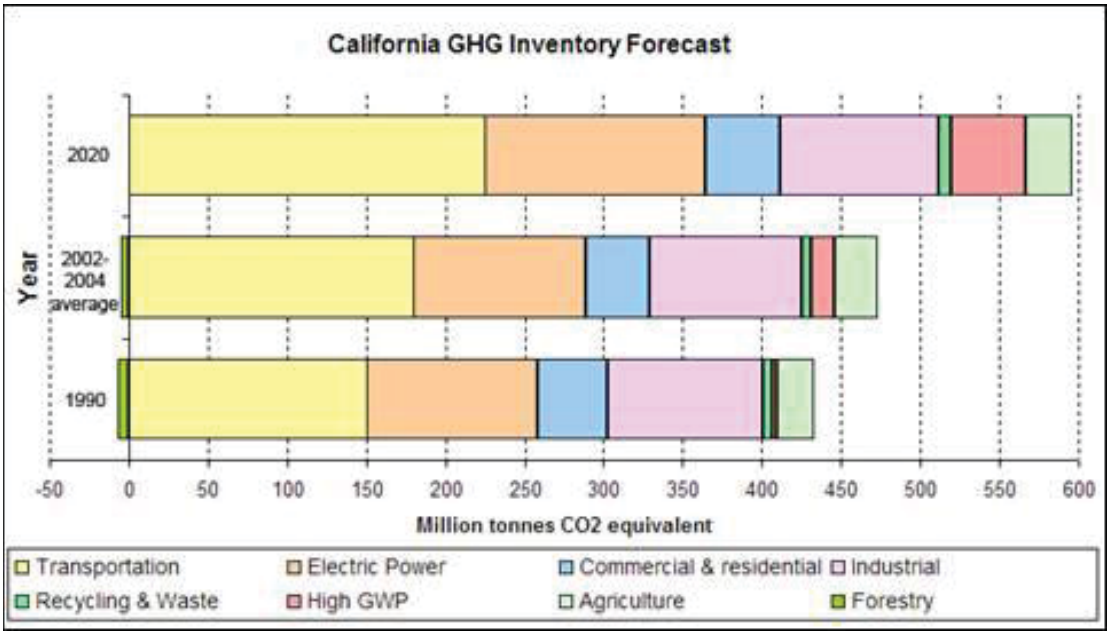
was signed which orders State agencies to facilitate the rapid commercialization of zero-emission vehicles (ZEVs). The EO sets a target for the number of 1.5 million ZEVs in California by 2025. Also the EO sets as a target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Finally, EO-B-30-15, signed in April of 2015, sets a GHG emissions target for 2030 at 40 percent below 1990 levels.

California has also enacted State Bill 97, which acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The Resources Agency certified and adopted those guidelines on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments were made effective March 18, 2010. The amendments contain changes to fourteen sections of the existing guidelines, including: the determination of significance as well as thresholds; statements of overriding consideration; mitigation; cumulative impacts; and specific streamlining approaches. The amendments also include an explicit requirement that EIRs analyze GHG emissions resulting from a project when the incremental contribution of those emissions may be cumulatively considerable.

According to recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (See CEQA Guidelines sections 15064(i)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft *Climate Change Scoping Plan*, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Figure 5 illustrates the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

Figure 5: California Greenhouse Gas Inventory



Source: http://www.epa.gov/climatechange/endangerment.html

Local Regulations

City of Citrus Heights Greenhouse Gas Reduction Plan 2011

In recognition of the statewide efforts to reduce GHG emissions, the City of Citrus Heights adopted a Greenhouse Gas Reduction Plan concurrent with the City's 2011 General Plan update process. According to the General Plan EIR, the single largest source of greenhouse gas emissions within the City of Citrus Heights is from on-road mobile sources (automobiles, trucks, etc.) and for government sources, the largest source was related to employee commutes (City of Citrus Heights General Plan EIR, 2011).

The Greenhouse Gas Reduction Plan was adopted pursuant to a detailed analysis of potential project impacts under CEQA. The City of Citrus Heights has determined that projects that are consistent with the adopted Greenhouse Gas Reduction Plan would have a less than significant impact with regard to the project's GHG emissions and contributions to climate change.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Worldwide, climatic change is a public health and environmental concern. As global concentrations of atmospheric GHG increase, global temperatures increase, weather extremes increase, and air pollution concentrations increase. Global warming has been observed to contribute to poor air quality, melting glaciers, rising sea levels, stronger storms, more intense and longer droughts, more frequent heat waves, wildfires, and other threats to human health (IPCC 2013). Since the late 19th century, each of the past three decades has been successively warmer at the Earth's surface than any the previous decades in the instrumental record, and the decade of the 2000's has been the

warmest (IPCC 2013).

GHG emissions for infrastructure projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase and will be dependent on the problem location the work is being conducted at. Construction activities duration, frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during the separate construction phases and locations. Due to the fact the Proposed Project is implementing improved storm drainage facilities, operational GHG emissions are not anticipated.

DISCUSSION OF CHECKLIST ANSWERS

a). Less Than Significant Impact. GHG emissions produced during construction operations are those that result from potentially increased traffic volumes or changes in automobile speeds. The Proposed Project would not increase the number of automobiles in the traffic system or permanently influence automobile speeds. By improving the designated storm drainage facilities, overall traffic flow is not expected to change, thus the project is not anticipated to increase CO_2 emissions. Lower speeds, such as those experienced in congested areas, generally result in higher CO_2 emissions rates. However, all construction activities are temporary and traffic impacts during construction would not result in a potentially significant impact. Traffic delays would be further minimized by implementing traffic control measures as described in Measure **TRA-1** discussed in Section 3.16. Although the Proposed Project would contribute to GHG levels during construction, construction activities would only be short-term, resulting in negligible GHG emissions from the construction equipment and worker vehicles which would have a less-than-significant impact to generation of GHG emissions in the region. No permanent impact to GHG emissions or climate change would result from long term operation of the storm drain system. Therefore, the Proposed Project's contribution to global climate change through GHG emissions would be considered a ***Less Than Significant Impact***.

b). Less Than Significant Impact. The proposed storm drain improvements would result in minor GHG emissions during construction but would not result in long term GHG emissions. The City has not adopted a Climate Action Plan, nor any specific mandatory GHG reductions measures and ***no impact*** to any plan, policy, or regulation focused on reducing GHG emissions would result.

FINDINGS

All potentially significant environmental effects of the project relating to Greenhouse Gas Emissions can be mitigated to a ***less-than-significant*** level.

3.8 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project vicinity?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project vicinity?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury, or death	☐	☐	☐	☒

involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	

REGULATORY SETTING

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

A review of the information available through Envirostor and Geotracker (2016) indicated that there are numerous current and/or historical clean-up sites within City limits. However, no current or historical cleanup sites are located directly within the problem locations or within a 100 foot buffer of the project areas. The closest active cleanup site is the Roseville Telephone Company (T0606751066) which is located at 114 Vernon Street. Envirostor and Geotracker (2016) list the site as a Leaking Underground Storage Tank (LUST) Cleanup Site (RB Case 341393 and Loc Case GO25/RO1512). The details of the site are listed on the California Facility Inventory Underground Storage Tank Database as an active or inactive underground ground storage tank. According to the Roseville Telephone Company, an active underground diesel fuel tank is located in the parking lot by the dumpster area, between Atlantic Street and Vernon Street, The site has not been identified as having a leak and is pending a site inspection to determine the severity of the issue (Anderson Consulting Group 2000). The location of the tank is important to consider if construction activities should occur within the area. The closest project location is problem location number 7 which is approximately 650 feet south of the listed LUST site.

No hazardous waste facilities were located within the proximity of the project locations. The closest operational hazardous waste facility is the North Area Recovery Station, which is approximately 7.5 miles to the south east of the City Limits.

Under the CEQA checklist, consideration of hazardous emissions, handling of hazardous or acutely hazardous materials or substances or waste within 0.25 mile of an existing or proposed school, is required. There are several schools located within and around Neighborhoods 8, 9 and 10. However, the review conducted in the Envirostor and Geotracker Databases did not reveal any known hazardous materials within the project areas.

Review of information available through USGS indicated that ultramafic rock formations are found in Eastern Sacramento County but are not found within the project areas (USGS, 2016).

The proposed construction activities associated with stormwater drainage facilities will not require dewatering activities and are not likely to encounter groundwater; therefore, assessment of groundwater conditions beneath the project locations prior to design and construction of the road is not warranted.

In addition, SMUD operates an overhead high voltage electricity transmission line adjacent to Problem Location 9. The build alternative for Problem Location 9 does include a new stormdrain line and a detention basin near the SMUD transmission lines. The City will coordinate with SMUD to develop a Joint Use Agreement between the Sunrise Parks District (property owner), SMUD and the City of Citrus Heights. The City will follow all requirements of the Joint Use Agreement to minimize the hazardous risk of working near the transmission lines.

DISCUSSION OF CHECKLIST ANSWERS:

a). No Impact. Construction activities will not require routine transport, use, or disposal of hazardous materials. The proposed Project would involve the use of heavy equipment for grading, hauling, and materials handling. Use of this equipment would require the use of fuels and other common materials that have hazardous properties. These materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, or plants. The use of hazardous materials would be temporary and the Proposed Project would not include a permanent use or source of hazardous materials. The operation and maintenance of the proposed new storm drain facilities will not generate new sources of hazardous material and would have ***No Impact*** to routine transportation. Therefore, no mitigation is required.

b). Less than Significant with Mitigation. Gasoline will be required for power tools and other construction equipment but will be transported in less than reportable quantities (55 gallons). Those activities involving hazardous materials would be required to comply with all local, state, and federal standards associated with the handling of hazardous materials including, but not limited to, the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide Permit, the City's Design and Construction Standards, avoidance and minimization measures discussed below, and the City's Stormwater Discharge Control Ordinance. The Proposed Project is not anticipated to create a significant hazard to the public or the environment through a reasonably foreseeable accident involving the release of hazardous materials into the environment. Hazardous materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, or plants. Mitigation measure **HAZ-1** will be incorporated to further avoid any potential impacts. Therefore, the Proposed Project would have a ***Less than Significant Impact with Mitigation.***

c). Less Than Significant with Mitigation Incorporated. 7 schools are within a ¼ of a mile from designated Problem Locations. The table below provides the schools that are within a quarter-mile of Proposed Project locations.

Table 8: Schools with 1/4 mile of Proposed Project location

School name	Project location	Approximate distance from project location to school (miles)
Whispering Oaks Montessori Academy	12	.09 mile
Angels in Action Learning Center, and La Petite Academy of Citrus Heights	12	.11 mile
Faith Christian Academy	10	.02 mile
Country Hill Montessori Inc.	8	.20 mile
Holy Family Elementary School and Discovery Tree School	11	.23 mile

Although schools are within ¼ of a mile from designated locations, the proposed construction activities would not involve the use or handling of any unusual hazardous or acutely hazardous materials, substances, or waste. As is the case for projects that involve excavation, the potential exists for unknown hazardous contamination to be revealed during project construction. With the inclusion of mitigation measure **HAZ-2**, discovery of previously unknown hazardous contaminants would not result in significant emissions of hazardous materials because any discovered hazardous materials would be handled in a manner consistent with the Caltrans Hazards Procedures for Construction. Project related impacts would be ***Less Than Significant with Mitigation Incorporated***.

d.) No Impact. The State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. Government Code Section 65962.5 requires the California EPA to annually update the Cortese List. The California Department of Toxic Substances Control (CDTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. EnviroStor Database is compiled by the CDTSC to identify and track potential hazardous waste sites. Database searches indicated that no locations are within city limits handle and/or store hazardous waste and/or hazardous materials. Further, no sites within the City have been associated

with hazardous material related releases or occurrences (CDTSC 2016). Therefore, ***No Impact*** would result from the Proposed Project and no mitigation is required.

e/f). No Impact. The designated project locations are not located within two miles of an airport or an area for which an Airport Land Use Plan has been prepared and no public or private airfields are within two miles of the Problem Locations. Thus, ***No Impact*** would result from the Proposed Project in relation to introduced hazards and the decreased safety of any airports and airstrips. No mitigation is required.

g.) No Impact. The Proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Proposed Project construction activities will predominately occur within existing roadways, no modification to the functionality of the roadway is anticipated. Therefore, the ***No Impact*** would result from development of the Proposed Project. No mitigation is required.

h.) No Impact. The City is not located in an area identified by the California Department of Forestry and Fire Protection as a fire hazard region (CAL FIRE 2008). The proposed routine construction activities do not present conditions that are subject to wildland fires. The Proposed Project construction activities will predominately occur within existing roadways. There is no potential of expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, ***No Impact*** would result from proposed construction activities. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and/or minimization measures **HAZ-1** and **HAZ-2**, would be incorporated to further minimize potential impacts

HAZ-1: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur at a minimum of 100 feet from waters

HAZ-2: As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction (such as previously undetected petroleum hydrocarbon contamination from nearby gas stations). Should any previously unknown hazardous waste/material be encountered during construction, the procedures outlined in Caltrans Hazards Procedures for Construction shall be followed.

FINDINGS

The project would have ***no impact*** to environmental effects relating to hazards and hazardous materials.

3.9 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre- existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☐	☒	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f. Otherwise substantially degrade water quality?	☐	☒	☐	☐
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

h.	Place structures within a 100-year flood hazard area that would impede or redirect flood flows?	☐	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States from any point source unlawful unless the discharge is in compliance with a NPDES permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request. See below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and MS4.
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by USACE.

The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

USACE issues two types of 404 permits: Standard and General permits. For General permits there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one

of USACE's Standard permits. For Standard permits, USACE decision to approve is based on compliance with EPA Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which will have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that will have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

National Pollution Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer System (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater dischargers, including MS4s. The EPA defines an MS4 as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that are designed or used for collecting or conveying stormwater." The SWRCB has identified Sacramento County as an owner/operator of an MS4 pursuant to federal regulations. The City's MS4 permit covers all rights-of-way, properties, facilities, and activities within Sacramento County under Order No. R5-2016-0040-004, and the City of Citrus Heights.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG), adopted on November 16, 2010, became effective on February 14, 2011. The permit regulates stormwater discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. For all projects subject to the CGP, applicants are required to develop and implement an effective SWPPP In accordance with the Department's Standard Specifications, a Water Pollution Control Plan is necessary for projects with DSA less than one acre.

By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop stormwater pollution prevention plans; to implement sediment, erosion, and pollution prevention

control measures; and to obtain coverage under the City's General Plan.

The City's General Plan separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project will require compulsory stormwater runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

State Laws and Requirements

Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

Regional and Local Requirements

Section 401 of the Clean Water Act requires water quality certification from the SWRCB or from a RWQCB when the project requires a Clean Water Act Section 404 permit. Section 404 of the Clean Water Act requires a permit from the USACE to discharge dredged or fill material into waters of the U.S.

Along with Clean Water Act Section 401, Clean Water Act Section 402 establishes the NPDES permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

All construction projects over 1 acre require a SWPPP to be prepared and implemented during construction. Construction activities less than 1 acre require a Water Pollution Control Program.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project will be conducting working within various designated locations work, predominately in existing roadway. However, problem locations do vary from proposed work within concrete storm channels, pipe drainages, roadside ditches, culverts. The City's storm drainage system empties into the surrounding creeks, predominately Arcade and Cripple Creek.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less Than Significant Impact. Stormwater discharges within portions of Sacramento County, including the City, are permitted under Phase II of the NPDES small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Sacramento RWQCB. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). The Proposed Project would be required to comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of LID practices, where applicable. Further, the Proposed Project would comply with the City's Design and Construction Standards (which provides standard erosion control BMPs) and will comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will adequately control erosion and effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b). The Proposed Project would be required to comply with the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, avoidance and minimization measures discussed below and the City's Stormwater Discharge Control Ordinance.

The City will perform the proposed work at a time and in a manner that minimizes adverse impacts to fish and wildlife resources and provides for the protection and continuance of those resources.

Specifically, the City would time the work with an awareness of precipitation and other events that could increase stream flows and with the understanding of the amount of time and materials necessary to implement erosion control measures. In addition, the City will cease the construction work and implement all reasonable erosion control measures before all storm events. The Proposed Project activities would not violate any water quality standards or waste discharge requirements. Therefore, the Proposed Project would result in ***Less Than Significant Impact*.** No mitigation is required.

b.) No Impact. No groundwater wells would be drilled as part of the Proposed Project. The Proposed Project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering of the local groundwater table level. The Proposed Project will be implementing new storm drainage facilities, thus as increased demand on existing domestic water supply would not result from this project. Therefore, the Proposed Project would result in a ***No Impact***. No mitigation is required.

c.) Less Than Significant Impact. The Proposed Project will improve drainage infrastructures and reduce flooding within designated problem locations. Minor ground disturbance within existing channels may be required but those activities would only be conducted during times of low-to-no-flow. Therefore, any minor ground disturbance actions are not anticipated to increase erosion and the Proposed Project would result in a ***Less Than Significant Impact***. No mitigation is required.

d.) Less Than Significant Impact. Storm drainage facility improvement activities would advance drainage flows and reduce potential flooding impacts by enhancing storm drainage infrastructures of the natural and man-made drainages within the City. The Proposed Project would be required to comply with the Phase II MS4 NPDES permit, the USACE Section 404 Nationwide Permit, City's Design and Construction Standards, and the City's Stormwater Discharge Control Ordinance. Impacts to surface runoff and flooding are considered to be a ***Less Than Significant Impact***, therefore, no mitigation is required.

e.) No Impact. The Proposed Project will correct existing storm drain facility deficiencies by improving drainage infrastructures and will reduce flooding with in designated problem areas. The Proposed Project is not anticipated to create or contribute runoff water, but rather improvement stormwater drainage facilities to accommodate existing runoff water capacities. Therefore, the Proposed Project would result in a ***No Impact*** in relation to exceeding local run-off capacities. No mitigation is required.

f.) Less Than Significant Impact. The storm drainage facility improvement activities would be required to comply with the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, and the City's Stormwater Discharge Control Ordinance. By complying with the conditions specified in these documents, storm drainage construction impacts to water quality are considered a ***Less Than Significant Impact***. No mitigation is required.

g.) No Impact. The Proposed Project is located within a FEMA-designated 100-year Flood Zones

along Arcade and Cripple Creeks and their tributaries. However, the Proposed Project will improve storm drainage facilities and reduce flooding to the urban areas affected by the current deficient drainage infrastructures. Therefore, ***No Impact*** in relation to increasing flood hazards would result from the Proposed Project. No mitigation is required.

h.) No Impact. A hydraulic analysis was conducted and stormwater redirection was evaluated. The Proposed Project will direct stormwater runoff to surrounding creeks more efficiently and reduce flooding within the designated problem locations. Additionally, the Proposed Project would be required to comply with the City NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, and the City's Stormwater Discharge Control Ordinance. The Proposed Project will correct storm drainage deficiencies which will decrease flooding events and improve safety within designated locations. Therefore, the Proposed Project would result in a ***No Impact*** in relation to placing structures in flood hazards. No mitigation is required.

i.) No Impact. Pursuant to the City's Community Health Element of the General Plan, the City does not have any dams or levees in the project area. The Proposed Project would not result in an increased concentration of large numbers of persons in any at-risk location, and the Proposed Project would not have a significant impact on any emergency plans. No work on dams or levees will occur. Therefore, the Proposed Project would result in a ***No Impact***. No mitigation is required.

j.) No Impact. The Proposed Project site is not located near an ocean coast or enclosed body of water that could produce a seiche or tsunami, nor is the site located near areas having steep slopes that would create mudflows. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Biological resources avoidance and/or minimization measures in Section 3.4 (which also addresses water quality impacts) will be incorporated to further minimize potential impacts.

FINDINGS

All potentially significant environmental effects of the project relating to hydrology and water quality can be mitigated to a ***less-than-significant*** level.

3.10 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
d. Result in land use/operational conflicts between existing and proposed on-site or off-site land uses?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project lies with Neighborhoods 8, 9 and 10 in the eastern portion of Sacramento County, within the City limits of Citrus Heights. According to the City's 2011 General Plan the project area land uses designations are categorized as low to medium residential areas, general commercial, business professional, public and open areas. Currently, Citrus Heights is about 98% built out, meaning little vacant land remains to be developed (Figure 6: Citrus Heights Land Use Diagram).

DISCUSSION OF CHECKLIST ANSWERS:

a.) No Impact. All activities would occur within existing roadways or drainage ways and facilities. The storm drainage facility improvement activities would primarily be installed underground, in existing roadway, and would not physically disrupt or divide an established community. Therefore, ***No Impact*** would result from the Proposed Project in relation to physically dividing a community. No mitigation is required.

b.) No Impact. The Proposed Project would not conflict with any applicable land use plan or policy, including the City's General Plan. Additionally, the designated problem locations identified by the Study have been incorporated into the City's CIP. Not change in land use is proposed, therefore, ***No Impact*** due to a conflict with a land use policy would occur. No mitigation is required.

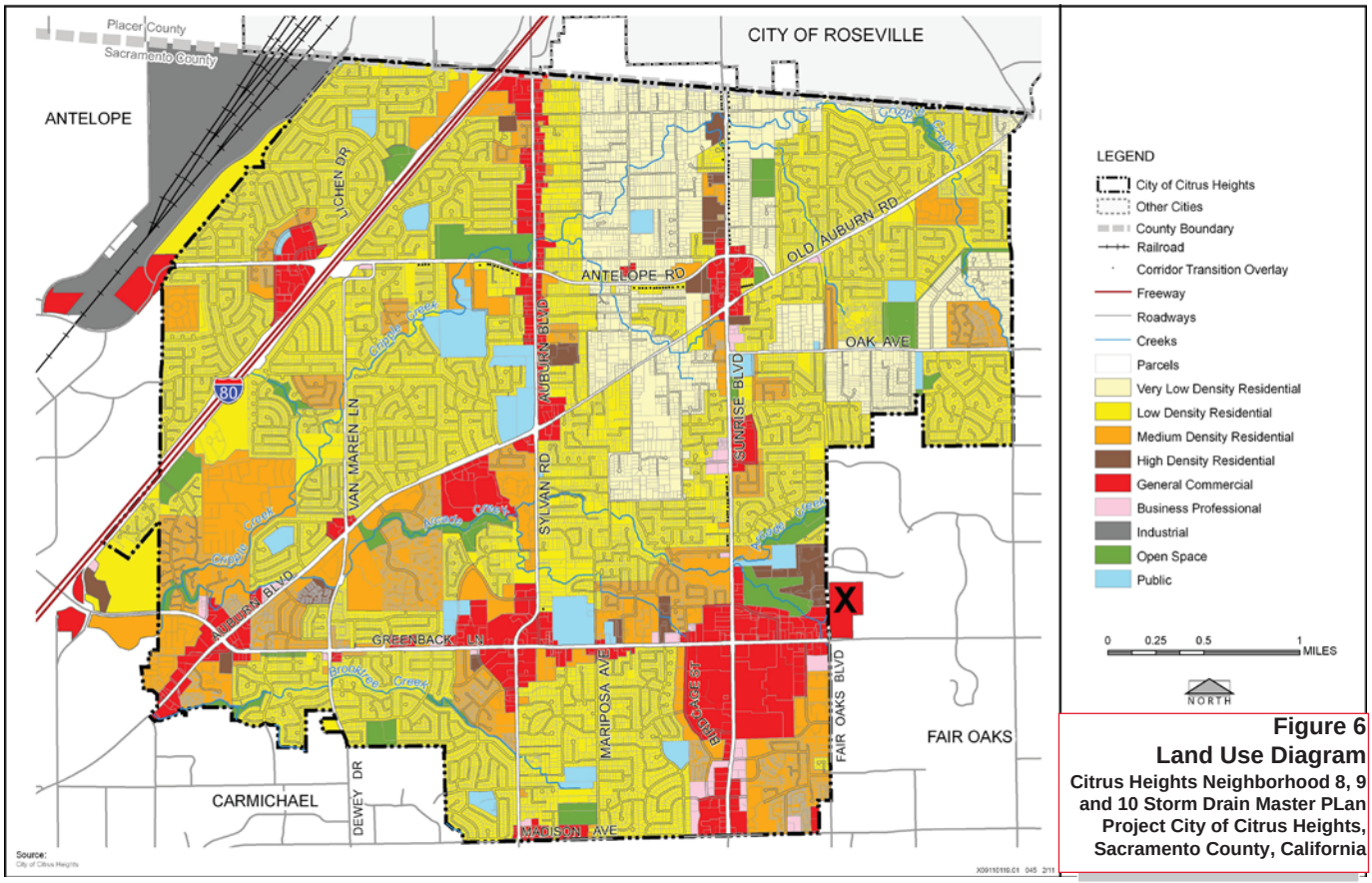


Figure 6
Land Use Diagram
Citrus Heights Neighborhood 8, 9 and 10 Storm Drain Master PLan Project City of Citrus Heights, Sacramento County, California

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c.) No Impact. There are no habitat conservation plans or natural community conservation plans within the City of Citrus Heights (Citrus Height General Plan 2011). Therefore, the project would not conflict with any existing habitat conservation plan or natural community's conservation plan. ***No Impact*** would result from the Proposed Project in relation to conflicting with conservation plans and policies. No mitigation is required.

d.) No Impact. The Proposed Project would remain consistent with existing uses and surrounding land uses and would not have the potential to result in land use or operational conflicts on- or off-site. The Proposed Project will be constructing storm drain infrastructures predominantly within existing roadways. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No impact to land use and planning resources are anticipated; therefore, no avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have ***less than significant*** impacts relating to land use and planning.

3.11 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

According to the City General Plan EIR, the majority of the City is designated as MRZ-1, which is defined as "areas where adequate information indicates that no significant mineral deposits are present", with a small portion of the southwestern corner of the City is designated as MRZ-3, suggesting a potential for aggregate deposits. According to the City's General Plan, there are no mineral resources, and no aggregate and clay resources located in the designated problem locations.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. A record search of the Department of Conservation Mineral Resource Mapping and an of analysis the USGS Mineral Resources databases, as well as the City's General Plan, determined the Proposed Project would not result in loss of available known mineral resources or resources zones. Therefore, the Proposed Project would have ***No Impact*** on mineral resources. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have no impacts relating to mineral resources.

3.12 Noise

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project vicinity to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project vicinity to excessive noise levels?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

In response to the Federal Noise Control Act of 1972, the EPA has identified noise levels requisite to protect public health and welfare against hearing loss, annoyance and activity interference (Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, U.S. EPA 1974). One of the purposes of the EPA document is to provide a basis for State and local governments' judgments in setting standards. In doing so, the information presented by the EPA must be utilized along with other relevant factors. These factors include the balance between costs and benefits associated with setting 4.7 – NOISE Citrus Heights

City Hall and Medical Office Building Draft EIR 8628 December 2014 4.7-10 standards at particular noise levels, the nature of the existing or projected noise problems in any particular area, and the local aspirations and the means available to control environmental noise.

The EPA document identifies a 24-hour exposure level of 70 dB as the level of environmental noise which would prevent any measurable hearing loss over a lifetime. Likewise, levels of 55 dB outdoors and 45 dB indoors are identified as preventing activity interference and annoyance. At these noise levels, it is expected that most people will be able to engage in typical activities such as spoken conversation, sleeping, working and recreation. The levels are not single event or peak levels. Instead, they represent averages of acoustic energy over periods of time such as 8 or 24 hours and over even longer periods (e.g., years).

State Regulations

The State of California requires that all municipalities prepare and adopt a comprehensive long-range general plan. General plans must contain a noise element (California Government Code Section 65302(f) and Section 46050.1 of the Health and Safety Code). The requirements for the noise element of the general plan include describing the noise environment quantitatively using a cumulative noise metric such as CNEL or Ldn, establishing noise/land use compatibility criteria, and establishing programs for achieving and/or maintaining land use compatibility. Noise elements should address all major noise sources in the community including mobile and stationary noise sources. As discussed below, the City of Citrus Heights General Plan incorporates the State of California Community Noise Exposure Guidelines as part of the City's framework for regulating noise levels within the community.

Local Regulations

The City of Citrus Heights General Plan Applicable goals and policies from the City's General Plan that address noise are listed below:

Policy 52.3: Protect the community, especially noise sensitive receptors, including schools, residences and care facilities, from excessive noise. Residential uses located in a commercial zone are not considered noise sensitive receptors.

Policy 52.4: Require major development proposals to reduce noise impacts on adjacent properties through appropriate techniques including, but not limited to, the following strategies:

- Permit well-designed sound walls when compatible with the surrounding area
- Screen and control noise sources such as parking, loading docks and mechanical equipment
- Increase setbacks for noise sources from adjacent dwellings
- Whenever possible, retain fences, walls or landscaping that serve as noise buffers (although design, safety and other impacts must also be addressed)
- Use soundproofing material and double-glazed windows
- Control hours of operation, including deliveries and trash pickup

Policy 52.5: When located adjacent to existing or planned sensitive residential and public/quasi-public uses, require new nonresidential development to mitigate noise to a maximum of 60 dBA Ldn at the property line.

City of Citrus Heights Municipal Code

The City of Citrus Heights Noise Ordinance (Section 34-86) establishes the noise level performance standards shown in Table 3 below.

Table 9: Hourly Noise Level Performance Stationary Noise Sources

Hourly Noise Level Performance Standards for Stationary Noise Sources		
Cumulative Duration of the Intrusive	Acceptable Noise Level, dBA[1]	
	Daytime (7 am - 10 pm)	Nighttime (10 pm - 7 am)
30 (L50)	55	50
15 (L25)	60	55
5 (L8)	65	60
1 (L2)	70	65
Level not to be exceeded for any time per hour (Lmax)	75	70

Notes:

1 Each of the noise limits specified in this table shall be reduced by five dBA for impulsive or simple tone noises or for noises consisting of speech or music.

2 Ln means the percentage of time the noise level is exceeded during an hour. L50 means the level exceeded 50% of the hour; L25 is the level exceeded 25% of the hour, etc.

3 If the ambient noise level exceeds that permitted by any of the first four noise limit categories specified in subsection of this section, the allowable noise limit shall be increased in five-dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

Source: j.c. brennan 2014, adapted from City of Citrus Heights Noise Ordinance.

The City's Municipal Code includes an exemption for construction noise, provided below. Chapter 34 – Environment, Article III, Sec. 34-88. - Exemptions.

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided the activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday, Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday, and on each Sunday after the hour of 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner would be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

The City of Citrus Heights does not have specific policies governing vibration levels. However, Section 106.30.080 of the City's Zoning Ordinance bans perceptible vibrations at the property line of a site. The exact language of the Zoning Ordinance is as follows:

> *E. Ground vibration. No ground vibration shall be generated that is perceptible without instruments by a reasonable person at the property lines of the site, except for vibrations from temporary construction or demolition activities, and motor vehicle operations.*

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project area is within the urban area of Sacramento County. The noise environment near the project locations is dominated by traffic sources. Background noise levels are influenced by the existing surrounding residential and commercial areas. Traffic remains the dominant noise source within the project locations. Noise may be generated during construction activities by traffic associated with transport of heavy materials and equipment to and from construction sites and the use of motorized equipment during construction activities. Noise sources such as chainsaws, bobcats and backhoes could be used as construction equipment.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less Than Significant Impact wit Mitigation Incorporated. Increased noise levels associated with the construction of the build alternative would occur in short durations, and would occur during daytime hours. Examples of noise generating actions involved in construction activities would generate maximum noise levels, as indicated in Table 4 below, ranging from 74 to 90 dB at a distance of 50 feet.

Table 10: Typical Maximum Construction Equipment Noise Levels

Typical Maximum Construction Equipment Noise Levels		
ID	**Type of Equipment**	**Range of Maximum Sound Level Measured at 50 feet (dBA)**
1	Pneumatic Tools	78 to 88
2	Pumps	74 to 84
3	Dozers	77 to 90
4	Tractors	77 to 82
5	Front-End Loaders	77 to 90
6	Hydraulic Backhoes	81 to 90
Typical Maximum Construction Equipment Noise Levels		
ID	**Type of Equipment**	**Range of Maximum Sound Level Measured at 50 feet (dBA)**
7	Hydraulic Excavators	81 to 90
8	Graders	79 to 89
9	Air Compressors	76 to 89

Source: (Bolt, Beranek, and Newman 1987).

Pursuant to the City's Noise Ordinance, exterior noise standards would apply to all properties within the City and should not exceed 55 dBA $_{Leq}$ during daytime hours (7:00 A.M. to 10:00 P.M.) and 50 dBA $_{Leq}$ during nighttime hours (10:00 P.M. to 7:00 A.M.). All proposed construction activities adhere to the City's established Noise Ordinance and would be temporary in nature and are anticipated to occur during normal daytime working hours. The project is anticipated to comply with all local and regional regulations. Additionally, with the implementation of Mitigation Measure **NOI-1** the project will have an impact of less than significant with mitigation incorporated. Construction-related noise would result in a ***Less Than Significant Impact with Mitigation Incorporated.***

b.) Less Than Significant Impact. Much of the proposed construction activities require the use of construction equipment (such as, excavators, backhoes, dump trucks, and bobcats) that would generate small amounts of groundborne vibration. One location (designated problem location 6) require horizontal direction drilling (HDD). HDD is a construction technique whereby a tunnel is drilled under a waterway or other designated area, and a pipeline or other utility is pulled through the drilled underground tunnel. Typical HDD mobile drill rigs produce noise levels of approximately 80 dBA at a distance of 50 feet, based on federal construction contractor standards (CERL 1978). However, since the duration of impact at any one location would be very brief and since the impact would occur during less sensitive daytime hours, the impact from construction-related groundborne vibration and groundborne noise would result in a ***Less Than Significant Impact.***

c.) No Impact. The Proposed Project would likely result in temporary increases in noise from use of construction equipment for the duration of the construction activity. However, the construction of stormwater improved drainage facilities would not create any permanent noise sources at any of the project sites. Therefore, the Proposed Project would have ***No Impact*** in relation to an permanent increase in local noise. No mitigation is required.

d.) Less Than Significant Impact with Mitigation. The Proposed Project would result in a temporary noise increase from use of power tools and construction equipment. The City would comply with all applicable noise and occupational safety standards, and to protect workers and other persons from health effects of increased noise levels from the use of construction equipment. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Mitigation Measure **NO-1** will be implemented to minimize any potential noise disturbance created by the Proposed Project. Therefore, temporary or periodic increases in ambient noise levels would be a ***Less Than Significant Impact with Mitigation*****.**

e, f.) No Impact. The Proposed Project site is not located near an existing airport and is not within an area covered by an existing airport land use plan. Therefore, there would be ***No Impact***. No mitigation is required

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and/or minimization measures **NOI-1** would be incorporated to further minimize potential impacts

NOI-1: The Contractor shall follow the Sacramento County noise ordinances for construction activities:

- Work activities shall occur within the hours of 7 a.m. to 6 p.m. for the duration of construction.
- Use an alternative waiting method instead of a sound signal unless required by safety laws.
- Equip an internal combustion engine with the manufacturer-recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

FINDINGS

The project would have ***no impacts*** relating to noise.

3.13 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

REGULATORY SETTING

CEQA also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents "…discuss the ways in which the Proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project lies with Neighborhoods 8, 9 and 10 in the eastern portion of Sacramento County, within the City limits of Citrus Heights. According to the City's 2011 General Plan the project area land uses designations are categorized as low to medium residential areas, general commercial, business professional, public and open areas.

DISCUSSION OF CHECKLIST ANSWERS:

a-c.) No Impact. The Proposed Project will not affect population and housing. Planned drainage improvement activities within the designated problem locations have been incorporated into the City's CIP and will occur predominantly in the City's right-of-way. No change in land-use in anticipated through the project. Additionally, the Proposed Project would not directly or indirectly induce population growth, displace housing or necessitate construction of replacement housing. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The project will have no impacts relating to population and housing; therefore, no avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impacts*** relating to population and housing.

3.14 Public Services

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:					
a.	Fire protection?	☐	☐	☒	☐
b.	Police protection?	☐	☐	☒	☐
c.	Schools?	☐	☐	☒	☐
d.	Parks?	☐	☐	☒	☐
e.	Other public facilities?	☐	☐	☒	☐

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The public services directly located within the project areas (Neighborhoods 8, 9 and 10) includes; an elementary school, a high school and 4 parks (Figure 7: Public Service Locations). Woodside K-8 School is located at 8248 Villa Oak Drive, which is within Neighborhood 8. Problem location 9 is the closet project area to the school and is approximately 0.36 miles away. San Juan High School is located with Neighborhood 10, at 7551 Greenback Lane. The closest problem location, 5, is approximately 2.7 miles away. C-Bar-C Park is located at 8275 Oak Avenue, within Neighborhood 8. Problem location 9 is the closest project area and is approximately 0.1 miles from C-Bar-C Park. Tempo Park is located at 13125 Fair Oaks Boulevard and lies within Neighborhood 9. Problem location 7 is the closest project area and is approximately 0.78 miles from Tempo Park. Sunrise Golf and Disc Golf Course, a public course, is located at 7925 Arcadia Drive, which is located within Neighborhood 9. Problem location 7 is the closest project area and is approximately 0.25 miles from the golf course. Sunrise Oaks is a park which is located at 7226 Sunrise Blvd, within Neighborhood 9. The closest project location is location 8 and is approximately 0.13 miles away. The closest fire department to the Proposed Project is Metro Fire Station 28 and it is located at 8189 Oak Ave. The Citrus Height Police Department is located just outside the project area, at 6315 Fountain Square Drive.

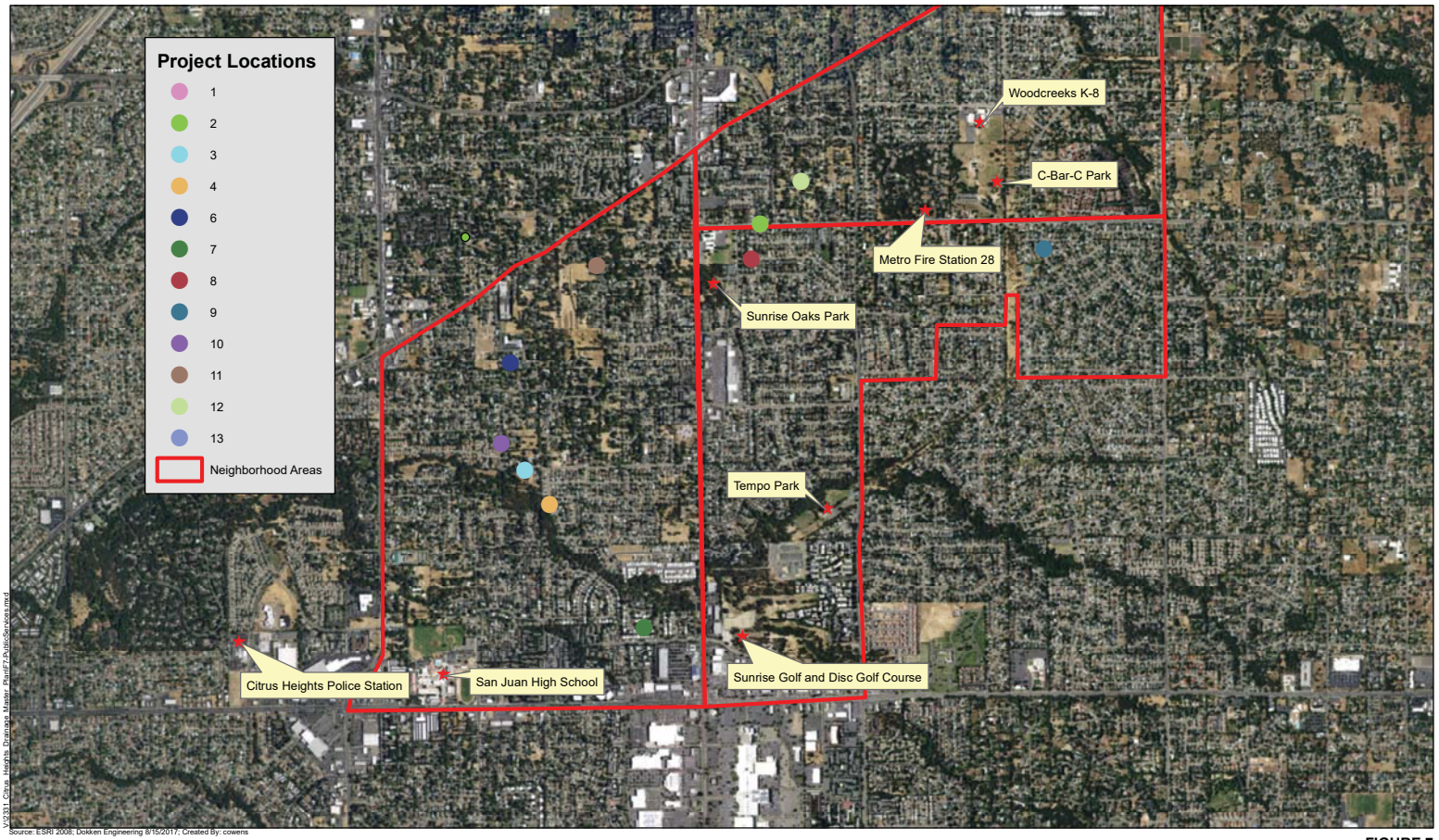

FIGURE 7
Public Service Locations

Project Name
Citrus Heights, Sacramento, California

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DISCUSSION OF CHECKLIST ANSWERS:

a-e.) Less Than Significant. The project would not result in the need for new public services beyond what was anticipated in the City's 2011 General Plan. The project does not propose a new housing or commercial development that would require additional school facilities, police, and/or fire services. The Proposed Project involves improvements to existing drainage features and some new construction of runoff flow control features. By implementing the Proposed Project, service and potential emergency response times may be improved by decrease flooding events. The proposed improved storm drainage facilities would not result in a population increase; the project accommodates existing and planned growth. The proposed project is consistent with the City's General Plan and land use designations.

The project would have less than significant impact on emergency access. Roadways within the designated project locations would be kept open throughout construction for through traffic. Response times are not anticipated to be affected during construction. In the long-term, it is anticipated that the improved storm drainage facilities would better serve emergency vehicles by reducing flooding areas within Neighborhoods 8, 9 and 10. Measure **TRA-1** in Section 3.16 would be implemented to further avoid any temporary impacts to emergency access as a result of construction activities to a less than significant level. Therefore, ***Less Than Significant*** would result from the development of the Proposed Project.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and/or mitigation measure present in Section 3.16, Traffic/Transportation, TRA-1 iwill be implemented to further minimize any potential impacts.

FINDINGS

The project would have ***less than significant*** impacts relating to public services.

3.15 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As stated in the previous section, C-Bar-C Park, Tempo Park, Sunrise Golf and Disc Golf Course and Sunrise Oaks lie within the designated project Neighborhood 8, 9 and 10. None of the listed parks are directly within or adjacent to any of the designated problem locations.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. The Proposed Project will not affect recreation or recreation facilities in the area because the Proposed Project involves infrastructure improvement activities to existing drainage channels and other stormwater facilities, predominantly within existing roadways. The Proposed Project will not create new housing or impact the use of existing facilities. ***No Impact*** would result from the Proposed Project; therefore, no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impact*** to environmental effects relating to recreation.

3.16 Transportation/Traffic

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☒	☐	☐
f. Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project locations are within Citrus Heights residential Neighborhoods 8, 9 and 10. Project locations occur within highly developed Neighborhoods that contain medium to highly populated areas. The Average Daily Traffic (ADT) Data illustrates a range of daily limits among the project locations from 1,000 to 13,000. Table 5 illustrates the ADT data recorded for areas closest to each designated problem location.

Table 11: ADT data recorded for areas closest to each designated problem location

Project Location	ADT Data Collection Location	ADT Count	Distance from Project Location
1	Old Auburn between Wachtel and Linda Creek 8	13,520	700 feet
2	Canelo Hills S/O Oak	2,244	500 feet
3 & 4	Highland between Sunrise and Mariposa	1,944	0 (within project location)
5	Mariposa 300' S/O Greenback	4,355	1,500 feet
6 & 10	Mariposa 300' S/O Old Auburn	2,323	1,700 feet
7	Arcadia between Greenback and Sunrise	3,568	1,200feet
8	Canelo Hills S/O Oak	2,244	300 feet
9	Oak between Fair Oaks and Wachtel	11,231	1,200 feet
11	Bonita S/O Auburn	1,051	0 (within project location)
12	Fair Oaks between Old Auburn and Oak	16,510	1,000 feet

Source: City of Citrus Heights, 2016.

During construction, designated areas may be reduced to single lane traffic to allow for work to be conducted in a safe manner. A slight delay in traffic may occur. However, designated project locations are relatively small in size, and because the proposed construction work will be temporary in any given designated project location, the project is not anticipated to significantly impact motorists, pedestrians or bicyclists.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. The Proposed Project does not conflict with the City's Neighborhood Traffic Management Program, but rather services to implement the City's CIP Neighborhood Areas 8, 9 and 10 Master Drainage Plan Implementation, which has anticipated the construction of drainage

improvements to reduce flooding in the designated neighborhoods. Roadways within designated problem location may be temporarily reduced to single lane traffic to allow for work to be conducted in a safe manner but project locations are small and construction work will be temporary. Therefore, ***No Impact*** in relation to conflicting with any transportation or congestion plans would result from the Proposed Project. No mitigation is required.

c.) No Impact. The Proposed Project does not require any changes to existing regional air traffic activity, and the project site is not located near an airport. Therefore, there would be ***No Impact*** in relation to influencing air traffic patterns. No mitigation is required.

d.) No Impact. The Proposed Project does not require any changes to existing roadway geometric. Design features would comply with City standards, or as appropriate, would be approved as non-standard features. The project would not increase hazards due to design features or incompatible uses. The project would not substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, there would be ***No Impact*** in relation to design features, No mitigation is required.

e.) Less-than-significant with Mitigation. During construction, the project may have a less-than-significant impact on emergency access. Residential roadways near designated problem locations would remain open throughout construction for through traffic but the reduction to single-lane traffic may cause delays. Response times are not anticipated to be significantly affected during construction. In the long term, it is anticipated that the improved drainage facilities would better serve emergency vehicles by reducing road hazard conditions during large storm events. Implementation of **TRA-1** would further minimize any potential impacts to emergency access during construction activities. The Proposed Project impact would be ***Less-than-significant with Mitigation***.

f.) No Impact. The proposed improved drainage facility activities would not affect the City's overall transportation service goals and there would be no conflicts with adopted policies, plans, or programs supporting alternative transportation. The project would potentially have an positive effect on public access by allowing roadways to remain open during storm events. Therefore, ***No Impact*** would result from the Proposed Project in relation to conflicting with adopted public transportation policies. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

TRA-1: Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing, signage, and a traffic control plan.

FINDINGS

All potentially significant environmental effects of the project relating to transportation/traffic can be mitigated to a less-than-significant level.

3.17 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

REGULATORY SETTING

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of tribal cultural resources (TCRs). These changes were enacted through Assembly Bill 52 (AB 52). By including TCRs early in the CEQA process, AB 52 intends to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to TCRs. CEQA now establishes that a "project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC § 21084.2).

To help determine whether a project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. The consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification or proposed projects within their traditionally and culturally affiliated area. AB 52 stipulates that the Native American Heritage Commission (NAHC) would assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated within

the project area. If the tribe wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. Once the lead agency receives the tribe's request to consult, the lead agency must then begin the consultation process within 30 days. If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure. The term "tribal cultural resource" refers to either of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of California Public Resources Code (PRC) Section 5020.1
- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The area of potential effects (APE) was defined to include all ground disturbing activities required for construction of the various storm drain project area. Much of the project involves replacing the underground storm drain in place by pushing the new storm drain through the existing drain. Above ground activities include the construction of ditches and gutters, swales, overland releases, and a proposed basin. The ditches and gutters will be along existing streets, while the swales, overland releases, and basins will be conducted in open fields and through lawn areas.

Throughout the majority of the project area, the vertical APE would be less than five feet to accommodate clearing/grubbing, grading, and roadway improvement depths. The areas where the vertical APE would be deeper for the basins at 4 feet deep and for the storm drain replacement, which could be as deep as 12 feet. The APE amounts to approximately 22 acres.

Efforts to identify potential cultural resources in the APE included background research, a search of previously recorded archaeological site records and cultural resource identification reports on file at the California Historical Resources Information System NCIC, efforts to coordinate with Native American representatives, efforts to coordinate with local historical organizations, and a pedestrian ground surface survey.

On April 12, 2017, Dokken Engineering sent a letter and a map depicting the project vicinity to the

NAHC in West Sacramento, asking the commission to review the sacred land files for any Native American cultural resources that might be affected by the project (Appendix C). The request to the NAHC seeks to identify any Native American cultural resources within or adjacent to the project area. A list of Native American individuals who might have information or concerns about the project was also requested. On April 19, 2017, Sharaya Souza (NAHC Staff Services Specialist), informed Dokken Engineering via email that a review of the sacred lands file failed to indicate the presence of native American cultural resources in the "immediate project area" (Appendix C).

The City sent AB52 letters via certified mail to tribes who requested to be notified of proposed project on June 12, 2017. The letters provided a summary of the project and requested information regarding comments or concerns the Native American community might have about the project (Appendix C). Letters were sent to the following individuals and organizations:

- Chairperson Gene Whitehouse, United Auburn Indian Community Auburn Rancheria
- Randy Yonemura, Ione Band of Miwok Indians
- Antonio Ruiz, Wilton Racheria

No response from the tribes was received within 30 days of receipt of AB52 notification letter from the City. Therefore, no TCRs have been identified within or near the project area.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less than Significant with Mitigation. The project is not anticipated to cause a substantial adverse change in the significance of a TRC listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No cultural resources were identified during the visual survey, record search, and Native American consultation. No impacts are anticipated for the proposed Project related to archaeological resource; however, with any Project requiring ground disturbance, there is always the possibility that unmarked cultural resources may be unearthed during construction. This impact would be considered potentially significant. Implementation of Mitigation Measure **CR-1** through **CR-4** would reduce this impact to **less-than significant with mitigation**.

b.) Less than Significant with Mitigation. The project is not anticipated to cause a substantial adverse change to a Tribal Cultural Resource (TRC) pursuant to criteria set forth in subdivision (c) of Public Resources Cod Section 5024.1. No cultural resources were identified during the visual survey, record search, and Native American consultation. No impacts are anticipated for the proposed Project related to archaeological resource; however, with any Project requiring ground disturbance, there is always the possibility that unmarked cultural resources may be unearthed during construction. This impact would be considered potentially significant. Implementation of Mitigation Measure **CR-1** through **CR-4** would reduce this impact to **less-than significant with mitigation**.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Mitigation Measures **CR-1** through **CR-42** within section 2.5 will be implemented for any impacts relating to Tribal Cultural Resources.

FINDINGS

The project impacts to Tribal Cultural Resources would be ***less than significant with mitigation***.

3.18 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

REGULATORY SETTINGS

Federal and State Regulations

Clean Water Act and State Water Resources Control Board

With regard to wastewater, the Federal CWA and regulations set forth by the California Department of Health Services (CDHS) and SWRCB are aimed primarily at discharges of effluent to surface

waters. Title 40 of the Code of Federal Regulations (CFR) Part 503, Title 23 California Code of Regulations, and standards established by the Central Valley Regional Water Quality Control Board regulate the disposal of biosolids generated by wastewater treatment plants. Under the CWA, the Regional Water Quality Control Board administers programs related to wastewater treatment.

Local Regulations

Sacramento County and the City of Citrus Heights submitted a completed Report of Waste Discharge (ROWD) on 1 June 2007, requesting reissuance of waste discharge requirements under the NPDES area-wide MS4 permit to discharge stormwater runoff from storm drains within their jurisdictions. Included with the ROWD was the Permittees' Stormwater Quality Improvement Plans (SQIPs SWMP)). The SQIP is required as part of the ROWD pursuant to 40 CFR 122.26(d)(2)(iv); therefore it is an integral and enforceable component of the MS4 permit. In addition, the California Superior Court ruled, "Because the Stormwater Management Plan is incorporated and is deemed an integral part of the Permits…any changes to the Plan are actually changes to the Permits. Because these are changes to the Permits, the notice and comment requirements must be complied with." (San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region, Consolidated Case No. 500527, California Superior Court, 14 November 2003).

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As discussed in Section 3.14, the public services serving the project area includes Woodside K-8 School, San Juan High School, C-Bar-C Park, Tempo Park, Sunrise Oaks, and Sunrise Golf and Disc Golf Course.

Water, sewer, electric, fiber optic and petroleum lines are currently located in the project areas. Utility providers within Neighborhoods 8, 9 and 10 include the Citrus Heights Water District, Cal American Water Company, Sacramento Suburban Water District, SMUD, Pacific Gas and Electric, and the Sacramento Regional County Sanitation District.

In addition, SMUD operates an overhead high voltage electricity transmission line adjacent to Problem Location 9. The build alternative for Problem Location 9 does include a new stormdrain line and a detention basin near the SMUD transmission lines. The City will coordinate with SMUD to develop a Joint Use Agreement between the Sunrise Parks District (property owner), SMUD and the City of Citrus Heights that will minimize potential impacts to the SMUD high voltage lines.

DISCUSSION OF CHECKLIST ANSWERS:

a.) No Impact. The proposed Project would not include the construction of any wastewater-generating uses. The proposed Project would not increase population in the project vicinity, and there would be no additional wastewater flows as a result of project development; therefore, the proposed Project would not have an adverse effect on wastewater treatment requirements. No Impact would result from development of the proposed Project, and no mitigation is required.

Additionally, stormwater discharges within portions of Sacramento County, including the City, are permitted under Phase II of the NPDES small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Regional Water Quality Control Boards. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). As a requirement, the Proposed Project would comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of LID practices, where applicable. Further, the Proposed Project would comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b). The Proposed Project is not anticipated to impact wastewater treatment services. Therefore, ***No Impact*** would result from the Proposed Project in relation to exceeding wastewater treatment requirements. No mitigation is required.

b.) No Impact. The Proposed Project would redirect stormwater runoff to one of the three major creeks within the City Limits; Cripple Creek, Arcade Creek and San Juan Creek. The redirected water will not have any impact on wastewater treatment facilities capacities. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

c.) No Impact. Proposed Project activities will result in the improvement of drainage channels and the establishment of new storm drainage facilities within the designated neighborhoods which ultimately would improve stormwater drainage within the City. The project aims to address the existing drainage facility deficiencies and is anticipated to have an positive effect on the City's drainage network. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

d.) No Impact. The Proposed Project will be improving stormwater drainage facilities, no impact to increased housing or population will result from the Proposed Project. Therefore, ***No Impact*** in relation in increasing water demand would result from the Proposed Project. No mitigation is required.

e.) No Impact. The proposed drainage facilities would redirect stormwater runoff to local wastewater treatment facilities. The redirected water will not exceed treatment facilities capacities and will not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

f.) Less Than Significant Impact. The proposed Project would not generate substantial solid waste during operation. Solid waste may be generated during construction; however, the amount will not exceed landfill capacities. This would not affect landfill capacity because the amounts would not be substantial and would occur only during the construction period. Therefore, impacts associated with development of the proposed Project would be considered ***Less Than Significant Impact*** and no mitigation is required.

g.) Less Than Significant Impact. The Proposed Project would comply with federal, state, and local

statutes and regulations related to solid waste; therefore, impacts associated with compliance with federal, state, and local statutes and regulations related to solid waste would be considered ***Less Than Significant Impact*** and no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, and/or mitigation measures are required for utilities and service systems.

FINDINGS

The project would have **less than significant impact** relating to utilities and service systems.

3.19 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

REGULATORY SETTING

The CEQA Checklist includes the following questions under Mandatory Findings of Significance:

Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As discussed in Section 3.4, Biological Resources, the project would have less than significant impact with mitigation implemented. Threatened and endangered fish or wildlife species are not anticipated to be within the Project Areas due to poor environmental conditions; measures are proposed to further lessen the potential for impact. With these measures cumulatively considerable impacts are not anticipated. Further, cultural studies concluded that the project would have no effect on known cultural resources. Standard measures for inadvertent discovery would also avoid potential impacts. The project does not require relocation of housing and impacts to noise and air is anticipated to be less than significant.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less Than Significant With Mitigation Incorporated. As discussed in this ISMND, the Proposed Project would result in impacts to biological and cultural resources but, these impacts would be mitigated to less than significant levels. Mitigation measures included in this document have been identified to reduce these potentially adverse environmental impacts to a less than significant level. Impacts related to the Proposed Project are considered ***Less Than Significant With Mitigation Incorporated***.

b.) Less Than Significant Impact. The Proposed Project does not directly or indirectly contribute to cumulative impacts based on analysis provided within this ISMND. The Proposed Project would not induce population growth or result in the development of new housing or employment-generating uses. The project will correct the existing identified drainage deficiencies. Therefore, the Proposed Project would not combine with cumulative development to create a cumulative effect related to increased demand for services or utilities, the expansion of which could result in significant environmental effects. The proposed drainage improvement construction activities will result in a ***Less Than Significant Impact***.

c.) Less Than Significant Impact. As discussed in this study, the Proposed Project could result in impacts on human beings indirectly due to air quality and noise impacts. However, all potential air quality and nose impacts proposed by the project work would be temporary. Additionally, avoidance and minimization measures included in this study would reduce impacts to less-than-significant levels. Impacts are considered ***Less Than Significant.*** No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Please see all avoidance, minimization, and mitigation measures included in Appendix A: Mitigation Monitoring and Reporting Program.

FINDINGS

All potentially significant environmental effects of the project can be mitigated to a ***less-than-significant*** level.

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6.0 DISTRIBUTION LIST

Public Agencies	
California Dept. Fish & Wildlife North Central Region 1701 Nimbus Rd. Rancho Cordova, CA 95670	Regional Water Quality Control Board Central Valley Region 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670
Public Utilities	
AT&T ATTN: Astrid Willard 2700 Watt Ave, # 3473-11 Sacramento,CA 95821	City of Citrus Heights ATTN: Leslie Blomquist 6360 Fountain Square Dr. Citrus Heights, CA 95621
Citrus Heights Water District ATTN: Hilary Strauss 6230 Sylvan Rd. Citrus Heights, CA 95611	Comcast Communications ATTN: Steve Abeilia 1242 National Drive Sacramento, CA 95834
Surewest ATTN: Tony Nolasco 114 Vernon St. Roseville, CA 95678	PG&E ATTN: Adam Egbert 343 Sacramento St. Auburn, CA 95603
PG&E ATTN: Don Hendricks 5555 Florin Perkins Rd. #142 Sacramento, CA 95826	Sac Area Sewer District ATTN: Rob Espinoza 10060 Goethe Rd. Sacramento, CA 95827
SMUD ATTN: Shane Nelson 4401 Bradshaw Rd. MSEA 105 Sacramento, CA 95827	XO Communications 855 Mission Ct. Fremont, CA 94539
Interested Parties	
United Auburn Indian Community ATTN: Marcos Guerrero 10720 Indian Hill Road Auburn, CA 95603	

Appendix A — Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Air Quality – Avoidance and Minimization Measures					
AQ-1: Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.	During Construction	City of Citrus Heights			
AQ-2: Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.	During Construction	City of Citrus Heights			
AQ-3: Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.	During Construction	City of Citrus Heights			
AQ-4: Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).	During Construction	City of Citrus Heights			
AQ-5: All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.	During Construction	City of Citrus Heights			
AQ-6: Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.	During Construction	Contractor			
Biological Resources - Avoidance and Minimization Measures					
BIO-1: If wildlife is encountered during construction activities, work will stop within the area and the animal will be allowed to leave the project area un-harassed.	During Construction	City of Citrus Heights			
BIO-2: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.	During Construction	City of Citrus Heights			
BIO-3: Soil disturbance within the bed, bank and channel of creeks will be limited to the minimum area necessary to complete construction activities. Existing vegetation will be protected where feasible and disturbed/exposed soils will be stabilized to prevent erosion and sedimentation	During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
BIO-4: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur at a minimum of 100 feet from waters and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over drip pans.	During Construction	City of Citrus Heights			
BIO-5: Prior to arrival at a project location site, the City must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.	Prior to Construction	City of Citrus Heights			
BIO-6: Where ground disturbance occurs, the surface of temporarily impacted riparian and wetland habitat will be regraded and restored to pre-construction contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.	Post Construction	City of Citrus Heights			
BIO-7: The City would implement provisions of the Native Oak Tree Ordinance to compensate for the removal of protected oaks by planting new trees or by payment of an in-lieu fee pursuant to City of Citrus Heights Municipal Code: Section 106.39.020. • The City would implement provisions of the Tree Ordinance to compensate for the removal of protected trees by planting new trees or by payment of an in-lieu fee pursuant to Sec. 106.39.060 • The amount of encroachment within the protected zone and tree removal of City protected trees will be minimized to the greatest extent practicable.	During Construction	City of Citrus Heights			
BIO-8: Prior to beginning work within a creek corridor, the City construction supervisors and crews who would be completing the work must be trained by qualified personnel to identify and avoid harm to sensitive resources, special status	During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
species and their habitats. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats and species that may occur during the proposed work. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Permittee shall prepare and distribute wallet-sized cards or a fact sheet that contains this information for workers to carry on-site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures.					
BIO-9: Prior to the proposed work being conducted within rare plant habitat, pre-construction rare plant surveys may be required. If it is determined that there is a potential for rare plants to occur, construction areas would be surveyed for rare plants by a City appointed biologist during the appropriate bloom period for Sanford's arrowhead (May – October). If Sanford's arrowhead populations are discovered onsite, they will either be protected in place with orange ESA fencing or relocated to a CDFW approved location.	Prior/During Construction	City of Citrus Heights			
BIO-10: The time period for completing the work within the wetted channel of Arcade Creek, Cripple Creek, their tributaries, and all other stream systems shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of May 1st to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to	Prior to Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
all storm events. Revegetation, restoration and erosion control work is not confined to this time period.					
BIO-11: If possible, vegetation removal and ground disturbance should occur outside the nesting season for all bird species (September 1st – January 31st). If vegetation removal is to take place during the nesting season (February 1st – August 31st), a pre-construction nesting bird survey will be conducted within 7 days prior to any vegetation removal or ground disturbance activities occurring within the designated project locations. The nesting survey area will include the anticipated work area plus an approximate 100 foot buffer. • A 100-foot no disturbance buffer will be established around active bird nests protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503 and 3503.5. A modified buffer may be appropriate if agreed upon on a case by case basis by CDFW. The no disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. If there is a break in construction activity of more than 7 days during the nesting season, subsequent surveys should be conducted.	Prior to Construction	City of Citrus Heights			
Cultural Resources - Avoidance and Minimization Measures					
CR-1: Prior to construction, cultural resource awareness and sensitivity training shall be provided to all construction crew members to ensure that the crew members are aware of the potential for sensitive cultural resources to be present onsite. The awareness and sensitivity training would also include an established protocol for informing the resident engineer of any accidentally discovered cultural resources.	During Construction	City of Citrus Heights			
CR-2: If significant historical, paleontological, archaeological, or tribal cultural resources are discovered within the APE, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor, a representative of the appropriate Native American Tribe(s) (if discovery is prehistoric), and the City shall confer regarding mitigation of the discovered resource(s). All discovered archaeological resources should	During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
be documented by field notation, analysis, photography, and GPS mapping. Work shall not resume in the area until mitigation has been completed or it has been determined that the archaeological resource(s) is not significant.					
CR-3: If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	During Construction	City of Citrus Heights			
CR-4: In the event that Native American cultural resources are inadvertently discovered during the course of construction, the City shall relinquish ownership of all Native American cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to Native American cultural resources. Prior to relinquishment, all discovered archaeological resources should be documented by field notation, photography, and GPS mapping. After consultation with the appropriate Native American Tribe(s), non-destructive analysis may be conducted.	During Construction	City of Citrus Heights			
Geology and Soils – Avoidance and Minimization Measures					
GEO-1: The County and contractor shall implement a SWPPP to include erosion control methods. This SWPPP shall be prepared for the Section 402 permit, NPDES General Permit for Discharges of Stormwater Associated with Construction Activity.	Prior/During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Hazards and hazardous materials - Avoidance and Minimization Measures					
HAZ-1: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur at a minimum of 100 feet from waters and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over drip pans.	Prior/During Construction	City of Citrus Heights			
HAZ-2: As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction (such as previously undetected petroleum hydrocarbon contamination from nearby gas stations). Should any previously unknown hazardous waste/material be encountered during construction, the procedures outlined in Caltrans Hazards Procedures for Construction shall be followed.	During Construction	City of Citrus Heights			
Noise - Avoidance and Minimization Measures					
NOI-1: The Contractor shall follow the Sacramento County noise ordinances for construction activities: • Work activities shall occur within the hours of 7 a.m. to 6 p.m. for the duration of construction. • Use an alternative waiting method instead of a sound signal unless required by safety laws. • Equip an internal combustion engine with the manufacturer-recommended muffler. • Do not operate an internal combustion engine on the job site without the appropriate muffler.	During Construction	City of Citrus Heights			
Transportation/Traffic - Avoidance and Minimization Measures					
TRA-1: Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing and signage and a traffic control plan.	Prior to Construction	City of Citrus Heights			

Appendix B — Biological Database Search Results

USFWS – IpAC Species List

CNDDB GIS Database Search (Data Updated June 2017)

CNPS species lists for the USGS 7 ½ minute quadrangles of Citrus Heights

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: May 08, 2017
Consultation Code: 08ESMF00-2017-SLI-1997
Event Code: 08ESMF00-2017-E-05105
Project Name: Citrus Heights Storm Drainage Master Plan Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2017-SLI-1997

Event Code: 08ESMF00-2017-E-05105

Project Name: Citrus Heights Storm Drainage Master Plan Project

Project Type: STREAM / WATERBODY / CANALS / LEVEES / DIKES

Project Description: Citrus Heights is located in northern Sacramento County just south of the Placer County line. Citrus Heights' Neighborhoods 8, 9 and 10 were designated as locations that are experiencing flooding events during large storms. The designated problem locations fall within the central and eastern portion of the City. The improvement locations identified in a study have been incorporated into the City's Capital Improvement Program. The Study provided an inventory and condition assessment of key portions of the existing drainage system, assessed the flood control performance of key elements of the existing drainage system, and provided improvement recommendations to eliminate or reduce recurring local flooding and drainage problems. Through the developed of a Storm Drainage Master Plan Project (the Project), the City purposes to improve stormwater drainage in 12 designated problem locations

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.697431995470595N121.26453599953831W

Counties: Sacramento, CA

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Reptiles

NAME	STATUS
Giant Garter Snake *(Thamnophis gigas)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *(Rana draytonii)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *(Ambystoma californiense)* Population: U.S.A. (Central CA DPS) There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *(Hypomesus transpacificus)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened
Steelhead *(Oncorhynchus (=Salmo) mykiss)* Population: Northern California DPS There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1007	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *(Desmocerus californicus dimorphus)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *(Branchinecta conservatio)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *(Branchinecta lynchi)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *(Lepidurus packardi)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Sacramento Orcutt Grass *(Orcuttia viscida)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5507	Endangered

Critical habitats

There are no critical habitats within your project area.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Citrus Heights (3812163))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Andrena subapasta An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Fritillaria agrestis stinkbells	PMLIL0V010	None	None	G3	S3	4.2
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Oncorhynchus mykiss irideus steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2

Record Count: 10

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

2 matches found. Click on scientific name for details

Search Criteria

Found in Quad 3812163

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	4.2	S3	G3
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 25 September 2017].

Search the Inventory
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About the Rare Plant Program
CNPS Home Page
About CNPS
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Contributors
The Calflora Database
The California Lichen Society

Appendix C — Special Status Species Potential Table

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Species						
California Red-legged Frog	*Rana draytonii*	Fed: CA: CDFW:	T -- SSC	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development and must have access to estivation habitat; estivation occurs late summer-early winter. Breeds from January-July Occurs from elevations near sea level to 5,200 feet.	A	**Presumed Absent:** Although the project area does contain permanent sources of water in the form of perennial stream channels. Habitat value is degraded by presence of exotic predators including bull frogs, bass, and mosquito fish. The City is located within the Sacramento Valley ecological subsection, an area without documented occurrences of the species. The nearest CNDDB occurrence is approximately 8.5 miles east of the City Boundary within the Sierra Nevada Foothills and the American River Watershed. The species is presumed absent from the project area based on a lack of documented occurrences within the creeks that run through the City, presence of invasive predators and competitors, and the City being located within an ecological subsection not known to contain the species.
California Tiger Salamander	*Ambystoma californiense*	Fed: CA: CDFW:	T T --	Inhabits annual grasslands and the grassy understory of Valley-Foothill Hardwood communities. Requires underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding	A	**Presumed Absent:** Although three problem locations do contain grasslands, the nearest CNDDB occurrence of the species is 21.5 miles from project area. The species is presumed absent from the project area based on a lack of local documented occurrences. In addition, the project area is located outside of the species range (USFWS 2016)
Western spadetoad	*Spea hammondii*	Fed: CA: CDFW:	-- -- SSC	Inhabits burrows within grassland and valley foothill hardwood woodland communities. Requires vernal, shallow, temporary pools formed by	P	**Low Potential:** Three problem locations contain grasslands and temporary pool complexes for the species but lacks vernal pools. CNDDB search indicates

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				heavy winter rains for reproduction. Breeds late winter-March.		that the nearest individual reported was approximately 3.5 from the project area and last sighted in 1994.The species is presumed to have a low potential of occurring within the project area based on the lack of suitable breeding habitat and the low number of recent regional occurrences.
Bird Species						
Bank Swallow	*Riparia riparia*	Fed: State: CDFW:	-- T --	A migratory colonial nester inhabiting lowland and riparian habitats west of the desert during spring - fall. Majority of current breeding populations occur along the Sacramento and Feather rivers in the north Central Valley. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes or the ocean, often in large colonies. These colonies are located near large bodies of water so that there is ample room for vertical flying. Breeds May-July.	A	**Presumed Absent:** The project area does not contain cliffs or vertical banks this species needs for nesting. The project area lacks any large body of water, which can be utilized by large colonies of this species. The closet large body of water is Folsom Lake, which is 4.1 miles away from the project area. The nearest CNDDB occurrence of the species is approximately 2.7 miles from the project area and was recorded in 1990. The species is presumed absent based on the lack of nesting habitat within the BSA and the low number of regional occurrences.
Swainson's Hawk	*Buteo swainsoni*	Fed: State: CDFW:	-- T --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds march to late August.	P	**Low Potential:** The project area does contain potentially suitable riparian nesting habitat and contains a small amount of grasslands for foraging. The nearest CNDDB occurrence of the species is approximately 3.2 miles from the BSA and was recorded in 1990. The species is considered to have a low potential of occurring within the project area based on presence of potentially suitable habitat and records of recent regional occurrences.
Purple martin	*Progne subis*	Fed: CA:	-- --	Present in California as a summer migrant, arriving in March and	P	**Low Potential:** Potentially suitable riparian habitat for the species is present

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW:	SSC	departing by late September. Inhabits valley foothill and montane hardwood/hardwood-conifer, coniferous habitats and riparian habitats. Nests in tall, old, isolated trees or snags in open forest or woodland and in proximity to a body of water. Frequently nests within former woodpecker cavities; may nest in human-made structures such as nesting boxes, under bridges and in culverts. Needs abundant aerial insect prey. Breeds April-August.		within the project area. The nearest CNDDB occurrence was 6.5 miles away from the project area and was recorded in 2007. The species is considered to have a low potential of occurring within the project area based on presence of riparian habitat and the recent occurrence of the species in the area.
Tricolored blackbird	*Agelaius tricolor*	Fed: CA: CDFW:	-- -- SSC	Inhabits freshwater marsh, swamp and wetland communities, but may utilize agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a suitable foraging area containing insect prey and is within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests mid-march - early August, but may extend until October/November in the Sacramento Valley region.	P	**Moderate Potential:** There is potentially suitable freshwater wetland habitat for the species. The nearest CNDDB occurrence of the species detected 1.8 miles away from the project area and was recorded in 1999. The species has a moderate potential of occurring within the project area due to the presence of potential suitable foraging habitat and due to multiple documented occurrences of the species within 5 miles of the project area.
White-tailed kite	*Elanus leucurus*	Fed: CA: CDFW:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Breeds February- October.	P	**Moderate Potential:** There is potentially suitable riparian nesting habitat present along the creeks within the project locations and there is a small amount of potentially suitable grassland habitat for foraging in the City Boundary. The nearest CNDDB occurrence is 0.5 miles away and was recorded in 1990.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						The species is considered to have a low potential of occurring within the project area based on presence of riparian habitat and the near occurrence of the species.
Fish Species						
Delta smelt	*Hypomesus transpacificus*	Fed: CA: CDFW:	T E --	Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay, Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.	A	**Presumed Absent:** The project area is 60 miles from the Sacramento-San Joaquin Delta. The project area lacks brackish water habitat is present for the species. A CNDDB search indicated the nearest known occurrence is approximately 31 miles south of the project area and was recorded in 2007. The species is presumed absent based on the City being outside of the known distribution of the species, a lack of documented occurrences, and a lack of suitable habitat.
Steelhead - Central Valley DPS	*Oncorhynchus mykiss irideus*	Fed: CA: CDFW:	T -- --	South/central steeelhead utilize rivers and creeks from Pajaro River south to Santa Maria River. Spawning occurs in coastal watersheds while rearing occurs in freshwater or estuary habitats prior to migrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October-May with spawning occurring January - April.	A	**Presumed Absent:** Steelhead have been documented in Dry Creek, Secret Ravine, and Miners Ravine which are within the City's boundaries but are approximately 2.5 miles to the north and south of the project area. In addition, the mentioned stream channels have been designated as critical habitat for the species by USFWS. The project area contains small creeks and drainage systems that are unsuitable for the species. Furthermore the ephemeral streams and channels within the project areas are not consider suitable for the species. The species is presumed absent from the project area based on the distance from the designated critical habitat and the presence of unsuitable habitat within the project location.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Invertebrate Species						
Valley elderberry longhorn beetle	Desmocerus californicus dimorphus	Fed: CA: CDFW:	T -- --	Species requires elderberry shrubs as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. (Sea level-3,000 feet).	P	**Low Potential:** Potentially suitable riparian habitat is present in riparian corridors within the project area. The nearest CNDDB occurrence is 2.5 miles away and was recorded in 2006. There are multiple occurrences to the east and south of the project area. The species is considered to have a low potential of occurring based on presence of riparian habitat and high number of regional occurrences.
Conservancy Fairy Shrimp	*Branchinecta conservatio*	Fed: CA: CDFW:	E -- SSC	Inhabit rather large, cool-water vernal pools with moderately turbid water. The pools generally last until June.	A	**Presumed Absent:** The project area lacks any vernal pools. The nearest CNDDB occurrence is 16 miles away and was recorded in 2012. The species is presumed absent based on the lack of suitable habitat within the project area and the low number of regional occurrences.
Vernal Pool fairy shrimp	*Branchinecta lynchi*	Fed: State: CDFW:	T -- --	In California inhabits portions of Tehama county, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.	A	**Presumed Absent:** The project area does not vernal pools or alkaline waters. The nearest CNDDB occurrence of the species is located approximately 3.5 miles from the BSA and was recorded in 1998. The species is considered to be presumed absent of occurring within the project area based on the absence of potentially suitable habitat and a low number of recent regional occurrences.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Vernal Pool tadpole shrimp	*Lepidurus packardi*	Fed: State: CDFW:	E -- --	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	A	**Presumed Absent:** The BSA does not contain vernal pools or swales. The nearest CNDDB occurrence of the species is located approximately 5.2 miles from the BSA and was recorded in 1992. The species is considered to be presumed absent of occurring within the BSA based on the absence of potentially suitable habitat and a low number of recent regional occurrences.
Mammal Species						
Pallid bat	*Antrozous pallidus*	Fed: CA: CDFW:	-- -- SSC	Inhabits low elevations of deserts, grasslands, shrub lands, woodlands and forests year-round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers caves, crevices, and mines for day roosts, but may utilize hollow trees, bridges and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April-July (below 10,000 feet).	P	**Presumed Absent:** The project area does not contain preferred rock crevice, mine, or cave roosting habitat but may contain marginal bridge, structure, and hollow tree roosting habitat. The nearest CNDDB documented occurrences of the species is 1.6 miles from the project area and was recorded in 1941. The species is presumed absent from the project area based on a lack of recent regional occurrences.
Reptile Species						
Giant gartersnake	*Thamnophis gigas*	Fed: CA: CDFW:	T T --	Inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active season (April-November), emergent, herbaceous wetland	A	**Presumed Absent:** The project area is located east of the known distribution of giant garter snake. All regional CNDDB occurrences of the species are located at least 11 miles west of the project area in rice fields and other wet habitats along the Sacramento River. The species is presumed absent from the project area based on a lack of suitable slough and rice field habitats as well as the project area being located outside of the known

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season.		distribution of the species.
Western pond turtle	*Emys marmorata*	Fed: CA: CDFW:	-- -- SSC	A fully aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat (sandy banks or grassy open field) for reproduction (sea level to 4,690 feet).	P	**Moderate Potential:** The City contains potentially suitable stream channels with basking habitat for the species. The nearest CNDDB occurrence was 3.4 miles away and was recorded in 1993. The species is presumed to have a moderate potential of occurring in the project area based on the presence of potentially suitable habitat and the number of high occurrences within a 5 mile radius of the project area.
Plant Species						
Boggs lake hedge hyssop	*Gratiola heterosepala*	Fed: CA: CNPS:	-- E 1B.2	An annual herb inhabiting clay soils and shallow waters of marshes and swamps, lake margins, and vernal pools. Flowers April-August (33-7,792 feet).	P 3.4 1997	**Presumed absent:** The project area lacks suitable vernal pool, and wetland habitat for the species. According the CNPS, Citrus Heights falls outside this species range. The nearest CNDDB occurrence was 3.4 and was recorded in 1987. The species is considered to be absent from the project area based on the lack of suitable habitat present, and because the project area is out of the species range.
Sacramento Orcutt grass	*Orcuttia viscida*	Fed: CA: CNPS:	E E 1B.1	An annual herb inhabiting vernal pools. Flowers April-July (98-328 feet).	2.6 1993 A	**Presumed Absent:** The project area lacks vernal pools. The nearest CNDDB occurrence of the species was detected 2.6 miles away and was recorded in 1993. The species is presumed absent from the project area based on the lack

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						of suitable habitat and low number of regional occurrences
Sanford's arrowhead	*Sagittaria sanfordii*	Fed: CA: CNPS:	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds and ditches. Flowers May-October (0-2,132 feet).	P	**High Potential:** The project area contains ample suitable stream channel habitat. There is one recorded CNDDB occurrence recorded in 1994 within the project area and there are serval occurrences within a 5 mile radius of the project area.
Pincushion navarretia	*Navarretia myersii ssp. myersii*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting vernal pool communities, often in acidic soil conditions. Flowers May (65-1,083 feet feet).	3 2013 A	**Presumed Absent:** The project area does not contain vernal pools. The nearest CNDDB occurrences of the species was 3 miles from the project area and was recorded in 2013. The species is presumed absent from the project area based on the lack of suitable habitat present within the project area.

Federal Designations (Fed): (FESA, USFWS) **E:** Federally listed, endangered **T:** Federally listed, threatened **PT:** Federal proposed, threatened **D:** Delisted	**State Designations (CA):** (CESA, CDFW) **E:** State-listed, endangered **T:** State-listed, threatened **CT:** State-candidate, threatened **FP**: Fully Protected

Other Designations:
SSC: DFW Species of Special Concern

California Native Plant Society (CNPS) Designations:
Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.
1A: Plants presumed extinct in California.
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
3: Plants about which need more information; a review list.

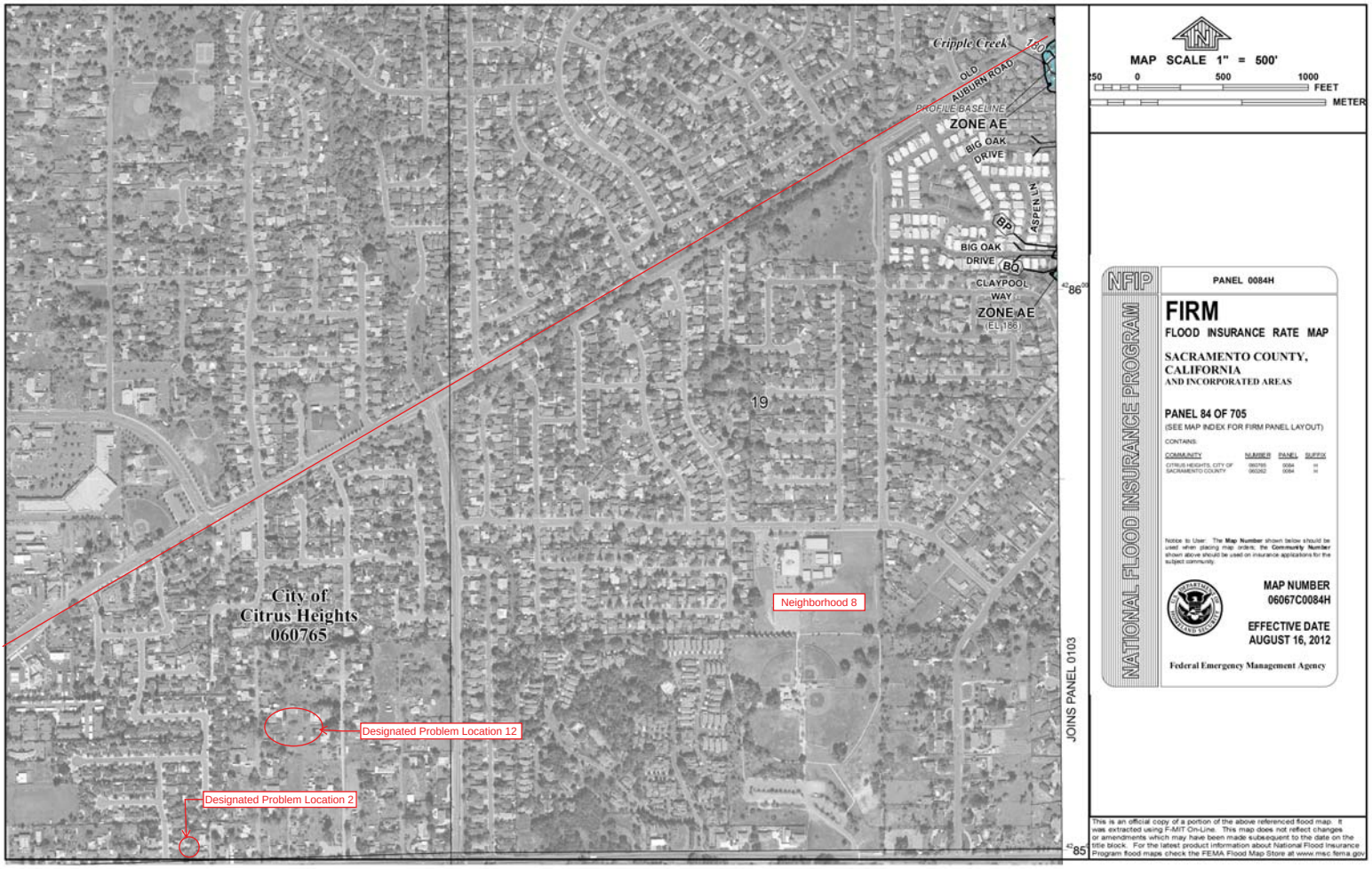
Plants 1B, 2, and 4 extension meanings:
_.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
_.2 Fairly endangered in California (20-80% occurrences threatened)
_.3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Habitat Presence:
Absent [A]: No habitat present and no further work needed.
Habitat Present [HP]: Habitat is, or may be present. The species may be present.
Present [P]: Species is present.
Critical Habitat [CH]: Project footprint is located within a designated Critical Habitat unit, but does not necessarily mean that appropriate habitat is present.

Potential for Occurrence Criteria:
Present: Species was observed on site during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 mi of the site.
Low/Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 mi of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Presumed Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.

Source: (Bennett 2005), (CNPS 2014), (CDFW 2014), (California Herps 2014), (Evens 2000), (Jepson 2013), (Kyle 2011), (Miller and Hornaday 1999), (NMFS 1993), (NMFS 2005), (NMFS 2009), (NMFS 2013a), (NMFS 2013b), (Placer and Sacramento Counties 2003), (Sibley 2003), (Tesky 1994), (UC Davis 2014), (USFWS 2002), (USFWS 2002b), (USFWS 2007a), (USFWS 2007b) (USFWS 2007c), (USFWS 2012), and (Zeiner 1988-1990)

Appendix D — Neighborhood FEMA Firmette Maps


Cripple Creek
OLD AUBURN ROAD
PROFILE BASELINE
ZONE AE
BIG OAK DRIVE
ASPEN LN
BIG OAK DRIVE
CLAYPOOL WAY
ZONE AE
(EL 188)
19
City of Citrus Heights 060765
Neighborhood 8
Designated Problem Location 12
Designated Problem Location 2
JOINS PANEL 0103
4286
4285
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0084H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 84 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0084 H
SACRAMENTO COUNTY 060262 0084 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0084H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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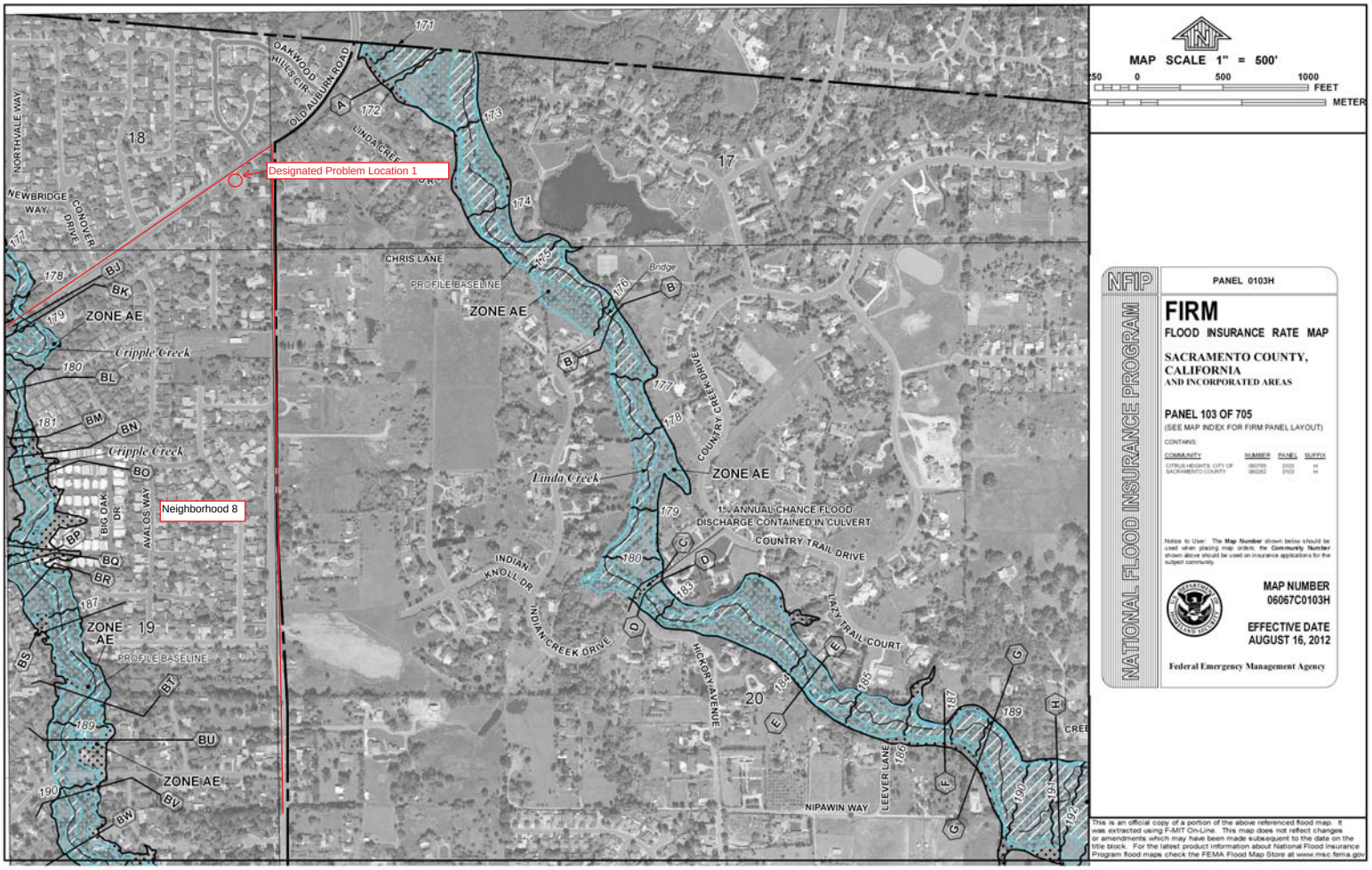

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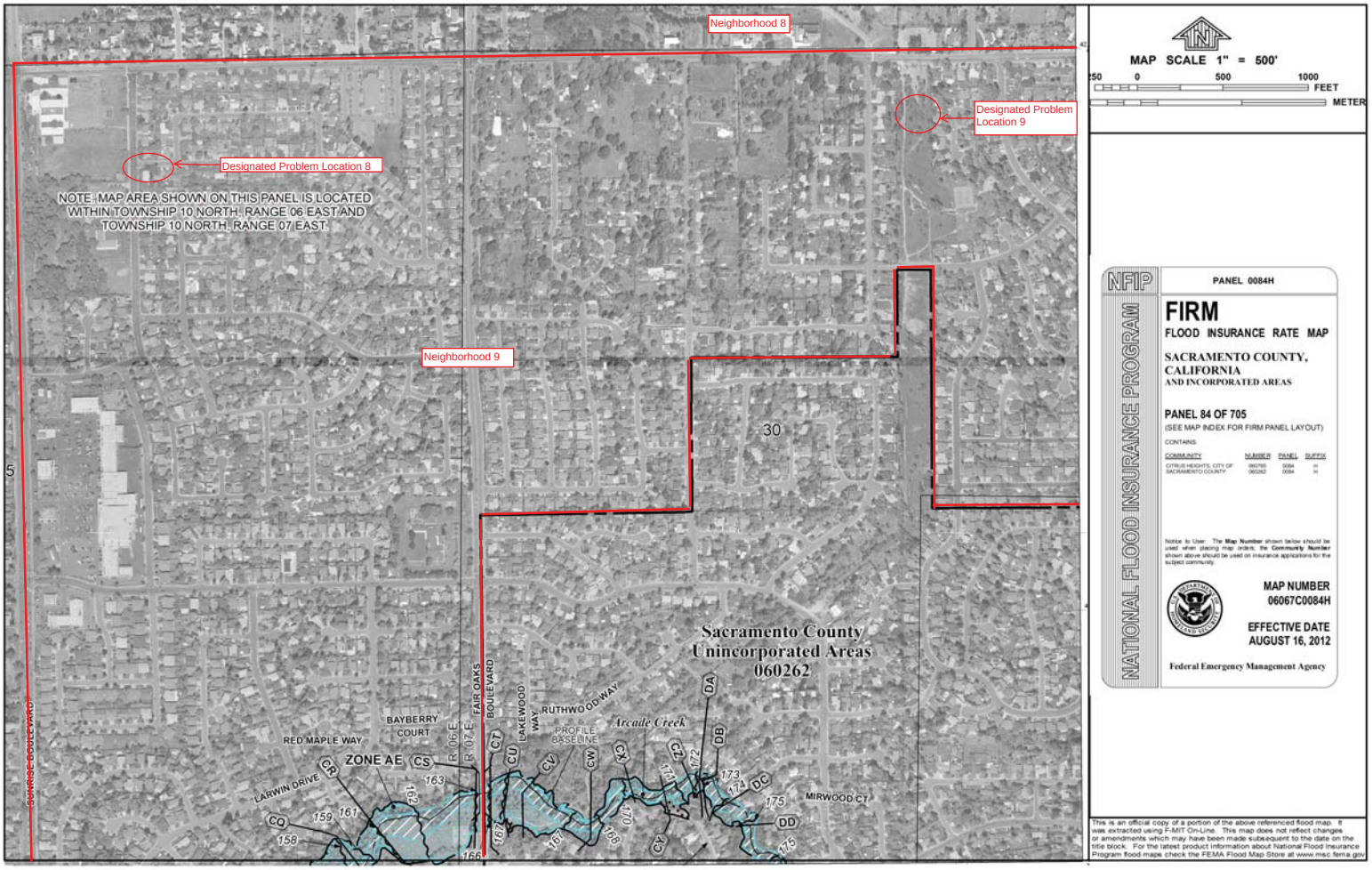
Neighborhood 8
Designated Problem Location 9
Designated Problem Location 8
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 06 EAST AND TOWNSHIP 10 NORTH, RANGE 07 EAST.
Neighborhood 9
30
5
Sacramento County
Unincorporated Areas
060262
SUNRISE BOULEVARD
RED MAPLE WAY
BAYBERRY COURT
ZONE AE
LARWIN DRIVE
R 06 E
R 07 E
FAIR OAKS BOULEVARD
LAKEWOOD WAY
RUTHWOOD WAY
PROFILE BASELINE
Arcade Creek
MIRWOOD CT
CQ
CR
CS
CT
CU
CV
CW
CX
CY
CZ
DA
DB
DC
DD
158
159
161
163
165
166
167
169
170
171
172
173
174
175
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
PANEL 0084H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 84 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0084 H
SACRAMENTO COUNTY 060262 0084 H
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MAP NUMBER
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EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
NATIONAL FLOOD INSURANCE PROGRAM
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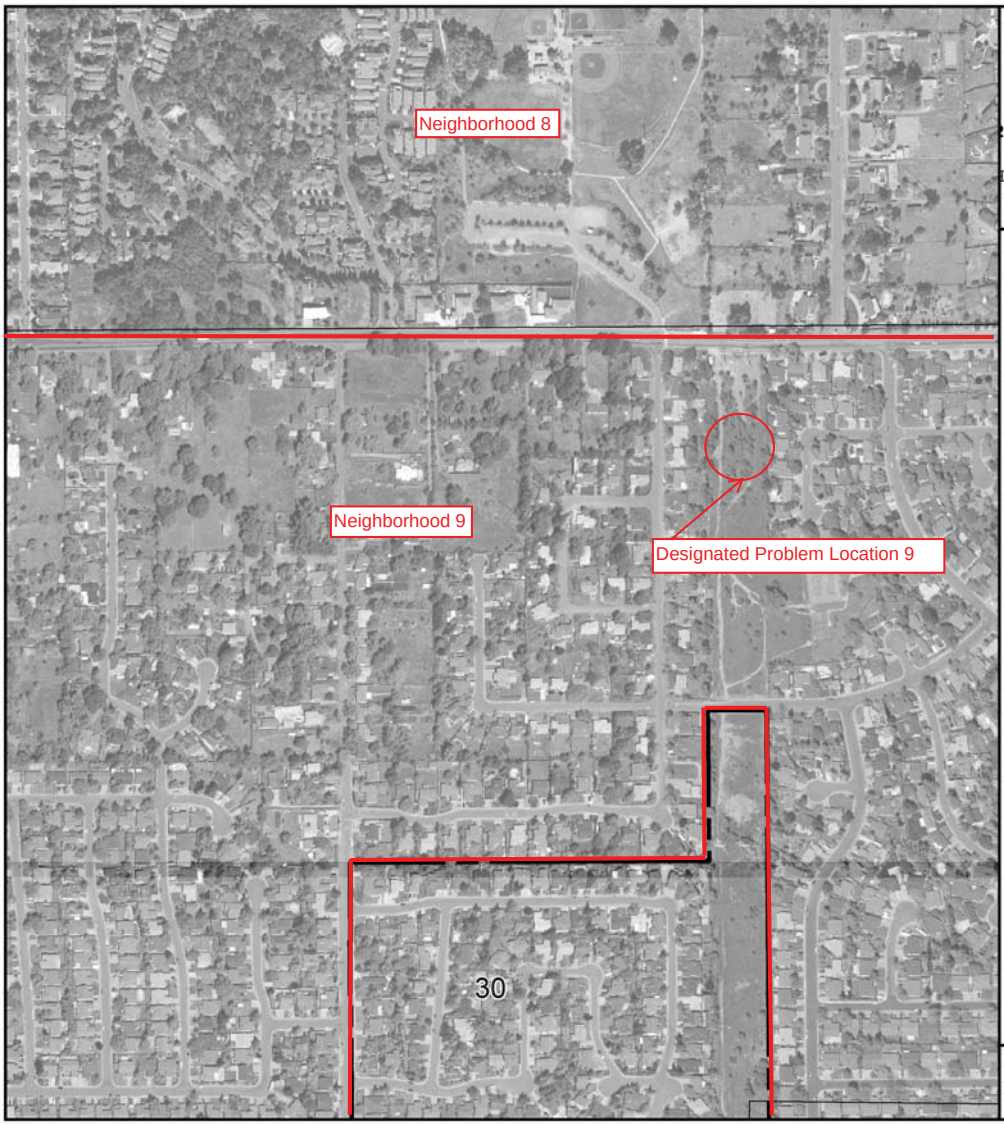

MAP SCALE 1" = 500'

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FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0084H

FIRM

FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 84 OF 705

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CITRUS HEIGHTS, CITY OF	060765	0084	H
SACRAMENTO COUNTY	060262	0084	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06067C0084H

EFFECTIVE DATE
AUGUST 16, 2012

Federal Emergency Management Agency

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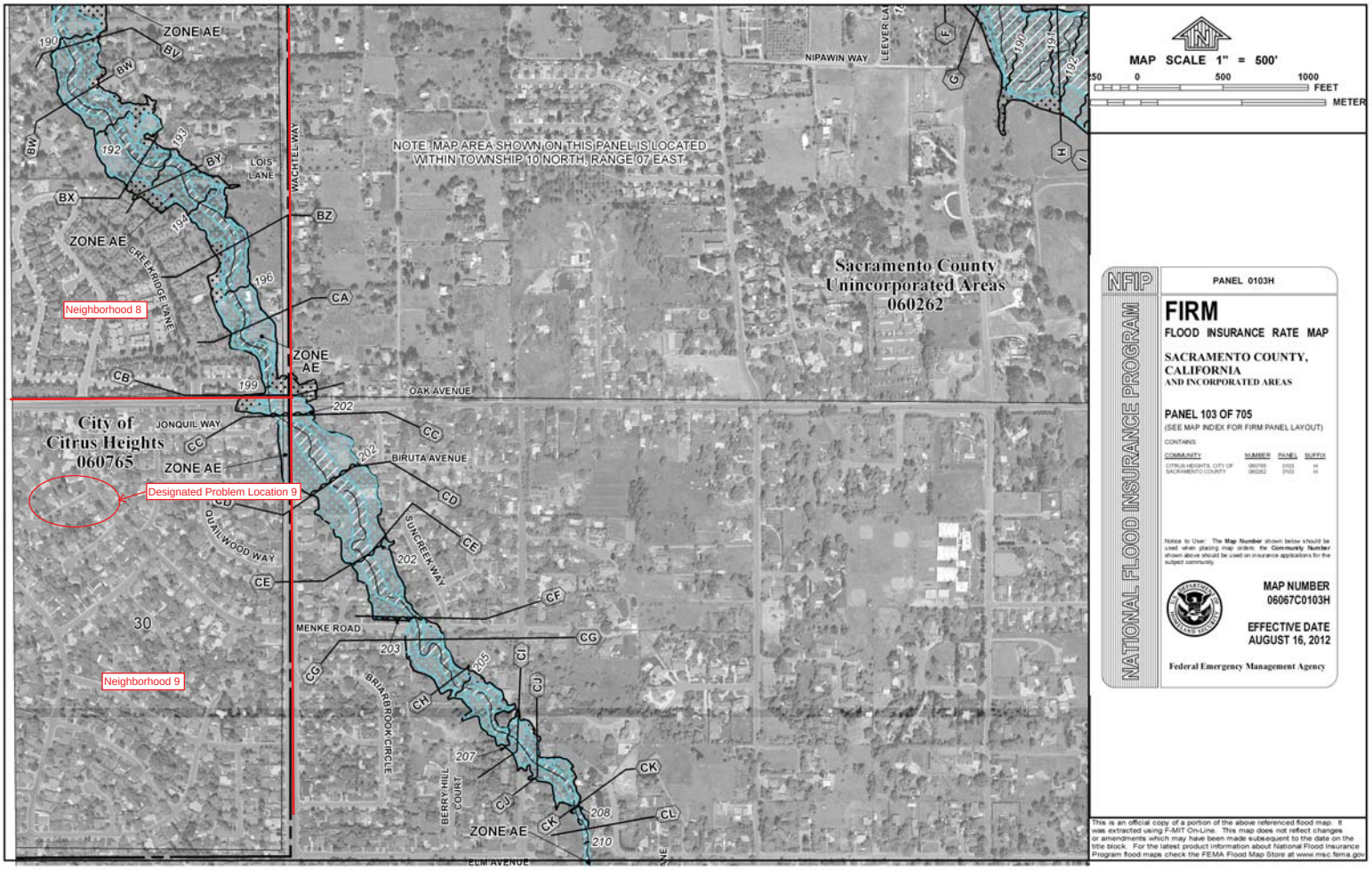
ZONE AE
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 07 EAST
Sacramento County
Unincorporated Areas
060262
City of
Citrus Heights
060765
Neighborhood 8
Neighborhood 9
Designated Problem Location 9
NIPAWIN WAY
LOIS LANE
WACHTEL WAY
CREEKBRIDGE LANE
OAK AVENUE
JONQUIL WAY
BIRUTA AVENUE
QUAILWOOD WAY
SUNCREEK WAY
MENKE ROAD
BRIARBROOK CIRCLE
BERRY HILL COURT
ELM AVENUE
MAP SCALE 1" = 500'
0
500
1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0103H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 103 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY
NUMBER
PANEL
SUFFIX
CITRUS HEIGHTS, CITY OF
060765
0103
H
SACRAMENTO COUNTY
060262
0103
H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0103H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
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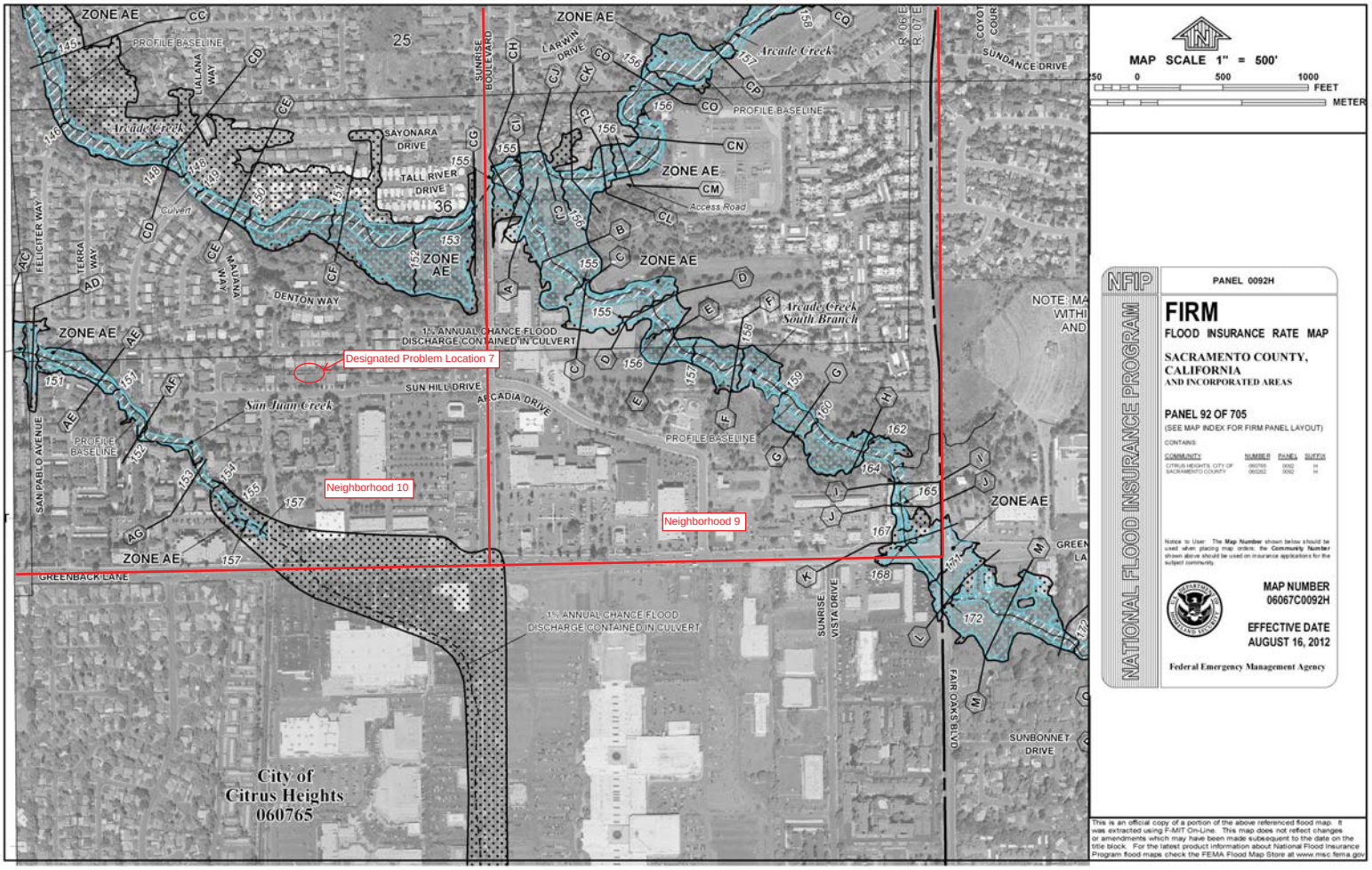

MAP SCALE 1" = 500'

250 0 500 1000 FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0092H

FIRM

FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 92 OF 705

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CITRUS HEIGHTS, CITY OF	060765	0092	H
SACRAMENTO COUNTY	060262	0092	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 06067C0092H

EFFECTIVE DATE AUGUST 16, 2012

Federal Emergency Management Agency

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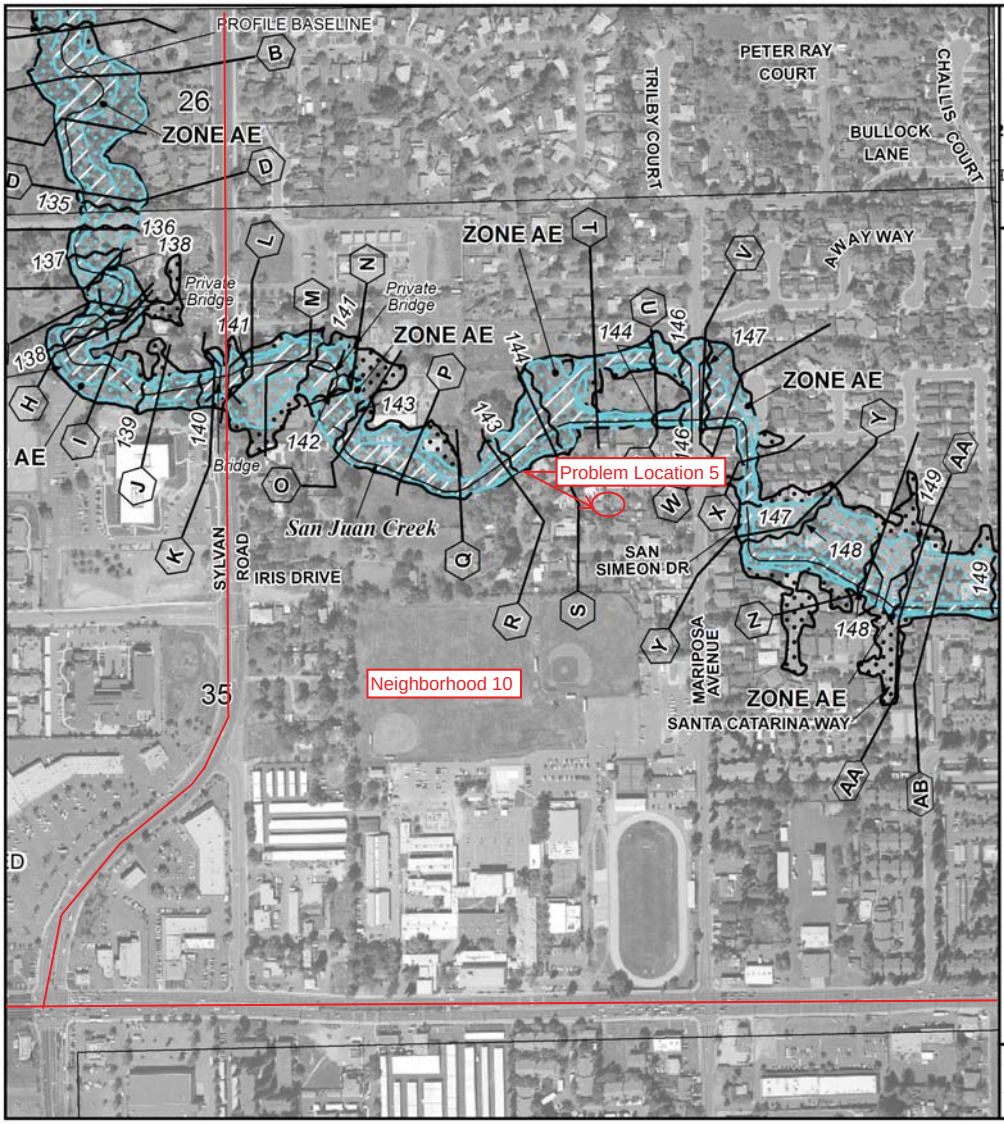

MAP SCALE 1" = 500'

250 0 500 1000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0091H

FIRM

FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 91 OF 705

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CITRUS HEIGHTS, CITY OF	060765	0091	H
SACRAMENTO COUNTY	060262	0091	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06067C0091H

EFFECTIVE DATE
AUGUST 16, 2012

Federal Emergency Management Agency

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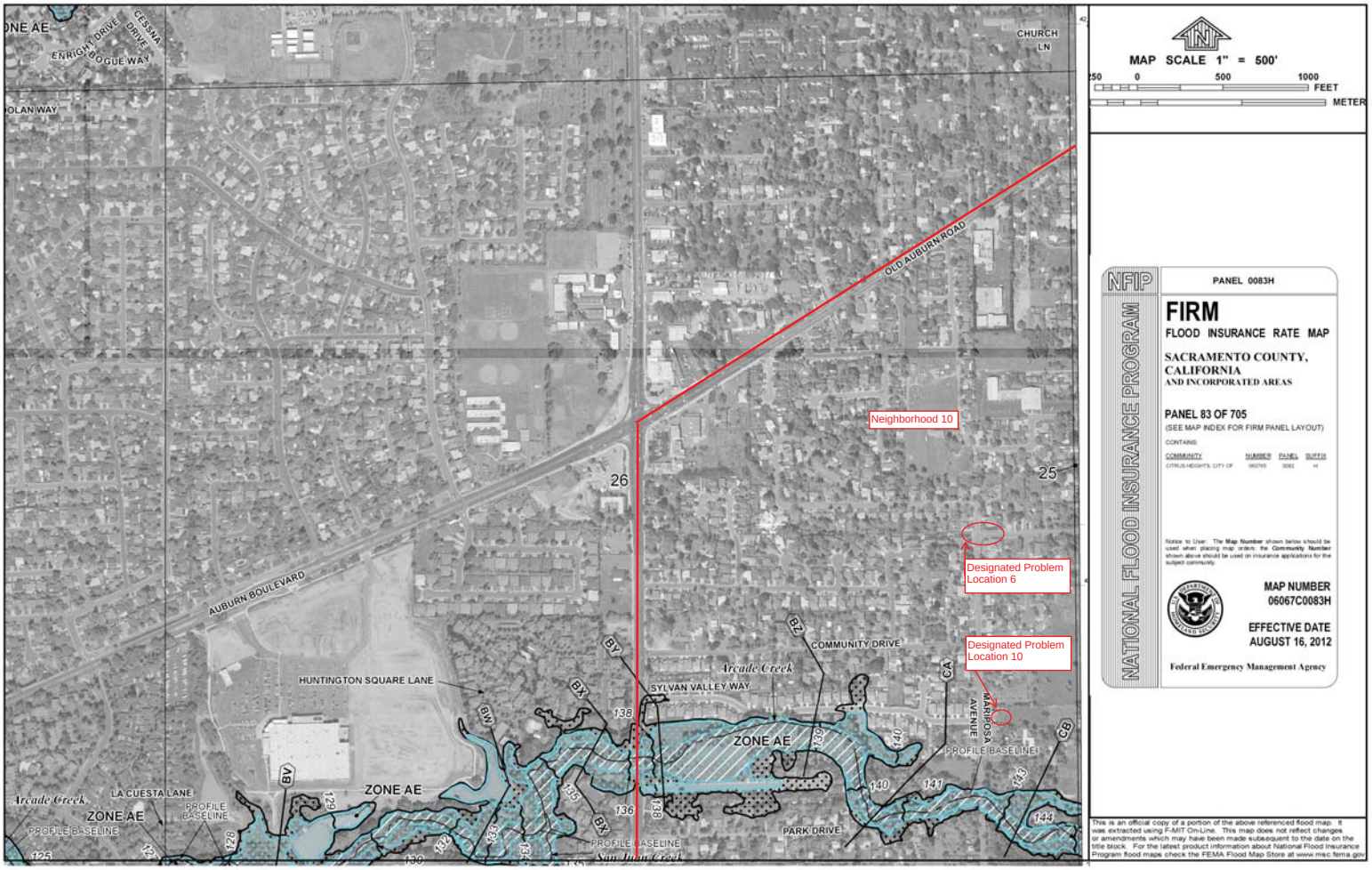
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0083H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 83 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0083 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0083H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov
Neighborhood 10
Designated Problem Location 6
Designated Problem Location 10
OLD AUBURN ROAD
AUBURN BOULEVARD
COMMUNITY DRIVE
SYLVAN VALLEY WAY
HUNTINGTON SQUARE LANE
LA CUESTA LANE
PARK DRIVE
MARIPOSA AVENUE
CHURCH LN
ENRIGHT DRIVE
CESSNA DRIVE
ROGUE WAY
Arcade Creek
San Juan Creek
ZONE AE
PROFILE BASELINE
26
25

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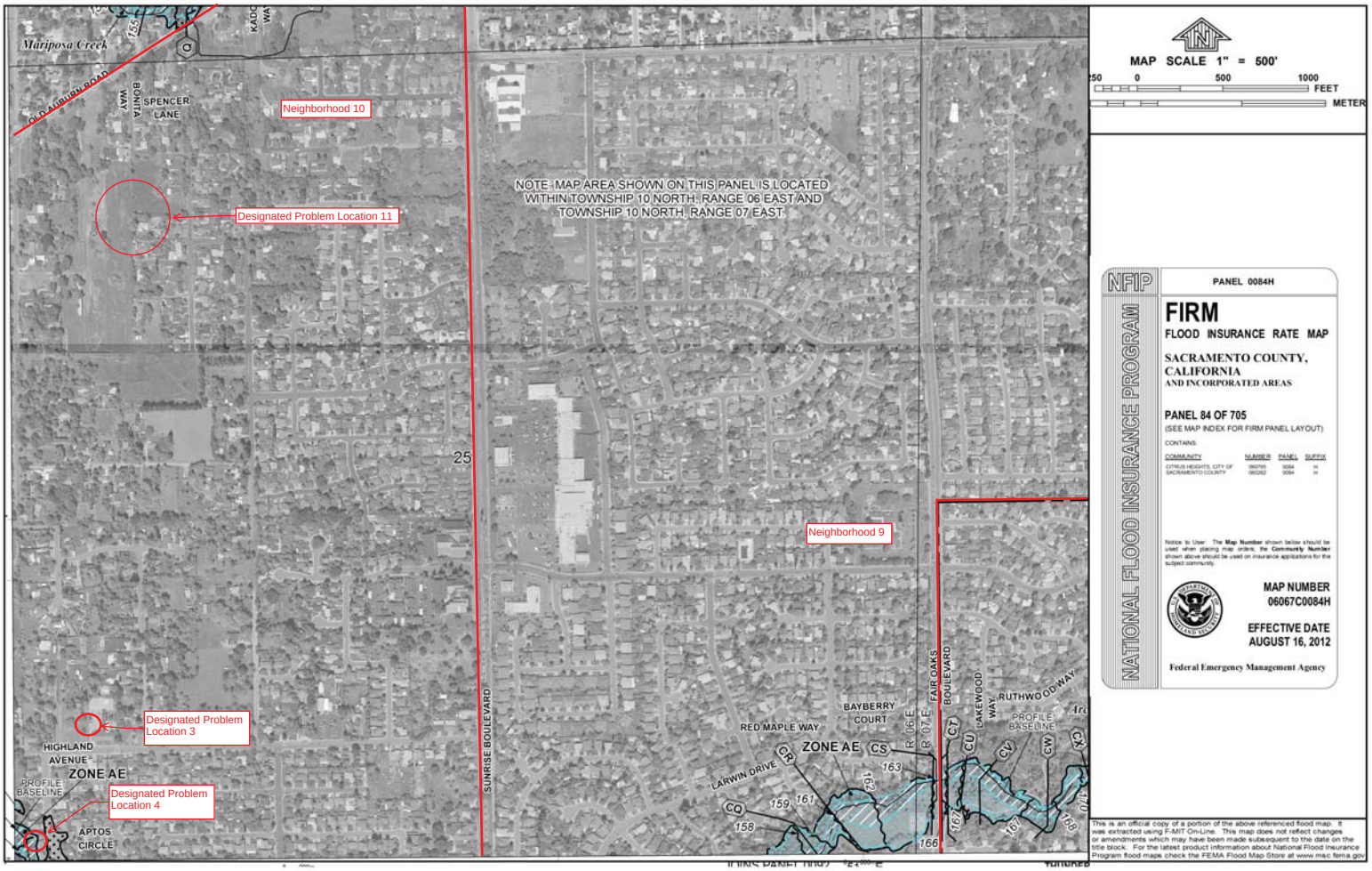
Mariposa Creek
OLD AUBURN ROAD
BONITA WAY
SPENCER LANE
Neighborhood 10
Designated Problem Location 11
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 06 EAST AND TOWNSHIP 10 NORTH, RANGE 07 EAST
25
Neighborhood 9
SUNRISE BOULEVARD
Designated Problem Location 3
HIGHLAND AVENUE
ZONE AE
PROFILE BASELINE
Designated Problem Location 4
APTOS CIRCLE
RED MAPLE WAY
BAYBERRY COURT
LARWIN DRIVE
ZONE AE
FAIR OAKS BOULEVARD
LAKEWOOD WAY
RUTHWOOD WAY
PROFILE BASELINE
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0084H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 84 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0084 H
SACRAMENTO COUNTY 060262 0084 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0084H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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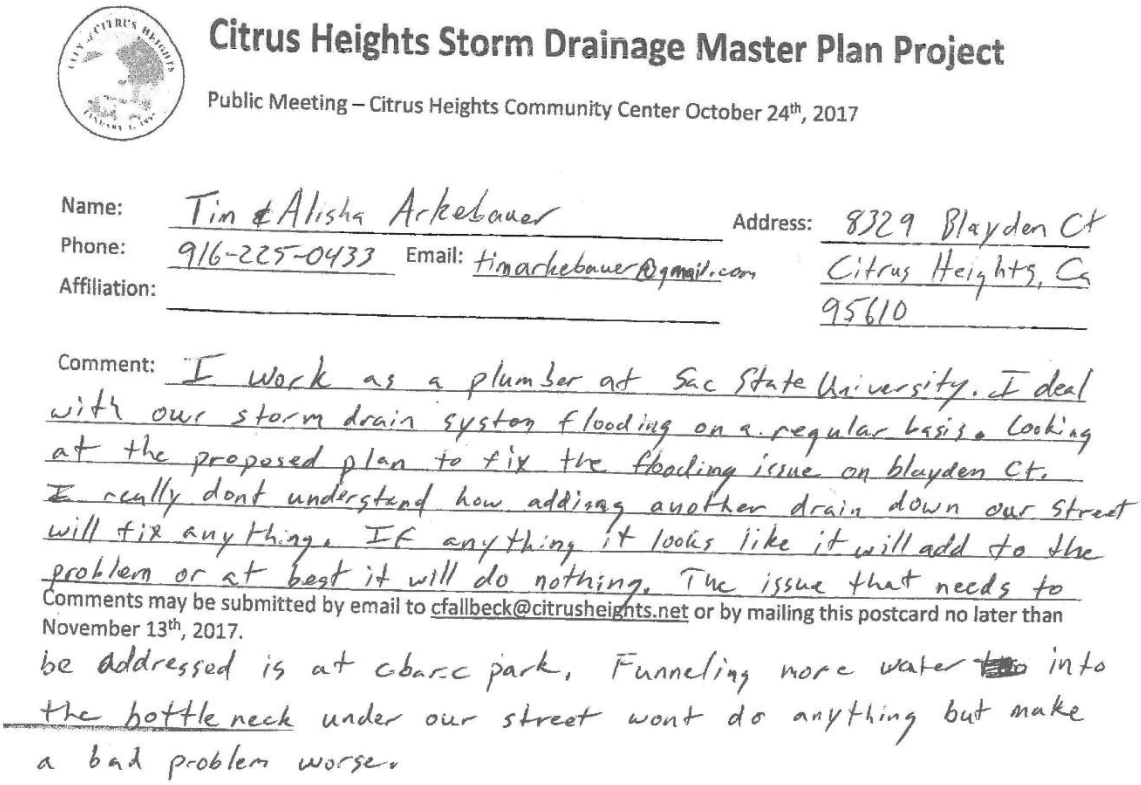
Appendix E — List of Abbreviated Terms

Abbreviation	Full Meaning
ADT	Average Daily Traffic
ARB	Air Resource Board
BMPs	Best Management Practices
CARB	California Air Resources Board
CAA	Clean Air Act
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CDFG	California Department Fish and Game
CDHS	California Department of Health Services
CDTSC	California Department of Toxic Substances Control
cfs	Cubic feet per second
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
City	City of Citrus Heights
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO2	Carbon dioxide
CWA	Clean Water Act
dbh	Diameter At Breast Height
DLRP	Division of Land Resource Protection
DOC	Department of Conservation
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FESA	Federal Endangered Species Act
FPPA	Farmland Protection Policy Act
GHG	Greenhouse Gas
HDD	Horizontal Directional Drilling
HFC	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/ Mitigated Negative Declaration
LUST	Leaking Underground Storage Tank
MLD	Most Likely Descendant
MS4	Municipal Separate Storm Sewer Systems
msl	Mean sea level
MTBA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NOx	Nitrogen Oxides
NRCS	Natural Resource Conservation Service

O3	Ozone
OPR	Office of Planning and Research
SacMetro AQMD	Sacramento Metropolitan Air Quality Management District
Pb	Lead
PFC	Perfluorocarbons
PM 2.5	Particulate matter-2.5 microns
PM10	Respirable Particulate Matter (particulate matter-10 microns)
ppm	Parts per million
PRC	Public Resources Code
Proposed Project	City of Citrus Heights Neighborhoods 8, 9 and 10 Storm Drainage Master Plan Project
ROG	Reactive Organic Gasses
ROWD	Report of Waste Discharge
RTP	Regional Transport Plans
RWQCB	Regional Water Quality Control Board
SAAQS	State Ambient Air Quality Standards
SIP	State Implementation Plan
SF6	Sulfur Hexafluoride
SSC	Special Species of Concern
Study	Storm Drainage Master Plan Study
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Loads
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
ZEV	Zero-emission vehicles

Appendix F — Response to Public Comments

Location 9 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Tim & Alisha Arkebauer
Address: 8329 Blayden Ct Citrus Heights, Ca 95610
Phone: 916-225-0433 Email: timarkebauer@gmail.com
Affiliation:

Comment: I work as a plumber at Sac State University. I deal with our storm drain system flooding on a regular basis. Looking at the proposed plan to fix the flooding issue on blayden Ct. I really dont understand how adding another drain down our street will fix anything. If anything it looks like it will add to the problem or at best it will do nothing. The issue that needs to be addressed is at cbarc park. Funneling more water into the bottle neck under our street wont do anything but make a bad problem worse.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

I work as a plumber at Sac State University. I deal with our storm drain system flooding on a regular basis. Looking at the proposed plan to fix the flooding issue on Blayden Court, I really don't understand how adding another drain down our street will fix anything. If anything, it looks like it will add to the problem or at best it will do nothing. The issue that needs to be addressed is at C-Bar-C Park. Funneling more water into the bottleneck under our street won't do anything but make a bad problem worse.

Response to Location 9 – Comment 1

Thank you for your comment. The enlarged pipe along Blayden Court will allow flows to move under and past Blayden Court faster and provide more storage for flows. No additional runoff is being routed to Blayden Court. Based on public input and downstream hydraulic modeling, the City has added two small detention basins to the project. The first is within the SMUD easement south of Oak Avenue. The stormwater from the Blayden Court stormdrain would be diverted into this detention basin, which will reduce flow rates to C-Bar-C Park. Additionally, the City has added upsizing the pipe downstream of the inlet at the northwest corner of Blayden Court to the project. The larger pipe will allow runoff to drain from Blayden Court to the detention basin more quickly. The second detention basin would be south of Blayden Court, at Northwoods Park. This basin will provide storage of rainfall runoff that currently flows overland from the park to Blayden Court. The basin will reduce the peak flows to the Blayden Court drainage system, which will also reduce flooding.The detention basin would have a shallow depth of 1-3 feet and would be built with gradually sloped sides. The basin would be designed to follow natural contours to minimize visual impact and would be designed to drain within 92 hours following rain events.

The Initial Study has been updated to reflect these additional project features.

Location 9 – Comment 2

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Juley Chadwick Address: 8313 Blayden Court

Phone: 916 726-5165 Email: jewels@surewest.net Citrus Heights CA. 95610

Affiliation:

Comment: I just purchased a home here on Blayden Ct. on October 10, 2017. I was not made aware of the flooding problems until after my purchase. This is very concerning to me that I could potentially have flooding problems in my new home. I hope this new drainage master plan project will be completed soon.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

I just purchased a home here on Blayden Ct. on October 10th, 2017. I was not made aware of the flooding problems until after my purchase. This is very concerning to me that I could potentially have flooding problems in my new home. I hope this new drainage master plan project will be completed soon.

Response to Location 9 – Comment 2

Thank you for your comment. The City understands your concern and is working to implement the drainage master plan as quickly as feasible. Environmental clearance for the project is anticipated to be completed in late winter/ early spring of 2018 with construction beginning in some locations as early as summer 2018.

Location 9 – Comment 3

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Geralyn L. Housman Address: 8337 Glaydon Ct, Citrus Heights CA 95610

Phone: 916 356 1988 Email: [illegible]

Affiliation:

Comment: Please ensure that water run off from [illegible] or from the park will be taken care of. In the past water has backed up all the way to our [illegible] house.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

Please ensure that water runoff from [illegible] or from the park will taken care of. In the past water has backed up all the way to our [illegible] house.

Response to Location 9 – Comment 3

Thank you for your comment. The planned drainage improvements would improve the efficiency of the City's stormdrain infrastructure and is anticipated to reduce the frequency of flooding within the City.

Location 9 – Comment 4

RAYMOND J. LAPOINT JR
8321 BLAYDEN CT
CITRUS HTS, CA 95610

916-708-2540

(LOCATION 9)

PLACE STAMP HERE

City of Citrus Heights
ATTN: Chris Fallbeck
6360 Fountain Square Drive
Citrus Heights, CA 95621

I HAVE LIVED AT 8321 BLAYDEN CT FOR FORTY YEARS. AND DURING THIS TIME FLOODING HAS OCCURED MANY TIMES, DURING HEAVY RAIN STORMS.

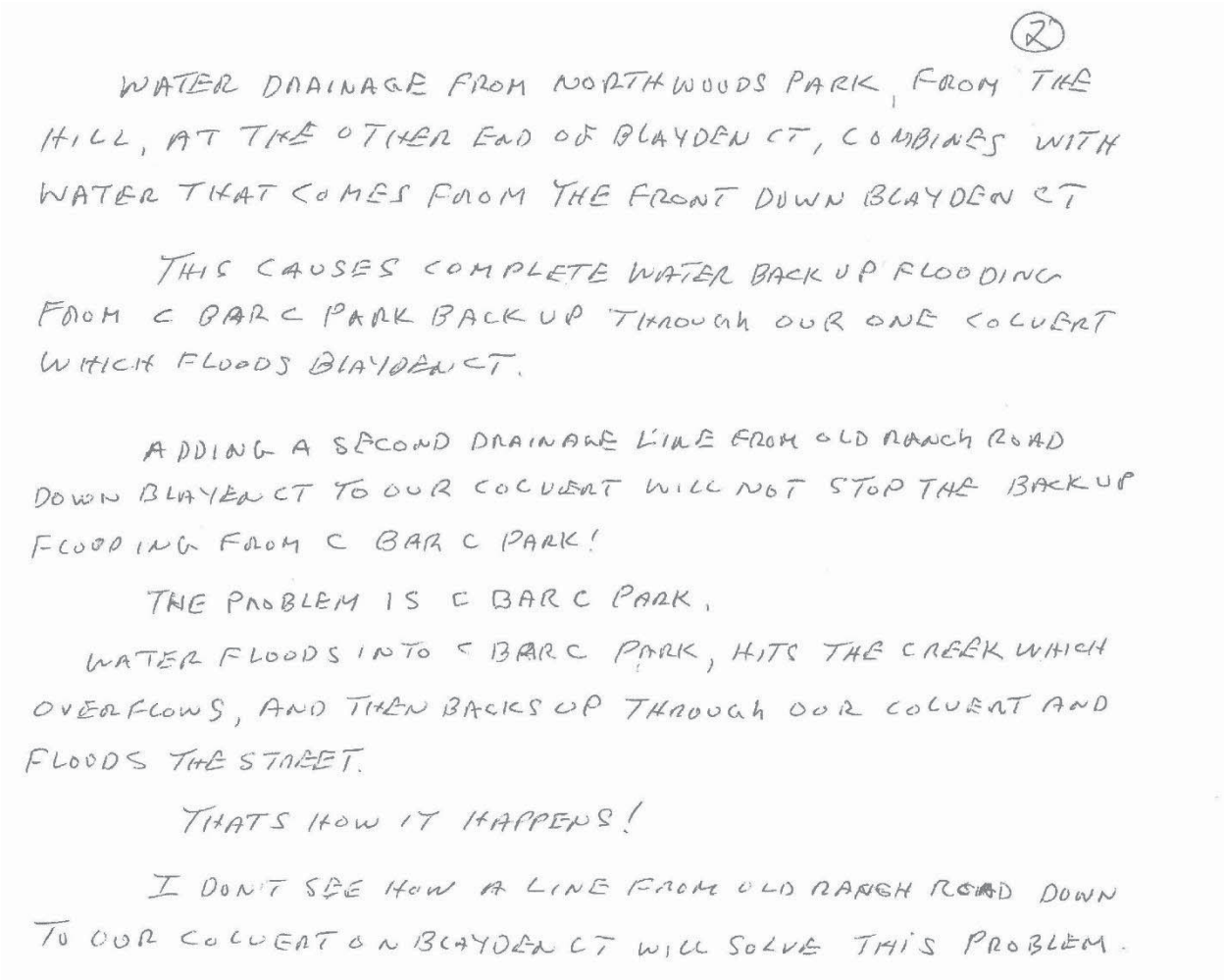
WHEN THEY BUILT HOMES ON THIS STREET, THEY DIDN'T ACCOUNT FOR A PROPER CULVERT SYSTEM WHICH WOULD TAKE THE HEAVY RAINS AND HOMES GOT FLOODED, DURING THIS PERIOD.

SINCE THEN FLOODING OCCURS EACH YEAR ON BLAYDEN CT. IT RUNS UP AT LEAST THREE QUARTERS OF EVERY DRIVEWAY WHEN IT STORMS. HOMES COULD EASILY FLOOD ABOVE THAT.

BLAYDEN COURT HAS RUSHING WATER COMING DOWN FROM OAK AVE, OLD RANCH ROAD, JORDELL CT AND INTO BLAYDEN COURT ALL AT THE SAME TIME. IT ALSO DRAINS DOWN FROM NORTWOODS PARK INTO THE BACK OF BLAYDEN CT TO OTHER HOMES AT 8300, 8301, 8305, 8309 BLAYDEN CT TO MORE HOMES.

RIGHT NOW THE ONE STORM DRAIN LINE GOES DOWN BLAYDEN CT FROM OLD RANCH ROAD INTO THE ONE STORM LINE BETWEEN MY HOME 8321 AND 8325 THROUGH THE CULVERT INTO THE FIELD (UNDERGROUND) ACROSS OAK AVE INTO CIRBY PARK.

(OVER)



(2)

WATER DRAINAGE FROM NORTHWOODS PARK, FROM THE HILL, AT THE OTHER END OF BLAYDEN CT, COMBINES WITH WATER THAT COMES FROM THE FRONT DOWN BLAYDEN CT

THIS CAUSES COMPLETE WATER BACK UP FLOODING FROM C BARC PARK BACK UP THROUGH OUR ONE CULVERT WHICH FLOODS BLAYDEN CT.

ADDING A SECOND DRAINAGE LINE FROM OLD RANCH ROAD DOWN BLAYDEN CT TO OUR CULVERT WILL NOT STOP THE BACK UP FLOODING FROM C BARC PARK!

THE PROBLEM IS C BARC PARK.

WATER FLOODS INTO C BARC PARK, HITS THE CREEK WHICH OVERFLOWS, AND THEN BACKS UP THROUGH OUR CULVERT AND FLOODS THE STREET.

THATS HOW IT HAPPENS!

I DONT SEE HOW A LINE FROM OLD RANCH ROAD DOWN TO OUR CULVERT ON BLAYDEN CT WILL SOLVE THIS PROBLEM.

Transcription:

I have lived at 8321 Blayden Court for Forty Years. And during this time flooding has occurred many times, during heavy rains storms.

When they built homes on this street, they didn't account for a proper culvert system which would take the heavy rains and homes got flooded during this period.

Since then flooding occurs each year on Blayden Court. It runs up at least three quarters of every driveway when it storms. Homes could easily flood above that.

Blayden Court has rushing water coming down from Oak Avenue, Old Ranch Road, Jordell Court, and into Blayden Court all at the same time. It also drains down from Northwoods Park into the back of Blayden Court to other homes at 8300, 8301, 8305, 8309 Blayden Court to more homes.

Right now the one storm drain line goes down Blayden Corut from Oak Ranch Road into the one storm line between my home 8321 and 8325 through the culvert into the field (underground) across Oak Avenue

into C-Bar-C Park.

Water drainage from Northwoods Park, from the hill, at the other end of Blayden Cout, combines with water that comes from the front down Blayden Court.

This causes complete water backup flooding from C-Bar-C Park up through our one culvert which floods Blayden Court.

Adding a second drainage line from Old Ranch Road down Blayden Court to our culvert will not stop the backup flooding from C-Bar-C Park!

The problem is C-Bar-C Park.

Water floods into C-Bar-C Park, hits the creek which overflows, and then backs up through our culvert and floods the street.

That's how it happens!

I don't see how a line from Old Ranch Road down to our culvert on Blayden Court will solve this problem.

Response to Location 9 – Comment 4

Thank you for your comment. The purpose of the proposed enlargement of the stormdrain under Blayden Court was underground temporary stormwater storage. Due to other existing utilities, a large diameter water storage pipe under the roadway was determined to not be feasible. The City has refined project design to include a water detention basin within the SMUD easement east of Blayden Court. The detention basin would moderate discharge to C-Bar-C Park .

With regards to backwater from C-Bar-C Park causing flooding within Blayden Court, the culvert under Oak Avenue is at too low an elevation to cause reverse flow into Blayden Court; however, elevated downstream water levels are potentially reducing the efficiency of the stormdrain system within Blayden Court. The proposed water detention basin would moderate downstream flows to C-Bar-C Park and is anticipated to reduce the potential for water surface elevations at C-Bar-C Park to influence the water surface elevations at Blayden Court.

Based on public comment, the City has analyzed the quantity of water entering Blayden Court from Northwoods Park. The City has added a small detention basin south of Blayden Court to the project design that would collect a portion of the runoff from Northwoods Park and reduce the rate of water flowing into Blayden Court from Northwoods Park. The proposed detention basins coupled with other drainage improvements at this location would reduce flooding within Blayden Court.

The Initial Study has been updated to reflect these additional project features.

Location 9 – Comment 5

Email Comment:

Dear Mr. Fallbeck,

This is a reply and comments on the Storm Drainage Master Plan Project slated for location 9 Citrus Heights.

My name is John Moore located at 8309 Blayden ct., west side of the court, backing up to the SMUD property. I have been in this location for close to 30 years and have seen the flooding that has occurred in the court over the years. It was not fun to watch. The first item I would like to mention is that the property below the SMUD electrical lines is crowned as it follows the lines. This crowning causes a slope that runs down to the back yard fence lines of the homes on Blayden ct. west side. Over the years of heavy down pours, rain water develops and flows into Northwoods Park and through and around the properties. This heavy runoff adds a large amount of water to the court and the drainage system. I have attempted to add a sump pump, more drainage lines were the water pools up and trenching to direct the runoff to the court. It seems to work well now but when I first moved in, I was taking in water from the runoff into my house.

As a solution to this excessive runoff, I would like to suggest a dirt trench system on the SMUD property just outside the fence line of the homes from Northwood Park to Oak Ave. It doesn't need to be deep, just enough to channel the runoff from the slope down to Oak Ave. The sunrise park district regularly has a tractor with a disk unit come out to knock down the tall grass for fire safety reasons. A tractor unit with a trenching attachment could easily eliminate this problem for the homeowners.

The plan as I see it is for the enlargement of the drain pipe from the corner of Oak Ave. and Blayden Ct. This sounds great and should help during heavy downpour events. This swale that was installed years ago has been helpful during downpours and the level of rain water back up has been reduced. Whatever you can do to keep the excessive rain water from backing up into the homes on Blayden Ct. would be greatly appreciated.

John Moore

Response to Location 9 – Comment 5

Thank you for your comment. The suggested trench system may be effective for redirecting water from the SMUD easement in the northern section of Blayden Court; however, there is an existing rise in the topography that would necessitate a very deep trench to direct water from the southern portion of Blayden Court to Oak Avenue. As an alternative solution, the City has added two detention basins and a series of shallow swales to the project design. One stormwater detention basin would be installed south of Blayden Court along the northern edge of Northwoods Park. This basin would collect runoff from the SMUD easement and Northwoods park and moderate flows into the stormdrain inlet south of Blayden Court. A shallow swale would be constructed to intercept water from the SMUD easement and direct it into the new detention basin. The second detention basin and swale would be installed near the outlet of the existing concrete lined overland release. This detention basin would intercept flow from a portion of the SMUD easement and from the overland release at the turn in Blayden Court and moderate downstream discharge to C-Bar-C Park. The City has also added increasing the size of the pipe downstream of the inlet at the northwest corner of Blayden Court to improve conveyance to the second detention basin.

The Initial Study has been updated to reflect these additional project features.

Location 9 – Comment 6

CITRUS HEIGHTS STORM DRAINAGE MASTER PLAN PROJECT

NAME: Rosa Umbach Address: 8325 Blayden Ct., Citrus Heights, CA 95610

Phone: (916) 342-7556 cell

(916) 722-6897 home

Project: Location #9 – Blayden Ct.

Comments:

Problem – Page 21:

The description of the location of the storm drain in Blayden Ct. is between two lots at the corner of Blayden Court. The storm drain is actually on Blayden Ct., approximately 220 feet from Old Ranch Road.

The size of the storm drain pipe is identified in the plan; however, water runoff from Old Ranch is not the only source of runoff into Blayden Court. Runoff also comes from the North from Oak Ave - see photo #1; East from Jordell Ct - see photo #2; from South off Old Ranch Road and the Northwoods Park - see photos 3- 7; and from the West (SMUD easement - see photo's 8 - 10).

The flooding in the court occurs at the North end of Blayden Court when there is a heavy down pour of water. The water flows in from the streets listed above, and flows out through the storm drain and the overland open trench. Water from the storm drain empties into the creek and water from the open trench empties into the SMUD easement.

Flooding occurs at the South end of Blayden Court as water drains from the park playground area down towards the fence. Although there is a storm drain in the park between the tennis courts and the rear of the properties on Blayden Ct., the amount of water is too much for the storm drain to handle. Water comes into the property at that end of Blayden Ct from the park (on the South) and the SMUD easement (on the West). As seen on photos #4 - 6, there is a small cement trough along the fence that will carry the water from the park to the storm drain; however, there is no such conveyance from the SMUD easement side to redirect the water away from the homes on Blayden Ct.

Also included is photo #11 showing the street next to the storm drain on Blayden Ct has begun to sink.

Proposed Solution – Page 22:

In reviewing the proposed changes to Amsell Court and the upsizing of the pipe in Blayden Court, it does not appear that the solution would address the water runoff that comes into Blayden Court from Oak Ave, Jordell Court, Northwoods Park, or the SMUD easement. By upsizing the pipe, it appears the pipe will be adding water to an already overloaded overland release path (i.e., the open trench between my neighbors and my yard). I'm concerned that the repairs will only increase the amount of water that is be piped into Blayden Court through the new drainage pipe. Additionally, there is no resolution designed to address the water coming into the court from the Park or the SMUD easement.

Response to Location 9 – Comment 6

Thank you for your comment. The project description has been modified to clarify that the stormdrain and overland release are located approximately 220 feet from the intersection of Old Ranch Road, at the turn along Blayden Court. The design accounts for the runoff that reaches Blayden Court from the other streets mentioned.

To alleviate inflow from the SMUD utility easement and from Northwoods Park, the City has added two detention basins to the project design. One basin would be located south of Blayden Court. This basin would collect and temporarily store a portion of runoff from Northwoods Park, reducing the peak inflow from the Park to Blayden Court during storm events. The second basin would be located near the outlet from the concrete lined overland release located approximately 220 feet from the intersection of Old Ranch Road, at the turn along Blayden Court. This second basin would collect a portion of the sheet flow from the north end of the SMUD utility easement. The City has also added increasing the size of the storm drain pipe downstream of the inlet at the northwest corner of Blayden Court, to improve the ability of the Court to drain to the second basin.

The upsizing of the stormdrain system on Blayden Court would allow runoff to travel under and past Blayden Court more quickly and provide storage for runoff underground. The upsized stormdrain along Blayden Court would not contribute water to the overland release.

The Initial Study has been updated to reflect these additional project features.

Location 11 – Comment 1

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: James White **Address:** 7776 Dow Ave

Phone: 916 735 8528 **Email:** vernaandjames@gmail.com

Affiliation: Homeowner

Comment: ① Plug under Dow Ave would stop water flow on south side and under my driveway ② Not sure the 30" pipe ③ starting where it shown on the plan is soon enough to catch most of the water flow from south to north off Maritha St and also keep in mind all the open land at south end Maritha when it is developed would the smaller pipe under Maritha they be large enough

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

This card was discovered on my Dad's desk as we cleaned it following his death. He would want you to have it. plan Jamie Timmins 661 510-1484

Transcription:

Plug under Dow Avenue would stop water flow on south side and under my driveway. Not sure the 30" pipe starting where it is shown on the plan is soon enough to catch most of the water flow from south to north off Maretha St. and also keep in mind all the open land at south end of Maretha when it is developed. Would the smaller pipe under Maretha be large enough?

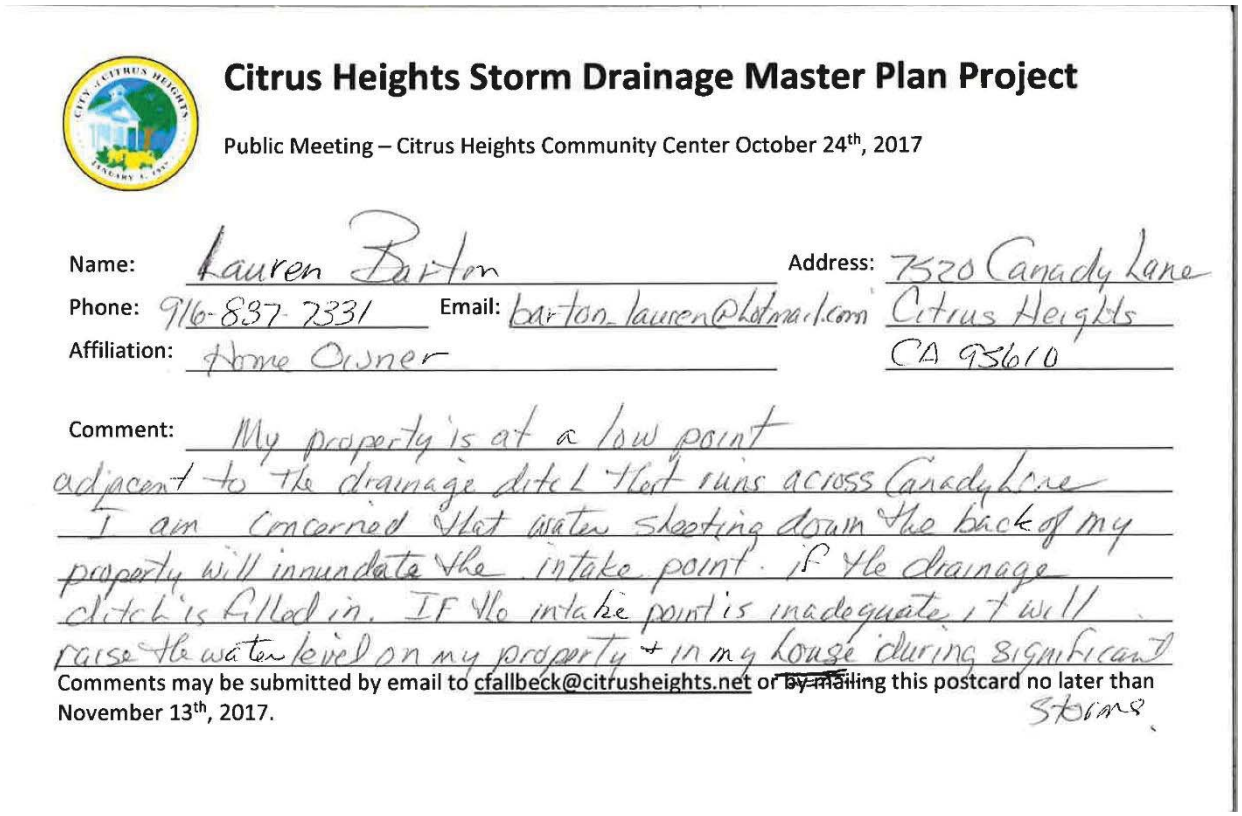
Response to Location 11 – Comment 1

Thank you for your comment. Water on Dow Avenue currently does not drain east into the existing Maretha Street storm drain because Dow Avenue is slightly downslope from Maretha Street. Instead, water from Dow Avenue flows north through a concrete lined gutter set between two homes. Plugging the existing underground pipe along Dow Avenue would prevent excess water from the Maretha Street storm drain from backing up into Dow Avenue.

The proposed project includes new underground storm drains along Maretha Street that have been designed to adequately convey storm runoff from the contributing watershed area. The project would extend the existing underground storm drain system in Maretha Street to convey drainage originating south of Dow Avenue north to Old Auburn Road. Surface flows would be collected along an asphalt concrete dike and channeled to a new inlet at the corner of Dow Avenue and Maretha Street.

With regards to potential development at the end of Maretha Street, the storm drain system would be designed based on existing conditions and would not account for future development or increased impervious cover. However, the City's development code requires that new developments do not increase storm runoff from existing conditions so it would be the responsibility of the developer to implement storm water mitigation and ensure no net increase in storm water discharge to the City's storm drain infrastructure.

Location 12 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Lauren Barton
Address: 7520 Canady Lane
Phone: 916-837-7331
Email: barton_lauren@hotmail.com
Citrus Heights
Affiliation: Home Owner
CA 95610

Comment: My property is at a low point adjacent to the drainage ditch that runs across Canady Lane. I am concerned that water sheeting down the back of my property will inundate the intake point if the drainage ditch is filled in. If the intake point is inadequate, it will raise the water level on my property + in my house during significant storms.

Comments may be submitted by email to cfallbeck@citrusheights.net or ~~by mailing~~ this postcard no later than November 13th, 2017.

Transcription:

My property is at a low point adjacent to the drainage ditch that runs across Canady Lane. I am concerned that water sheeting down the back of my property will inundate the intake point if the drainage ditch is filled in. if the intake point is inadequate, it will raise the water level on my property + in my house during significant storms.

Response to Location 12 – Comment 1

Thank you for your comment. The project would place a new underground stormdrain pipe and fill in the ditch adjacent to your property; however, a shallow swale would be contoured on top of the new stormdrain. Vertical inlets would be installed to allow water from the swale to drain into the stormdrain. Stormdrain improvements have been designed to drain your property and adjacent areas during storm events.

Location 12 – Comment 2

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Allene Chapman Address: 7508 Candy Lane

Phone: (916) 768-5038 Email: allene.chapman@comcast.net Citrus Heights, Ca.

Affiliation: Property Owner - My property has been flooded into my house but am concerned these changes may cause problem

My Comment: (1) Will the 48" pipe proposed along my property be under ground to maintain the current grade for water flow? If the grade is raised I will have flooding issues.

(2) Will the 48" pipe be directly connected to the existing inlet?

(3) There is a large volumne of water that flows across my property coming from the South (or from Oak Ave) which flows into the open ditch in the middle of the property. Will there be an inlet to allow this flow to enter the 48" pipe

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

(4) (MAJor Concern) the present inlet is only 30" to 24" so if that size is not enlarged to connect to the 48" pipe the present problems will continue (Photos attached)

Transcription:

My property has never flooded into my house but I am concerned these changes may cause problems.

(1) Will the 48” pipe proposed along my property be under ground to maintain the current grade for water flow (if the grade is raised I will have flooding issues)?
(2) Will the 48” Pipe be directly connected to the existing inlet?
(3) There is a large volume of water that flows across my property coming from the south (or from Oak Ave) which flows into the open ditch in the middle of the property. Will there be an inlet to allow this flow to enter the 48” pipe?
(4) (Major Concern) The present inlet is only 30” to 24” so if that size is not enlarged to connect to the 48” pipe, the present problems will continue.

Response to Location 12 – Comment 2

Thank you for your comment. The proposed stormdrain would be installed underground and would maintain the existing grade. The existing inlet along Canady Lane would be enlarged to allow more water to enter the new enlarged pipe. In addition, a swale would be graded on top of the new stormdrain west of Canady Lane and inlets would be installed periodically within the swale to allow overland sheet flow from adjacent properties to enter the new stormdrain.

Location 12 – Comment 3

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED
NOV 13 2017
BY:

Name: Bill Willcuts
Address: 7506 Minnesota Dr. Citrus Heights CA 95610
Phone: 916 601 7158 Email:
Affiliation:

Comment: 10/24/17 meeting at 6300 Fountain Sq. Dr. 6:30 PM Mr. Fallbeck acknowledged unpermitted altering of drainage. Chris stated the buried, reduced in size pipe, at 7456 Minnesota Dr. would be inspected by fiber optics as 18 in is to small for a human. Chris also stated the unpermitted reduced pipe will be cleaned out. Debris removed to ensure proper flow of wrongly installed drainage. No clean outs!!

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

NOV 13 2017
BY:

Name: Bill Williams
Address: 7506 Minnesota Dr. Citrus Heights CA 95610
Phone: 916 601 7158 Email:
Affiliation:

Comment: GOD and the rain made the existing drainage from F.O. Blvd To Sunrise Blvd and beyond. 7456 Minnesota Dr. altered reduced and buried the Natural drainage. This flawed and unplanned altering of gravity has resulted in flooding. Open the existing Path to original size and watch the damage claims reduce. 7456 Minn. is costing The city a lot of money. JUST Open Existing Drainage to ORIGINAL SIZE

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED NOV 13 2017 BY:

Name: Bill Williams
Phone: 916 601 7158 Email:
Affiliation:

Address: 7506 Minnesota Dr. Citrus Hts CA 95610

Comment: 7456 Minnesota altered natural Drainage. No one is allowed to alter, herbicide, pesticide, insecticide, install weed barrier ect. DO NOT ALTER. 7456 Minnesota Dr. disregarded ALL! F.O. Blvd, Minnesota Dr, Atkerson Ln, Cowdy Ln. now flood. 7456 is low spot on TOPO map. Rain cannot drain fast enough into reduced drainage. Its full of Debris and un permitted

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED NOV 13 2017 BY:

Name: Bill Williams
Phone: 916 601 7158 Email:
Affiliation:

Address: 7506 Minnesota Dr Citrus Heights CA 95610

Comment: OPen unpermitted alteration of natural drainage. 7456 Minnesota Dr. has changed the way we live, during rain season. Sand bags, sump pumps, french drains, regrade, insurance claims. Simple fix simple math 24in drain - reduced to 18in plastic pipe. Never reduce the size. What is the slope? Is there clean outs? No, no clean outs - 18in waist. Just Wrong

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Transcription:

10/24/17 meeting at 6300 Fountain Square Drive 6:30 pm, Mr. Fallbeck acknowledged unpermitted altering of drainage. Chris stated the buried, reduced in size pipe at 7456 Minnesota Drive would be inspected by fiber optics as 18 inches is too small for a human. Chris also stated the unpermitted reduced pipe will be cleaned out. Debris removed to ensure proper flow of wrongly installed drainage. No clean outs!

God and the rain made the existing drainage from Fair Oaks Boulevard to Sunrise Boulevard and beyond. 7456 Minnesota Drive altered reduced and buried the natural drainage. This flawed and unplanned altering of gravity has resulted in flooding. Open the existing path to original size and watch damage claims reduce. 7456 Minnesota Drive is costing the City a lot of money. Just open the existing drainage to original size.

7456 Minnesota altered natural drainage. No one is allowed to alter, herbicide, pesticide, insecticide, install weed barrier ect. DO NOT ALTER! 7456 Minnesota Drive disregarded ALL! Fair Oaks Boulevard, Minnesota Drive, Anderson Lane, and Canady Lane now flood! 7456 is low spot on topo map. Rain cannot drain fast enough into reduced drainage. Its full of debris and unpermitted.

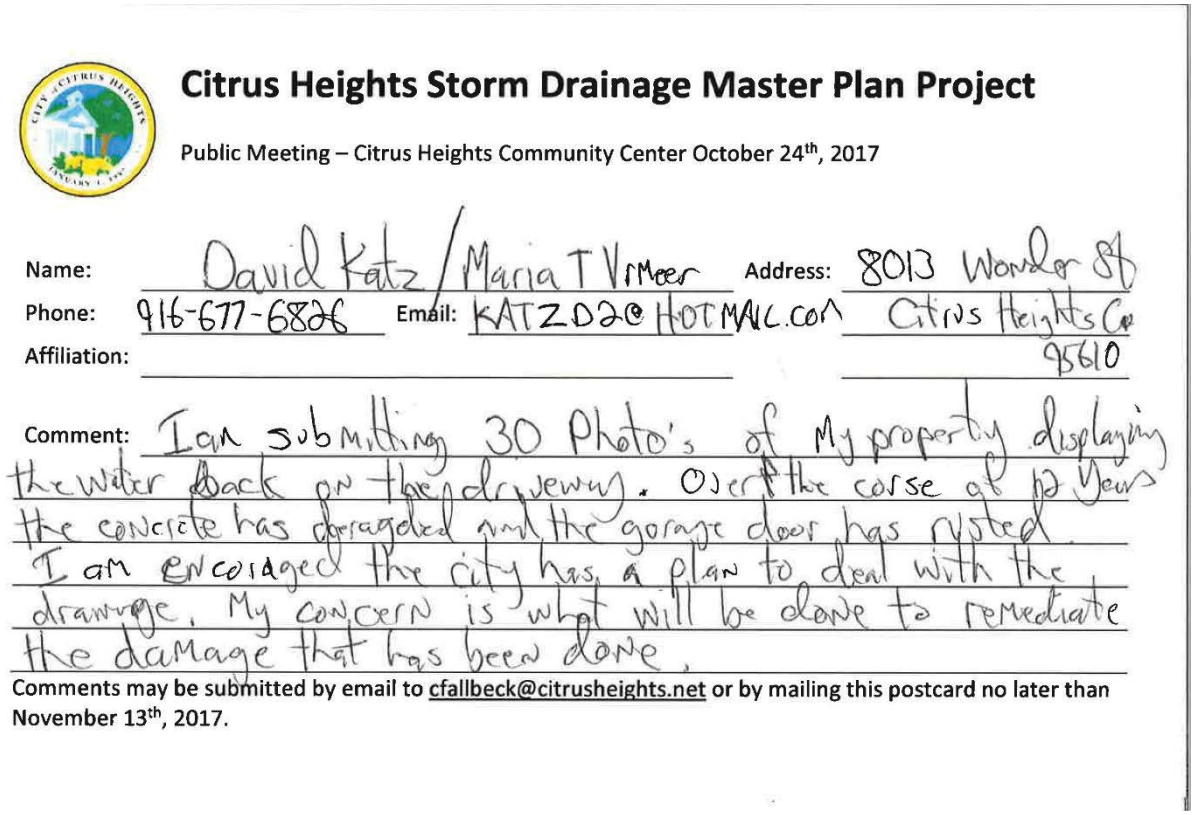
Open unpermitted alteration of natural drainage. 7456 Minnesota Drive has changed the way we live during rain season. Sand bags, sump pumps, French drains, regrade, insurance claims. Simple fix simple math 24 inch drain reduced to 18 inch plastic pipe. Never reduce the size. What is the slope? Are there clean outs? No, no clean outs – 18 inch waist. Just wrong.

Response to Location 12 – Comment 3

Thank you for your comment. The City has added features to the project to alleviate flooding along Minnesota Drive. New underground stormdrains would be installed along both sides of the roadway and enlarged drainage inlet would be installed to replace the existing non-standard inlet located between 7506 and 7456 Minnesota Drive. In addition, the City is considering including a new stormdrain in the field north of 7506 in the project design to direct flow from the new system under Minnesota Drive around the homes along Minnesota Drive and reduce the amount of water directed to the inlet between 7506 and 7456.

The Initial Study has been updated to reflect these additional project features.

Location 13 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: David Katz / Maria T VrMeer Address: 8013 Wonder St

Phone: 916-677-6826 Email: KATZD2@HOTMAIL.COM Citrus Heights Ca 95610

Affiliation:

Comment: I am submitting 30 Photo's of My property displaying the water back on the driveway. Over the corse of 12 Years the concrete has degraded and the garage door has rusted. I am encouraged the city has a plan to deal with the drainage. My concern is what will be done to remediate the damage that has been done.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

I am submitting 30 photos of my property displaying the water back on the driveway. Over the course of 12 years the concrete has degraded and the garage door has rusted. I am encouraged the City has a plan to deal with the drainage. My concern is what will be done to remediate the damage that has been done.

Response to Location 13 – Comment 1

Thank you for your comment. This project would establish a formal stormdrain along Wonder Street to convey stormwater north to Cripple Creek. The addition of this stormdrain would improve drainage and reduce ponding within the road right-of-way; however, the City cannot be held responsible for inadequate drainage on private property.

SMUD Comment (Page 1 of 2)

Powering forward. Together.

SMUD®

Sent Via E-Mail

November 13, 2017

Chris Fallbeck
Citrus Heights Irrigation District
6360 Fountain Square Drive
Citrus Heights, CA 95621
cfallbeck@citrusheights.net

Subject: **Citrus Heights Storm Drainage Master Plan Project (Clearinghouse #2017102040)**

Dear Mr. Fallbeck,

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Mitigated Negative Declaration (MND) for the Citrus Heights Storm Drainage Master Plan Project (Project). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the Project MND will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/business/customer-service/support-and-services/design-construction-services.htm
  - https://www.smud.org/en/do-business-with-smud/real-estate-services/transmission-right-of-way.htm
- Utility line routing

Based on our review of the Initial Study and our understanding of the proposed project, SMUD offers the following input:

1. Project Description: SMUD would like to be informed of any anticipated project related impacts on existing or future SMUD facilities. It is important that information regarding potential impacts to SMUD facilities in the vicinity of the

SMUD CSC | 6301 S Street | P.O. Box 15830 | Sacramento, CA 95852-0830 | 1.888.742.7683 | smud.org

SMUD Comment (Page 2 of 2)

proposed project be contained in the project description chapter of the MND, as well as the existing conditions discussion of the utilities, hazards and hazardous materials, and cumulative impact sections.

2. Planning and CEQA Considerations: As a Responsible Agency, SMUD requests that any conflicts related to SMUD facilities and any potential issues related to our facilities or easements be considered during the project design and planning and any associated impacts be considered in the MND.

SMUD would like to be kept apprised of the planning, capital improvements, and completion of the City of Citrus Heights' Storm Drainage Master Plan Project. Please ensure that the information included in this response is conveyed to the project planners and the appropriate project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this MND. If you have any questions regarding this letter, please contact SMUD's Environmental Management Specialist, Ammon Rice, at ammon.rice@smud.org or 916.732.7466.

Sincerely,

Jamie Cutlip
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
jamie.cutlip@smud.org

Cc: Ammon Rice

(JC/sc)

SMUD CSC | 6301 S Street | P.O. Box 15830 | Sacramento, CA 95852-0830 | 1.888.742.7683 | smud.org

Response to SMUD Comment

Thank you for your comment. On December 5th, 2017, City staff met with SMUD to discuss potential construction and operational impacts to the SMUD utility corridor. SMUD staff explained that historically, SMUD did not allow detention basins or other drainage improvements to be constructed within their high voltage transmission corridors; however, SMUD recognizes the need for drainage improvements. The City would continue to coordinate with SMUD during final design of the Drainage Master Plan and would work with SMUD to develop a Joint Use Agreement between the Sunrise Parks District (property owner), SMUD, and the City of Citrus Heights.

A discussion of the SMUD utility corridor was added to Section 3.8 Hazards and Hazardous Materials and to Section 3.18 Utilities and Service Systems.

EXHIBIT A-1

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Citrus Heights Storm Drainage Master Plan Project

February 2018

Lead Agency:

CITRUS HEIGHTS
CALIFORNIA

6360 Fountain Square Drive

Citrus Heights, CA 95621
Contact: Stuart Hodgkins
(916) 727- 4770

Prepared by:

Dokken Engineering
110 Blue Ravine Road, Suite 200
Folsom, California 95630
(916) 858-0642

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MITIGATED NEGATIVE DECLARATION

PROJECT TITLE:	Storm Drainage Master Plan Project
PROJECT LOCATION:	Neighborhoods 8, 9, and 10 the City of Citrus Heights, Sacramento County, California
DATE:	February 8, 2018
PROJECT APPLICANT:	City of Citrus Heights
LEAD AGENCY:	City of Citrus Heights
CONTACT PERSON:	Stuart Hodgkins, P.E., Principal Civil Engineer (916) 727-4770

PROJECT DESCRIPTION:

The Proposed Project consists of the capital improvements to the City's stormwater drainage system through engineering, regulatory compliance, operations and maintenance, and restoration of the City's storm drain system and natural creeks/channels and detention/water quality basins which convey and store stormwater within the designated problem locations. The completed project will reduce or eliminate flooding and drainage problems within the City of Citrus Height, Neighborhoods 8, 9 and 10.

DETERMINATION

The City has adopted a Mitigated Negative Declaration for this project. This determination has been made based on comments received from interested agencies and the public during the 30-day public circulation of the Initial Study from October 13th, 2017 to November 13th, 2017.

This determination concludes that the project will not have a significant impact on the environment with the inclusion of appropriate avoidance, minimization, and mitigation measures (provided in this document). From the results of the Initial Study, The City has determined the project would not have a significant impact on the environment for the following reasons: The proposed project will have no impact on aesthetics, agriculture and forest resources, land use and planning, mineral resources, population and housing, or recreation. The proposed project will have a less than significant impact on air quality, greenhouse gas emissions, public services, and utilities and service systems.

The proposed project will have a less than significant impact with mitigation incorporated into the project design on; biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, and tribal cultural resources.

Stuart Hodgkins, P.E.
Principal Civil Engineer
City of Citrus Heights

Date

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Initial Study/Mitigated Negative Declaration

The City of Citrus Heights Storm Drainage Master Plan Project

Lead Agency:

City of Citrus Heights
6360 Fountain Square Drive
Citrus Heights, CA 95621

Prepared by:

Dokken Engineering
110 Blue Ravine Road, Suite 200
Folsom, California 95630

February 2018

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TABLE OF CONTENTS

LIST OF APPENDICES

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LIST OF FIGURES

1.0 INTRODUCTION

This project-level IS/MND has been prepared for the City of Citrus Heights (City) Neighborhoods 8, 9 and 10 Storm Drainage Master Plan Project (Proposed Project) to satisfy the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 *et seq.*) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 *et seq.*). The City is the lead agency for this project under CEQA.

1.1 Initial Study Purpose

CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An Initial Study is a public document used by the decision-making lead agency to determine whether a project may have a significant impact on the environment. If it is determined that the Proposed Project may have a significant impact on the environment, but that these impacts would be reduced to a Less Than Significant Level through implementation of specific recommended mitigation measures, a Mitigated Negative Declaration shall be prepared.

This IS/MND has been prepared to identify and assess the anticipated environmental impacts of the City of Citrus Heights' Storm Drainage Master Plan Project and relies on the analysis set forth in this document to address in detail the effects or impacts associated with the Proposed Project.

This IS/MND is a public information document that describes the Proposed Project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the Proposed Project. It is intended to inform decision-makers of the Proposed Project's compliance with CEQA and the State CEQA Guidelines.

CEQA requires the Lead Agency to examine the effects of a project on the physical conditions that exist within the area that would be affected by the project. CEQA also requires a discussion of any inconsistency between the Proposed Project and applicable general plans and regional plans.

1.2 Review Process

This IS/MND was circulated for public review and comment between October 13th, 2017 and November 13th, 2017. The document was submitted to the State Clearinghouse for distribution to state agencies and public notices were sent to all property owners within 500 feet of the project. All comments received during the public review period and responses to each comment are included in Appendix F.

2.0 PROJECT DESCRIPTION

The following sections provide background information on The City of Citrus Height's Storm Drainage Master Plan Project activities discussed in this document.

2.1 Project Location

The project is located in northern Sacramento County, within the City of Citrus Heights (City). The project includes 12 problem locations within the City that experience area flooding during winter storm events. 11 locations are located within Citrus Heights Neighborhoods 8, 9 and 10, and 1 site is located along Wonder Street (Neighborhood 6). The 12 designated sites are located within the Mount Diablo Meridian, in portions of Sections 19, 25, 26 and 30, Township 10 North, Range 6 and 7 East in Sacramento County, just west of the Placer County line. All project locations are within the Citrus Heights, California 7.5-minute U.S. Geological Survey (USGS) quadrangle (USGS 2017). All problem locations are located within the central and eastern portion of the City (Figure 1 Project Vicinity, Figure 2 Project Locations). The project area is comprised of rolling terrain that drains to one of the three major creeks traversing the area: Cripple Creek, Arcade Creek, and San Juan Creek.

2.2 Project Description

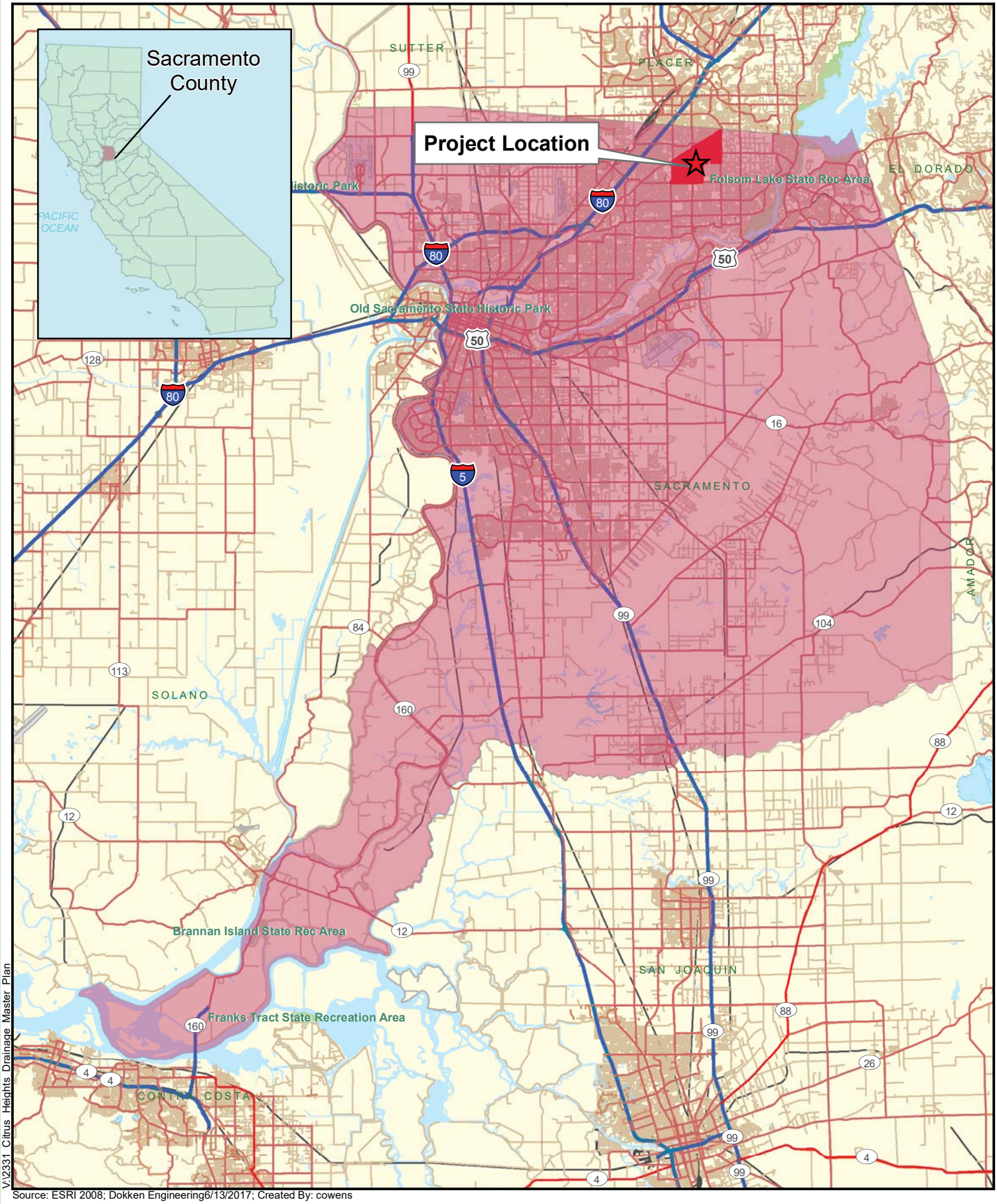
The City of Citrus Heights recently completed the Storm Drainage Master Plan Study (Study) for Neighborhoods 8, 9, and 10. The Study identified and designated problem locations as areas that experience flooding events during large storms. The Study provided an inventory and condition assessment of key portions of the existing drainage system, assessed the flood control performance of the existing drainage system, and provided improvement recommendations to eliminate or reduce recurring local flooding events and drainage problems. The designated problem locations identified in the Study have been incorporated into the City's Capital Improvement Program (CIP).

The CIP provides a prioritized list of the recommended improvements along with estimated implementation costs and an implementation schedule. The recommended improvements have been separated into three categories: high priority; medium priority; and low priority. The criteria used to define the priority of a given set of improvements are as follows:

High: The high priority improvements include those that address potential structure flooding, threats to health and safety, serious traffic hazards, and those that have a very high benefit to cost ratio. The benefit-cost ratios were determined qualitatively; formal determinations of damages and benefits were not performed.

Medium: Medium priority improvements include those that address potential flooding of lesser structures (e.g., garages, outbuildings), chronic ponding over large areas, and problems that require excessive maintenance.

Low: Low priority improvements include those that address minor or occasional ponding and nuisance drainage issues.



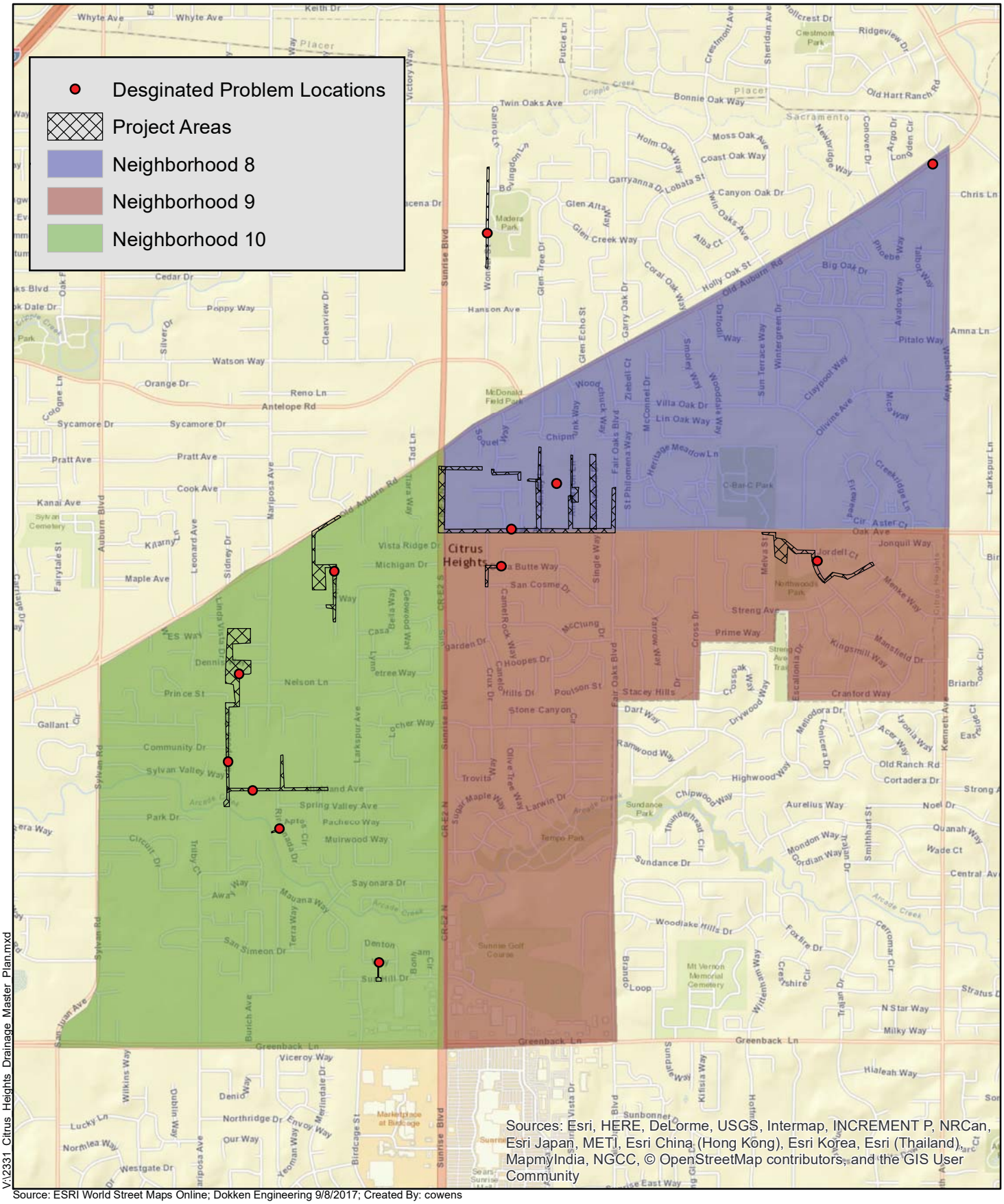
V:\2331 Citrus Heights Drainage Master Plan

Source: ESRI 2008; Dokken Engineering6/13/2017; Created By: cowens

0 5 10 15 Miles

FIGURE 1
Project Vicinity

Citrus Heights Neighborhood 8,9, and 10 Storm Drain Master Plan Project
City of Citrus Heights, Sacramento County, California



V:\2331 Citrus Heights Drainage Master Plan\mxd

Source: ESRI World Street Maps Online; Dokken Engineering 9/8/2017; Created By: cowens

0 0.25 0.5 0.75 1 Miles

FIGURE 2
Project Locations
Citrus Heights Neighborhood 8, 9 and 10 Storm Drain Master PLan Project
City of Citrus Heights, Sacramento County, California

The priority level of each Problem Location and a brief description of the build alternative for each Location is identified on Table 1 below.

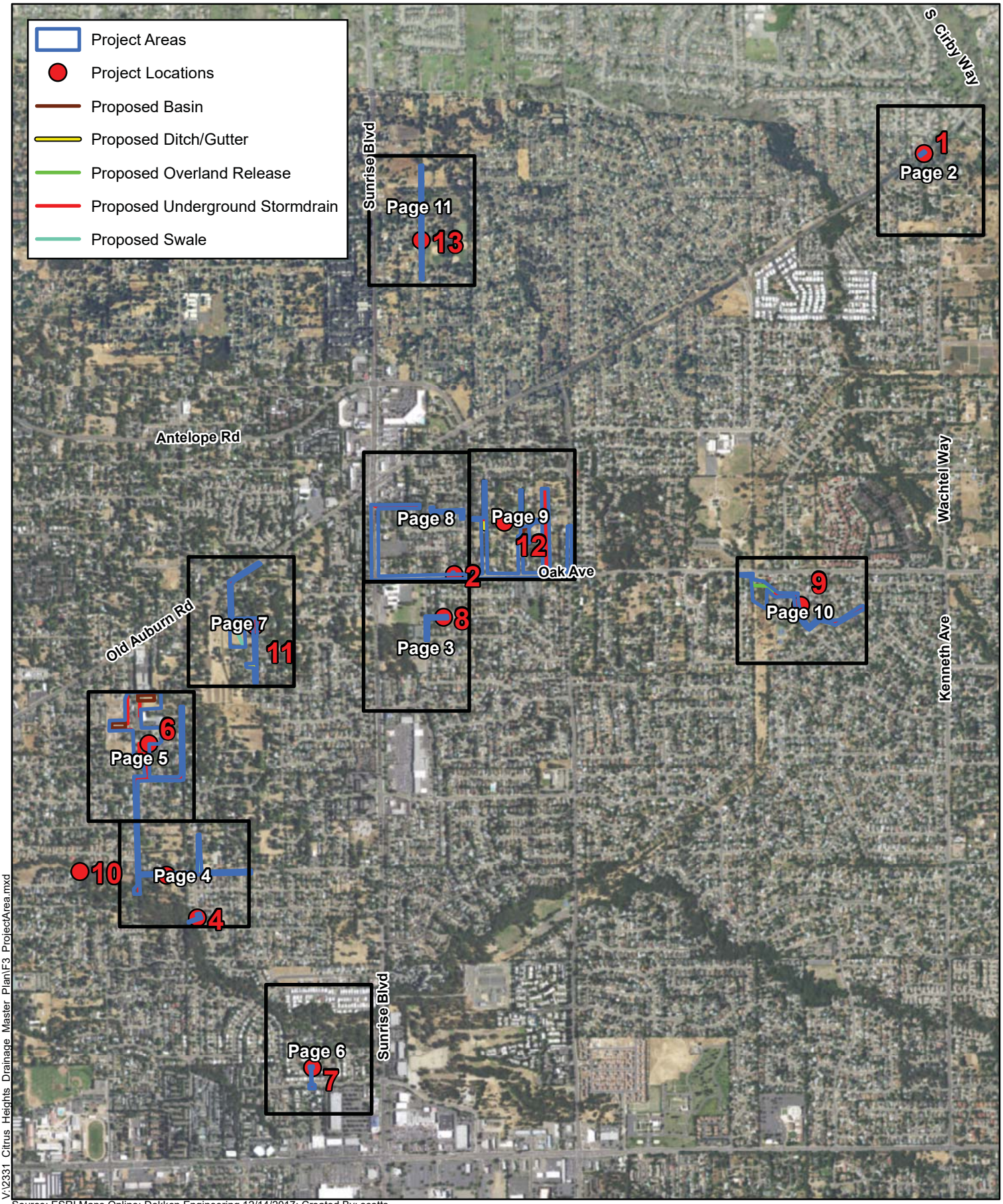
Table 1: Problem Location Priority Levels

Problem Location	Build Alternative Description	Figure Illustrating Improvements
High Priority		
3 & 4	Highland Ave. pipe system and Rinconada overland release (Option 2)	Figure 3, Page 4
6 & 10	Pipe improvements along Mariposa Ave. from Glenacre Way to Arcade Creek (Option 2)	Figure 3, Page 4 & 5
7	Overland release structure from Denton Way to Sun Hill Dr.	Figure 3, Page 7
9	Underground storage at Amsell Ct., pipe improvements to Blayden Court., and detention basin in power line corridor (Option 2)	Figure 3, Page 9
11	Pipe improvements along Maretha St., Bonita Way, and Old Auburn Rd., curb and gutter on Maretha St. and Dow Ave.	Figure 3, Page 9
12	Pipe improvements between Minnesota Dr. and Anderson Ln. and near Canady Ln., overland release structure near Saginaw Way	Figure 3, Page 10
Medium Priority		
1	Ditch and driveway culvert on Auburn Blvd.	Figure 3, Page 2
8	Upsize pipe on Dana Butte Way and Canelo Hills Drive	Figure 3, Page 3
Low Priority		
2	Under sidewalk drain on Oak Ave.	Figure 3, Page 3
Undetermined Priority		
13	Wonder Street	Figure 3, Page 10

2.3 Project Background

Citrus Heights is situated within several drainage basins that include Arcade and Cripple Creeks and their tributaries; including Brooktree, Mariposa, San Juan and Coyle Creeks. The City's storm drainage system empties into these creeks which flow generally west into the Natomas Main Drainage Canal and then finally to the Sacramento River. The streams in Citrus Heights are primarily natural substrate channels with narrow riparian corridors (The City of Citrus Heights General Plan 2011). Arcade and Cripple Creek have relatively small hydraulic capacity and can be quickly overtopped during severe storm run-off events, leading to overflow of the stream banks and the temporary inundation of floodplain and adjacent low-lying areas.

The City was incorporated in 1997. However, up until 2010 the storm drainage facilities that serve the City were maintained by the County of Sacramento. The City's stormwater drainage and water quality programs are administered by the City's General Services Department since taking over the operation and maintenance of the drainage system in 2010. In addition to the Stormwater Program, the City works with other regional municipalities in order to coordinate regional drainage strategies under the Sacramento Stormwater Quality Partnership.



Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 1,750 feet

0 920 1,840 2,760 3,680 Feet

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

FIGURE 3
Project Study Area
Page 1 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 2 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

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FIGURE 3
Project Study Area
Page 3 of 11

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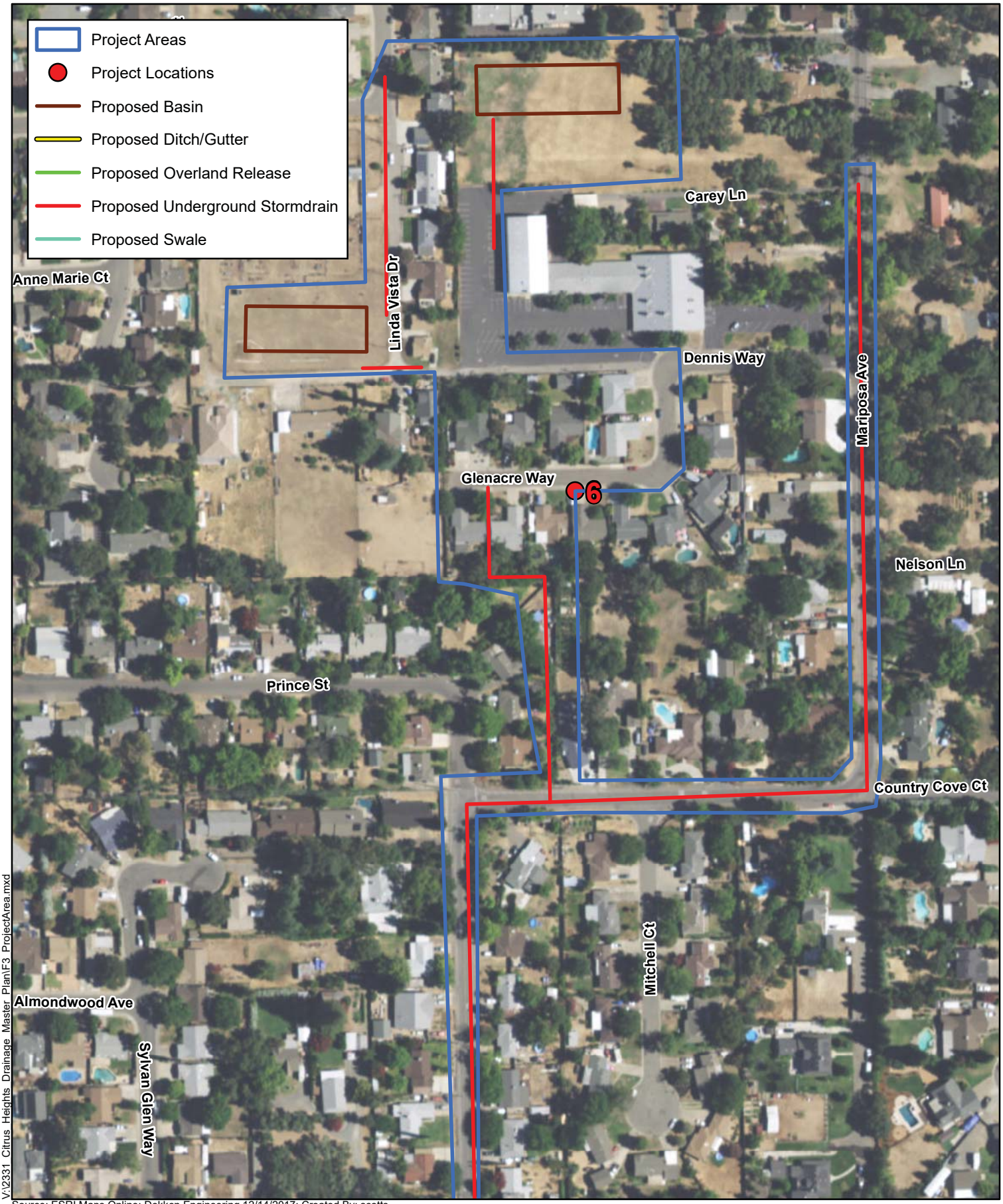
FIGURE 3
Project Study Area
Page 4 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 5 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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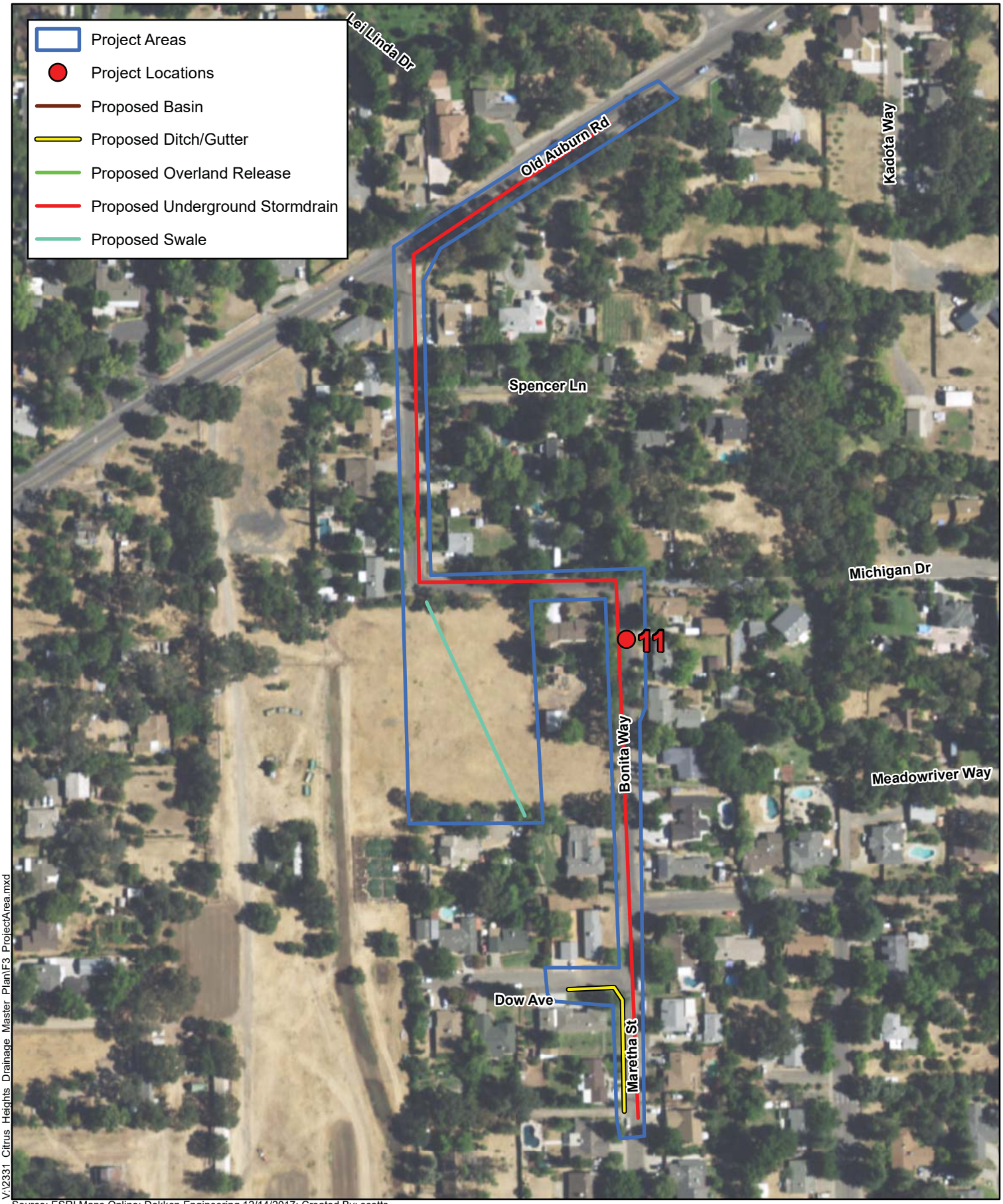
FIGURE 3
Project Study Area
Page 6 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



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1 inch = 200 feet

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FIGURE 3
Project Study Area
Page 7 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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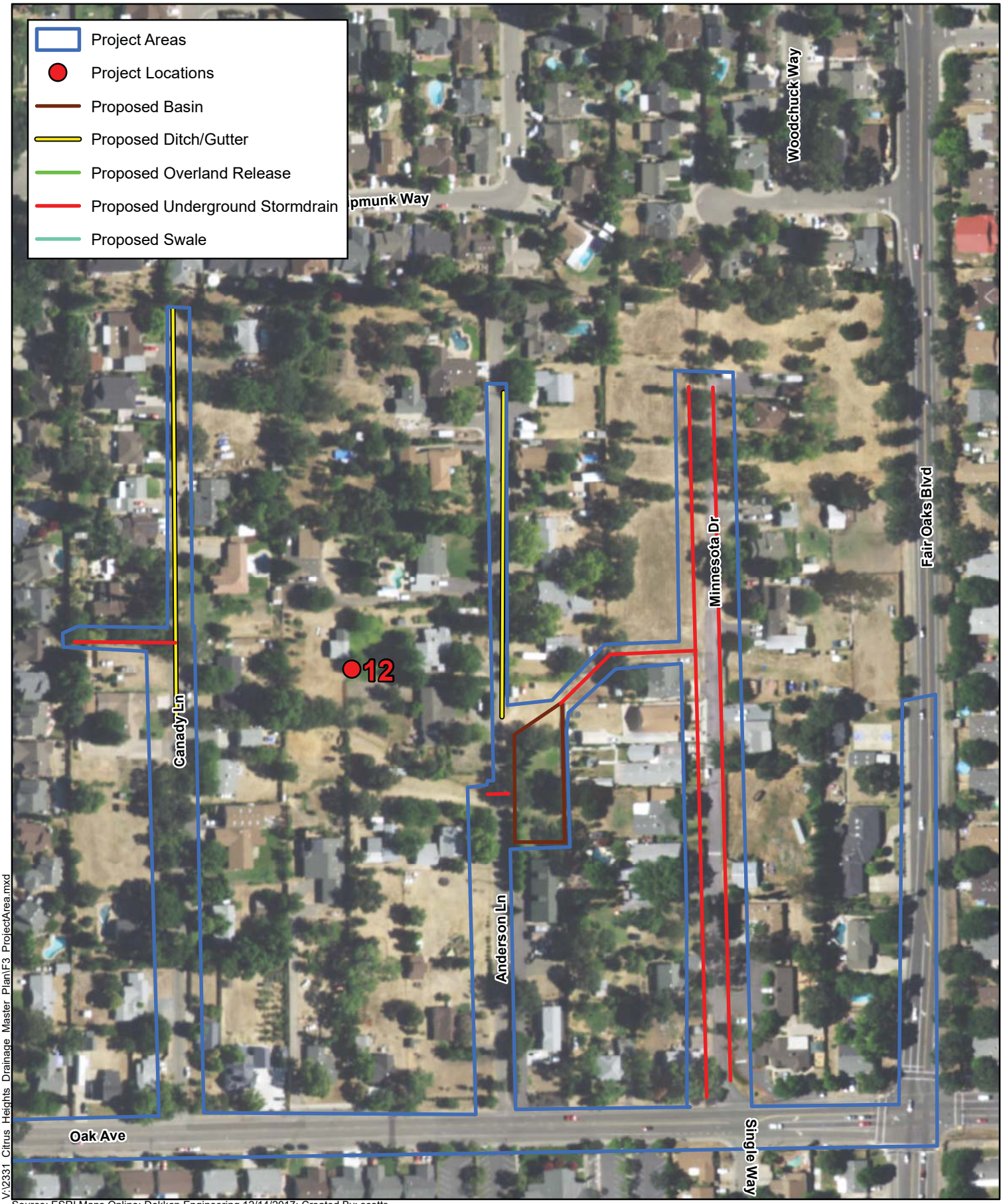
FIGURE 3
Project Study Area
Page 8 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



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Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

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FIGURE 3
Project Study Area
Page 9 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

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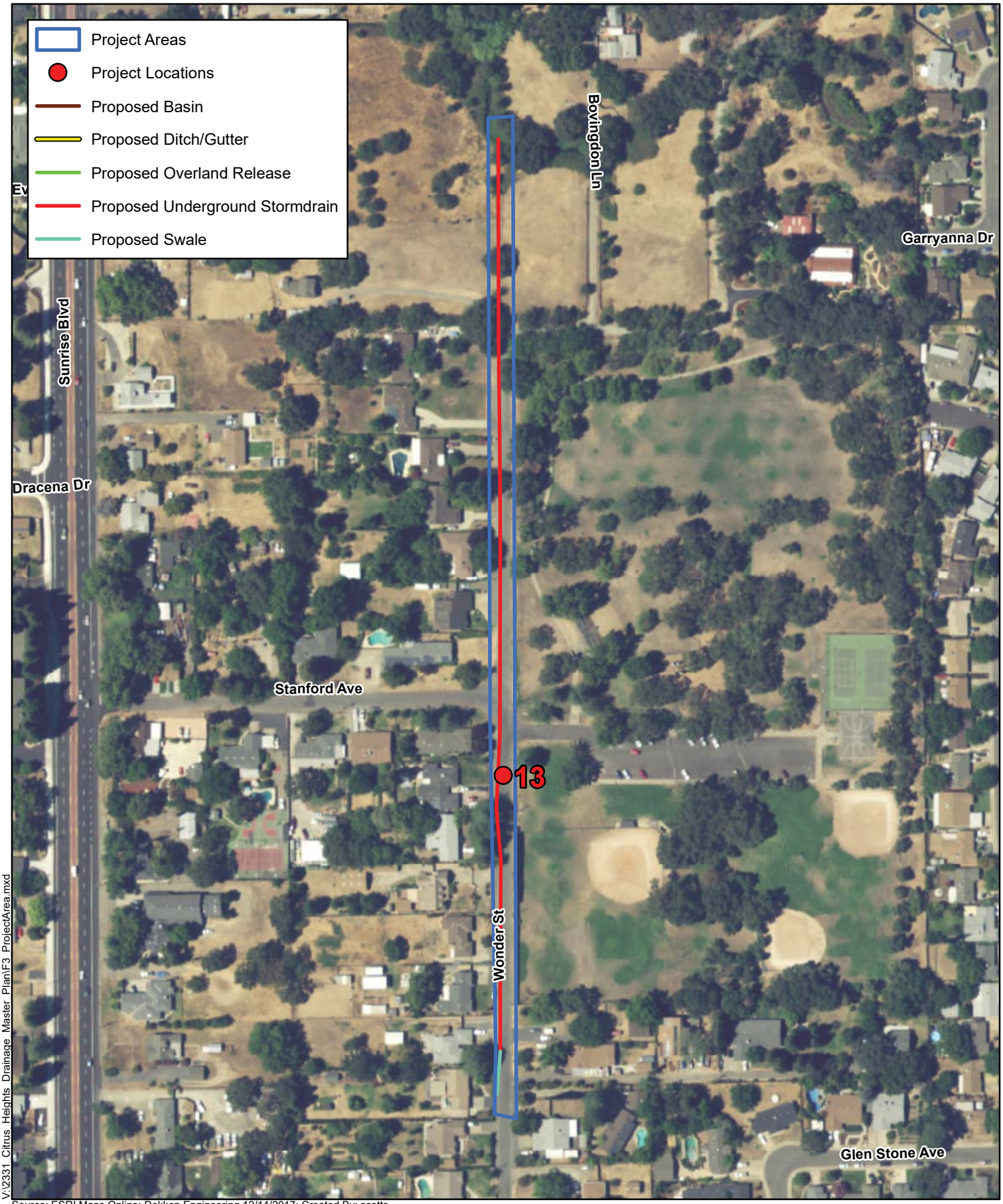
Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 10 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California



V:\2331 Citrus Heights Drainage Master Plan\F3 ProjectArea.mxd

Source: ESRI Maps Online; Dokken Engineering 12/14/2017; Created By: scotts

1 inch = 200 feet

0 100 200 300 400 Feet

FIGURE 3
Project Study Area
Page 11 of 11

Citrus Heights Neighborhood 8, 9, and 10 Storm Drain Master Plan
City of Citrus Heights, Sacramento County, California

The City's Stormwater Program has been actively working to improve stormwater management within the area. Due to increasing and severe flooding events in locations around the City, Citrus Heights has developed a comprehensive drainage plan to reduce or eliminate flooding and drainage problems. The City's stormwater program staff developed a Storm Drainage Master Plan by evaluating the City's existing drainage issues, assessing the flood control performance of key elements of the existing drainage system, and prioritizing the implementation of the improvements. The analysis has been split into 4 phases. In March of 2012, the City completed the first phase of the Drainage Master Plan. Neighborhood Areas 6 and 7 were selected as the first phase of the project due to the lack of defined drainage systems in that quadrant of the city. In May of 2016, the city completed the Phase 2 Master Plan Study for Neighborhood Areas 8, 9, and 10. This IS/MND discusses the Phase 2 designated problem locations.

2.3.1 Project Purpose

The primary purpose of the Proposed Project is to reduce or eliminate flooding events in the designated problem locations, while improving the City's flood plan and establishing sufficient flood protection storm drainage infrastructures. To address the inadequate storm drainage issues, objectives of the project would be met by examining the design capacity of creeks, drainage channels and other physical structures within City limits and altering storm drainage systems.

2.3.1 Need

The improved storm drainage system is needed to protect against structure flooding, threats to health and safety, as well as, serious traffic hazards.

2.4 Discussion of Problem Locations and Build Alternatives

Through the development of a Storm Drainage Master Plan Project and the CIP, the City originally proposed to improve stormwater drainage at 13 designated problem locations. Based on preliminary environmental analysis, Location 5 was determined to be Categorically Exempt and is not included in this Initial Study.

2.4.1 Description of Problem Location 1

Problem Location 1 is in the northeast corner of Neighborhood 8, along Old Auburn Road (Figure 3, Page 2). Runoff from a small watershed (approximately 2.3 acres) flows to the northwest corner of a lot located near the intersection of Old Auburn Road and Wachtel Way. The runoff does not effectively drain from the lot because it is blocked by a driveway located just west of the lot along Old Auburn Road. The runoff is intended to drain into a roadside ditch along Old Auburn Road and flow under the driveway in a culvert. However, the roadside ditch is not well defined and the existing culvert under the adjacent driveway has been buried and no longer functions as intended.

Problem Location 1 Build Alternative

The Build Alternative for Project Location 1 includes re-grading the roadside ditch along Old Auburn Road in front of the problem location and constructing a new culvert underneath the adjacent

driveway. The ditch shall have an increased bottom width, 1:1 side slopes, and an increased minimum depth. Also, a concrete culvert constructed under the driveway would be constructed.

2.4.2 Description of Problem Location 2

Problem 2 is located in the southwest corner of Neighborhood 8 on a residential lot on Fox Hills Drive (Figure 3, Page 8). The drainage problems at this location have been due to large amount of runoff entering the lot from surrounding properties and poor drainage within the property owner's backyard. The resident has constructed a drainage swale in the backyard to compensate for the excess runoff; however, the ditch does not have sufficient depth to effectively convey runoff and a sidewalk within the public right of way is too high to allow effective drainage of the property.

Problem Location 2 Build Alternative

The Build Alternative for Problem Location 2 is to provide an under sidewalk drain along the south side of the residential lot. This would provide the resident with the ability to create a deeper swale or ditch to drain the backyard. The location of the sidewalk drain would be coordinated with the property owner prior to construction. This solution was developed qualitatively; no hydrologic or hydraulic modeling was performed.

2.4.3 Description of Problem Location 3 and 4

Problem Locations 3 and 4 are located adjacent to each other and the proposed solution is discussed together below.

Description of Problem Location 3

Problem 3 is located in the center of Neighborhood 10 along Highland Avenue (Figure 3, Page 4). Highland Avenue at this location is drained by a ditch system that conveys runoff from the surrounding areas to the west. The Study indicated that the ditch is too small and cannot provide adequate drainage capacity to service the area. Flooding has been reported by several residents along Highland Avenue west of Beam Drive. In addition, Beam Drive is drained by a small ditch between the northbound and southbound lanes. This ditch conveys runoff south to Highland Avenue. The ditch is small, shallow and does not provide adequate drainage capacity. During large storms, overflow from the ditch causes property flooding along the west side of Beam Drive.

Description of Problem Location 4

Problem 4 is also located in the center of Neighborhood 10 along Rinconada Drive, where several flooding events have been reported (Figure 3, Page 4). Flooding occurs in this location due to a low point along the roadway south of Aptos Circle that contains very small inlets that drain into a pipe system. The Aptos Circle pipe system coveys runoff east between two lots and then into Arcade Creek. During large storms, the runoff exceeds the capacity of the pipe system, and the excess flows forms a pond in the street. As there is no overland release path to allow the excess flow to be safely conveyed to the creek, some of the lower lying homes are at risk of flooding during large storm events. Additionally, a contributing factor to the flooding problem is that, during large storms, runoff

that exceeds the capacity of the Highland Avenue drainage system (Problem Location 3) flows over Highland Avenue and continues south to the low point on Rinconada Drive (Problem Location 4). Because the designated problem locations 3 and 4 are approximately 600 feet apart, it has been reported that drainage issues in the area create a large amount of standing water during large storm events.

Problem Locations 3 and 4 Build Alternative

The build alternative for Problem Location 3 and 4 includes a new underground storm drain pipe along Highland Avenue between Pacheco Way and Mariposa Avenue. The existing roadside ditch on the north side of Highland Drive between Beam Drive and Mariposa Avenue would be filled and replaced with a gutter to collect runoff and direct water to inlets connected to the pipe system. Water from the new storm drain would be directed to an existing storm drain approximately 380 feet east of Mariposa Avenue. This allows more runoff to be diverted into the Highland Avenue pipe system that would otherwise flow to the problem area on Rinconada Drive. The existing pipe on Pacheco Way between Highland Avenue and Spring Valley Avenue would be plugged and abandoned.

In addition, a concrete v-ditch along Beam Drive would replace the existing shallow earthen ditch between the northbound and southbound lanes. This v-ditch would have side slopes of 3:1 (H:V), and would have an increased depth and width. This ditch would convey flows up to the 10-year peak flow of 7.2 cubic feet per seconds (cfs). The ditch design would need to accommodate traffic safety features since it is between the northbound and southbound travel lanes of Beam Drive. The v-ditch on Beam Drive would convey runoff south to the new storm drain along Highland Avenue.

To help reduce the flooding at Problem Location 4, runoff entering the existing inlet at the southeast corner of Highland Avenue and Rinconada Drive would be re-directed into the new Highland Avenue pipe system instead of the pipe that conveys runoff south along Rinconada Drive. The existing pipe on Rinconada Drive would be abandoned between Highland Avenue and Spring Valley Avenue. Additional improvements to reduce the flooding risk on Rinconada Drive include installing a 30” storm drain pipe through the existing 21-inch pipe between two residential lots using pipe bursting technology, and replacing storm drain inlets on Rinconada Drive. Pipe bursting would also necessitate replacement of the existing outfall structure in Arcade Creek.

2.4.4 Description of Problem Location 6

Problem 6 is located within Neighborhood 10 in the northwestern region near Glenacre Way (Figure 3, Page 5). The residents along Glenacre Way have reported multiple flooding instances ranging from flooded garages to flooded homes. A small storm drain collects runoff from the eastern portion of Glenacre Way and conveys it to a low point near the west end of the road. From this point, runoff is conveyed south between two residential lots in a storm drain. A storm drain from the north also conveys runoff to the southern drainage pipe on Glenacre Way. The northern drainage pipe has the ability to convey drainage from a watershed of approximately 50 acres. The drainage problem is due to the fact that the roadway and the homes on the south side of Glenacre Way lie relatively low in comparison to the surrounding topography. Currently, there is not an overland release path for

conveyance of flows in excess of the drainage system capacity. During large storm events, runoff collects in the street, and causes flooding.

To assist with evaluating the problem, a XP-SWMM hydraulic model was originally prepared for the Glenacre Way drainage system. Due to the fact Glenacre Way is tributary to trunk pipe SD6, the modeling prepared for SD6 was extended upstream to the Glenacre Way area. Upon completion of the topographic mapping for the project site, an updated hydraulic model was prepared in StormCAD and SWMM for the Glenacre Way area and the existing trunk pipe SD6 to the south. Model results for existing conditions indicate that five building pads on the south side of Glenacre Way could be inundated during a 100-year storm event.

Problem Location 6 — Build Alternative 1

For Build Alternative 1, the flooding at Problem Location 6 would be addressed by upsizing and realigning the main storm drainage truck line from Glenacre Way south to Sylvan Valley Way. This option increases the capacity of the main storm drainage truck line serving the watershed to alleviate flooding. This option also proposes to keep the existing 30-inch storm drain functional for additional capacity during large storm events.

Problem Location 6 — Build Alternative 2

For Build Alternative 2, it is proposed to incorporate two detention basins in the upper watersheds to help minimize peak flow into the drainage system. Runoff from watershed 1 is proposed to be routed to a new detention basin at the corner of Dennis Way and Linda Vista Drive, providing 2.5 acre-feet of storage. Runoff from watershed 2 is proposed to be routed to a new detention basin on the vacant field of the Church of Christ property, providing 2.5 acre-feet of storage. This alternative will require the acquisition of easements or land rights for the proposed detention basins. A new storm drain line connecting the existing drainage system in Linda Vista Drive to the Watershed 1 detention basin and a new storm drain line connecting the basin outfall to the existing storm drainage trunk line on Dennis Way will be constructed.

Problem Location 6 — Build Alternative 3

For Build Alternative 3, it is proposed to construct a new 24-inch bypass storm drain pipeline in Mariposa to separate the flows from Watersheds 4 and 5 and a new 42-inch truckline in Mariposa down to Sylvan Valley Way. Flooding at Glenacre Way is decreased by separating the Watershed 5 flows from Watershed 4.

Problem Location 6 — Build Alternative 4

For Build Alternative 4, several large parking lots within the watershed are proposed to be reconstructed with pervious pavement. The pervious pavement would be underlain by a gravel drain rock section containing a volume of runoff needed to effectively reduce flows to the storm drainage system. Storm water is expected to eventually infiltrate into the native soils. Geotechnical testing is recommended to confirm if this is a viable alternative. This alternative also includes the

improvements proposed in Alternative 3 above, but provides the advantage of providing water quality treatment and incorporation of LID features.

2.4.5 Description of Problem Location 7

Problem 7 is located within the southeastern corner of Neighborhood 10 (Figure 3, Page 6). Runoff on Denton Way flows to a low point in the street where a small storm drain collects the runoff and conveys it south through two residential lots. There is not an adequate overland release path for flows that exceed the capacity of the pipe system and flooding along the street has been reported.

Problem Location 7 Build Alternative

The Build Alternative for Problem Location 7 is to construct an overland release structure between Denton Way and Sun Hill Drive. The overland release structure would consist of a 12-inch by 36-inch concrete box culvert constructed over the top of the existing storm drain within the existing drainage easement. The existing 10-inch underground storm drain would remain in place.

2.4.6 Description of Problem Location 8

Designated Problem Location 8 is located within the northwestern corner of Neighborhood 9 (Figure 3, Page 3). Runoff is collected at a low point at the intersection of Dana Butte Way and Alma Mesa Way. A storm drain system conveys runoff west to Canelo Hills Drive. Runoff exceeds the storm drain system and several reports of street flooding have been made along the low point on Dana Butte Way.

Problem Location 8 Build Alternative

The build alternative for Problem Location 8 is to replace the existing storm drains from the intersection of Dana Butte Way and Alma Mesa Way, through the intersection of Canelo Hills Drive and San Cosme Drive. Existing storm drain pipes would be upsized.

2.4.7 Description of Problem Location 9

The problem location is found within the northeastern corner of Neighborhood 9 (Figure 3, Page 10). Currently, a storm drain system conveys runoff to the west end of Amsell Court where it continues through residential lots on Old Ranch Road. The storm drain continues north along Old Ranch Road, then west on Blayden Court and between two lots at the turn in Blayden Court, approximately 220 feet from the intersection with Old Ranch Road. From there it continues to the northwest to C-Bar-C Park. Drainage problems occurring this area because there is not an adequate overland release path at the west end of Amsell Court for flows that exceed the capacity of the pipe system. As a result, flooding has been reported at this location. The same problem occurs at the turn of Blayden Court where flooding has also been reported.

Problem Location 9 Build Alternatives

The build alternative for Project Location 9 would include upsizing the existing 24-inch pipe at Blayden Court with a 36-inch pipe, upsizing the existing 12-inch pipe at Amsell Court with 36-inch pipe, and installing a 3.5' x 6' reinforced concrete box (RCB) at Amsell Court for storage.

In addition, two detention basins will be installed to intercept and collect a portion of the runoff from the SMUD easement west of Blayden Court and from Northwoods Park south of Blayden Court. The first basin would be located within the SMUD easement west of Blayden Court near the outlet of an existing overland release that drains the north end of Blayden Court, approximately 150 south of Oak Avenue. This basin would collect and temporarily store stormwater from Blayden Court and the SMUD easement and slowly release it downstream. The second basin would be located in Northwoods Park south of Blayden Court and would intercept a portion of the runoff from the tennis courts and other improvements within the Park. A new pipe would be installed within the SMUD easement to drain the second detention basin into the first.

The basins will be approximately 1-3 feet in depth and will be contoured to match existing topography. The basins will moderate inflow to existing stormwater infrastructure by collecting and temporarily storing water before slowly releasing it. Shallow swales would be excavated and used to direct overland flow to the new basins.

2.4.8 Description of Problem Location 10

Problem Location 10 is at the intersection of Mariposa Avenue and Sylvan Valley Way in Neighborhood 10 (Figure 3, Page 4). Drainage issues occur in this area due to a residential lot on the east side of Mariposa Avenue established at a lower topography than the roadway. This problem was identified during the trunk drain modeling performed for trunk drain SD6. Updated StormCAD modeling was completed for Location 10 utilizing the site specific topographic mapping that was completed. Results from the Study predict this area to be at risk of flooding during a large storm that exceeds the capacity of the nearby trunk pipe system, which is trunk drain SD6.

Problem Location 10 Build Alternative

The build alternative would construct a new 42-inch pipeline under Mariposa Avenue from Sylvan Valley Way south to an outfall at Arcade Creek. Flooding due to hydraulic insufficiencies of the conveyance system at the corner of Highland Avenue and Mariposa Avenue will be eliminated by this alternative.

2.4.8 Description of Problem Location 11

Problem Location 11 is found within the northeastern corner of Neighborhood 10 (Figure 3, Page 7). The storm drainage system at this problem location consists of a combination of underground pipes, channels, and roadside ditches. The existing system is inadequately sized and property flooding has been reported on Bonita Way and Dow Avenue during large storm events.

Problem Location 11 Build Alternative

The recommended solution for Problem Location 11 is to construct a new storm drain along Maretha Street and Bonita Way, as well as a new storm drain along Old Auburn Road. The new pipe would replace an existing pipe on Maretha Street. The existing pipe that drains west along Dow Avenue would be plugged at the newly established manhole at the intersection of Maretha Street and Dow Avenue. On the west side of Maretha Street, the existing curb would be extended north to Dow Avenue and along Dow Avenue to a new inlet and pipe. The new inlet and pipe would collect runoff and convey it to the new storm drain system on Bonita Way. The purpose of the curb is to convey flow that exceeds the pipe capacity in Maretha Street into the Bonita Way Storm Drain without flowing across the property at the southwest corner of the intersection. The existing roadside ditch along Bonita Way would be reconstructed as a valley gutter with periodic field inlets and would be used to collect runoff from the adjacent lots and to convey flows to the new Bonita Way storm drain. On Old Auburn Road, the new pipe would replace the existing ditch that is currently eroding. The ditch would be filled in and a valley gutter would remain in its place.

2.4.9 Description of Problem Location 12

The problem location is found within the northwestern corner of Neighborhood 8 (Figure 3, Page 9). An existing pipe collects runoff at Minnesota Drive and coveys it west to a ditch system near Anderson Lane. The pipe is inadequately sized for large storm events and the overland release path is inadequate to convey flows in excess of the pipe capacity. The ditch system that begins near Anderson Lane conveys runoff west to a pipe system that begins just west of Canady Lane. This ditch system also lacks capacity for larger storm events and structure flooding has occurred at several locations. In addition, both Anderson Lane and Canady Lane receive runoff from adjacent properties. Due to the fact there are inadequate conveyance facilities along these roads (e.g., curb and gutter or road side ditch), during large storm events, runoff crosses the road and flows through properties on the opposite side of the road causing property flooding.

Problem Location 12 Build Alternative

The proposed improvements include upsizing existing underground storm drain pipes in the downstream section of the system along Canady Lane, Saginaw Way, and through the Sunrise Oaks Apartments parking lot. Additional storm water storage would be added by constructing a 0.36 acre detention basin along Anderson Lane and installing 24-inch stormdrain pipes with weirs along both sides of Minnesota Drive. The new Minnesota Drive stormdrain system would be drained to the west by a new 24-inch underground pipe that feeds into the detention basin along Anderson Lane.

2.4.10 Description of Problem Location 13

The problem location is found within the southern portion of Neighborhood 6, along Wonder Street (Figure 3, page 11). Wonder Street is not improved with underground drainage facilities or curb and gutter. In the current condition, stormwater collects and sheet flows from properties on the east side of the street, crosses the paved road then continues to sheet flow through the properties on the west side of the street. Water flows into front yards and driveways and eventually, the stormwater makes

its way out to Sunrise Blvd through unimproved channels.

Problem Location 13 Build Alternative

The Build Alternative to accommodate stormwater runoff during a high storm event is to install approximately 1500 linear feet of storm drain pipe and associated structures along the west side of Wonder Street. 10 to 15 inch diameter pipe with grate inlets would be installed within the roadway right of way. The new pipe would be installed from 8013 Wonder Street and would proceed north to a new outfall into Cripple Creek.2.5.

2.5 No Build Alternative

The State CEQA Guidelines (Section 15126[e]) require consideration of a No-Project alternative that represents the existing conditions, as well as what would reasonably be expected to occur in the foreseeable future if the Project were not approved. Under the No-Build, or "Do Nothing" Alternative, the City's Storm Drainage Master Plan would not be implemented. Without the build-alternatives, flooding events within the City's Neighborhoods 8, 9 and 10 would continue and residential properties would remain vulnerable to damage during large storm events.

2.6 Required Permits and Approvals

The following permits and/or approvals may apply to the Proposed Project depending on the details of the individual project location:

- For proposed construction activities within jurisdictional waters of the United States, a Clean Water Act Section 404, Nationwide Permit 7 from the United States Army Corps of Engineers would be required.
- Work within jurisdictional waters of the United States would also require a Clean Water Act Section 401 Clean Water Certification from the Regional Water Quality Control Board would be required.
- For proposed construction activities within jurisdictional waters of the State, a Section 1600 Streambed Alteration Agreement would be required from the California Department of Fish and Wildlife.

3.0 INITIAL STUDY CHECKLIST

CEQA Guidelines recommend that lead agencies use an Initial Study checklist to determine the potential impacts of the Proposed Project on the physical environment. The checklist provides a list of questions concerning a comprehensive array of environmental issue areas potentially affected by the Proposed Project. This section of the Initial Study incorporates a portion of the Appendix "G" environmental checklist form, contained in CEQA Guidelines (revised 2016). Impact questions and responses are included in both tabular and narrative formats for each of the 17 environmental topic areas. There are four possible answers to the environmental impacts checklist questions on the following pages. Each possible answer is explained herein:

1. A "**Potentially Significant Impact**" is appropriate if there is enough relevant information and reasonable inferences from that information that a fair argument can be made to support a conclusion that a substantial or potentially substantial adverse change may occur to any of the physical conditions within the area affected by the Proposed Project. When one or more "Potentially Significant Impact" entries are made, an EIR is required.
2. A "**Less Than Significant With Mitigation Incorporated**" answer is appropriate when the Applicant has agreed to incorporate a mitigation measure to reduce an impact from "Potentially Significant" to "Less Than Significant." For example, impacts to flood waters could be reduced from a "Potentially Significant Impact" to a "Less Than Significant Impact" by relocating a building to an area outside the floodway. The lead agency must describe the mitigation measures, and briefly explain how the measures would reduce the impact to a "Less Than Significant Level."
3. A "**Less Than Significant Impact**" is appropriate if there is evidence that one or more environmental impacts may occur, but the impacts are determined to be less than significant or the application of development policies and standards to the project would reduce the impact(s) to a "Less Than Significant Level." For example, the application of the City's Improvement Standards reduces potential erosion impacts to a "Less Than Significant Impact."
4. A "**No Impact**" answer is appropriate where it can be clearly seen that the impact at hand does not have the potential to adversely affect the environment. For example, a project in the center of an urbanized area would clearly not have an adverse effect on agricultural resources or operations.

All answers must take into account the whole action involved, including off-site as well as on-site, cumulative, as well as project-level, indirect as well as direct, and construction as well as operational impacts, except as provided for under CEQA Guidelines Section 15183 and CEQA Section 21083.3.

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources cited in the parentheses following each response. A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards.

The environmental factors checked below would be potentially affected by this project, involving at

least one impact that is “less than significant with mitigation incorporated” as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources	☒	Geology/ Soils
☒	Greenhouse Gas Emissions	☒	Hazards and Hazardous Materials	☒	Hydrology/ Water Quality
☐	Land Use/ Planning	☐	Mineral Resources	☒	Noise
☐	Population/ Housing	☐	Public Services	☐	Recreation
☒	Transportation/ Traffic	☒	Tribal Cultural Resources	☐	Utilities/ Service Systems
☒	Mandatory Findings of Significance				

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

■ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Proposed Project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the Proposed Project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR OR NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Date

City of Citrus Heights

Organization

Stuart Hodgkins, P.E.
Principal Civil Engineer

3.1 Aesthetics

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☐	☐	☒

REGULATORY SETTING

CEQA establishes that it is the policy of the state to take all action necessary to provide the people of the state "with…enjoyment of aesthetic, natural, scenic and historic environmental qualities (CA Public Resources Code Section 21001[b])."

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The 13 Proposed Project areas are not located immediately adjacent to any state eligible scenic highways. State route (SR) 160, the closest highway that is designated as a part of the State Scenic Highway System. SR 160 runs from the Contra Costa County line to the southern city limit of Sacramento. The end of SR160 is approximately 10 miles from the project areas.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. The City has not designated any specific scenic vistas to be protected in the City of Citrus Heights, and there is not a state-designated scenic highway in the Proposed Project vicinity (Caltrans 2011). The closest designated scenic highway is the River Road Highway, which begins at the Contra Costa County line and continues until the southern city limits of Sacramento. The River Road scenic highway is approximately 10 miles southwest of the project locations. There would be ***No Impact*** to scenic vistas or state-designated scenic highway, therefore, no mitigation is proposed.

c.) No Impact. Construction of the proposed improved stormwater infrastructures will occur primarily underground and/or within existing roadways and drainage systems. Tree removal is not anticipated. There would be ***No Impact*** to the visual character, quality of the site or the surrounding areas would occur; therefore, no mitigation is required.

d.) **No Impact**. Drainage improvement activities would occur during daylight hours. No night work is anticipated to take place during construction activities. Furthermore, the Project does not include new lighting or any other feature that could increase light or glare in the project areas. There would

be ***No Impact*** to light and glare; therefore, no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impacts*** to environmental effects relating to aesthetic resources.

3.2 Agriculture and Forest Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are administered in a matter that is compatible with state and local units of government, and private programs and policies to protect farmland (7 U.S.C. § 4201). The Natural Resources Conservation Service (NRCS), is responsible for the implementation of the FPPA, categorizes farmland in a number of ways. These categories include: prime farmland, farmland of statewide importance, and unique farmland. Prime farmland is considered to have the best possible features to sustain long-term productivity. Farmland of statewide importance includes farmland

similar to prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique farmland is characterized by inferior soils and generally needs irrigation depending on climate.

State Regulations

The Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state's farmland to and from agricultural use, was established by the Department of Conservation (DOC), under the Division of Land Resource Protection (DLRP). The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years. The FMMP is an informational service only and does not constitute state regulation of local land use decisions.

The four categories of farmland, which include Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance, are considered valuable and any conversion of land within these categories is typically considered to be an adverse impact. The DOC provides the following definitions for these categories of farmland:

- Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland with a good combination of physical and chemical features but with minor shortcomings such as greater slopes or with less ability to hold and store moisture.
- Land on which the existing vegetation is suited to the grazing of livestock.

Williamson Act

The Williamson Act is a State program that was implemented to preserve agricultural land. Under the provisions of the Williamson Act (California Land Conservation Act 1965, Section 51200), landowners contract with the county to maintain agricultural or open space use of their lands in return for reduced property tax assessments. The contract is self-renewing; however, the landowner may notify the county at any time of intent to withdraw the land from its preserve status. Withdrawal from a Williamson Act contract involves a gradual tax adjustment to full market value over a ten-year period before protected agricultural/open space land can be converted to urban uses (DOC 2009). In certain situations, immediate termination is sometimes granted.

In determining whether impacts to agricultural resources are significant environmental impacts, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the DOC as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental impacts, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State’s inventory of forest land, including the forest and Range Assessment Project and the Forest Legacy Assessment Project; the forest

carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Impacts to agricultural or forest resources are considered significant if the project would:

- Convert Prime farmland, Unique farmland, or Farmland of Statewide Importance to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned Timberland Production;
- Result in the loss of forest land or conversion of forest land to non-forest use; and/or
- Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland, to nonagricultural use.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project area is located in the urban areas of the City of Citrus Heights. The Proposed Project locations are not within proximity to prime farmland or unique farmland. There are no Williamson Act contracts within proximity to the project site. No forest land, timberland, or timberland zoned Timberland Production occurs within proximity to the project site.

DISCUSSION OF CHECKLIST ANSWERS:

a-e.) No Impact. According to the General Plan Community Development chapter, there are no agricultural areas within City limits. Additionally, as disclosed by the State Farmland Mapping and Monitoring Program, the City is predominantly mapped as “Urban and Built-up Land” (CDC 2014).
No Williamson Act Land, timberlands or timberland zones occur within the project areas. Also, no farmland occurs within or adjacent to the Proposed Project areas. There would be No Impact to agriculture and forest resources, therefore, no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impacts*** to environmental effects relating to agriculture and forest resources.

3.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a non-attainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

REGULATORY SETTING

The Clean Air Act (CAA) as amended in 1990 is the federal law that governs air quality. Its counterpart in California is the California Clean Air Act of 1988. These laws set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). Standards have been established for six criteria pollutants that have been linked to potential health concerns; the criteria pollutants are: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM), lead (Pb), and sulfur dioxide (SO_2).

Regional level conformity in California is concerned with how well the region is meeting the standards set for CO, NO_2, O_3, and PM. California is in attainment for the other criteria pollutants. At the regional level, Regional Transportation Plans (RTP[s]) are developed that include all of the transportation projects planned for a region over a period of years, usually at least 20. Based on the projects included in the RTP, an air quality model is run to determine whether or not the implementation of those projects would conform to emission budgets or other tests showing that attainment requirements of the Clean Air Act are met. If the conformity analysis is successful, the regional planning organization, such as the San Joaquin Valley Air Pollution Control District for Stanislaus County and the appropriate federal agencies, such as the Federal Highway Administration, make the determination that the RTP is in conformity with the State Implementation Plan for achieving the

goals of the Clean Air Act. Otherwise, the projects in the RTP must be modified until conformity is attained. If the design and scope of the proposed transportation project are the same as described in the RTP, then the Proposed Project is deemed to meet regional conformity requirements for purposes of project-level analysis.

Federal and State Ambient Air Quality Standards

California and the federal government have established standards for several different pollutants. For some pollutants, separate standards have been set for different measurement periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). The pollutants of greatest concern in the project area are ozone, particulate matter-2.5 microns ($PM_{2.5}$) and particulate matter-10 microns (PM_{10}).

State Regulations

Responsibility for achieving California's air quality standards, which are more stringent than federal standards, is placed on the California Air Resources Board (CARB) and local air districts, and is to be achieved through district-level air quality management plans that will be incorporated into the State Implementation Plan (SIP). In California, the Environmental Protection Agency (EPA) has delegated authority to prepare SIPs to the CARB, which, in turn, has delegated that authority to individual air districts.

The CARB has traditionally established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving state implementation plans.

Responsibilities of air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality–related sections of environmental documents required by CEQA.

The California CAA of 1988 substantially added to the authority and responsibilities of air districts. The California CAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The California CAA focuses on attainment of the state ambient air quality standards, which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards.

The California CAA requires designation of attainment and nonattainment areas with respect to state ambient air quality standards. The California CAA also requires that local and regional air districts expeditiously adopt and prepare an air quality attainment plan if the district violates state air quality standards for CO, SO_2, NO_2, or ozone. These Clean Air Plans are specifically designed to attain these standards and must be designed to achieve an annual 5% reduction in district-wide emissions

of each nonattainment pollutant or its precursors. Where an air district is unable to achieve a 5% annual reduction, the adoption of "all feasible measures" on an expeditious schedule is acceptable as an alternative strategy (Health and Safety Code Section 40914(b)(2)). No locally prepared attainment plans are required for areas that violate the state PM_{10} standards.

The California CAA requires that the state air quality standards be met as expeditiously as practicable but, unlike the federal CAA, does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards.

CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) provides the Air Resource Board (ARB) recommendations for the siting of new sensitive land uses (including residences) near freeways, distribution centers, ports, refineries, chrome plating facilities, dry cleaners, and gasoline stations. The handbook recommends that new development be placed at distances from such facilities.

Local Regulations

The City lies within the southeastern edge of the Sacramento Valley Air Basin (SVAB) (CARB 2014). The Sacramento Metropolitan Air Quality Management District (SacMetro AQMD) is responsible for implementing emissions standards and other requirements of federal and state laws in the Proposed Project area. As required by the California Clean Air Act (CCAA), SacMetro AQMD has published various air quality planning documents as discussed below to address requirements to bring the SacMetro AQMD into compliance with the State Ambient Air Quality Standards (SAAQS). The Air Quality Attainment Plans (AQAP) are incorporated into the State Implementation Plan (SIP), which is subsequently submitted to the U.S. Environmental Protection Agency (EPA), the federal agency that administrates the Federal Clean Air Act of 1970, as amended in 1990.

Ambient air quality is described in terms of compliance with state and national standards, and the levels of air pollutant concentrations considered safe to protect the public health and welfare.

In order to work towards attainment for ozone and PM_{10}, the EPA Office of Air Quality Planning and Standards requires that each state containing nonattainment areas develop a written plan for cleaning the air in those areas. The plans developed are called SIPs. Through these plans, the states outline efforts they will make to correct the levels of air pollution and bring their areas back into attainment.

AFFECTED ENVIRONMENT

Citrus Heights resides within the Sacramento Valley and is characterized as having a Mediterranean climate, with hot dry summers and mild rainy winters. During the year the temperature may range from 20 to 115 degrees Fahrenheit with summer highs usually in the 90s and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist breezes from the south to dry land flows from the north.

The mountains surrounding the Sacramento Valley create an airflow barrier, which can trap air pollutants in the valley when meteorological conditions are right and a temperature inversion exists. Air stagnation in the autumn and early winter occurs when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with increased levels of smoke or when temperature inversions trap cool air, fog and pollutants near the ground.

The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the Delta sea breeze arriving in the afternoon out of the southwest. Usually the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing for the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern and pollutants to circle back southward. This phenomenon's effect exacerbates the pollution levels in the area and increases the likelihood of violating the federal and state air quality standards.

Sacramento County is located within the boundaries of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin is bounded by the North Coast Ranges on the west and the Northern Sierra Nevada Mountains on the east. The intervening terrain is flat. Sacramento is often described as a bowl shaped valley. The Sacramento Valley's climate and topography contribute to the formation and transport of photochemical pollutants throughout the region. The region experiences temperature inversions that limit atmospheric mixing and trap pollutants, resulting in high pollutant concentrations near the ground surface. Generally, the lower the inversion base height from the ground and the greater the temperature increase from base to top, the more pronounced the inhibiting effect of the inversion will be on pollutant dispersion. Consequently, the highest concentrations of photochemical pollutants occur from late spring to early fall when photochemical reactions are greatest because of more intense sunlight and the lower altitude of daytime inversion layers. Surface inversions (those at altitudes of 0–500 ft above sea level) are most frequent during winter, and subsidence inversions (those at 1,000–2,000 ft above sea level) are most common in summer.

Existing air quality conditions in the project area can be characterized in terms of the ambient air quality standards that the state of California (California Ambient Air Quality Standards [CAAQS]) and the federal government NAAQS that have been established for several different pollutants. Most pollutant standards have been established to protect public health. For other pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). Ambient air pollutant concentrations are measured at 35 permanent monitoring stations throughout the Sacramento Valley Air Basin. The federal and state governments have established ambient air quality standards for six criteria pollutants: ozone, CO, NO_2, SO_2, particulate matter ($PM_{2.5}$ and PM_{10}), and lead. Sacramento County is in State designated nonattainment for ozone (8-hour and 1-hour) and PM_{10}. The project location is in attainment or

unclassified for all other CAAQS criteria pollutants. Table 3 summarizes the CAAQS criteria pollutants and the attainment status of the project location. Table 4 summarizes ambient air quality standards.

Table 2. CAAQS Criteria Pollutant Attainment Status at the Project Location

Pollutant	State Standards Designation/Classification
Ozone – 8-Hour	Nonattainment
Ozone – 1-Hour	Nonattainment
PM_{10}	Nonattainment
$PM_{2.5}$	Attainment
Carbon Monoxide	Attainment
Nitrogen Dioxide	Attainment
Sulfur Dioxide	Attainment
Sulfates	Attainment
Lead	Attainment
Hydrogen Sulfide	Unclassified
Visibility Reducing Particles	Unclassified
Sources: CARB 2016a	

Table 3. Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)[8]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[8]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page ...

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1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

11. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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ENVIRONMENTAL CONSEQUENCES

Construction Emissions

The Proposed Project would involve clearing, cut-and-fill activities, grading, removing or improving existing drainage and pipelines, and repaving roadway surfaces. If not properly controlled, construction would temporarily generate PM_{10} and $PM_{2.5}$, and small amounts of CO, SO_2, NO_x, and VOCs. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions. Construction activities will not increase traffic congestion in the area, so CO and other emissions from traffic would not temporary increase slightly in the immediate area surrounding the construction site.

SO_2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting federal standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and CARB regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel, therefore, SO_2-related issues due to diesel exhaust will be minimal. Some phases of construction, particularly asphalt paving, would result in short-term odors in the immediate area of each paving site(s). Such odors would be quickly dispersed below detectable thresholds as distance from the site(s) increases.

DISCUSSION OF CHECKLIST ANSWERS

a.) Less Than Significant Impact. The project is located within the jurisdiction of the SacMetro AQMD within the SVAB. The SVAB is currently in nonattainment for O_3 and PM_{10}. In order to address the federal non-attainment status for ozone, SacMetro AQMD, along with other local air districts in the SVAB, is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal ozone standards (CARB 2013). As such, SacMetro AQMD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Plan) in December 2008 (CARB 2014). The California Air Resources Board (CARB) determined that the Plan meets Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP. Accordingly, the Plan is the applicable air quality plan for the proposed project site.

The Plan demonstrates how existing and new control strategies would provide the necessary future emission reductions to meet the federal Clean Air Act requirements, including the National Ambient Air Quality standards (NAAQS). Adoption of all reasonably available control measures is required for attainment. Measures could include, but are not limited to the following: regional mobile incentive programs; urban forest development programs; and local regulatory measures for emission reductions related to architectural coating, automotive refinishing, natural gas production and processing, asphalt concrete, and various others.

A conflict with, or obstruction of, implementation of the Plan could occur if a project generates greater emissions than what has been projected for the site in the emission inventories of the Plan. Emission inventories are developed based on projected increases in population, employment, regional vehicle miles traveled (VMT), and associated area sources within the region, which are based on regional projections that are, in turn, based on the General Plan Land Use and Zoning Designations for the region. In addition, general conformity requirements of the Plan include whether a project would cause or contribute to new violations of any NAAQS, increase the frequency or severity of an existing violation of any NAAQS, or delay timely attainment of any NAAQS.

Construction of the build alternative would not modify existing land use and would consist of installing new stormwater facilities within the City. Emissions of O_3 and PM_{10} would increase during construction; however, emissions would be temporary and would not exceed thresholds of significance. The proposed project would not conflict with the emissions inventories of the Plan, and would be considered consistent with the Plan. Because the Proposed project would not conflict with the emissions inventories of the Regional Air Quality Plan, would result in emissions below the thresholds of significance, and would not conflict with or obstruct implementation of the applicable Air Quality Plan, impacts would be considered ***Less Than Significant***. No mitigation is required.

b.) Less Than Significant Impact. Construction of the build alternative would generate temporary construction emissions. The project site is within the SVAB and within the jurisdiction of SacMetro AQMD which has adopted thresholds of significance for temporary construction-related pollutant emissions. Construction emissions would be primarily associated with exhaust from construction equipment and dust from ground disturbance. Construction emissions were estimated using the SacMetro AQMD Roadway Construction Emissions Model. Significance thresholds and estimated construction emissions are included in Table 4 below.

Table 4: Maximum Daily Construction Emissions and Local Thresholds

Pollutant	Maximum Daily Emission	Significance Threshold	Significant Impact?
ROG	3.04	None	--
NO_X	28.74	85	No
PM_{10}	6.83	80	No
$PM_{2.5}$	2.75	82	No

Construction emissions would not exceed the SacMetro thesholds of significance. Construction of the build alternative would result in a less than significant impact to air quality.

c.) Less Than Significant Impact. The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for any state standard. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. The area air quality attainment status of the SVAB and the City is shown on Table 5.

Table 5: SVAB/Sacramento County Attainment Status

Pollutant	State of California Attainment Status
Ozone (O_3)	Nonattainment
Respirable Particulate Matter (PM_{10})	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment
Carbon Monoxide (CO)	Attainment
Nitrogen Dioxide (NO_2)	Attainment
Lead (Pb)	Attainment
Sulfur Dioxide (SO_2)	Attainment
Sulfates (So_x)	Attainment
Hydrogen Sulfide (H_2S)	Unclassified
Visibility Reducing Particles	Unclassified

Source: (CARB 2017a)

The SVAB portion of Sacramento County is currently in nonattainment for state ozone and PM_{10} standards. Concentrations of all other pollutants meet state standards.

Ozone is not emitted directly into the environment, but is generated from complex chemical reactions between ROG, or non-methane hydrocarbons, and NO_x that occur in the presence of sunlight. ROG and NO_x generators in Sacramento County include motor vehicles, other transportation sources, and stationary/area sources (industrial, manufacturing, and commercial facilities).

PM_{10}, or particulate matter, is a complex mixture of primary or directly emitted particles, and secondary particles or aerosol droplets formed in the atmosphere by precursor chemicals. The main sources of fugitive dust are construction dust, unpaved road dust, and paved road dust.

Construction of the build alternative would result in release of non-attainment criteria air pollutants O_3 and PM_{10}; however, release of air pollutants would be associated with construction and no operational emissions are anticipated. As shown in Table 4, construction emissions would be below the SacMetro AQMD thresholds of significance. Project impacts would be considered ***Less Than Significant***. No mitigation is required.

d.) Less Than Significant Impact. Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses (SacMetro AQMD 2016). The majority of problem locations are located in single family residential areas. Problem Location 8 is located adjacent to the Sun Oaks Assisted Living Facility. Construction of the build alternative would result in increased pollutants from the use of diesel powered construction equipment; however, construction related air pollutants would be temporary and would result in a ***less than significan***t exposure of sensitive receptors to substantial pollutant concentrations.

e.) Less Than Significant Impact. Operation odors are not expected to occur as a result of the project. Repaving following storm drain installation may generate odors typically associated with asphalt paving during construction. Odor generation would be temporary, limited to the number of days required to repave following drainage improvements, and less than significant.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

All construction impacts on air quality are short-term in duration and, therefore, will not result in adverse or long-term impacts. No potentially significant impacts to air quality have been identified; however, the following Basic Construction Emission Control Practices recommended by the SacMetro AQMD would be adhered to:

AQ-1: Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

AQ-2: Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

AQ-3: Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.

AQ-4: Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).

AQ-5: All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

AQ-6: Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.

FINDINGS

All potentially significant environmental effects of the project relating to air quality can be mitigated to a ***less-than-significant*** level.

3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

REGULATORY SETTING

This section describes the Federal, State, and local plans, policies, and laws that are relevant to biological resources within the BSAs.

Federal Regulations

National Environmental Policy Act

NEPA provides an interdisciplinary framework for environmental planning by Federal agencies and contains action-forcing procedures to ensure that Federal agency decision makers take environmental factors into account. NEPA applies whenever a Federal agency proposes an action, grants a permit, or agrees to fund or otherwise authorize any other entity to undertake an action that could possibly affect environmental resources. Caltrans, under delegation from the FHWA, is the NEPA lead agency for this project.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 (16 U.S.C. section 1531 et seq.) provides for the conservation of endangered and threatened species listed pursuant to Section 4 of the Act (16 U.S.C. section 1533) and the ecosystems upon which they depend. These species and resources have been identified by U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS).

Clean Water Act

The Clean Water Act (CWA) was enacted as an amendment to the Federal Water Pollutant Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the U.S. CWA serves as the primary Federal law protecting the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. CWA empowers the EPA to set national water quality standards and effluent limitations, and includes programs addressing both point-source and non-point-source pollution. Point-source pollution originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Non-point-source pollution originates over a broader area and includes urban contaminants in stormwater runoff and sediment loading from upstream areas. CWA operates on the principle that all discharges into the nation's waters are unlawful unless they are specifically authorized by a permit; permit review is CWA's primary regulatory tool. This project will require a CWA Section 402 National Pollutant Discharge Elimination System (NPDES) Permit regulated by the EPA.

The USACE regulates discharges of dredged or fill material into waters of the U. S. These waters include wetlands and non-wetland bodies of water that meet specific criteria, including a direct or indirect connection to interstate commerce. USACE regulatory jurisdiction pursuant to Section 404 of the CWA is founded on a connection, or nexus, between the water body in question and interstate commerce. This connection may be direct (through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce) or may be indirect (through a nexus identified in USACE regulations).

The Regional Water Quality Control Board (RWQCB) has jurisdiction under Section 401 of the CWA and regulates any activity which may result in a discharge to surface waters. Typically, the areas subject to jurisdiction of the RWQCB coincide with those of USACE (i.e., waters of the U.S. including any wetlands). The RWQCB also asserts authority over "waters of the State" under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act.

Executive Order 13112: Prevention and Control of Invasive Species

Executive Order (EO) 13112 (signed February 3, 1999) directs all Federal agencies to prevent and control introductions of invasive species in a cost-effective and environmentally sound manner. The EO and directives from the FHWA require consideration of invasive species in NEPA analyses, including their identification and distribution, their potential impacts, and measures to prevent or eradicate them.

Executive Order 13186: Migratory Bird Treaty Act

EO 13186 (signed January 10, 2001) directs each Federal agency taking actions that could adversely affect migratory bird populations to work with USFWS to develop a Memorandum of Understanding that will promote the conservation of migratory bird populations. Protocols developed under the Memorandum of Understanding will include the following agency responsibilities:

- avoid and minimize, to the maximum extent practicable, adverse impacts on migratory bird resources when conducting agency actions;
- restore and enhance habitat of migratory birds, as practicable; and,
- prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable.

The EO is designed to assist Federal agencies in their efforts to comply with the Migratory Bird Treaty Act (MBTA) (50 Code of Federal Regulations [CFR] 10 and 21) and does not constitute any legal authorization to take migratory birds. Take is defined under the MBTA as "the action of or attempt to pursue, hunt, shoot, capture, collect, or kill" (50 CFR 10.12) and includes intentional take (i.e., take that is the purpose of the activity in question) and unintentional take (i.e., take that results from, but is not the purpose of, the activity in question).

State Regulations

California Environmental Quality Act

California State law created to inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities and to work to reduce these negative environmental impacts. The County of Stanislaus is the CEQA lead agency for this project.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Department Fish and Game (CDFG) Code Section 2050 et seq.) requires the CDFW to establish a list of endangered and threatened species (Section 2070) and to prohibit the incidental taking of any such listed species except as

allowed by the Act (Sections 2080-2089). In addition, CESA prohibits take of candidate species (under consideration for listing).

CESA also requires the CDFW to comply with CEQA (Pub. Resources Code Section 21000 et seq.) when evaluating incidental take permit applications (CFG Code Section 2081(b) and California Code Regulations, Title 14, section 783.0 et seq.), and the potential impacts the project or activity for which the application was submitted may have on the environment. CDFW's CEQA obligations include consultation with other public agencies which have jurisdiction over the project or activity [California Code Regulations, Title 14, Section 783.5(d)(3)]. CDFW cannot issue an incidental take permit if issuance would jeopardize the continued existence of the species [CFG Code Section 2081(c); California Code Regulations, Title 14, Section 783.4(b)].

Section 1602: Streambed Alteration Agreement

Under CFG Code 1602, public agencies are required to notify CDFW before undertaking any project that will divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occurs during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resources. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

Section 3503 and 3503.5: Bird and Raptors

CFG Code Section 3503 prohibits the destruction of bird nests and Section 3503.5 prohibits the killing of raptor species and destruction of raptor nests. Trees and shrubs are present in and adjacent to the study area and could contain nesting sites.

Section 3513: Migratory Birds

CFG Code Section 3513 prohibits the take or possession of any migratory non-game bird as designated in the MBTA or any part of such migratory non-game bird except as provided by

AFFECTED ENVIRONMENT

Prior to field work, literature research was conducted through the USFWS Species List, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants (Appendix B: Biological Database Search Results) to identify habitats and special-status species having the potential to occur within the designated project locations.

Field surveys were conducted on April 27th, 2017 and August 15, 2017 by Dokken Engineering biologists Scott Salembier and Courtney Owens. The purpose of the survey was to identify habitat types, map jurisdictional waters and assess habitat suitability for rare or special status species. Field methods included walking meandering transects throughout the designated project locations, observing plants and wildlife, mapping soil types and mapping the extent of both jurisdictional waters

of the United States and State of California.

The Proposed Project has designated 13 separate problem locations located within Citrus Heights. 12 designated locations are within Neighborhoods 8, 9 10, and 1 location is within Neighborhood 6. The project locations include all permanent and temporary impacts including construction easements, cut and fill limits, and potential staging areas. Problem locations within a designated riparian zone would receive an approximate 100 foot buffer. There is one problem location that falls within a riparian zone and that is location 10, found on the east side of Mariposa Avenue (Figure 3, Page 4).

The City's topography is generally flat and has an elevation of 51 meters above mean sea level (msl) (Figure 4: Topography of Project Area). The Proposed Project's designated problem locations contain a mix of low density rural residences, medium density residential subdivisions, and undeveloped open space. The project areas are highly disturbed by human activity and the majority of vegetative is comprised of non-native species. Areas without natural vegetation within the BSAs include: existing pavement, barren areas, medium density residential developments, rural residential, planted ornamentals, and ruderal/disturbed. Natural communities within the project locations include: annual grassland, riparian, oak woodlands, and waters.

Barren/Developed

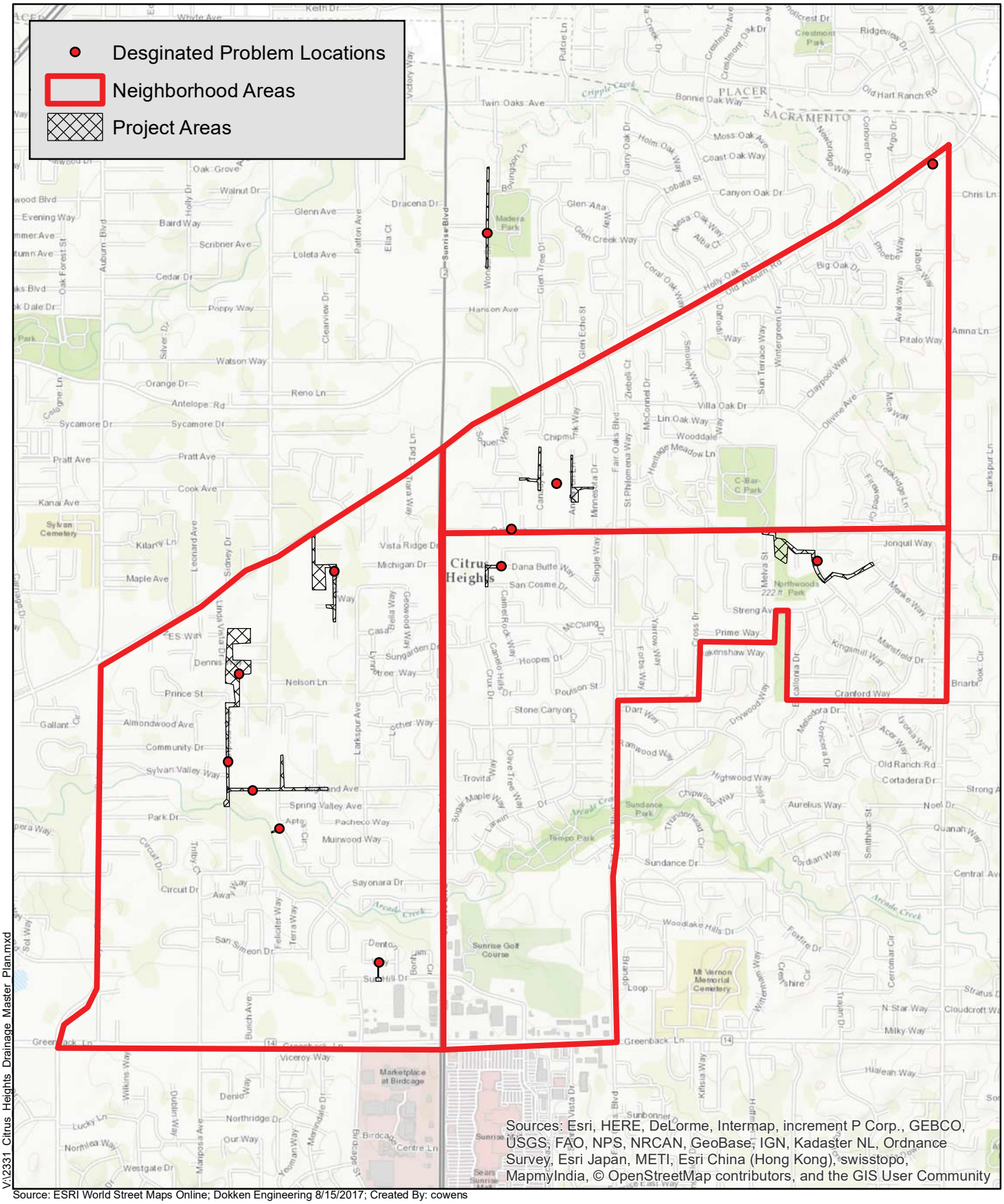
Barren/developed areas include buildings, parking lots, hardscape, concrete lining, rip-rap, or other areas with little vegetative cover. These areas are defined by the absence of vegetation with less than 2% total vegetative cover by herbaceous growth and less than 10% cover by trees or shrubs.

Valley Foothill Riparian

The valley foothill riparian community is typified by a dense, deciduous, riparian forest, with a canopy often composed of cottonwoods (*Populus* spp.), valley oak, and California sycamore (*Platanus racemosa*), while the sub-canopy is often composed of box elder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*). The understory is shade tolerant and typically composed of wild grape (*Vitis californica*), California blackberry (*Rubus ursinus*), buttonbush (*Cephalanthus occidentalis*), elderberry (*Sambucus* spp.), poison oak (*Toxicodendron diversilobum*), wild rose (*Rosa* spp.) and willows (*Salix* spp.). This habitat is most commonly found along river/creek channels and flood plains with fine-textured alluvium where flooding occurs and is commonly found at elevations between sea level and 3,000 feet above msl (Mayer and Laudenslayer 1988). This habitat type is found adjacent to creeks, channels and basins.

Ruderal/Disturbed Annual Grassland

A portion of the problem locations include ruderal/disturbed annual grassland vegetation. Annual grassland is an herbaceous community dominated by non-native naturalized grasses with intermixed perennial and annual forbs. Previous disturbance and associated compaction of soils is



V:\2331 Citrus Heights Drainage Master Plan.mxd

Source: ESRI World Street Maps Online; Dokken Engineering 8/15/2017; Created By: cowens

0 0.25 0.5 0.75 1 Miles

FIGURE 4
Topography of Project Area
Citrus Heights Neighborhood 8, 9 and 10 Storm Drain Master PLan Project
City of Citrus Heights, Sacramento County, California

greatest along localized anthropogenic activities associated within the immediate vicinity of local homes, roadways and other developments. Ruderal/disturbed annual grassland in the City includes but is not limited to, undeveloped slopes, fallow lots and narrow strips along existing roadways.

Mixed Oak Woodland

Mixed oak woodland typically is characterized by mixed hardwoods, conifers, and shrubs. Tree species associated with the habitat include blue oaks (*Quercus douglasii*), valley oaks (*Quercus lobata*), California buckeye (*Aesculus californica*), and interior live oaks (*Quercus wislizeni*), while the understory usually is comprised of patches of shrubs and annual grasses (Mayer and Laudenslayer 1988). Dominant plant species specific to mixed oak woodland within the City include blue oak, valley oak, interior live oak, California buckeye, and gray pine (*Pinus sabiniana*).

Waters

Hydrological water features observed within the project locations include creeks and man-made concrete lined channels. The project area is comprised of rolling terrain that drains to one of the three major creeks traversing the area: Cripple Creek, Acrade Creek, and San Juan Creek. Cripple Creek enters the study area at the intersection of Kenneth Avenue and Oak Avenue. The creek generally conveys runoff north through Neighborhood 8 before exiting the project area at Old Auburn Road. Arcade Creek enters the project area at Fair Oaks Boulevard in the southwest portion of Neighborhood 9. It conveys storm runoff west through Neighborhoods 9 and 10 before exiting the project area at Sylvan Road. San Juan Creek flows through the southern portion of Neighborhood 10 and joins Arcade Creek just downstream of Sylvan Road. All three creeks have the potential to overflow their banks during large storm events. The Federal Emergency Management Agency (FEMA) has prepared flood maps that show the floodplain along the two creeks. The floodplain defined by FEMA is presented in Appendix D.

Special-Status Species

"Special status species" include any species that has been afforded special recognition by federal, state or local resources agencies (e.g., U.S. Fish and Wildlife Service [USFWS], California Department of Fish and Wildlife [CDFW], etc.), and/or resource conservation organizations (e.g., CNPS). The term "special-status species" excludes those avian species solely identified under Section 10 of the Migratory Bird Treaty Act (MBTA) for federal protection. MBTA Section 10 protected species are afforded avoidance and minimization measures per state and federal requirements

Prior to field surveys, a search of CNDDB, USFWS and NMFS online databases generated a complete list of regional species of concern. Based on the records search, 21 special-status species were found to have the potential to occur in the vicinity of the project locations. A complete list of species found to have the potential to occur in the vicinity of the project locations, as well as rational for each species occurrence potential, can be found in Appendix C: Special Status Species Potential Table. Only those special-status plants and wildlife species that have a high, moderate, or low potential of occurring within the project locations will be discussed in further detail below. The following set of criteria has been used to determine each species potential for occurrence on the site:

High: Species known to occur within or near the project locations (based on numerous recent CNDDB, CNPS, or ebird.org records within project location boundaries) and there is suitable habitat for the species within the project locations.

Moderate: Species known to occur within or near the project locations (based on few recent CNDDB occurrences within the project locations or within 5 miles of project location boundaries) and there is suitable habitat for the species within the City.

Low: Species known to occur in the vicinity of the project locations (based on no CNDDB occurrences of the species within the project locations and very few occurrences of the species within 5 miles of the project locations –or– limited occurrences of the species within 5 miles and, the project locations appear to be on the periphery of the known distribution of the species) and there is suitable habitat for the species

Absent: Species is not known or expected to occur within the project locations. This may be based on a lack of recent occurrences within 5 miles of the project locations, lack of suitable habitat, the project locations being located outside of ecological subsections associated with the species, or the City being located outside of the known geographic range of the species.

Special-Status Plant Species

Prior to field surveys, a review of CNDDB, CNPS and online databases found 1 special status plant species with the potential to occur in the project vicinity. Biological surveys conducted April 27th, 2017 and August 15, 2017 included habitat assessments for special status rare plants which determined that low quality Sanford's arrowhead habitat is present within creeks and channels that would be affected by the proposed storm drain improvements.

Sanford's arrowhead is a perennial rhizomatous herb found in freshwater marshes, swamps, ponds, and ditches from 0 to 2,150 feet above sea level. The species generally blooms May through October (CNPS 2016). The species is not listed as threatened or endangered under either the Federal or California Endangered Species Act but it has been designated as a rank 1B.2 rare plant by the CNPS.

Sandford's arrowhead is considered to have a low potential of occurring due to presence of potentially suitable stream channel and freshwater marsh habitat at potential new creek outfalls associated with Problem Location 4, 10, and 13. There is one documented CNDDB occurrence of the species within the project area boundaries, recorded in 1994, which was located in the north portion of Neighborhood 8, along Old Auburn Road. However, initial biological surveys did not detect any individuals directly within any of the project locations.

Special-Status Wildlife Species

Prior to field surveys, a search of CNDDB, USFWS and NMFS online databases found 3 species have a low potential of occurring within the project locations, including: Swainson's hawk (*Buteo swainsoni*), purple martin (*Progne subis*), and Western pond turtle (*Emys marmorata*). The records

search also indicated that white-tailed kite (*Elanus leucurus*), has a moderate potential of occurring within the project locations.

Swainson's Hawk

Swainson's hawk is not listed as endangered or threatened under FESA but is listed as threatened under CESA. Swainson's hawk migrates annually from wintering areas in South America to breeding locations in northwestern Canada, the western U.S., and Mexico. In California, Swainson's hawks nest throughout the Sacramento Valley in large trees in riparian habitats and in isolated trees in or adjacent to agricultural fields. The breeding season extends from late March through late August, with peak activity from late May through July (England *et al.* 1997). In the Sacramento Valley, Swainson's hawks forage in large, open agricultural habitats, including alfalfa and hay fields (CDFG 1994). The breeding population in California has declined by an estimated 91% since 1900; this decline is attributed to the loss of riparian nesting habitats and the conversion of native grassland and woodland habitats to agriculture and urban development (CDFG 1994).

Potentially suitable riparian forest roosting and nesting habitat is present along the creeks and channels within the City. In addition, potentially suitable grassland foraging habitat for Swainson's hawk is present on undeveloped parcels and other open areas within the City. There is one recent occurrence of the species within City boundaries and multiple occurrences within 5 miles. The species is considered to have a low potential of occurring near the project locations based on presence of potentially suitable nesting and foraging habitat and a recent occurrence within City boundaries.

Purple Martin

The purple martin is listed by CDFW as a SSC and is protected under the MBTA. This species is distributed throughout much of eastern North America and locally in the Pacific Coast at low to intermediate elevations (Shuford and Gardali 2008). The species is a summer migrant in California, arriving in March and departing late September, with the breeding season occurring from May to mid-August. Purple martins inhabit riparian habitats with tall, old, isolated trees for nesting, in proximity to a body of water with abundance of dragon flies, and other aerial insects (Zeiner 1988-1990). They also inhabit manmade structures like hollow box bridges in Sacramento, which house some of the species largest colonies in the western U.S. (Shuford and Gardali 2008).

The species is considered to have a low potential of occurring within riparian habitats within City based on presence of potentially suitable riparian habitat and a single CNDDB occurrence of the species recorded within the City in 2007. Potentially suitable riparian habitat for the species is present within Project Locations 4 and 6.

White-tailed Kite

White-tailed kite is a fully protected species under Fish and Game Code Section 3511. This level of protection dictates that no individuals of this species may be impacted in any way. The species has

a restricted distribution in the United States, occurring only in California and western Oregon and along the Texas coast (American Ornithologists' Union 1983). The species is fairly common in California's Central Valley margins within scattered oaks and river bottomlands. White-tailed kites nest in riparian and oak woodlands and forage in nearby grasslands, pastures, agricultural fields, and wetlands. The species uses nearby treetops for perching and nesting sites. Voles and mice are common prey species for the white-tailed kite.

Potentially suitable riparian and urban forest roosting and nesting habitat is present within or adjacent to all Problem Locations discussed in Chapter 2. In addition, potentially suitable grassland foraging habitat for white-tailed kite is present in isolated patches throughout the City in the form of undeveloped parcels, large rural properties, and City parks. There is one CNDDB occurrence of the species within City boundaries as well as scattered occurrences of the species within 5 miles of the project location. The species is considered to have a moderate potential of occurring within mature trees near the Problem Locations based on presence of potentially suitable habitat and recent CNDDB occurrences of the species.

Western Pond Turtle

The western pond turtle is not a State or Federally listed species, but is a CDFW SSC. The western pond turtle is a fully aquatic turtle; inhabiting ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. The species requires suitable basking sites such as logs, rocks and exposed banks and associated upland habitat consisting of sandy banks or grassy open fields for reproduction. The species is omnivorous, consuming aquatic wildlife and vegetation for dietary requirements. The western pond turtle is known to hibernate underwater beneath a muddy bottom in colder climates, and reproduce from March to August (Zeiner 1990).

There are no CNDDB occurrences of the species within or adjacent to any of the Problem locations but there are occurrences recorded within 5 miles, along the American River. Potentially suitable stream channel habitat is degraded by high levels of human activity, pollutants associated with urban runoff, and the shallow ephemeral nature of most streams within the City. The species is considered to have a low potential of occurring within creeks and stream channels within the City. Potentially suitable western pond turtle habitat intersects the project locations for Problem Locations 4, 10, and 13. The species is considered to have a low potential of occurring within these Problem Locations due to presence of low quality potentially suitable habitat and regional occurrences of the species.

DISCUSSION OF CHECKLIST ANSWERS:

a). Less Than Significant Impact With Mitigation Incorporated. Project effects to special status species would be less than significant with mitigation incorporated. Species specific discussions are included below.

<u>Sanford's Arrowhead</u>

Sandford's arrowhead is considered to have a low potential of occurring within the low flow channels, pools, or other mesic areas within stream channels and open drainages within the City. The species

was not observed during field surveys which were conducted during the bloom period for the species but is still considered to have a low potential of occurring within work areas associated with installation of the proposed new outfalls associated with Problem locations 4, 10, and 13. Implementation of Measures **BIO-9** would avoid direct impacts to individual Sanford's arrowhead that may establish prior to construction by requiring that any Sanford's arrowhead discovered prior to construction be either protected in place or relocated to CDFW approved location. Proposed outfall structures and any necessary bank stabilization would be installed above the low flow channel and would not permanently affect Sanford's arrowhead habitat. Project effects to Sanford's arrowhead would be ***less than significant with mitigation incorporated***.

Swainson's Hawk

Swainson's hawk is considered to have a low potential of occurring within the City. Swainson's hawk was not observed during field surveys but proposed outfall locations for Problem Locations 4 and 6 would intersect marginal mature riparian forest nesting habitat along Arcade Creek. Construction of outfalls is not anticipated to remove any large potential nesting trees but presence of construction equipment and increased noise levels commonly associated with construction may affect the species. Swainson's hawk electing to nest within the City are likely at least somewhat desensitized to human presence but may still be disturbed by construction activity. Implementation of Measure **BIO-11** would reduce potential impacts to Swainson's hawk by requiring a pre-construction nesting survey and no-disturbance buffers should an active nest be found. Project effects to Swainson's hawk would be ***less than significant with mitigation incorporated***.

Purple Martin

Purple martin is considered to have a low potential of occurring within the City. The species was not observed during field surveys but proposed outfall locations for Problem Locations 4 and 6 would intersect marginal mature riparian forest nesting habitat along Arcade Creek. Construction of outfalls is not anticipated to remove any large potential nesting trees but presence of construction equipment and increased noise levels commonly associated with construction may affect the species. Purple martin electing to nest within the City are likely at least somewhat desensitized to human presence but may still be disturbed by construction activity. Implementation of Measure **BIO-11** would reduce potential impacts to purple martin by requiring a pre-construction nesting survey and no-disturbance buffers should an active nest be found. Project effects to purple martin would be ***less than significant with mitigation incorporated***.

White-tailed Kite

The white-tailed Kite is considered to have a moderate potential of occurring within the City. The species was not observed during field surveys but riparian and urban forests found within or adjacent to each Problem Location may provide potentially suitable habitat for the species. Construction of storm drain improvements are not anticipated to require the removal of any large potential nest trees but presence of construction equipment and increased noise levels commonly associated with construction may affect any nesting pairs in adjacent trees. Implementation of Measure **BIO-11** would reduce potential impacts to white-tailed kite by requiring a pre-construction nesting survey and

no-disturbance buffers should an active nest be found. Project effects to white-tailed kite would be ***less than significant with mitigation incorporated***.

Western Pond Turtle

Western pond turtle is considered to have a low potential of occurring within the City. The species was not observed during field surveys but stream channels within Problem Locations 4, 10, and 13 may provide aquatic habitat for the species. Construction of new storm drain outfalls at these Problem Locations would temporarily affect potential habitat for the species but with the inclusion of measures **BIO-1**, **BIO-2**, and **BIO-8**, impacts to individuals of the species are not anticipated. Project effects to western pond turtle would be ***less than significant with mitigation incorporated***.

b.) Less Than Significant Impact With Mitigation Incorporated. Proposed storm drain improvements would predominantly occur within existing roadways and developed drainage facilities; however, new outfalls proposed for Problem Locations 4, 10, and 13 would be constructed within riparian corridors associated with Arcade Creek and Cripple Creek. Construction of these outfalls is not anticipated to require removal of large trees and each outfall is anticipated to permanently modify less than 0.01 acres of riparian habitat. Potential impacts to riparian habitat would be further minimized by incorporating Measures **BIO-3**, through **BIO-7**. Impacts to sensitive natural communities would be ***less than significant with mitigation incorporated***.

c.) No Impact. Biological surveys and a USFWS National Wetlands Inventory records search confirmed that designated problem locations do not occur within any designated wetlands (https://www.fws.gov/wetlands/data/mapper.html). Furthermore, construction activities will occur predominately within existing roadways and developed drainage facilities. Therefore, ***No Impact*** to wetlands is anticipated, and no mitigation is required.

d.) Less Than Significant Impact With Mitigation Incorporated. The project will not permanently interfere with the movement of any native resident or wildlife species. Potential impacts to aquatic wildlife would be minimized by restricting in channel work to low/no flow periods as described in measure **BIO-10**. Creek riparian corridors likely serve as a movement corridor for terrestrial animals within the City. Construction of three new outfalls would not alter the functionality of the creeks as movement corridors. Project effects to wildlife movements would ***less than significant with mitigation incorporated***.

e.) No Impact. Proposed storm drain improvements are subject to the City's Tree Preservation Ordinance (City of Citrus Heights Municipal Code Chapter 106.39). All proposed work will be conducted in full compliance with the City's Tree Preservation Ordinance. Most of the Proposed Project's work will predominately occur within existing roadways and removal of native oak trees equal or greater than 6 inches diameter at breast height (dbh) is not anticipated. ***No impact*** to local policies protecting biological resources is anticipated.

f.) No Impact. The City is not located within an adopted habitat conservation plan. ***No impact*** to habitat conservation plans is anticipated.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The following mitigation measures would be incorporated to reduce impacts to a less than significant level:

BIO-1: If wildlife is encountered during construction activities, work will stop within the area and the animal will be allowed to leave the project area un-harassed.

BIO-2: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.

BIO-3: Soil disturbance within the bed, bank and channel of creeks will be limited to the minimum area necessary to complete construction activities. Existing vegetation will be protected where feasible and disturbed/exposed soils will be stabilized to prevent erosion and sedimentation

BIO-4: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur outside creek channels and drainage facilities and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over secondary containment.

BIO-5: Prior to arrival at a project location site, the City must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.

BIO-6: Where ground disturbance occurs, the surface of temporarily impacted riparian habitat will be regraded and restored to pre-construction contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.

BIO-7: The City would implement provisions of the Native Oak Tree Ordinance to compensate for the removal of protected oaks by planting new trees or by payment of an in-lieu fee pursuant to City of Citrus Heights Municipal Code: Section 106.39.020.

- The City would implement provisions of the Tree Ordinance to compensate for the removal of protected trees by planting new trees or by payment of an in-lieu fee pursuant to Sec. 106.39.060
- The amount of encroachment within the protected zone and tree removal of City protected trees will be minimized to the greatest extent practicable.

BIO-8: Prior to beginning work within a creek corridor, the City construction supervisors and crews who would be completing the work must be trained by qualified personnel to identify and avoid harm to sensitive resources, special status species and their habitats. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats

and species that may occur during the proposed work. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Permittee shall prepare and distribute wallet-sized cards or a fact sheet that contains this information for workers to carry on-site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures.

BIO-9: Prior to the proposed work being conducted within rare plant habitat, pre-construction rare plant surveys may be required. If it is determined that there is a potential for rare plants to occur, construction areas would be surveyed for rare plants by a City appointed biologist during the appropriate bloom period for Sanford's arrowhead (May – October). If Sanford's arrowhead populations are discovered onsite, they will either be protected in place with orange ESA fencing or relocated to a CDFW approved location.

BIO-10: The time period for completing the work within the wetted channel of Arcade Creek, Cripple Creek, their tributaries, and all other stream systems shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of May 1st to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. Revegetation, restoration and erosion control work is not confined to this time period.

BIO-11: If possible, vegetation removal and ground disturbance should occur outside the nesting season for all bird species (September 1st – January 31st). If vegetation removal is to take place during the nesting season (February 1st – August 31st), a pre-construction nesting bird survey will be conducted within 7 days prior to any vegetation removal or ground disturbance activities occurring within the designated project locations. The nesting survey area will include the anticipated work area plus an approximate 100 foot buffer.

A 100-foot no disturbance buffer will be established around active bird nests protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503 and 3503.5. A modified buffer may be appropriate if agreed upon on a case by case basis by CDFW. The no disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. If there is a break in construction activity of more than 7 days during the nesting season, subsequent surveys should be conducted.

FINDINGS

Implementation of mitigation measures **BIO-1** through **BIO-11** would reduce impacts to special-status species to less than significant level. Therefore, impacts to all special-status species are considered to be ***Less Than Significant Impact With Mitigation Incorporated***.

3.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

REGULATORY SETTING

CEQA established statutory requirements for establishing the significance of historical resources in PRC Section 21084.1. The CEQA Guidelines (Section 10564.5[c]) also require consideration of potential project impacts to "unique" archaeological sites that do not qualify as historical resources. The statutory requirements for unique archaeological sites that do not qualify as historical resources are established in PRC Section 21083.2. These two PRC sections operate independently to ensure that significant potential effects on historical and archaeological resources are considered as part of a project's environmental analysis. Historical resources, as defined in Section 15064.5 as defined in the CEQA regulations, include 1) cultural resources listed in or eligible for listing in the California Register of Historical Resources; 2) cultural resource included in a local register of historical resources; 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in one of several historic themes important to California history and development.

Under CEQA, a project may have a significant effect on the environment if the project could result in a substantial adverse change in the significance of a resource, meaning the physical demolition, destruction, relocation, or alteration of the resource would be materially impaired. This would include any action that would demolish or adversely alter the physical characteristics of an historic resource that convey its historic significance and qualify it for inclusion in the CRHR or in a local register or survey that meets the requirements of PRC Section 5020.1(l) and 5024.1(g). PRC Section 5024 also requires state agencies to identify and protect sate-owned resources that meet.

National Register of Historic Place listing criteria. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the State Historic Preservation Officer (SHPO) before altering, transferring, relocation, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the National Register or are registered or eligible for registration as California

Historical Landmarks.

CEQA and the CEQA Guidelines also recommend provisions be made for the accidental discovery of archaeological sites, historical resources, or Native American human remains during construction (PRC Section 21083.2(i) CCR Section 15064.5[d and f]).

AFFECTED ENVIRONMENT

The area of potential effects (APE) was defined to include all ground disturbing activities required for construction of the various storm drain project area. Much of the project involves replacing the underground storm drain in place by pushing the new storm drain through the existing drain. Above ground activities include the construction of ditches and gutters, swales, overland releases, and a proposed basin. The ditches and gutters will be along existing streets, while the swales, overland releases, and basins will be conducted in open fields and through lawn areas.

Throughout the majority of the project area, the vertical APE would be less than five feet to accommodate clearing/grubbing, grading, and roadway improvement depths. The areas where the vertical APE would be deeper for the basins at 4 feet deep and for the storm drain replacement, which could be as deep as 12 feet. The APE encompasses approximately 22 acres.

Efforts to identify potential cultural resources in the APE included background research, a search of previously recorded archaeological site records and cultural resource identification reports on file at the California Historical Resources Information System North Central Information Center (NCIC), efforts to coordinate with Native American representatives, efforts to coordinate with local historical organizations, and a pedestrian ground surface survey.

On August 15, 2017 Dokken Engineering archaeologist Dr. Brian Marks conducted a ground surface inventory of the APE. Five-meter and ten-meter wide pedestrian transects were used, where appropriate, to inspect the ground surface. All cut banks, burrow holes, and other exposed sub-surface areas were visually inspected for the presence of archaeological resources, soil color change, and/or staining that could indicate past human activity or buried deposits.

No prehistoric or historic cultural resources were identified during the August 15, 2017 surface inventory. The various project areas are all within residential subdivisions, though some are associated with an adjacent church, park, and pumpkin patch. The surface visibility was limited throughout the project areas as much of the impact areas are paved over or within landscaped areas of people's yards. Surface visibility within the open fields varied between 20 and 100 percent, but averaged approximately 70 percent. The ditches had surface visibility of over 60 percent. Many of the ditch and creek walls were examined and scraped to view the profile. No

visible soil coloration was observed that would have indicated past human occupation.

Buried Archaeological Resource Potential

The record search results indicated that no prehistoric-era cultural resources and 11 historic-era structures have been previously recorded within a one-quarter-mile radius of the project areas. Prior to historic development, the area is considered to be depositional nature; therefore, the buried cultural deposit potential for the project vicinity would also be considered high. However, due to historic development and installation of utilities, much of the project area is heavily disturbed.

Additionally, many of the areas that had not been affected by residential development had once been used for agriculture, especially for orchards. These trees had been removed, disturbing the upper 3 three feet of sediment, which would have also disturbed any buried archaeological sites within that depth, if they were present.

No modified material, soil discoloration, human remains, or other indicator of prehistoric human activity were observed in the 2017 survey. Lastly, these areas have been heavily disturbed since the mid-1960s. Sewer pipes, reclaimed water pipes, and storm water pipes and are located 5 to 10 feet below ground surface in many of these roads.

Overall, the potential for buried archaeological resources throughout the project area is low due to disturbances. However, areas where there are no existing utilities and disturbances will be below three feet there is a moderate potential for encountering buried archaeological resources. Archaeological testing in these areas is not possible due to the paving of the area.

DISCUSSION OF CHECKLIST ANSWERS:

a.) No Impact. A record search was obtained for the entire City of Citrus Heights (File # SAC-17-75) on June 21, 2017, which included the project area. The record search was conducted by Nathan Hallam, Researcher at the NCIC. The search examined the National Register, the California Register of Historical Resources (California Register), the Directory of Properties in the Historic Property Data File, the *California Historic Landmarks* (1996), the *California Inventory of Historic Resources* (1976), and the *California Points of Historical Interest* listing (May 1992 and updates). Additional research efforts conducted outside the NCIC included a review of the Caltrans State and Local Bridge Survey (1989 and updates), historic USGS topographic maps, and other pertinent historic data specific to Placer County. Using this data, previously recorded sites and previous surveys within a one-quarter-mile radius of the APE of the 12 Problem Locations were obtained.

The NCIC identified five previous cultural resource investigations previously conducted within the project area. These previous surveys covered approximately 10 percent of the current APE. Twenty additional cultural resource investigations have been conducted within a one-quarter-mile radius of the APE. Table 4 below details all investigations within one-quarter mile of the APE, including the surveys within the APE.

Table 6: Previous Cultural Resource Studies within One-Quarter-Mile of the APE

NCIC #	TITLE	AUTHOR	DATE	INCLUDES APE (Y/N)	RESOURCES RECORDED IN APE?
SA-000383	An Archeological Survey of the Proposed Creekside Village Condominiums (Control 87-CP-RZ-UP-2010).	Warner, Laurie E.	1988		No
SA-000417	Cultural Resource Assessment of Sacramento Municipal Utility District's Project B, Phase I, 230kV Tansmission Line, the Orangevale Tap, Placer County, to Orangevale Substation, Sacramento County, California.	Peak, Ann S. and Associates	1979	Yes	No
SA-000430	A Cultural Resource Study of the Arcade Creek Project, Sacramento County, California.	Derr, Elearnor H.	1980		No
SA-000594	Field Survey on the Proposed Creekridge Subdivision Lands, Sacramento County.	Peak, Ann S. and Associates	1980		No
SA-001841	Cultural Resource Assessment of the Proposed Old Auburn Estates Project.	Peak and Associates	1981		No
SA-002668	Historic Property Survey Report for the Auburn Boulevard/Sylvan Road Intersection Improvement Project, City of Citrus Heights, California	Tracy Bakic	2001		No
SA-003025	Draft Environmental Impact Report, Antelope Road Widening, Auburn Boulevard to Old Auburn Road	Robert Caikoski and Antonia Barry	1994		No
SA-003028	Draft Environmental Impact Report for Greenback Lane Widening, San Juan Avenue to Birdcage Street, A Distance of .86 Miles	Barry, Antonia	1992		No
SA-003045	Draft Environmental Impact Report for Stock Ranch General Plan Amendment Community Plan Amendment and Rezone	Catherine Hack	1991		No
SA-	NEPA Screening for Wireless Telecommunications Site-Kenneth	Edmands, Jesse	2002		No

NCIC #	TITLE	AUTHOR	DATE	INCLUDES APE (Y/N)	RESOURCES RECORDED IN APE?
006252	Cell Site				
SA-006267	Historical and Cultural Resource Assessment: Proposed Telecommunications Facility, Oak & Wachtel Way	Pastron, Allen G.	2001		No
SA-006268	Department of Environmental Review and Assessment Intial Study.	Newton Associates	1992		No
SA-006277	Fifteen SureWest Tower Sites in Sacramento, Placer, El Dorado, San Joaquin, Yolo and Sutter Counties.	Peak & Associates,Inc	2001		No
SA-006285	Fouteen SureWest Tower Sites in Sacramento, Placer and El Dorado counties	Peak & Associates, Inc.	2001		No
SA-006287	Cultural Resources Inventory of Miry Estates Project	PAR Environmental Services, Inc.	2004	Yes	No
SA-006291	A Cultural Resources Study for The San Juan Suburban Water District Pipeline Project Intial Study.	Derr, Eleanor H.	1993	Yes	No
SA-006326	Archaeological Survey of the Mauel and Consuelo Gomez Parcel Map Control No: 90-PMR-0931	Warner, Laurie	1991		No
SA-007130	Roseville Energy Facility Cultural Resources	Brian Hatoff and R. Egherman	2002	Yes	No
SA-008619	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California	Cindy Arrington et al	2006		No
SA-008678	A Cultural Resource Evaluation of the Old Auburn Road-Cirby Way Intersection, Roseville, California	Daniel G. Foster and John W. Foster	1987		No
SA-	Arcade Creek Park Preserve Project	Sean Michael	2008		No

NCIC #	TITLE	AUTHOR	DATE	INCLUDES APE (Y/N)	RESOURCES RECORDED IN APE?
009894		Jensen			
SA-010382	City of Citrus Heights Historical Resources Survey	Carol Roland, Ph.D.	2006	Yes	No
SA-011137	Arcade Creek Park Preserve Cultural Resources Inventory & Evaluation Citrus Heights, Sacramento County, California	Ric Windmiller	2013		No
SA-011616	Arcade Creek Park Preserve Cultural Resources Inventory & Evaluation Citrus Heights, Sacramento County, California.	Ric Windmiller	2013		No
SA-012183	Cultural Resources Inventory Report: Mitchell Farms, Sacramento County, California	Megan Webb	2016		No

No previously recorded cultural resources have been recorded within anticipated. There have been 11 previously recorded cultural resources reported to the NCIC within one-quarter-mile of the APE. These resources are comprised of 11 historic-era structures.

The proposed storm drain improvements would have no impact on historical resources as defined in §15064.5; properties in the APE are also ineligible for listing in the California Register/National Register or lack integrity to qualify as a historical resource or historic property. The State Historic Preservation Officer (SHPO) will also be consulted on the California Register/National Register eligibility determinations. It is anticipated that the SHPO will concur on these findings. With the findings of the visual survey, record search, and historic land use within the area, therefore, **No Impacts** are anticipated for the proposed Project related to historic resources. No mitigation is required.

b.) Less Than Significant With Mitigation Incorporated. A record search was obtained for the entire City of Citrus Heights (File # SAC-17-75) on June 21, 2017, which included the project area. The record search was conducted by Nathan Hallam, Researcher at the NCIC. The search examined the National Register, the California Register of Historical Resources (California Register), the Directory of Properties in the Historic Property Data File, the *California Historic Landmarks* (1996), the *California Inventory of Historic Resources* (1976), and the *California Points of Historical Interest* listing (May 1992 and updates). Additional research efforts conducted outside the NCIC included a review of the Caltrans State and Local Bridge Survey (1989 and updates), historic USGS topographic maps, and a pedestrian survey of all 12 Problem Locations by Brian S. Marks, Ph.D. on August 15th, 2017. Based on the results of these identification efforts, there are no archaeological resources

located within the Project Area; therefore, the project would have no impact to archaeological resources.

While there are no archaeological resources identified within the Project Area, as with any project that involves subsurface excavation, the potential exists for the discovery of previously unknown archaeological resources. Mitigation measures **CR-1** through **CR-4** would reduce potentially significant impacts as a result of discovery of archaeological resources during construction. Project impacts to archaeological resources would be ***less than significant with mitigation incorporated***.

c.) Less than significant with Mitigation. Unique paleontological resources or unique geologic features are not documented within the Project Area. There is a possibility of unanticipated and accidental paleontological discoveries during subsurface excavation. Mitigation measures **CR-1** through **CR-4** would reduce potentially significant impacts as a result of discovery of paleontological resources during construction to ***less than significant with mitigation incorporated***.

d.) Less than Significant with Mitigation. With any project requiring ground disturbance, there is always the possibility that unmarked burials may be unearthed during construction. This impact is considered potentially significant. Implementation of Mitigation Measure **CR-2** would reduce this impact to a ***less-than significant with mitigation incorporated***l.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

CR-1: Prior to construction, cultural resource awareness and sensitivity training shall be provided to all construction crew members to ensure that the crew members are aware of the potential for sensitive cultural resources to be present onsite. The awareness and sensitivity training would also include an established protocol for informing the resident engineer of any accidentally discovered cultural resources.

Treatment of Discoveries:

CR-2: If significant historical, paleontological, archaeological, or tribal cultural resources are discovered within the APE, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor, a representative of the appropriate Native American Tribe(s) (if discovery is prehistoric), and the City shall confer regarding mitigation of the discovered resource(s). All discovered archaeological resources should be documented by field notation, analysis, photography, and GPS mapping. Work shall not resume in the area until mitigation has been completed or it has been determined that the archaeological resource(s) is not significant.

Disposition of Discoveries:

CR-3: If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative,

the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CR-4: In the event that Native American cultural resources are inadvertently discovered during the course of construction, the City shall relinquish ownership of all Native American cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to Native American cultural resources. Prior to relinquishment, all discovered archaeological resources should be documented by field notation, photography, and GPS mapping. After consultation with the appropriate Native American Tribe(s), non-destructive analysis may be conducted.

FINDINGS

The project would have ***less than significant*** impacts with mitigation incorporated relating to cultural resources.

3.6 Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic groundshaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Section 1803.5.3 of the 2010 CBC, creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

REGULATORY SETTINGS

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects "outstanding examples of major geological features." Topographic and geologic features are also protected under the CEQA.

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Geology and Topography

The Project area is situated within two geomorphic provinces: the Great Valley Geomorphic Province to the west and Sierra Nevada Geomorphic Province to the east (California Geological Survey 2002). The Great Valley of California, also called the Central Valley, is a nearly flat alluvial plain extending from the Tehachapi Mountains in the south to the Klamath Mountains in the north, and from the Sierra Nevada in the east to the Coast Ranges in the west. The valley is about 450 miles long and averages about 50 miles wide. Elevations of the alluvial plain are generally just a few hundred feet above msl, with extremes ranging from a few feet below msl to about 1,000 feet above msl (Hackel 1966). The Sierra Nevada is a strongly asymmetric mountain range with a long gentle western slope and a high, steep eastern escarpment. The range averages 50 to 80 miles wide, and it runs west to north through eastern California for more than 400 miles, from the Mojave Desert to the south to the Cascade Range and Modoc Plateau to the north (Bateman and Wahrhaftig 1966).

The Proposed Project locations are located in the transition area between the Sacramento Valley and the western foothills of the Sierra Nevada mountain range. Elevation for the project area is ranges from approximately 150 feet above msl in the southwest portion of the project to approximately 200 feet above msl in the northeastern end of the project. The overall topography of the City of Citrus Heights, as well as the Proposed Project sites, is relatively flat. As a result, no landslides or landslide deposits have been mapped within the City.

Soil

The Soil Survey of Sacramento County, prepared by the United States Department of Agriculture (USDA), NRCS maps soil types in most of Sacramento County, including the Citrus Heights area. Two types of soils are found within the project locations: Urban Land-Xerarents-Fiddyment Complex and Fiddyment-Orangevale Complex, 2 to 8% slope (NCRS 2017). Characteristics of these soils are summarized in the table below.

Table 7: Soil Characteristics within the Project Locations

Soil Type	Soil Slope	Erosion Hazard	Shrink/Swell
Urban Land-Xerarents Fiddyment Complex	0-8%	Slight	Moderate
Fiddyment-Orangevale Complex	2-8%	Slight to moderate	Moderate

Source: NCRS 2017

Fiddyment's surface layer is brown sandy loam. The subsoil is a claypan consisting of brown clay loam. The next layer is silica-cemented hardpan approximately 12" thick over siltstone. Water sometimes perches in Fiddyment for short periods after heavy storms. Orangevale is a deep and well-drained soil. The surface layer is a yellowish brown coarse sandy loam about 15" thick. Underlying layers consist of sandy clay loam and coarse sandy loam.

The majority of shrink/swell (or expansive) soils in the City of Citrus Heights, including those found on the project site, have moderate shrink-swell potential. Shrink-swell potential refers to the soils ability to expand when wet and contract when dry. Shrinking and swelling of soil can damage roads, dams, building foundations and other structures.

Erosion is a natural geologic process where landforms are worn down or reshaped over time by natural factors such as wind or water. The Citrus Heights area has slight to moderate erosion ratings. In general, erosion occurs where there are steep slopes and the soil is continually exposed to wind and rain. The primary areas on the project site prone to erosion are the banks of Arcade Creek and San Juan Creek.

Seismicity

The project is not located within ½ miles of an Alquist Priolo Earthquake Fault Zone. The closest fault mapped by the California Division of Mines and Geology is the Foothills Fault Zone about 15 miles to the northeast, and no significant seismic event has been recorded in the area since 1908 (CDC 2015).

The potential for liquefaction occurs when saturated soils are subjected to ground shaking. The Proposed Project has a low and very low probability of seismic-related failure including liquefaction.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less than significant. The project would not expose people or structures to potential substantial adverse effects:

i.) According to the City's General Plan (2011), no active faults occur within or near City limits; therefore, no Alquist-Priolo Earthquake Fault Zone exists within the Proposed Project areas. The closest fault mapped by the California Division of Mines and Geology is the Foothills Fault Zone about 15 miles to the northeast, and no significant seismic event has been recorded in the area since 1908 (CDC 2015). The proposed construction activities would not expose people or structures to rupture of a known earthquake fault.

ii.) Construction of the proposed storm drain improvements would require trenching or pipe bursting and may temporarily expose people or structures adjacent to improvements to ground shaking during construction. Ground shaking would be temporary and is not anticipated to damage any structures.

iii). The potential for liquefaction occurs when saturated soils are subjected to ground shaking. Seismic-related failure, including liquefaction, is determined to have no impact to the predominantly flat project areas that contain well drained soil with deep groundwater. The Proposed Project will improve stormwater drainage which potentially reduces the risk of liquefaction.

iv.) Pursuant to the Community Health Element of the City General Plan (2011) and the CDC Landslide Inventory, the City and the surrounding Sacramento region is not an area at risk for Landslides (City of Citrus Heights 2011, CDC 2015, CDC 2015b). In addition, the Proposed Project will be conduction work within the City's creeks, drainages and residential streets, and therefore would not create a substantial risk of landslides.

b.) Less Than Significant Impact with Mitigation Incorporated. Stormwater discharges within portions of Sacramento County, including the City, are permitted under Phase II of the NPDES small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Regional Water Quality Control Boards. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). As a requirement, the Proposed Project would comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of Low Impact Development (LID) practices, where applicable. Further, the Proposed Project would comply with the City's Design and Construction Standards on standard erosion control and BMPs. Additionally, the Proposed Project will comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will adequately control erosion and effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b).

Construction activities discussed in Chapter 2 such as grading and earthwork may result in erosion and sedimentation. This impact would be mitigated through implementation of the Stormwater Pollution Prevention Plan (SWPPP) which would incorporate erosion control methods. Measure **GEO-1** details this. Therefore, impacts concerning substantial soil erosion or loss of top soil would be considered to be ***less than significant with mitigation incorporated.***

c.) No Impact. Pursuant to the Community Health Element of the City General Plan, the City's geographic location, soil conditions, and surface terrain combine to minimize risk of major damage from landslides, subsidence (gradual shrinking of the earth's surface due to underground resource extraction), or other geologic hazards resulting from seismic activity and related natural forces (City of Citrus Heights General Plan 2011). Therefore, there is no potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. ***No Impact*** would result from the Proposed Project.

d.) No Impact. Problem Locations are not located in an area of expansive soils and would not expose people to risk related to potential geologic impacts. Therefore, ***No Impact*** relating to expansive soils would result from the Proposed Project. No mitigation is required.

e.) No Impact. The Proposed Project would not use a septic tank system. Sewage collection and disposal is not required for the proposed activities. Therefore, ***No Impact*** on soils related to the use of septic tanks would occur. No mitigation is required.

The following mitigation measures would be incorporated to reduce impacts to a less than significant level:

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

GEO-1 The County and contractor shall implement a SWPPP to include erosion control methods. This SWPPP shall be prepared for the Section 402 permit, NPDES General Permit for Discharges of Stormwater Associated with Construction Activity.

FINDINGS

All potentially significant environmental effects of the project relating to geology and soils can be mitigated to a ***less than significant with mitigation incorporated*** level.

3.7 Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

Climate change and Green House Gases (GHG) reduction is a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change. California, in conjunction with several environmental organizations and several other states, sued to force the EPA to regulate GHG as a pollutant under the CAA (Massachusetts vs. [EPA] et al., 549 U.S. 497 (2007). The court ruled that GHG does fit within the Clean Air Act's definition of a pollutant, and that the EPA does have the authority to regulate GHG. Despite the Supreme Court ruling, there are no promulgated federal regulations to date limiting GHG emissions.

On December 7, 2009, the EPA Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases--carbon dioxide (CO2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)--in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

On May 18, 2009, President Obama announced the enactment of a 35.5 mpg fuel economy standard for automobiles and light duty trucks which will took effect in 2012.

These findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed greenhouse gas emission standards for light-duty vehicles, which were jointly proposed by EPA and the Department of Transportation's

National Highway Safety Administration on September 15, 2009.

State Regulations

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the efforts from the State of California devoted to GHG emissions reduction and climate change research and policy have increased dramatically in recent years. These efforts are primarily concerned with the emissions of GHG related to human activity that include CO_2, CH_4, NO_X, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (s, s, s, 2 –tetrafluoroethane), and HFC-152a (difluoroethane).

In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with greenhouse gas emissions and climate change at the state level. AB 1493 requires the CARB develop and implement regulations to reduce automobile and light truck greenhouse gas emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the 2009-model year; however, in order to enact the standards California needed a waiver from the EPA. The waiver was denied by the EPA in December 2007 and efforts to overturn the decision had been unsuccessful. See California v. Environmental Protection Agency, 9th Cir. Jul. 25, 2008, No. 08-70011. On January 26, 2009, it was announced that EPA would reconsider their decision regarding the denial of California's waiver. On June 30, 2009 EPA granted California the waiver. On September 24, 2009, the ARB adopted amendments to the "Pavley rule" regulations that reduce GHG emissions in new passenger vehicles from 2009 through 2016. These amendments are efforts made in part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. ARB's September amendments cemented California's enforcement of the "Pavley rule" while providing vehicle manufacturers with new compliance flexibility. The objective of the amendments was to prepare California to harmonize its rules with the federal rules for passenger vehicles.

Since the passing of AB 1493, several EO concerning California's Climate Change reduction efforts have been signed. December 14, 2004, EO-S-3-05 was signed, which created a Low Carbon Fuel Standard (LFCS). The objective of this standard is to reduce the carbon intensity of California's passenger vehicle fuels by at least 10% by 2020. On June 1, 2005, EO-S-3-05 was signed. The goal of this EO is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80 percent below the 1990 levels by the year 2050. In April of 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that CARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." EO-S-20-06, signed in October of 2006, further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team. With EO-S-01-07, signed in January of 2007, set forth the low carbon fuel standard for California. Under this executive order, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020. In March of 2012, EO-B-16-12

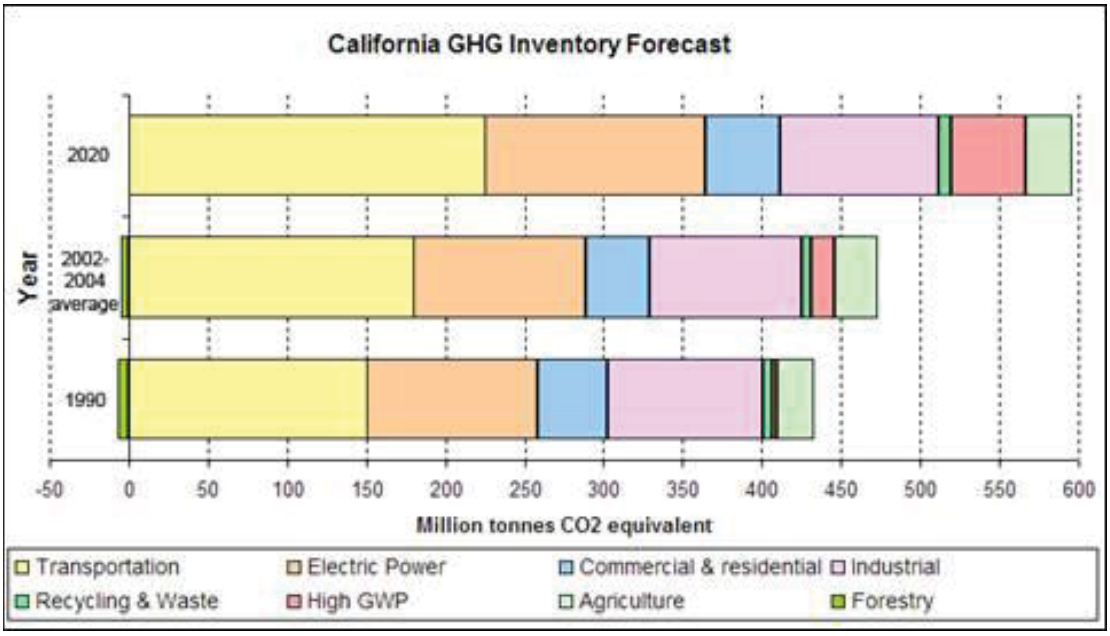
was signed which orders State agencies to facilitate the rapid commercialization of zero-emission vehicles (ZEVs). The EO sets a target for the number of 1.5 million ZEVs in California by 2025. Also the EO sets as a target for 2050 a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels. Finally, EO-B-30-15, signed in April of 2015, sets a GHG emissions target for 2030 at 40 percent below 1990 levels.

California has also enacted State Bill 97, which acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the State Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA by July 1, 2009. The Resources Agency certified and adopted those guidelines on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the Amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments were made effective March 18, 2010. The amendments contain changes to fourteen sections of the existing guidelines, including: the determination of significance as well as thresholds; statements of overriding consideration; mitigation; cumulative impacts; and specific streamlining approaches. The amendments also include an explicit requirement that EIRs analyze GHG emissions resulting from a project when the incremental contribution of those emissions may be cumulatively considerable.

According to recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents (March 5, 2007), an individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may participate in a potential impact through its incremental contribution combined with the contributions of all other sources of GHG. In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (See CEQA Guidelines sections 15064(i)(1) and 15130). To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult if not impossible task.

As part of its supporting documentation for the Draft *Climate Change Scoping Plan*, CARB recently released an updated version of the GHG inventory for California (June 26, 2008). Figure 5 illustrates the total GHG emissions for California for 1990, 2002-2004 average, and 2020 projected if no action is taken.

Figure 5: California Greenhouse Gas Inventory



Source: http://www.epa.gov/climatechange/endangerment.html

Local Regulations

City of Citrus Heights Greenhouse Gas Reduction Plan 2011

In recognition of the statewide efforts to reduce GHG emissions, the City of Citrus Heights adopted a Greenhouse Gas Reduction Plan concurrent with the City's 2011 General Plan update process. According to the General Plan EIR, the single largest source of greenhouse gas emissions within the City of Citrus Heights is from on-road mobile sources (automobiles, trucks, etc.) and for government sources, the largest source was related to employee commutes (City of Citrus Heights General Plan EIR, 2011).

The Greenhouse Gas Reduction Plan was adopted pursuant to a detailed analysis of potential project impacts under CEQA. The City of Citrus Heights has determined that projects that are consistent with the adopted Greenhouse Gas Reduction Plan would have a less than significant impact with regard to the project's GHG emissions and contributions to climate change.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

Worldwide, climatic change is a public health and environmental concern. As global concentrations of atmospheric GHG increase, global temperatures increase, weather extremes increase, and air pollution concentrations increase. Global warming has been observed to contribute to poor air quality, melting glaciers, rising sea levels, stronger storms, more intense and longer droughts, more frequent heat waves, wildfires, and other threats to human health (IPCC 2013). Since the late 19th century, each of the past three decades has been successively warmer at the Earth's surface than any the previous decades in the instrumental record, and the decade of the 2000's has been the

warmest (IPCC 2013).

GHG emissions for infrastructure projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase and will be dependent on the problem location the work is being conducted at. Construction activities duration, frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during the separate construction phases and locations. Due to the fact the Proposed Project is implementing improved storm drainage facilities, operational GHG emissions are not anticipated.

DISCUSSION OF CHECKLIST ANSWERS

a). Less Than Significant Impact. GHG emissions produced during construction operations are those that result from potentially increased traffic volumes or changes in automobile speeds. The Proposed Project would not increase the number of automobiles in the traffic system or permanently influence automobile speeds. By improving the designated storm drainage facilities, overall traffic flow is not expected to change, thus the project is not anticipated to increase CO_2 emissions. Lower speeds, such as those experienced in congested areas, generally result in higher CO_2 emissions rates. However, all construction activities are temporary and traffic impacts during construction would not result in a potentially significant impact. Traffic delays would be further minimized by implementing traffic control measures as described in Measure **TRA-1** discussed in Section 3.16. Although the Proposed Project would contribute to GHG levels during construction, construction activities would only be short-term, resulting in negligible GHG emissions from the construction equipment and worker vehicles which would have a less-than-significant impact to generation of GHG emissions in the region. No permanent impact to GHG emissions or climate change would result from long term operation of the storm drain system. Therefore, the Proposed Project's contribution to global climate change through GHG emissions would be considered a ***Less Than Significant Impact***.

b). Less Than Significant Impact. The proposed storm drain improvements would result in minor GHG emissions during construction but would not result in long term GHG emissions. The City has not adopted a Climate Action Plan, nor any specific mandatory GHG reductions measures and ***no impact*** to any plan, policy, or regulation focused on reducing GHG emissions would result.

FINDINGS

All potentially significant environmental effects of the project relating to Greenhouse Gas Emissions can be mitigated to a ***less-than-significant*** level.

3.8 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project vicinity?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project vicinity?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury, or death	☐	☐	☐	☒

involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	

REGULATORY SETTING

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976, and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

A review of the information available through Envirostor and Geotracker (2016) indicated that there are numerous current and/or historical clean-up sites within City limits. However, no current or historical cleanup sites are located directly within the problem locations or within a 100 foot buffer of the project areas. The closest active cleanup site is the Roseville Telephone Company (T0606751066) which is located at 114 Vernon Street. Envirostor and Geotracker (2016) list the site as a Leaking Underground Storage Tank (LUST) Cleanup Site (RB Case 341393 and Loc Case GO25/RO1512). The details of the site are listed on the California Facility Inventory Underground Storage Tank Database as an active or inactive underground ground storage tank. According to the Roseville Telephone Company, an active underground diesel fuel tank is located in the parking lot by the dumpster area, between Atlantic Street and Vernon Street, The site has not been identified as having a leak and is pending a site inspection to determine the severity of the issue (Anderson Consulting Group 2000). The location of the tank is important to consider if construction activities should occur within the area. The closest project location is problem location number 7 which is approximately 650 feet south of the listed LUST site.

No hazardous waste facilities were located within the proximity of the project locations. The closest operational hazardous waste facility is the North Area Recovery Station, which is approximately 7.5 miles to the south east of the City Limits.

Under the CEQA checklist, consideration of hazardous emissions, handling of hazardous or acutely hazardous materials or substances or waste within 0.25 mile of an existing or proposed school, is required. There are several schools located within and around Neighborhoods 8, 9 and 10. However, the review conducted in the Envirostor and Geotracker Databases did not reveal any known hazardous materials within the project areas.

Review of information available through USGS indicated that ultramafic rock formations are found in Eastern Sacramento County but are not found within the project areas (USGS, 2016).

The proposed construction activities associated with stormwater drainage facilities will not require dewatering activities and are not likely to encounter groundwater; therefore, assessment of groundwater conditions beneath the project locations prior to design and construction of the road is not warranted.

In addition, SMUD operates an overhead high voltage electricity transmission line adjacent to Problem Location 9. The build alternative for Problem Location 9 does include a new stormdrain line and a detention basin near the SMUD transmission lines. The City will coordinate with SMUD to develop a Joint Use Agreement between the Sunrise Parks District (property owner), SMUD and the City of Citrus Heights. The City will follow all requirements of the Joint Use Agreement to minimize the hazardous risk of working near the transmission lines.

DISCUSSION OF CHECKLIST ANSWERS:

a). No Impact. Construction activities will not require routine transport, use, or disposal of hazardous materials. The proposed Project would involve the use of heavy equipment for grading, hauling, and materials handling. Use of this equipment would require the use of fuels and other common materials that have hazardous properties. These materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, or plants. The use of hazardous materials would be temporary and the Proposed Project would not include a permanent use or source of hazardous materials. The operation and maintenance of the proposed new storm drain facilities will not generate new sources of hazardous material and would have ***No Impact*** to routine transportation. Therefore, no mitigation is required.

b). Less than Significant with Mitigation. Gasoline will be required for power tools and other construction equipment but will be transported in less than reportable quantities (55 gallons). Those activities involving hazardous materials would be required to comply with all local, state, and federal standards associated with the handling of hazardous materials including, but not limited to, the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide Permit, the City's Design and Construction Standards, avoidance and minimization measures discussed below, and the City's Stormwater Discharge Control Ordinance. The Proposed Project is not anticipated to create a significant hazard to the public or the environment through a reasonably foreseeable accident involving the release of hazardous materials into the environment. Hazardous materials would be used in accordance with all applicable laws and regulations and, if used properly, would not pose a hazard to people, animals, or plants. Mitigation measure **HAZ-1** will be incorporated to further avoid any potential impacts. Therefore, the Proposed Project would have a ***Less than Significant Impact with Mitigation.***

c). Less Than Significant with Mitigation Incorporated. 7 schools are within a ¼ of a mile from designated Problem Locations. The table below provides the schools that are within a quarter-mile of Proposed Project locations.

Table 8: Schools with 1/4 mile of Proposed Project location

School name	Project location	Approximate distance from project location to school (miles)
Whispering Oaks Montessori Academy	12	.09 mile
Angels in Action Learning Center, and La Petite Academy of Citrus Heights	12	.11 mile
Faith Christian Academy	10	.02 mile
Country Hill Montessori Inc.	8	.20 mile
Holy Family Elementary School and Discovery Tree School	11	.23 mile

Although schools are within ¼ of a mile from designated locations, the proposed construction activities would not involve the use or handling of any unusual hazardous or acutely hazardous materials, substances, or waste. As is the case for projects that involve excavation, the potential exists for unknown hazardous contamination to be revealed during project construction. With the inclusion of mitigation measure **HAZ-2**, discovery of previously unknown hazardous contaminants would not result in significant emissions of hazardous materials because any discovered hazardous materials would be handled in a manner consistent with the Caltrans Hazards Procedures for Construction. Project related impacts would be ***Less Than Significant with Mitigation Incorporated***.

d.) No Impact. The State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by state, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. Government Code Section 65962.5 requires the California EPA to annually update the Cortese List. The California Department of Toxic Substances Control (CDTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. EnviroStor Database is compiled by the CDTSC to identify and track potential hazardous waste sites. Database searches indicated that no locations are within city limits handle and/or store hazardous waste and/or hazardous materials. Further, no sites within the City have been associated

with hazardous material related releases or occurrences (CDTSC 2016). Therefore, ***No Impact*** would result from the Proposed Project and no mitigation is required.

e/f). No Impact. The designated project locations are not located within two miles of an airport or an area for which an Airport Land Use Plan has been prepared and no public or private airfields are within two miles of the Problem Locations. Thus, ***No Impact*** would result from the Proposed Project in relation to introduced hazards and the decreased safety of any airports and airstrips. No mitigation is required.

g.) No Impact. The Proposed Project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Proposed Project construction activities will predominately occur within existing roadways, no modification to the functionality of the roadway is anticipated. Therefore, the ***No Impact*** would result from development of the Proposed Project. No mitigation is required.

h.) No Impact. The City is not located in an area identified by the California Department of Forestry and Fire Protection as a fire hazard region (CAL FIRE 2008). The proposed routine construction activities do not present conditions that are subject to wildland fires. The Proposed Project construction activities will predominately occur within existing roadways. There is no potential of expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, ***No Impact*** would result from proposed construction activities. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and/or minimization measures **HAZ-1** and **HAZ-2**, would be incorporated to further minimize potential impacts

HAZ-1: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur at a minimum of 100 feet from waters

HAZ-2: As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction (such as previously undetected petroleum hydrocarbon contamination from nearby gas stations). Should any previously unknown hazardous waste/material be encountered during construction, the procedures outlined in Caltrans Hazards Procedures for Construction shall be followed.

FINDINGS

The project would have ***no impact*** to environmental effects relating to hazards and hazardous materials.

3.9 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre- existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☐	☒	☐
e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f. Otherwise substantially degrade water quality?	☐	☒	☐	☐
g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

h.	Place structures within a 100-year flood hazard area that would impede or redirect flood flows?	☐	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

In 1972 Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to the waters of the United States from any point source unlawful unless the discharge is in compliance with a NPDES permit. Known today as the Clean Water Act (CWA), Congress has amended it several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. Important CWA sections are:

- Sections 303 and 304 require states to promulgate water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity, which may result in a discharge to waters of the U.S., to obtain certification from the State that the discharge will comply with other provisions of the act. (Most frequently required in tandem with a Section 404 permit request. See below).
- Section 402 establishes the NPDES, a permitting system for the discharges (except for dredge or fill material) of any pollutant into waters of the U.S. Regional Water Quality Control Boards (RWQCB) administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction and MS4.
- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the U.S. This permit program is administered by USACE.

The objective of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

USACE issues two types of 404 permits: Standard and General permits. For General permits there are two types: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to authorize a variety of minor project activities with no more than minimal effects.

There are also two types of Standard permits: Individual permits and Letters of Permission. Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one

of USACE's Standard permits. For Standard permits, USACE decision to approve is based on compliance with EPA Section 404 (b)(1) Guidelines (U.S. EPA CFR 40 Part 230), and whether permit approval is in the public interest. The 404(b)(1) Guidelines were developed by the EPA in conjunction with USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which will have less adverse effects. The Guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA), to the proposed discharge that will have less effects on waters of the U.S., and not have any other significant adverse environmental consequences. Per Guidelines, documentation is needed that a sequence of avoidance, minimization, and compensation measures have been followed, in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause "significant degradation" to waters of the U.S. In addition, every permit from USACE, even if not subject to the 404(b)(1) Guidelines, must meet general requirements. See 33 CFR 320.4.

National Pollution Discharge Elimination System (NPDES) Program

Municipal Separate Storm Sewer System (MS4)

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater dischargers, including MS4s. The EPA defines an MS4 as "any conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, and storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater, that are designed or used for collecting or conveying stormwater." The SWRCB has identified Sacramento County as an owner/operator of an MS4 pursuant to federal regulations. The City's MS4 permit covers all rights-of-way, properties, facilities, and activities within Sacramento County under Order No. R5-2016-0040-004, and the City of Citrus Heights.

Construction General Permit

Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG), adopted on November 16, 2010, became effective on February 14, 2011. The permit regulates stormwater discharges from construction sites which result in a Disturbed Soil Area (DSA) of one acre or greater, and/or are smaller sites that are part of a larger common plan of development. For all projects subject to the CGP, applicants are required to develop and implement an effective SWPPP In accordance with the Department's Standard Specifications, a Water Pollution Control Plan is necessary for projects with DSA less than one acre.

By law, all stormwater discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least one acre must comply with the provisions of the CGP. Construction activity that results in soil disturbances of less than one acre is subject to this CGP if there is potential for significant water quality impairment resulting from the activity as determined by the RWQCB. Operators of regulated construction sites are required to develop stormwater pollution prevention plans; to implement sediment, erosion, and pollution prevention

control measures; and to obtain coverage under the City's General Plan.

The City's General Plan separates projects into Risk Levels 1, 2, or 3. Risk levels are determined during the planning and design phases, and are based on potential erosion and transport to receiving waters. Requirements apply according to the Risk Level determined. For example, a Risk Level 3 (highest risk) project will require compulsory stormwater runoff pH and turbidity monitoring, and pre- and post-construction aquatic biological assessments during specified seasonal windows.

State Laws and Requirements

Porter-Cologne Water Quality Control Act

California's Porter-Cologne Act, enacted in 1969, provides the legal basis for water quality regulation within California. This Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or gaseous) to land or surface waters that may impair beneficial uses for surface and/or groundwater of the State. It predates the CWA and regulates discharges to waters of the State. Waters of the State include more than just waters of the U.S., like groundwater and surface waters not considered waters of the U.S. Additionally, it prohibits discharges of "waste" as defined and this definition is broader than the CWA definition of "pollutant". Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA, and regulating discharges to ensure compliance with the water quality standards. Details regarding water quality standards in a project area are contained in the applicable RWQCB Basin Plan. In California, Regional Boards designate beneficial uses for all water body segments in their jurisdictions, and then set criteria necessary to protect these uses. Consequently, the water quality standards developed for particular water segments are based on the designated use and vary depending on such use. In addition, the SWRCB identifies waters failing to meet standards for specific pollutants, which are then state-listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point source or non-source point controls (NPDES permits or Waste Discharge Requirements), the CWA requires the establishment of Total Maximum Daily Loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

State Water Resources Control Board and Regional Water Quality Control Boards

The SWRCB adjudicates water rights, sets water pollution control policy, and issues water board orders on matters of statewide application, and oversees water quality functions throughout the state by approving Basin Plans, TMDLs, and NPDES permits. RWCQBs are responsible for protecting beneficial uses of water resources within their regional jurisdiction using planning, permitting, and enforcement authorities to meet this responsibility.

Regional and Local Requirements

Section 401 of the Clean Water Act requires water quality certification from the SWRCB or from a RWQCB when the project requires a Clean Water Act Section 404 permit. Section 404 of the Clean Water Act requires a permit from the USACE to discharge dredged or fill material into waters of the U.S.

Along with Clean Water Act Section 401, Clean Water Act Section 402 establishes the NPDES permit for the discharge of any pollutant into waters of the United States. The federal Environmental Protection Agency has delegated administration of the NPDES program to the SWRCB and nine RWQCBs. The SWRCB and RWQCB also regulate other waste discharges to land within California through the issuance of waste discharge requirements under authority of the Porter-Cologne Water Quality Act.

All construction projects over 1 acre require a SWPPP to be prepared and implemented during construction. Construction activities less than 1 acre require a Water Pollution Control Program.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project will be conducting working within various designated locations work, predominately in existing roadway. However, problem locations do vary from proposed work within concrete storm channels, pipe drainages, roadside ditches, culverts. The City's storm drainage system empties into the surrounding creeks, predominately Arcade and Cripple Creek.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less Than Significant Impact. Stormwater discharges within portions of Sacramento County, including the City, are permitted under Phase II of the NPDES small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Sacramento RWQCB. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). The Proposed Project would be required to comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of LID practices, where applicable. Further, the Proposed Project would comply with the City's Design and Construction Standards (which provides standard erosion control BMPs) and will comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will adequately control erosion and effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b). The Proposed Project would be required to comply with the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, avoidance and minimization measures discussed below and the City's Stormwater Discharge Control Ordinance.

The City will perform the proposed work at a time and in a manner that minimizes adverse impacts to fish and wildlife resources and provides for the protection and continuance of those resources.

Specifically, the City would time the work with an awareness of precipitation and other events that could increase stream flows and with the understanding of the amount of time and materials necessary to implement erosion control measures. In addition, the City will cease the construction work and implement all reasonable erosion control measures before all storm events. The Proposed Project activities would not violate any water quality standards or waste discharge requirements. Therefore, the Proposed Project would result in ***Less Than Significant Impact*.** No mitigation is required.

b.) No Impact. No groundwater wells would be drilled as part of the Proposed Project. The Proposed Project would not deplete groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering of the local groundwater table level. The Proposed Project will be implementing new storm drainage facilities, thus as increased demand on existing domestic water supply would not result from this project. Therefore, the Proposed Project would result in a ***No Impact***. No mitigation is required.

c.) Less Than Significant Impact. The Proposed Project will improve drainage infrastructures and reduce flooding within designated problem locations. Minor ground disturbance within existing channels may be required but those activities would only be conducted during times of low-to-no-flow. Therefore, any minor ground disturbance actions are not anticipated to increase erosion and the Proposed Project would result in a ***Less Than Significant Impact***. No mitigation is required.

d.) Less Than Significant Impact. Storm drainage facility improvement activities would advance drainage flows and reduce potential flooding impacts by enhancing storm drainage infrastructures of the natural and man-made drainages within the City. The Proposed Project would be required to comply with the Phase II MS4 NPDES permit, the USACE Section 404 Nationwide Permit, City's Design and Construction Standards, and the City's Stormwater Discharge Control Ordinance. Impacts to surface runoff and flooding are considered to be a ***Less Than Significant Impact***, therefore, no mitigation is required.

e.) No Impact. The Proposed Project will correct existing storm drain facility deficiencies by improving drainage infrastructures and will reduce flooding with in designated problem areas. The Proposed Project is not anticipated to create or contribute runoff water, but rather improvement stormwater drainage facilities to accommodate existing runoff water capacities. Therefore, the Proposed Project would result in a ***No Impact*** in relation to exceeding local run-off capacities. No mitigation is required.

f.) Less Than Significant Impact. The storm drainage facility improvement activities would be required to comply with the City's Phase II MS4 NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, and the City's Stormwater Discharge Control Ordinance. By complying with the conditions specified in these documents, storm drainage construction impacts to water quality are considered a ***Less Than Significant Impact***. No mitigation is required.

g.) No Impact. The Proposed Project is located within a FEMA-designated 100-year Flood Zones

along Arcade and Cripple Creeks and their tributaries. However, the Proposed Project will improve storm drainage facilities and reduce flooding to the urban areas affected by the current deficient drainage infrastructures. Therefore, ***No Impact*** in relation to increasing flood hazards would result from the Proposed Project. No mitigation is required.

h.) No Impact. A hydraulic analysis was conducted and stormwater redirection was evaluated. The Proposed Project will direct stormwater runoff to surrounding creeks more efficiently and reduce flooding within the designated problem locations. Additionally, the Proposed Project would be required to comply with the City NPDES permit, the USACE Section 404 Nationwide 3 Maintenance permit, the City's Design and Construction Standards, and the City's Stormwater Discharge Control Ordinance. The Proposed Project will correct storm drainage deficiencies which will decrease flooding events and improve safety within designated locations. Therefore, the Proposed Project would result in a ***No Impact*** in relation to placing structures in flood hazards. No mitigation is required.

i.) No Impact. Pursuant to the City's Community Health Element of the General Plan, the City does not have any dams or levees in the project area. The Proposed Project would not result in an increased concentration of large numbers of persons in any at-risk location, and the Proposed Project would not have a significant impact on any emergency plans. No work on dams or levees will occur. Therefore, the Proposed Project would result in a ***No Impact***. No mitigation is required.

j.) No Impact. The Proposed Project site is not located near an ocean coast or enclosed body of water that could produce a seiche or tsunami, nor is the site located near areas having steep slopes that would create mudflows. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Biological resources avoidance and/or minimization measures in Section 3.4 (which also addresses water quality impacts) will be incorporated to further minimize potential impacts.

FINDINGS

All potentially significant environmental effects of the project relating to hydrology and water quality can be mitigated to a ***less-than-significant*** level.

3.10 Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
d. Result in land use/operational conflicts between existing and proposed on-site or off-site land uses?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project lies with Neighborhoods 8, 9 and 10 in the eastern portion of Sacramento County, within the City limits of Citrus Heights. According to the City's 2011 General Plan the project area land uses designations are categorized as low to medium residential areas, general commercial, business professional, public and open areas. Currently, Citrus Heights is about 98% built out, meaning little vacant land remains to be developed (Figure 6: Citrus Heights Land Use Diagram).

DISCUSSION OF CHECKLIST ANSWERS:

a.) No Impact. All activities would occur within existing roadways or drainage ways and facilities. The storm drainage facility improvement activities would primarily be installed underground, in existing roadway, and would not physically disrupt or divide an established community. Therefore, ***No Impact*** would result from the Proposed Project in relation to physically dividing a community. No mitigation is required.

b.) No Impact. The Proposed Project would not conflict with any applicable land use plan or policy, including the City's General Plan. Additionally, the designated problem locations identified by the Study have been incorporated into the City's CIP. Not change in land use is proposed, therefore, ***No Impact*** due to a conflict with a land use policy would occur. No mitigation is required.

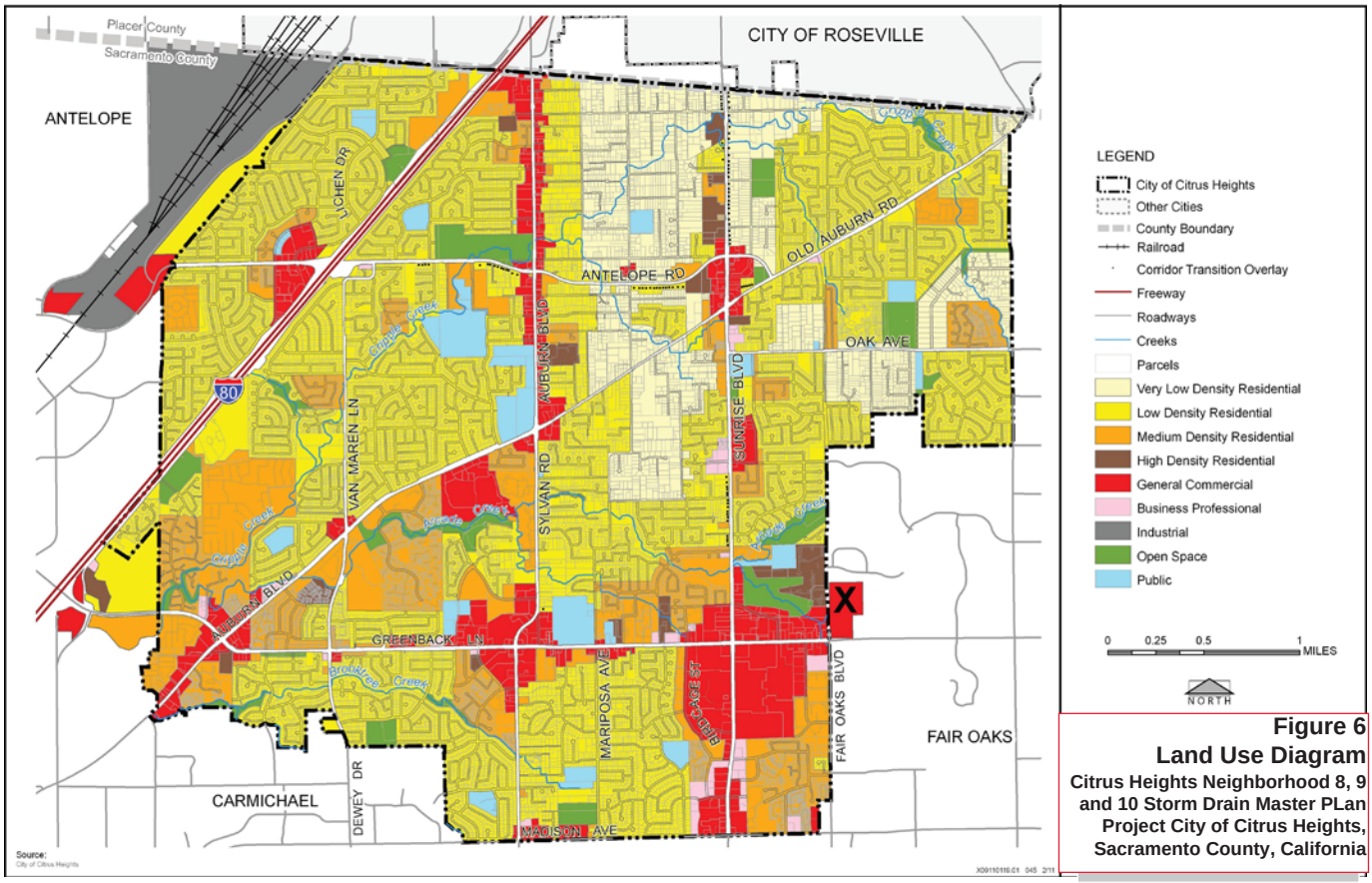


Figure 6
Land Use Diagram
Citrus Heights Neighborhood 8, 9 and 10 Storm Drain Master PLan Project City of Citrus Heights, Sacramento County, California

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c.) No Impact. There are no habitat conservation plans or natural community conservation plans within the City of Citrus Heights (Citrus Height General Plan 2011). Therefore, the project would not conflict with any existing habitat conservation plan or natural community's conservation plan. ***No Impact*** would result from the Proposed Project in relation to conflicting with conservation plans and policies. No mitigation is required.

d.) No Impact. The Proposed Project would remain consistent with existing uses and surrounding land uses and would not have the potential to result in land use or operational conflicts on- or off-site. The Proposed Project will be constructing storm drain infrastructures predominantly within existing roadways. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No impact to land use and planning resources are anticipated; therefore, no avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have ***less than significant*** impacts relating to land use and planning.

3.11 Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

According to the City General Plan EIR, the majority of the City is designated as MRZ-1, which is defined as "areas where adequate information indicates that no significant mineral deposits are present", with a small portion of the southwestern corner of the City is designated as MRZ-3, suggesting a potential for aggregate deposits. According to the City's General Plan, there are no mineral resources, and no aggregate and clay resources located in the designated problem locations.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. A record search of the Department of Conservation Mineral Resource Mapping and an of analysis the USGS Mineral Resources databases, as well as the City's General Plan, determined the Proposed Project would not result in loss of available known mineral resources or resources zones. Therefore, the Proposed Project would have ***No Impact*** on mineral resources. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have no impacts relating to mineral resources.

3.12 Noise

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project vicinity to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project vicinity to excessive noise levels?	☐	☐	☐	☒

REGULATORY SETTING

Federal Regulations

In response to the Federal Noise Control Act of 1972, the EPA has identified noise levels requisite to protect public health and welfare against hearing loss, annoyance and activity interference (Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, U.S. EPA 1974). One of the purposes of the EPA document is to provide a basis for State and local governments' judgments in setting standards. In doing so, the information presented by the EPA must be utilized along with other relevant factors. These factors include the balance between costs and benefits associated with setting 4.7 – NOISE Citrus Heights

City Hall and Medical Office Building Draft EIR 8628 December 2014 4.7-10 standards at particular noise levels, the nature of the existing or projected noise problems in any particular area, and the local aspirations and the means available to control environmental noise.

The EPA document identifies a 24-hour exposure level of 70 dB as the level of environmental noise which would prevent any measurable hearing loss over a lifetime. Likewise, levels of 55 dB outdoors and 45 dB indoors are identified as preventing activity interference and annoyance. At these noise levels, it is expected that most people will be able to engage in typical activities such as spoken conversation, sleeping, working and recreation. The levels are not single event or peak levels. Instead, they represent averages of acoustic energy over periods of time such as 8 or 24 hours and over even longer periods (e.g., years).

State Regulations

The State of California requires that all municipalities prepare and adopt a comprehensive long-range general plan. General plans must contain a noise element (California Government Code Section 65302(f) and Section 46050.1 of the Health and Safety Code). The requirements for the noise element of the general plan include describing the noise environment quantitatively using a cumulative noise metric such as CNEL or Ldn, establishing noise/land use compatibility criteria, and establishing programs for achieving and/or maintaining land use compatibility. Noise elements should address all major noise sources in the community including mobile and stationary noise sources. As discussed below, the City of Citrus Heights General Plan incorporates the State of California Community Noise Exposure Guidelines as part of the City's framework for regulating noise levels within the community.

Local Regulations

The City of Citrus Heights General Plan Applicable goals and policies from the City's General Plan that address noise are listed below:

Policy 52.3: Protect the community, especially noise sensitive receptors, including schools, residences and care facilities, from excessive noise. Residential uses located in a commercial zone are not considered noise sensitive receptors.

Policy 52.4: Require major development proposals to reduce noise impacts on adjacent properties through appropriate techniques including, but not limited to, the following strategies:

- Permit well-designed sound walls when compatible with the surrounding area
- Screen and control noise sources such as parking, loading docks and mechanical equipment
- Increase setbacks for noise sources from adjacent dwellings
- Whenever possible, retain fences, walls or landscaping that serve as noise buffers (although design, safety and other impacts must also be addressed)
- Use soundproofing material and double-glazed windows
- Control hours of operation, including deliveries and trash pickup

Policy 52.5: When located adjacent to existing or planned sensitive residential and public/quasi-public uses, require new nonresidential development to mitigate noise to a maximum of 60 dBA Ldn at the property line.

City of Citrus Heights Municipal Code

The City of Citrus Heights Noise Ordinance (Section 34-86) establishes the noise level performance standards shown in Table 3 below.

Table 9: Hourly Noise Level Performance Stationary Noise Sources

Hourly Noise Level Performance Standards for Stationary Noise Sources		
Cumulative Duration of the Intrusive	Acceptable Noise Level, dBA[1]	
	Daytime (7 am - 10 pm)	Nighttime (10 pm - 7 am)
30 (L50)	55	50
15 (L25)	60	55
5 (L8)	65	60
1 (L2)	70	65
Level not to be exceeded for any time per hour (Lmax)	75	70

Notes:

1 Each of the noise limits specified in this table shall be reduced by five dBA for impulsive or simple tone noises or for noises consisting of speech or music.

2 Ln means the percentage of time the noise level is exceeded during an hour. L50 means the level exceeded 50% of the hour; L25 is the level exceeded 25% of the hour, etc.

3 If the ambient noise level exceeds that permitted by any of the first four noise limit categories specified in subsection of this section, the allowable noise limit shall be increased in five-dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

Source: j.c. brennan 2014, adapted from City of Citrus Heights Noise Ordinance.

The City's Municipal Code includes an exemption for construction noise, provided below. Chapter 34 – Environment, Article III, Sec. 34-88. - Exemptions.

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided the activities do not take place between the hours of 8:00 p.m. and 6:00 a.m. on weekdays and Friday commencing at 8:00 p.m. through and including 7:00 a.m. on Saturday, Saturdays commencing at 8:00 p.m. through and including 7:00 a.m. on the next following Sunday, and on each Sunday after the hour of 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner would be allowed to continue work after 8:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner.

The City of Citrus Heights does not have specific policies governing vibration levels. However, Section 106.30.080 of the City's Zoning Ordinance bans perceptible vibrations at the property line of a site. The exact language of the Zoning Ordinance is as follows:

> *E. Ground vibration. No ground vibration shall be generated that is perceptible without instruments by a reasonable person at the property lines of the site, except for vibrations from temporary construction or demolition activities, and motor vehicle operations.*

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project area is within the urban area of Sacramento County. The noise environment near the project locations is dominated by traffic sources. Background noise levels are influenced by the existing surrounding residential and commercial areas. Traffic remains the dominant noise source within the project locations. Noise may be generated during construction activities by traffic associated with transport of heavy materials and equipment to and from construction sites and the use of motorized equipment during construction activities. Noise sources such as chainsaws, bobcats and backhoes could be used as construction equipment.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less Than Significant Impact wit Mitigation Incorporated. Increased noise levels associated with the construction of the build alternative would occur in short durations, and would occur during daytime hours. Examples of noise generating actions involved in construction activities would generate maximum noise levels, as indicated in Table 4 below, ranging from 74 to 90 dB at a distance of 50 feet.

Table 10: Typical Maximum Construction Equipment Noise Levels

Typical Maximum Construction Equipment Noise Levels		
ID	**Type of Equipment**	**Range of Maximum Sound Level Measured at 50 feet (dBA)**
1	Pneumatic Tools	78 to 88
2	Pumps	74 to 84
3	Dozers	77 to 90
4	Tractors	77 to 82
5	Front-End Loaders	77 to 90
6	Hydraulic Backhoes	81 to 90
Typical Maximum Construction Equipment Noise Levels		
ID	**Type of Equipment**	**Range of Maximum Sound Level Measured at 50 feet (dBA)**
7	Hydraulic Excavators	81 to 90
8	Graders	79 to 89
9	Air Compressors	76 to 89

Source: (Bolt, Beranek, and Newman 1987).

Pursuant to the City's Noise Ordinance, exterior noise standards would apply to all properties within the City and should not exceed 55 dBA $_{Leq}$ during daytime hours (7:00 A.M. to 10:00 P.M.) and 50 dBA $_{Leq}$ during nighttime hours (10:00 P.M. to 7:00 A.M.). All proposed construction activities adhere to the City's established Noise Ordinance and would be temporary in nature and are anticipated to occur during normal daytime working hours. The project is anticipated to comply with all local and regional regulations. Additionally, with the implementation of Mitigation Measure **NOI-1** the project will have an impact of less than significant with mitigation incorporated. Construction-related noise would result in a ***Less Than Significant Impact with Mitigation Incorporated.***

b.) Less Than Significant Impact. Much of the proposed construction activities require the use of construction equipment (such as, excavators, backhoes, dump trucks, and bobcats) that would generate small amounts of groundborne vibration. One location (designated problem location 6) require horizontal direction drilling (HDD). HDD is a construction technique whereby a tunnel is drilled under a waterway or other designated area, and a pipeline or other utility is pulled through the drilled underground tunnel. Typical HDD mobile drill rigs produce noise levels of approximately 80 dBA at a distance of 50 feet, based on federal construction contractor standards (CERL 1978). However, since the duration of impact at any one location would be very brief and since the impact would occur during less sensitive daytime hours, the impact from construction-related groundborne vibration and groundborne noise would result in a ***Less Than Significant Impact.***

c.) No Impact. The Proposed Project would likely result in temporary increases in noise from use of construction equipment for the duration of the construction activity. However, the construction of stormwater improved drainage facilities would not create any permanent noise sources at any of the project sites. Therefore, the Proposed Project would have ***No Impact*** in relation to an permanent increase in local noise. No mitigation is required.

d.) Less Than Significant Impact with Mitigation. The Proposed Project would result in a temporary noise increase from use of power tools and construction equipment. The City would comply with all applicable noise and occupational safety standards, and to protect workers and other persons from health effects of increased noise levels from the use of construction equipment. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Mitigation Measure **NO-1** will be implemented to minimize any potential noise disturbance created by the Proposed Project. Therefore, temporary or periodic increases in ambient noise levels would be a ***Less Than Significant Impact with Mitigation*****.**

e, f.) No Impact. The Proposed Project site is not located near an existing airport and is not within an area covered by an existing airport land use plan. Therefore, there would be ***No Impact***. No mitigation is required

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and/or minimization measures **NOI-1** would be incorporated to further minimize potential impacts

NOI-1: The Contractor shall follow the Sacramento County noise ordinances for construction activities:

- Work activities shall occur within the hours of 7 a.m. to 6 p.m. for the duration of construction.
- Use an alternative waiting method instead of a sound signal unless required by safety laws.
- Equip an internal combustion engine with the manufacturer-recommended muffler.
- Do not operate an internal combustion engine on the job site without the appropriate muffler.

FINDINGS

The project would have ***no impacts*** relating to noise.

3.13 Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

REGULATORY SETTING

CEQA also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents "…discuss the ways in which the Proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment…"

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project lies with Neighborhoods 8, 9 and 10 in the eastern portion of Sacramento County, within the City limits of Citrus Heights. According to the City's 2011 General Plan the project area land uses designations are categorized as low to medium residential areas, general commercial, business professional, public and open areas.

DISCUSSION OF CHECKLIST ANSWERS:

a-c.) No Impact. The Proposed Project will not affect population and housing. Planned drainage improvement activities within the designated problem locations have been incorporated into the City's CIP and will occur predominantly in the City's right-of-way. No change in land-use in anticipated through the project. Additionally, the Proposed Project would not directly or indirectly induce population growth, displace housing or necessitate construction of replacement housing. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

The project will have no impacts relating to population and housing; therefore, no avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impacts*** relating to population and housing.

3.14 Public Services

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:					
a.	Fire protection?	☐	☐	☒	☐
b.	Police protection?	☐	☐	☒	☐
c.	Schools?	☐	☐	☒	☐
d.	Parks?	☐	☐	☒	☐
e.	Other public facilities?	☐	☐	☒	☐

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The public services directly located within the project areas (Neighborhoods 8, 9 and 10) includes; an elementary school, a high school and 4 parks (Figure 7: Public Service Locations). Woodside K-8 School is located at 8248 Villa Oak Drive, which is within Neighborhood 8. Problem location 9 is the closet project area to the school and is approximately 0.36 miles away. San Juan High School is located with Neighborhood 10, at 7551 Greenback Lane. The closest problem location, 5, is approximately 2.7 miles away. C-Bar-C Park is located at 8275 Oak Avenue, within Neighborhood 8. Problem location 9 is the closest project area and is approximately 0.1 miles from C-Bar-C Park. Tempo Park is located at 13125 Fair Oaks Boulevard and lies within Neighborhood 9. Problem location 7 is the closest project area and is approximately 0.78 miles from Tempo Park. Sunrise Golf and Disc Golf Course, a public course, is located at 7925 Arcadia Drive, which is located within Neighborhood 9. Problem location 7 is the closest project area and is approximately 0.25 miles from the golf course. Sunrise Oaks is a park which is located at 7226 Sunrise Blvd, within Neighborhood 9. The closest project location is location 8 and is approximately 0.13 miles away. The closest fire department to the Proposed Project is Metro Fire Station 28 and it is located at 8189 Oak Ave. The Citrus Height Police Department is located just outside the project area, at 6315 Fountain Square Drive.

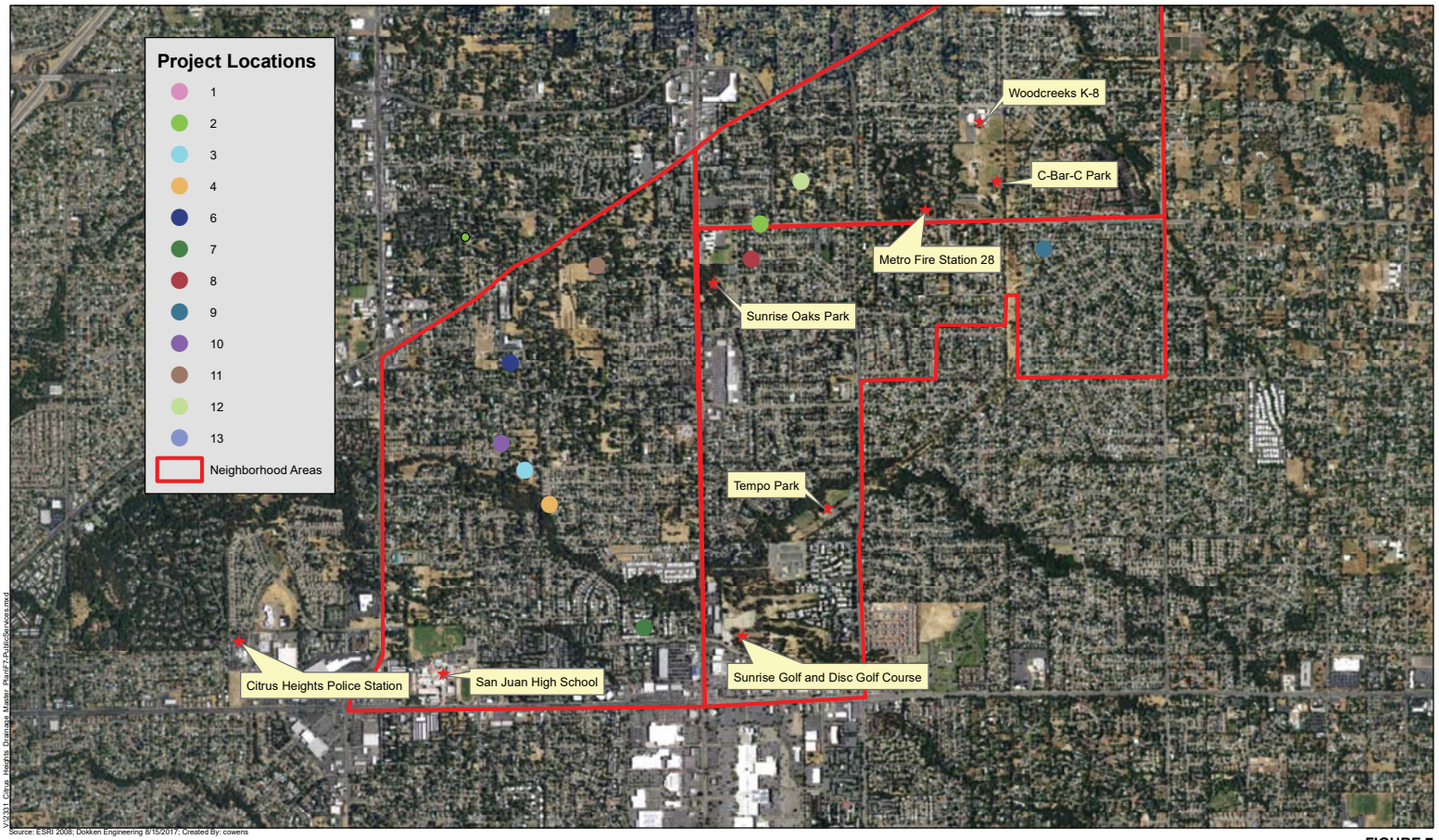

FIGURE 7
Public Service Locations

Project Name
Citrus Heights, Sacramento, California

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DISCUSSION OF CHECKLIST ANSWERS:

a-e.) Less Than Significant. The project would not result in the need for new public services beyond what was anticipated in the City's 2011 General Plan. The project does not propose a new housing or commercial development that would require additional school facilities, police, and/or fire services. The Proposed Project involves improvements to existing drainage features and some new construction of runoff flow control features. By implementing the Proposed Project, service and potential emergency response times may be improved by decrease flooding events. The proposed improved storm drainage facilities would not result in a population increase; the project accommodates existing and planned growth. The proposed project is consistent with the City's General Plan and land use designations.

The project would have less than significant impact on emergency access. Roadways within the designated project locations would be kept open throughout construction for through traffic. Response times are not anticipated to be affected during construction. In the long-term, it is anticipated that the improved storm drainage facilities would better serve emergency vehicles by reducing flooding areas within Neighborhoods 8, 9 and 10. Measure **TRA-1** in Section 3.16 would be implemented to further avoid any temporary impacts to emergency access as a result of construction activities to a less than significant level. Therefore, ***Less Than Significant*** would result from the development of the Proposed Project.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Avoidance and/or mitigation measure present in Section 3.16, Traffic/Transportation, TRA-1 iwill be implemented to further minimize any potential impacts.

FINDINGS

The project would have ***less than significant*** impacts relating to public services.

3.15 Recreation

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As stated in the previous section, C-Bar-C Park, Tempo Park, Sunrise Golf and Disc Golf Course and Sunrise Oaks lie within the designated project Neighborhood 8, 9 and 10. None of the listed parks are directly within or adjacent to any of the designated problem locations.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. The Proposed Project will not affect recreation or recreation facilities in the area because the Proposed Project involves infrastructure improvement activities to existing drainage channels and other stormwater facilities, predominantly within existing roadways. The Proposed Project will not create new housing or impact the use of existing facilities. ***No Impact*** would result from the Proposed Project; therefore, no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, and/or mitigation measures are proposed.

FINDINGS

The project would have ***no impact*** to environmental effects relating to recreation.

3.16 Transportation/Traffic

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☒	☐	☐
f. Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Proposed Project locations are within Citrus Heights residential Neighborhoods 8, 9 and 10. Project locations occur within highly developed Neighborhoods that contain medium to highly populated areas. The Average Daily Traffic (ADT) Data illustrates a range of daily limits among the project locations from 1,000 to 13,000. Table 5 illustrates the ADT data recorded for areas closest to each designated problem location.

Table 11: ADT data recorded for areas closest to each designated problem location

Project Location	ADT Data Collection Location	ADT Count	Distance from Project Location
1	Old Auburn between Wachtel and Linda Creek 8	13,520	700 feet
2	Canelo Hills S/O Oak	2,244	500 feet
3 & 4	Highland between Sunrise and Mariposa	1,944	0 (within project location)
5	Mariposa 300' S/O Greenback	4,355	1,500 feet
6 & 10	Mariposa 300' S/O Old Auburn	2,323	1,700 feet
7	Arcadia between Greenback and Sunrise	3,568	1,200feet
8	Canelo Hills S/O Oak	2,244	300 feet
9	Oak between Fair Oaks and Wachtel	11,231	1,200 feet
11	Bonita S/O Auburn	1,051	0 (within project location)
12	Fair Oaks between Old Auburn and Oak	16,510	1,000 feet

Source: City of Citrus Heights, 2016.

During construction, designated areas may be reduced to single lane traffic to allow for work to be conducted in a safe manner. A slight delay in traffic may occur. However, designated project locations are relatively small in size, and because the proposed construction work will be temporary in any given designated project location, the project is not anticipated to significantly impact motorists, pedestrians or bicyclists.

DISCUSSION OF CHECKLIST ANSWERS:

a/b.) No Impact. The Proposed Project does not conflict with the City's Neighborhood Traffic Management Program, but rather services to implement the City's CIP Neighborhood Areas 8, 9 and 10 Master Drainage Plan Implementation, which has anticipated the construction of drainage

improvements to reduce flooding in the designated neighborhoods. Roadways within designated problem location may be temporarily reduced to single lane traffic to allow for work to be conducted in a safe manner but project locations are small and construction work will be temporary. Therefore, ***No Impact*** in relation to conflicting with any transportation or congestion plans would result from the Proposed Project. No mitigation is required.

c.) No Impact. The Proposed Project does not require any changes to existing regional air traffic activity, and the project site is not located near an airport. Therefore, there would be ***No Impact*** in relation to influencing air traffic patterns. No mitigation is required.

d.) No Impact. The Proposed Project does not require any changes to existing roadway geometric. Design features would comply with City standards, or as appropriate, would be approved as non-standard features. The project would not increase hazards due to design features or incompatible uses. The project would not substantially increase hazards due to a design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, there would be ***No Impact*** in relation to design features, No mitigation is required.

e.) Less-than-significant with Mitigation. During construction, the project may have a less-than-significant impact on emergency access. Residential roadways near designated problem locations would remain open throughout construction for through traffic but the reduction to single-lane traffic may cause delays. Response times are not anticipated to be significantly affected during construction. In the long term, it is anticipated that the improved drainage facilities would better serve emergency vehicles by reducing road hazard conditions during large storm events. Implementation of **TRA-1** would further minimize any potential impacts to emergency access during construction activities. The Proposed Project impact would be ***Less-than-significant with Mitigation***.

f.) No Impact. The proposed improved drainage facility activities would not affect the City's overall transportation service goals and there would be no conflicts with adopted policies, plans, or programs supporting alternative transportation. The project would potentially have an positive effect on public access by allowing roadways to remain open during storm events. Therefore, ***No Impact*** would result from the Proposed Project in relation to conflicting with adopted public transportation policies. No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

TRA-1: Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing, signage, and a traffic control plan.

FINDINGS

All potentially significant environmental effects of the project relating to transportation/traffic can be mitigated to a less-than-significant level.

3.17 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

REGULATORY SETTING

Effective July 1, 2015, CEQA was revised to include early consultation with California Native American tribes and consideration of tribal cultural resources (TCRs). These changes were enacted through Assembly Bill 52 (AB 52). By including TCRs early in the CEQA process, AB 52 intends to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to TCRs. CEQA now establishes that a "project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC § 21084.2).

To help determine whether a project may have such an adverse effect, the PRC requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. The consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (PRC § 21080.3.1). Consultation must consist of the lead agency providing formal notification, in writing, to the tribes that have requested notification or proposed projects within their traditionally and culturally affiliated area. AB 52 stipulates that the Native American Heritage Commission (NAHC) would assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated within

the project area. If the tribe wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. Once the lead agency receives the tribe's request to consult, the lead agency must then begin the consultation process within 30 days. If a lead agency determines that a project may cause a substantial adverse change to TCRs, the lead agency must consider measures to mitigate that impact. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2). Under existing law, environmental documents must not include information about the locations of an archaeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records act. TCRs are also exempt from disclosure. The term "tribal cultural resource" refers to either of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
- Included or determined to be eligible for inclusion in the California Register of Historical Resources
- Included in a local register of historical resources as defined in subdivision (k) of California Public Resources Code (PRC) Section 5020.1
- A resource determined by a California lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the PRC Section 5024.1.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The area of potential effects (APE) was defined to include all ground disturbing activities required for construction of the various storm drain project area. Much of the project involves replacing the underground storm drain in place by pushing the new storm drain through the existing drain. Above ground activities include the construction of ditches and gutters, swales, overland releases, and a proposed basin. The ditches and gutters will be along existing streets, while the swales, overland releases, and basins will be conducted in open fields and through lawn areas.

Throughout the majority of the project area, the vertical APE would be less than five feet to accommodate clearing/grubbing, grading, and roadway improvement depths. The areas where the vertical APE would be deeper for the basins at 4 feet deep and for the storm drain replacement, which could be as deep as 12 feet. The APE amounts to approximately 22 acres.

Efforts to identify potential cultural resources in the APE included background research, a search of previously recorded archaeological site records and cultural resource identification reports on file at the California Historical Resources Information System NCIC, efforts to coordinate with Native American representatives, efforts to coordinate with local historical organizations, and a pedestrian ground surface survey.

On April 12, 2017, Dokken Engineering sent a letter and a map depicting the project vicinity to the

NAHC in West Sacramento, asking the commission to review the sacred land files for any Native American cultural resources that might be affected by the project (Appendix C). The request to the NAHC seeks to identify any Native American cultural resources within or adjacent to the project area. A list of Native American individuals who might have information or concerns about the project was also requested. On April 19, 2017, Sharaya Souza (NAHC Staff Services Specialist), informed Dokken Engineering via email that a review of the sacred lands file failed to indicate the presence of native American cultural resources in the "immediate project area" (Appendix C).

The City sent AB52 letters via certified mail to tribes who requested to be notified of proposed project on June 12, 2017. The letters provided a summary of the project and requested information regarding comments or concerns the Native American community might have about the project (Appendix C). Letters were sent to the following individuals and organizations:

- Chairperson Gene Whitehouse, United Auburn Indian Community Auburn Rancheria
- Randy Yonemura, Ione Band of Miwok Indians
- Antonio Ruiz, Wilton Racheria

No response from the tribes was received within 30 days of receipt of AB52 notification letter from the City. Therefore, no TCRs have been identified within or near the project area.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less than Significant with Mitigation. The project is not anticipated to cause a substantial adverse change in the significance of a TRC listed or eligible for listing in the California Register of Historical Resources, or in a local register of historic resources as defined in Public Resources Code section 5020.1(k). No cultural resources were identified during the visual survey, record search, and Native American consultation. No impacts are anticipated for the proposed Project related to archaeological resource; however, with any Project requiring ground disturbance, there is always the possibility that unmarked cultural resources may be unearthed during construction. This impact would be considered potentially significant. Implementation of Mitigation Measure **CR-1** through **CR-4** would reduce this impact to **less-than significant with mitigation**.

b.) Less than Significant with Mitigation. The project is not anticipated to cause a substantial adverse change to a Tribal Cultural Resource (TRC) pursuant to criteria set forth in subdivision (c) of Public Resources Cod Section 5024.1. No cultural resources were identified during the visual survey, record search, and Native American consultation. No impacts are anticipated for the proposed Project related to archaeological resource; however, with any Project requiring ground disturbance, there is always the possibility that unmarked cultural resources may be unearthed during construction. This impact would be considered potentially significant. Implementation of Mitigation Measure **CR-1** through **CR-4** would reduce this impact to **less-than significant with mitigation**.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Mitigation Measures **CR-1** through **CR-42** within section 2.5 will be implemented for any impacts relating to Tribal Cultural Resources.

FINDINGS

The project impacts to Tribal Cultural Resources would be ***less than significant with mitigation***.

3.18 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☐	☐	☐	☒
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

REGULATORY SETTINGS

Federal and State Regulations

Clean Water Act and State Water Resources Control Board

With regard to wastewater, the Federal CWA and regulations set forth by the California Department of Health Services (CDHS) and SWRCB are aimed primarily at discharges of effluent to surface

waters. Title 40 of the Code of Federal Regulations (CFR) Part 503, Title 23 California Code of Regulations, and standards established by the Central Valley Regional Water Quality Control Board regulate the disposal of biosolids generated by wastewater treatment plants. Under the CWA, the Regional Water Quality Control Board administers programs related to wastewater treatment.

Local Regulations

Sacramento County and the City of Citrus Heights submitted a completed Report of Waste Discharge (ROWD) on 1 June 2007, requesting reissuance of waste discharge requirements under the NPDES area-wide MS4 permit to discharge stormwater runoff from storm drains within their jurisdictions. Included with the ROWD was the Permittees' Stormwater Quality Improvement Plans (SQIPs SWMP)). The SQIP is required as part of the ROWD pursuant to 40 CFR 122.26(d)(2)(iv); therefore it is an integral and enforceable component of the MS4 permit. In addition, the California Superior Court ruled, "Because the Stormwater Management Plan is incorporated and is deemed an integral part of the Permits…any changes to the Plan are actually changes to the Permits. Because these are changes to the Permits, the notice and comment requirements must be complied with." (San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region, Consolidated Case No. 500527, California Superior Court, 14 November 2003).

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As discussed in Section 3.14, the public services serving the project area includes Woodside K-8 School, San Juan High School, C-Bar-C Park, Tempo Park, Sunrise Oaks, and Sunrise Golf and Disc Golf Course.

Water, sewer, electric, fiber optic and petroleum lines are currently located in the project areas. Utility providers within Neighborhoods 8, 9 and 10 include the Citrus Heights Water District, Cal American Water Company, Sacramento Suburban Water District, SMUD, Pacific Gas and Electric, and the Sacramento Regional County Sanitation District.

In addition, SMUD operates an overhead high voltage electricity transmission line adjacent to Problem Location 9. The build alternative for Problem Location 9 does include a new stormdrain line and a detention basin near the SMUD transmission lines. The City will coordinate with SMUD to develop a Joint Use Agreement between the Sunrise Parks District (property owner), SMUD and the City of Citrus Heights that will minimize potential impacts to the SMUD high voltage lines.

DISCUSSION OF CHECKLIST ANSWERS:

a.) No Impact. The proposed Project would not include the construction of any wastewater-generating uses. The proposed Project would not increase population in the project vicinity, and there would be no additional wastewater flows as a result of project development; therefore, the proposed Project would not have an adverse effect on wastewater treatment requirements. No Impact would result from development of the proposed Project, and no mitigation is required.

Additionally, stormwater discharges within portions of Sacramento County, including the City, are permitted under Phase II of the NPDES small municipal stormwater program MS4 (Order No. R5-2016-0040-004). The program is part of the Federal Clean Water Act, administered in California by the Regional Water Quality Control Boards. The NPDES regulations require permitted areas to implement specific activities and actions to protect water quality by eliminating non-stormwater discharges and controlling stormwater pollution (SWRCB 2016). As a requirement, the Proposed Project would comply with the City's MS4 permit for discharges of urban runoff from, including the implementation of LID practices, where applicable. Further, the Proposed Project would comply with the City's Stormwater Discharge Control Measures, listed in the City's Municipal Code (Chapter 98. Article V), which will effectively prohibit non-stormwater discharges (City of Citrus Heights 2017b). The Proposed Project is not anticipated to impact wastewater treatment services. Therefore, ***No Impact*** would result from the Proposed Project in relation to exceeding wastewater treatment requirements. No mitigation is required.

b.) No Impact. The Proposed Project would redirect stormwater runoff to one of the three major creeks within the City Limits; Cripple Creek, Arcade Creek and San Juan Creek. The redirected water will not have any impact on wastewater treatment facilities capacities. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

c.) No Impact. Proposed Project activities will result in the improvement of drainage channels and the establishment of new storm drainage facilities within the designated neighborhoods which ultimately would improve stormwater drainage within the City. The project aims to address the existing drainage facility deficiencies and is anticipated to have an positive effect on the City's drainage network. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

d.) No Impact. The Proposed Project will be improving stormwater drainage facilities, no impact to increased housing or population will result from the Proposed Project. Therefore, ***No Impact*** in relation in increasing water demand would result from the Proposed Project. No mitigation is required.

e.) No Impact. The proposed drainage facilities would redirect stormwater runoff to local wastewater treatment facilities. The redirected water will not exceed treatment facilities capacities and will not result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. Therefore, ***No Impact*** would result from the Proposed Project. No mitigation is required.

f.) Less Than Significant Impact. The proposed Project would not generate substantial solid waste during operation. Solid waste may be generated during construction; however, the amount will not exceed landfill capacities. This would not affect landfill capacity because the amounts would not be substantial and would occur only during the construction period. Therefore, impacts associated with development of the proposed Project would be considered ***Less Than Significant Impact*** and no mitigation is required.

g.) Less Than Significant Impact. The Proposed Project would comply with federal, state, and local

statutes and regulations related to solid waste; therefore, impacts associated with compliance with federal, state, and local statutes and regulations related to solid waste would be considered ***Less Than Significant Impact*** and no mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

No avoidance, minimization, and/or mitigation measures are required for utilities and service systems.

FINDINGS

The project would have **less than significant impact** relating to utilities and service systems.

3.19 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

REGULATORY SETTING

The CEQA Checklist includes the following questions under Mandatory Findings of Significance:

Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

As discussed in Section 3.4, Biological Resources, the project would have less than significant impact with mitigation implemented. Threatened and endangered fish or wildlife species are not anticipated to be within the Project Areas due to poor environmental conditions; measures are proposed to further lessen the potential for impact. With these measures cumulatively considerable impacts are not anticipated. Further, cultural studies concluded that the project would have no effect on known cultural resources. Standard measures for inadvertent discovery would also avoid potential impacts. The project does not require relocation of housing and impacts to noise and air is anticipated to be less than significant.

DISCUSSION OF CHECKLIST ANSWERS:

a.) Less Than Significant With Mitigation Incorporated. As discussed in this ISMND, the Proposed Project would result in impacts to biological and cultural resources but, these impacts would be mitigated to less than significant levels. Mitigation measures included in this document have been identified to reduce these potentially adverse environmental impacts to a less than significant level. Impacts related to the Proposed Project are considered ***Less Than Significant With Mitigation Incorporated***.

b.) Less Than Significant Impact. The Proposed Project does not directly or indirectly contribute to cumulative impacts based on analysis provided within this ISMND. The Proposed Project would not induce population growth or result in the development of new housing or employment-generating uses. The project will correct the existing identified drainage deficiencies. Therefore, the Proposed Project would not combine with cumulative development to create a cumulative effect related to increased demand for services or utilities, the expansion of which could result in significant environmental effects. The proposed drainage improvement construction activities will result in a ***Less Than Significant Impact***.

c.) Less Than Significant Impact. As discussed in this study, the Proposed Project could result in impacts on human beings indirectly due to air quality and noise impacts. However, all potential air quality and nose impacts proposed by the project work would be temporary. Additionally, avoidance and minimization measures included in this study would reduce impacts to less-than-significant levels. Impacts are considered ***Less Than Significant.*** No mitigation is required.

AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

Please see all avoidance, minimization, and mitigation measures included in Appendix A: Mitigation Monitoring and Reporting Program.

FINDINGS

All potentially significant environmental effects of the project can be mitigated to a ***less-than-significant*** level.

4.0 REPORT PREPARERS

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6.0 DISTRIBUTION LIST

Public Agencies	
California Dept. Fish & Wildlife North Central Region 1701 Nimbus Rd. Rancho Cordova, CA 95670	Regional Water Quality Control Board Central Valley Region 11020 Sun Center Drive, Suite 200 Rancho Cordova, CA 95670
Public Utilities	
AT&T ATTN: Astrid Willard 2700 Watt Ave, # 3473-11 Sacramento,CA 95821	City of Citrus Heights ATTN: Leslie Blomquist 6360 Fountain Square Dr. Citrus Heights, CA 95621
Citrus Heights Water District ATTN: Hilary Strauss 6230 Sylvan Rd. Citrus Heights, CA 95611	Comcast Communications ATTN: Steve Abeilia 1242 National Drive Sacramento, CA 95834
Surewest ATTN: Tony Nolasco 114 Vernon St. Roseville, CA 95678	PG&E ATTN: Adam Egbert 343 Sacramento St. Auburn, CA 95603
PG&E ATTN: Don Hendricks 5555 Florin Perkins Rd. #142 Sacramento, CA 95826	Sac Area Sewer District ATTN: Rob Espinoza 10060 Goethe Rd. Sacramento, CA 95827
SMUD ATTN: Shane Nelson 4401 Bradshaw Rd. MSEA 105 Sacramento, CA 95827	XO Communications 855 Mission Ct. Fremont, CA 94539
Interested Parties	
United Auburn Indian Community ATTN: Marcos Guerrero 10720 Indian Hill Road Auburn, CA 95603	

Appendix A — Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Air Quality – Avoidance and Minimization Measures					
AQ-1: Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.	During Construction	City of Citrus Heights			
AQ-2: Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.	During Construction	City of Citrus Heights			
AQ-3: Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.	During Construction	City of Citrus Heights			
AQ-4: Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).	During Construction	City of Citrus Heights			
AQ-5: All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.	During Construction	City of Citrus Heights			
AQ-6: Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.	During Construction	Contractor			
Biological Resources - Avoidance and Minimization Measures					
BIO-1: If wildlife is encountered during construction activities, work will stop within the area and the animal will be allowed to leave the project area un-harassed.	During Construction	City of Citrus Heights			
BIO-2: Plastic mono-filament netting (erosion control matting) or similar material that could trap wildlife will not be used. Acceptable substitutes include jute, coconut coir matting or tackified hydroseeding compounds.	During Construction	City of Citrus Heights			
BIO-3: Soil disturbance within the bed, bank and channel of creeks will be limited to the minimum area necessary to complete construction activities. Existing vegetation will be protected where feasible and disturbed/exposed soils will be stabilized to prevent erosion and sedimentation	During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
BIO-4: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur at a minimum of 100 feet from waters and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over drip pans.	During Construction	City of Citrus Heights			
BIO-5: Prior to arrival at a project location site, the City must clean all equipment that may contain invasive plants and/or seeds to reduce the spreading of noxious weeds.	Prior to Construction	City of Citrus Heights			
BIO-6: Where ground disturbance occurs, the surface of temporarily impacted riparian and wetland habitat will be regraded and restored to pre-construction contours (if applicable). Site restoration with container plants or a native seed mix may be required if vegetation removal included soil grubbing to quickly regenerate mature vegetation.	Post Construction	City of Citrus Heights			
BIO-7: The City would implement provisions of the Native Oak Tree Ordinance to compensate for the removal of protected oaks by planting new trees or by payment of an in-lieu fee pursuant to City of Citrus Heights Municipal Code: Section 106.39.020. • The City would implement provisions of the Tree Ordinance to compensate for the removal of protected trees by planting new trees or by payment of an in-lieu fee pursuant to Sec. 106.39.060 • The amount of encroachment within the protected zone and tree removal of City protected trees will be minimized to the greatest extent practicable.	During Construction	City of Citrus Heights			
BIO-8: Prior to beginning work within a creek corridor, the City construction supervisors and crews who would be completing the work must be trained by qualified personnel to identify and avoid harm to sensitive resources, special status	During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
species and their habitats. The program shall consist of a presentation from the Designated Biologist that includes a discussion of the biology of the habitats and species that may occur during the proposed work. The Designated Biologist shall also include as part of the education program information about the distribution and habitat needs of any special-status species that may be present, legal protections for those species, penalties for violations and project-specific protective measures. Interpretation shall be provided for non-English speaking workers, and the same instruction shall be provided for any new workers prior to their performing work on-site. Permittee shall prepare and distribute wallet-sized cards or a fact sheet that contains this information for workers to carry on-site. Upon completion of the education program, employees shall sign a form stating they attended the program and understand all protection measures.					
BIO-9: Prior to the proposed work being conducted within rare plant habitat, pre-construction rare plant surveys may be required. If it is determined that there is a potential for rare plants to occur, construction areas would be surveyed for rare plants by a City appointed biologist during the appropriate bloom period for Sanford's arrowhead (May – October). If Sanford's arrowhead populations are discovered onsite, they will either be protected in place with orange ESA fencing or relocated to a CDFW approved location.	Prior/During Construction	City of Citrus Heights			
BIO-10: The time period for completing the work within the wetted channel of Arcade Creek, Cripple Creek, their tributaries, and all other stream systems shall be restricted to periods of low stream flow and dry weather and shall be confined to the period of May 1st to October 15th. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to	Prior to Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
all storm events. Revegetation, restoration and erosion control work is not confined to this time period.					
BIO-11: If possible, vegetation removal and ground disturbance should occur outside the nesting season for all bird species (September 1st – January 31st). If vegetation removal is to take place during the nesting season (February 1st – August 31st), a pre-construction nesting bird survey will be conducted within 7 days prior to any vegetation removal or ground disturbance activities occurring within the designated project locations. The nesting survey area will include the anticipated work area plus an approximate 100 foot buffer. • A 100-foot no disturbance buffer will be established around active bird nests protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code 3503 and 3503.5. A modified buffer may be appropriate if agreed upon on a case by case basis by CDFW. The no disturbance buffer will remain in place until the chicks have fledged or as otherwise determined by a qualified biologist. If there is a break in construction activity of more than 7 days during the nesting season, subsequent surveys should be conducted.	Prior to Construction	City of Citrus Heights			
Cultural Resources - Avoidance and Minimization Measures					
CR-1: Prior to construction, cultural resource awareness and sensitivity training shall be provided to all construction crew members to ensure that the crew members are aware of the potential for sensitive cultural resources to be present onsite. The awareness and sensitivity training would also include an established protocol for informing the resident engineer of any accidentally discovered cultural resources.	During Construction	City of Citrus Heights			
CR-2: If significant historical, paleontological, archaeological, or tribal cultural resources are discovered within the APE, ground disturbing activities shall be suspended 100 feet around the resource(s). The archaeological monitor, a representative of the appropriate Native American Tribe(s) (if discovery is prehistoric), and the City shall confer regarding mitigation of the discovered resource(s). All discovered archaeological resources should	During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
be documented by field notation, analysis, photography, and GPS mapping. Work shall not resume in the area until mitigation has been completed or it has been determined that the archaeological resource(s) is not significant.					
CR-3: If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner would notify the Native American Heritage Commission (NAHC), which would determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	During Construction	City of Citrus Heights			
CR-4: In the event that Native American cultural resources are inadvertently discovered during the course of construction, the City shall relinquish ownership of all Native American cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to Native American cultural resources. Prior to relinquishment, all discovered archaeological resources should be documented by field notation, photography, and GPS mapping. After consultation with the appropriate Native American Tribe(s), non-destructive analysis may be conducted.	During Construction	City of Citrus Heights			
Geology and Soils – Avoidance and Minimization Measures					
GEO-1: The County and contractor shall implement a SWPPP to include erosion control methods. This SWPPP shall be prepared for the Section 402 permit, NPDES General Permit for Discharges of Stormwater Associated with Construction Activity.	Prior/During Construction	City of Citrus Heights			

Mitigation Monitoring and Reporting Program

for the City of Citrus Heights Storm Drainage Master Plan Project

Minimization/Mitigation Measure	Timing/ Reporting Milestone	Reporting/ Responsible Party*	Verification of Compliance		
			Name/ Initials	Date	Remarks (Optional)
Hazards and hazardous materials - Avoidance and Minimization Measures					
HAZ-1: The City must prevent chemicals, paint, oil, gas, petroleum products, and other hazardous substances from contaminating the soil and/or entering waters of the U.S. and State. Any equipment operated adjacent to a stream must be checked and maintained daily to prevent leaks of the listed materials. Refueling, lubricating and washing of vehicles and equipment must occur at a minimum of 100 feet from waters and must not be placed in areas where harmful materials, if spilled, can enter waters. Stationary equipment such as motors, pumps, generators, compressors, and welders located within or adjacent to the stream must be positioned over drip pans.	Prior/During Construction	City of Citrus Heights			
HAZ-2: As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction (such as previously undetected petroleum hydrocarbon contamination from nearby gas stations). Should any previously unknown hazardous waste/material be encountered during construction, the procedures outlined in Caltrans Hazards Procedures for Construction shall be followed.	During Construction	City of Citrus Heights			
Noise - Avoidance and Minimization Measures					
NOI-1: The Contractor shall follow the Sacramento County noise ordinances for construction activities: • Work activities shall occur within the hours of 7 a.m. to 6 p.m. for the duration of construction. • Use an alternative waiting method instead of a sound signal unless required by safety laws. • Equip an internal combustion engine with the manufacturer-recommended muffler. • Do not operate an internal combustion engine on the job site without the appropriate muffler.	During Construction	City of Citrus Heights			
Transportation/Traffic - Avoidance and Minimization Measures					
TRA-1: Temporary impacts to traffic flow as a result of construction activities would be minimized through construction phasing and signage and a traffic control plan.	Prior to Construction	City of Citrus Heights			

Appendix B — Biological Database Search Results

USFWS – IpAC Species List

CNDDB GIS Database Search (Data Updated June 2017)

CNPS species lists for the USGS 7 ½ minute quadrangles of Citrus Heights

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: May 08, 2017
Consultation Code: 08ESMF00-2017-SLI-1997
Event Code: 08ESMF00-2017-E-05105
Project Name: Citrus Heights Storm Drainage Master Plan Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2017-SLI-1997

Event Code: 08ESMF00-2017-E-05105

Project Name: Citrus Heights Storm Drainage Master Plan Project

Project Type: STREAM / WATERBODY / CANALS / LEVEES / DIKES

Project Description: Citrus Heights is located in northern Sacramento County just south of the Placer County line. Citrus Heights' Neighborhoods 8, 9 and 10 were designated as locations that are experiencing flooding events during large storms. The designated problem locations fall within the central and eastern portion of the City. The improvement locations identified in a study have been incorporated into the City's Capital Improvement Program. The Study provided an inventory and condition assessment of key portions of the existing drainage system, assessed the flood control performance of key elements of the existing drainage system, and provided improvement recommendations to eliminate or reduce recurring local flooding and drainage problems. Through the developed of a Storm Drainage Master Plan Project (the Project), the City purposes to improve stormwater drainage in 12 designated problem locations

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.697431995470595N121.26453599953831W

Counties: Sacramento, CA

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Reptiles

NAME	STATUS
Giant Garter Snake *(Thamnophis gigas)*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/4482

Amphibians

NAME	STATUS
California Red-legged Frog *(Rana draytonii)*	Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2891

California Tiger Salamander *(Ambystoma californiense)*	Threatened

Population: U.S.A. (Central CA DPS)
There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2076

Fishes

NAME	STATUS
Delta Smelt *(Hypomesus transpacificus)*	Threatened

There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/321

Steelhead *(Oncorhynchus (=Salmo) mykiss)*	Threatened

Population: Northern California DPS
There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/1007

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *(Desmocerus californicus dimorphus)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *(Branchinecta conservatio)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *(Branchinecta lynchi)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *(Lepidurus packardi)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Sacramento Orcutt Grass *(Orcuttia viscida)* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5507	Endangered

Critical habitats

There are no critical habitats within your project area.

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Citrus Heights (3812163))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Andrena subapasta An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Desmocerus californicus dimorphus valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2	S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Fritillaria agrestis stinkbells	PMLIL0V010	None	None	G3	S3	4.2
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Northern Volcanic Mud Flow Vernal Pool Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
Oncorhynchus mykiss irideus steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2

Record Count: 10

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

2 matches found. Click on scientific name for details

Search Criteria

Found in Quad 3812163

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Fritillaria agrestis	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	4.2	S3	G3
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 25 September 2017].

Appendix C — Special Status Species Potential Table

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Amphibian Species						
California Red-legged Frog	*Rana draytonii*	Fed: CA: CDFW:	T -- SSC	Inhabits lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development and must have access to estivation habitat; estivation occurs late summer-early winter. Breeds from January-July Occurs from elevations near sea level to 5,200 feet.	A	**Presumed Absent:** Although the project area does contain permanent sources of water in the form of perennial stream channels. Habitat value is degraded by presence of exotic predators including bull frogs, bass, and mosquito fish. The City is located within the Sacramento Valley ecological subsection, an area without documented occurrences of the species. The nearest CNDDB occurrence is approximately 8.5 miles east of the City Boundary within the Sierra Nevada Foothills and the American River Watershed. The species is presumed absent from the project area based on a lack of documented occurrences within the creeks that run through the City, presence of invasive predators and competitors, and the City being located within an ecological subsection not known to contain the species.
California Tiger Salamander	*Ambystoma californiense*	Fed: CA: CDFW:	T T --	Inhabits annual grasslands and the grassy understory of Valley-Foothill Hardwood communities. Requires underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding	A	**Presumed Absent:** Although three problem locations do contain grasslands, the nearest CNDDB occurrence of the species is 21.5 miles from project area. The species is presumed absent from the project area based on a lack of local documented occurrences. In addition, the project area is located outside of the species range (USFWS 2016)
Western spadetoad	*Spea hammondii*	Fed: CA: CDFW:	-- -- SSC	Inhabits burrows within grassland and valley foothill hardwood woodland communities. Requires vernal, shallow, temporary pools formed by	P	**Low Potential:** Three problem locations contain grasslands and temporary pool complexes for the species but lacks vernal pools. CNDDB search indicates

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				heavy winter rains for reproduction. Breeds late winter-March.		that the nearest individual reported was approximately 3.5 from the project area and last sighted in 1994.The species is presumed to have a low potential of occurring within the project area based on the lack of suitable breeding habitat and the low number of recent regional occurrences.
Bird Species						
Bank Swallow	*Riparia riparia*	Fed: State: CDFW:	-- T --	A migratory colonial nester inhabiting lowland and riparian habitats west of the desert during spring - fall. Majority of current breeding populations occur along the Sacramento and Feather rivers in the north Central Valley. Requires vertical banks or cliffs with fine textured/sandy soils for nesting (tunnel and burrow excavations). Nests exclusively near streams, rivers, lakes or the ocean, often in large colonies. These colonies are located near large bodies of water so that there is ample room for vertical flying. Breeds May-July.	A	**Presumed Absent:** The project area does not contain cliffs or vertical banks this species needs for nesting. The project area lacks any large body of water, which can be utilized by large colonies of this species. The closet large body of water is Folsom Lake, which is 4.1 miles away from the project area. The nearest CNDDB occurrence of the species is approximately 2.7 miles from the project area and was recorded in 1990. The species is presumed absent based on the lack of nesting habitat within the BSA and the low number of regional occurrences.
Swainson's Hawk	*Buteo swainsoni*	Fed: State: CDFW:	-- T --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds march to late August.	P	**Low Potential:** The project area does contain potentially suitable riparian nesting habitat and contains a small amount of grasslands for foraging. The nearest CNDDB occurrence of the species is approximately 3.2 miles from the BSA and was recorded in 1990. The species is considered to have a low potential of occurring within the project area based on presence of potentially suitable habitat and records of recent regional occurrences.
Purple martin	*Progne subis*	Fed: CA:	-- --	Present in California as a summer migrant, arriving in March and	P	**Low Potential:** Potentially suitable riparian habitat for the species is present

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
		CDFW:	SSC	departing by late September. Inhabits valley foothill and montane hardwood/hardwood-conifer, coniferous habitats and riparian habitats. Nests in tall, old, isolated trees or snags in open forest or woodland and in proximity to a body of water. Frequently nests within former woodpecker cavities; may nest in human-made structures such as nesting boxes, under bridges and in culverts. Needs abundant aerial insect prey. Breeds April-August.		within the project area. The nearest CNDDB occurrence was 6.5 miles away from the project area and was recorded in 2007. The species is considered to have a low potential of occurring within the project area based on presence of riparian habitat and the recent occurrence of the species in the area.
Tricolored blackbird	*Agelaius tricolor*	Fed: CA: CDFW:	-- -- SSC	Inhabits freshwater marsh, swamp and wetland communities, but may utilize agricultural or upland habitats that can support large colonies, often in the Central Valley area. Requires dense nesting habitat that is protected from predators, is within 3-5 miles from a suitable foraging area containing insect prey and is within 0.3 miles of open water. Suitable foraging includes wetland, pastureland, rangeland, at dairy farms, and some irrigated croplands (silage, alfalfa, etc.). Nests mid-march - early August, but may extend until October/November in the Sacramento Valley region.	P	**Moderate Potential:** There is potentially suitable freshwater wetland habitat for the species. The nearest CNDDB occurrence of the species detected 1.8 miles away from the project area and was recorded in 1999. The species has a moderate potential of occurring within the project area due to the presence of potential suitable foraging habitat and due to multiple documented occurrences of the species within 5 miles of the project area.
White-tailed kite	*Elanus leucurus*	Fed: CA: CDFW:	-- -- FP	Inhabits rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Prefers open grasslands, meadows or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Breeds February- October.	P	**Moderate Potential:** There is potentially suitable riparian nesting habitat present along the creeks within the project locations and there is a small amount of potentially suitable grassland habitat for foraging in the City Boundary. The nearest CNDDB occurrence is 0.5 miles away and was recorded in 1990.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						The species is considered to have a low potential of occurring within the project area based on presence of riparian habitat and the near occurrence of the species.
Fish Species						
Delta smelt	*Hypomesus transpacificus*	Fed: CA: CDFW:	T E --	Occurs within the Sacramento-San Joaquin Delta and seasonally within the Suisun Bay, Carquinez Strait and San Pablo Bay. Most often occurs in partially saline waters.	A	**Presumed Absent:** The project area is 60 miles from the Sacramento-San Joaquin Delta. The project area lacks brackish water habitat is present for the species. A CNDDB search indicated the nearest known occurrence is approximately 31 miles south of the project area and was recorded in 2007. The species is presumed absent based on the City being outside of the known distribution of the species, a lack of documented occurrences, and a lack of suitable habitat.
Steelhead - Central Valley DPS	*Oncorhynchus mykiss irideus*	Fed: CA: CDFW:	T -- --	South/central steeelhead utilize rivers and creeks from Pajaro River south to Santa Maria River. Spawning occurs in coastal watersheds while rearing occurs in freshwater or estuary habitats prior to migrating to the ocean in the winter and spring. Preferred spawning sites contain gravel substrate with sufficient water flow and riverine cover. Rearing habitat contains sufficient feeding with associated riparian forest containing willow and cottonwoods. Migration upstream for reproduction occurs from October-May with spawning occurring January - April.	A	**Presumed Absent:** Steelhead have been documented in Dry Creek, Secret Ravine, and Miners Ravine which are within the City's boundaries but are approximately 2.5 miles to the north and south of the project area. In addition, the mentioned stream channels have been designated as critical habitat for the species by USFWS. The project area contains small creeks and drainage systems that are unsuitable for the species. Furthermore the ephemeral streams and channels within the project areas are not consider suitable for the species. The species is presumed absent from the project area based on the distance from the designated critical habitat and the presence of unsuitable habitat within the project location.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Invertebrate Species						
Valley elderberry longhorn beetle	Desmocerus californicus dimorphus	Fed: CA: CDFW:	T -- --	Species requires elderberry shrubs as host plants. Typically occurs in moist valley oak woodlands associated with riparian corridors in the lower Sacramento River and upper San Joaquin River drainages. (Sea level-3,000 feet).	P	**Low Potential:** Potentially suitable riparian habitat is present in riparian corridors within the project area. The nearest CNDDB occurrence is 2.5 miles away and was recorded in 2006. There are multiple occurrences to the east and south of the project area. The species is considered to have a low potential of occurring based on presence of riparian habitat and high number of regional occurrences.
Conservancy Fairy Shrimp	*Branchinecta conservatio*	Fed: CA: CDFW:	E -- SSC	Inhabit rather large, cool-water vernal pools with moderately turbid water. The pools generally last until June.	A	**Presumed Absent:** The project area lacks any vernal pools. The nearest CNDDB occurrence is 16 miles away and was recorded in 2012. The species is presumed absent based on the lack of suitable habitat within the project area and the low number of regional occurrences.
Vernal Pool fairy shrimp	*Branchinecta lynchi*	Fed: State: CDFW:	T -- --	In California inhabits portions of Tehama county, south through the Central Valley, and scattered locations in Riverside County and the Coast Ranges. Species associated with smaller and shallower cool-water vernal pools approximately 6 inches deep and short periods of inundation. In the southernmost extremes of the range, the species occurs in large, deep cool-water pools. Inhabited pools have low to moderate levels of alkalinity and total dissolved solids. The shrimp are temperature sensitive, requiring pools below 50 F to hatch and dying within pools reaching 75 F. Young emerge during cold-weather winter storms.	A	**Presumed Absent:** The project area does not vernal pools or alkaline waters. The nearest CNDDB occurrence of the species is located approximately 3.5 miles from the BSA and was recorded in 1998. The species is considered to be presumed absent of occurring within the project area based on the absence of potentially suitable habitat and a low number of recent regional occurrences.

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
Vernal Pool tadpole shrimp	*Lepidurus packardi*	Fed: State: CDFW:	E -- --	Inhabits vernal pools and swales containing clear to highly turbid waters such as pools located in grass bottomed swales of unplowed grasslands, old alluvial soils underlain by hardpan, and mud-bottomed pools with highly turbid water.	A	**Presumed Absent:** The BSA does not contain vernal pools or swales. The nearest CNDDB occurrence of the species is located approximately 5.2 miles from the BSA and was recorded in 1992. The species is considered to be presumed absent of occurring within the BSA based on the absence of potentially suitable habitat and a low number of recent regional occurrences.
Mammal Species						
Pallid bat	*Antrozous pallidus*	Fed: CA: CDFW:	-- -- SSC	Inhabits low elevations of deserts, grasslands, shrub lands, woodlands and forests year-round. Most common in open, dry habitats with rocky areas for roosting. Forages over open ground within 1-3 miles of day roosts. Prefers caves, crevices, and mines for day roosts, but may utilize hollow trees, bridges and buildings. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. Maternity colonies form early April and young are born April-July (below 10,000 feet).	P	**Presumed Absent:** The project area does not contain preferred rock crevice, mine, or cave roosting habitat but may contain marginal bridge, structure, and hollow tree roosting habitat. The nearest CNDDB documented occurrences of the species is 1.6 miles from the project area and was recorded in 1941. The species is presumed absent from the project area based on a lack of recent regional occurrences.
Reptile Species						
Giant gartersnake	*Thamnophis gigas*	Fed: CA: CDFW:	T T --	Inhabits marsh, swamp, wetland (including agricultural wetlands), sloughs, ponds, rice fields, low gradient streams and irrigation/drainage canals adjacent to uplands. Ideal habitat contains both shallow and deep water with variations in topography. Species requires adequate water during the active season (April-November), emergent, herbaceous wetland	A	**Presumed Absent:** The project area is located east of the known distribution of giant garter snake. All regional CNDDB occurrences of the species are located at least 11 miles west of the project area in rice fields and other wet habitats along the Sacramento River. The species is presumed absent from the project area based on a lack of suitable slough and rice field habitats as well as the project area being located outside of the known

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
				vegetation, such as cattails and bulrushes, for escape cover and foraging habitat and mammal burrows estivation. Requires grassy banks and openings in waterside vegetation for basking and higher elevation uplands for cover and refuge from flood waters during winter dormant season.		distribution of the species.
Western pond turtle	*Emys marmorata*	Fed: CA: CDFW:	-- -- SSC	A fully aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat (sandy banks or grassy open field) for reproduction (sea level to 4,690 feet).	P	**Moderate Potential:** The City contains potentially suitable stream channels with basking habitat for the species. The nearest CNDDB occurrence was 3.4 miles away and was recorded in 1993. The species is presumed to have a moderate potential of occurring in the project area based on the presence of potentially suitable habitat and the number of high occurrences within a 5 mile radius of the project area.
Plant Species						
Boggs lake hedge hyssop	*Gratiola heterosepala*	Fed: CA: CNPS:	-- E 1B.2	An annual herb inhabiting clay soils and shallow waters of marshes and swamps, lake margins, and vernal pools. Flowers April-August (33-7,792 feet).	P 3.4 1997	**Presumed absent:** The project area lacks suitable vernal pool, and wetland habitat for the species. According the CNPS, Citrus Heights falls outside this species range. The nearest CNDDB occurrence was 3.4 and was recorded in 1987. The species is considered to be absent from the project area based on the lack of suitable habitat present, and because the project area is out of the species range.
Sacramento Orcutt grass	*Orcuttia viscida*	Fed: CA: CNPS:	E E 1B.1	An annual herb inhabiting vernal pools. Flowers April-July (98-328 feet).	2.6 1993 A	**Presumed Absent:** The project area lacks vernal pools. The nearest CNDDB occurrence of the species was detected 2.6 miles away and was recorded in 1993. The species is presumed absent from the project area based on the lack

Common Name	Species Name	Status		General Habitat Description	Habitat Present	Potential for Occurrence and Rationale
						of suitable habitat and low number of regional occurrences
Sanford's arrowhead	*Sagittaria sanfordii*	Fed: CA: CNPS:	-- -- 1B.2	A perennial rhizomatous herb inhabiting freshwater marshes, swamps, ponds and ditches. Flowers May-October (0-2,132 feet).	P	**High Potential:** The project area contains ample suitable stream channel habitat. There is one recorded CNDDB occurrence recorded in 1994 within the project area and there are serval occurrences within a 5 mile radius of the project area.
Pincushion navarretia	*Navarretia myersii ssp. myersii*	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting vernal pool communities, often in acidic soil conditions. Flowers May (65-1,083 feet feet).	3 2013 A	**Presumed Absent:** The project area does not contain vernal pools. The nearest CNDDB occurrences of the species was 3 miles from the project area and was recorded in 2013. The species is presumed absent from the project area based on the lack of suitable habitat present within the project area.

Federal Designations (Fed): (FESA, USFWS) **E:** Federally listed, endangered **T:** Federally listed, threatened **PT:** Federal proposed, threatened **D:** Delisted	**State Designations (CA):** (CESA, CDFW) **E:** State-listed, endangered **T:** State-listed, threatened **CT:** State-candidate, threatened **FP**: Fully Protected

Other Designations:
SSC: DFW Species of Special Concern

California Native Plant Society (CNPS) Designations:
Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.
1A: Plants presumed extinct in California.
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
3: Plants about which need more information; a review list.

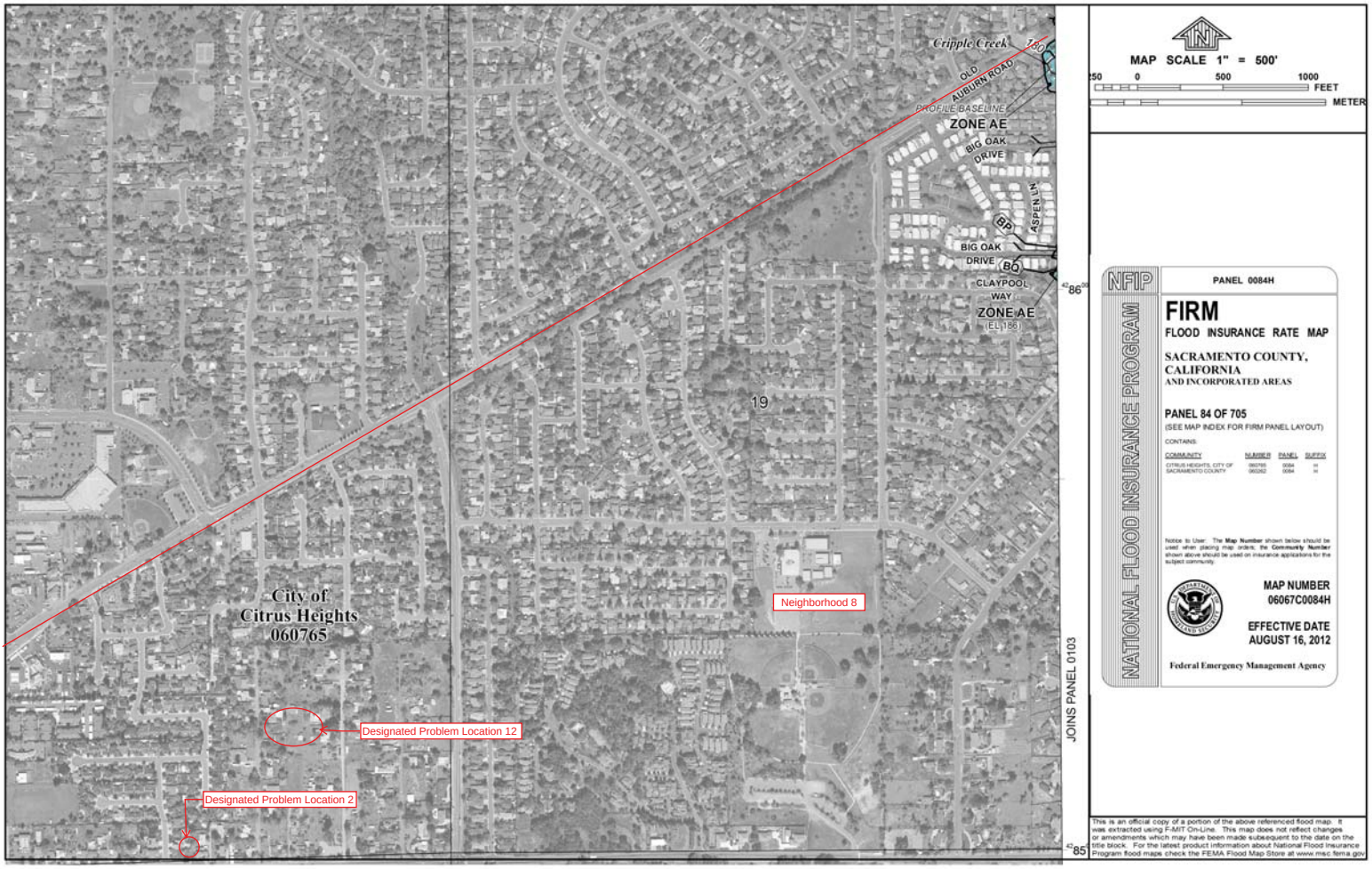
Plants 1B, 2, and 4 extension meanings:
_.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
_.2 Fairly endangered in California (20-80% occurrences threatened)
_.3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Habitat Presence:
Absent [A]: No habitat present and no further work needed.
Habitat Present [HP]: Habitat is, or may be present. The species may be present.
Present [P]: Species is present.
Critical Habitat [CH]: Project footprint is located within a designated Critical Habitat unit, but does not necessarily mean that appropriate habitat is present.

Potential for Occurrence Criteria:
Present: Species was observed on site during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 mi of the site.
Low/Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 mi of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Presumed Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.

Source: (Bennett 2005), (CNPS 2014), (CDFW 2014), (California Herps 2014), (Evens 2000), (Jepson 2013), (Kyle 2011), (Miller and Hornaday 1999), (NMFS 1993), (NMFS 2005), (NMFS 2009), (NMFS 2013a), (NMFS 2013b), (Placer and Sacramento Counties 2003), (Sibley 2003), (Tesky 1994), (UC Davis 2014), (USFWS 2002), (USFWS 2002b), (USFWS 2007a), (USFWS 2007b) (USFWS 2007c), (USFWS 2012), and (Zeiner 1988-1990)

Appendix D — Neighborhood FEMA Firmette Maps


Cripple Creek
OLD AUBURN ROAD
PROFILE BASELINE
ZONE AE
BIG OAK DRIVE
ASPEN LN
BIG OAK DRIVE
CLAYPOOL WAY
ZONE AE
(EL 188)
19
City of Citrus Heights 060765
Neighborhood 8
Designated Problem Location 12
Designated Problem Location 2
JOINS PANEL 0103
4286
4285
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0084H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 84 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0084 H
SACRAMENTO COUNTY 060262 0084 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0084H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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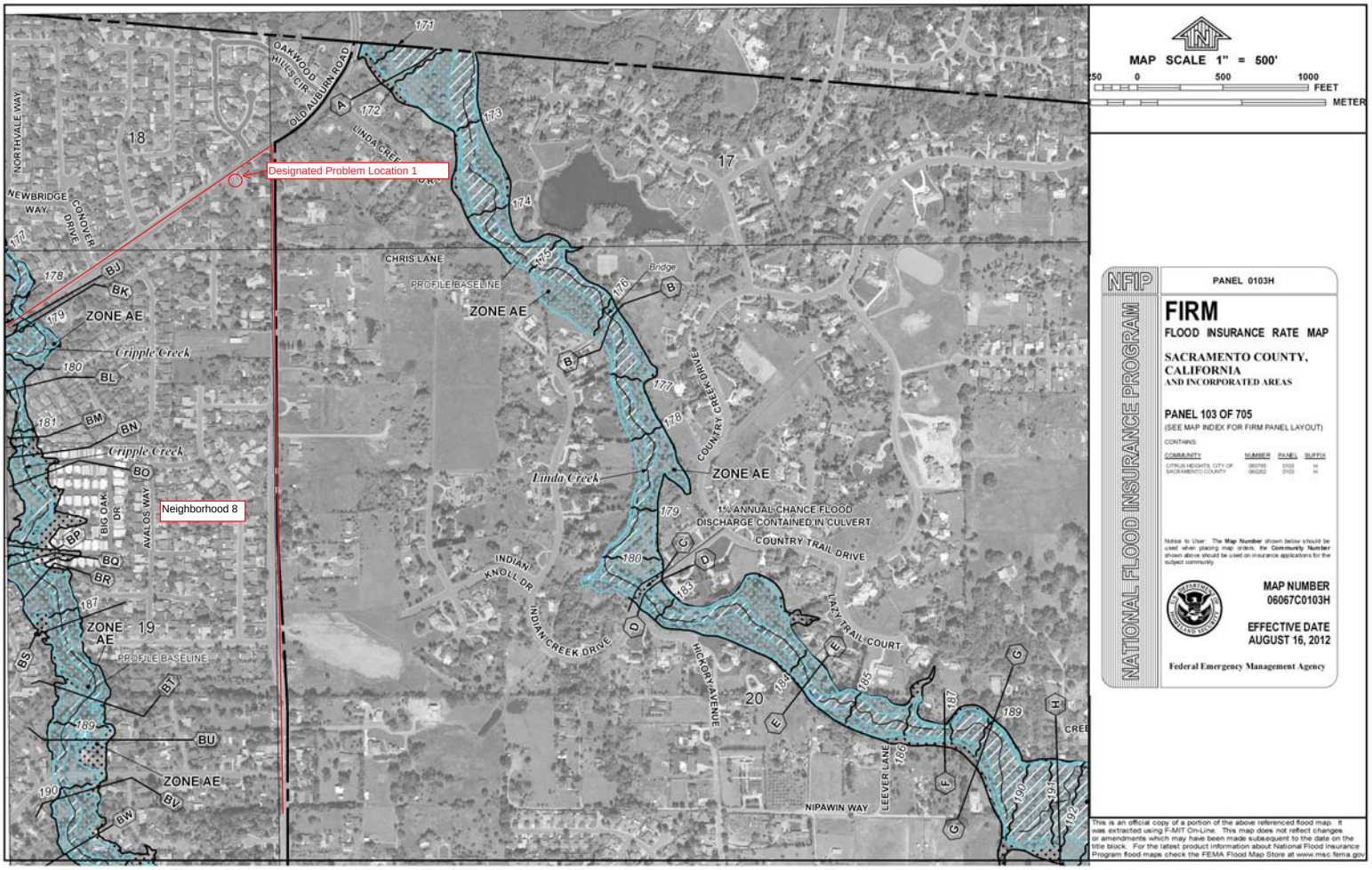
Designated Problem Location 1
Neighborhood 8
MAP SCALE 1" = 500'
0 500 1000 FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0103H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 103 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0103 H
SACRAMENTO COUNTY 060262 0103 H
MAP NUMBER
06067C0103H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
ZONE AE
Cripple Creek
Linda Creek
CHRIS LANE
PROFILE BASELINE
COUNTRY TRAIL DRIVE
INDIAN KNOLL DR
INDIAN CREEK DRIVE
LAZY TRAIL COURT
HICKORY AVENUE
LEEVER LANE
NIPAWIN WAY
OAKWOOD HILLS CIR
OLD AUBURN ROAD
NEWBRIDGE WAY
CONOVER DRIVE
NORTHVALE WAY
BIG OAK DR
AVALOS WAY
1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CULVERT
Bridge
17
18
19
20

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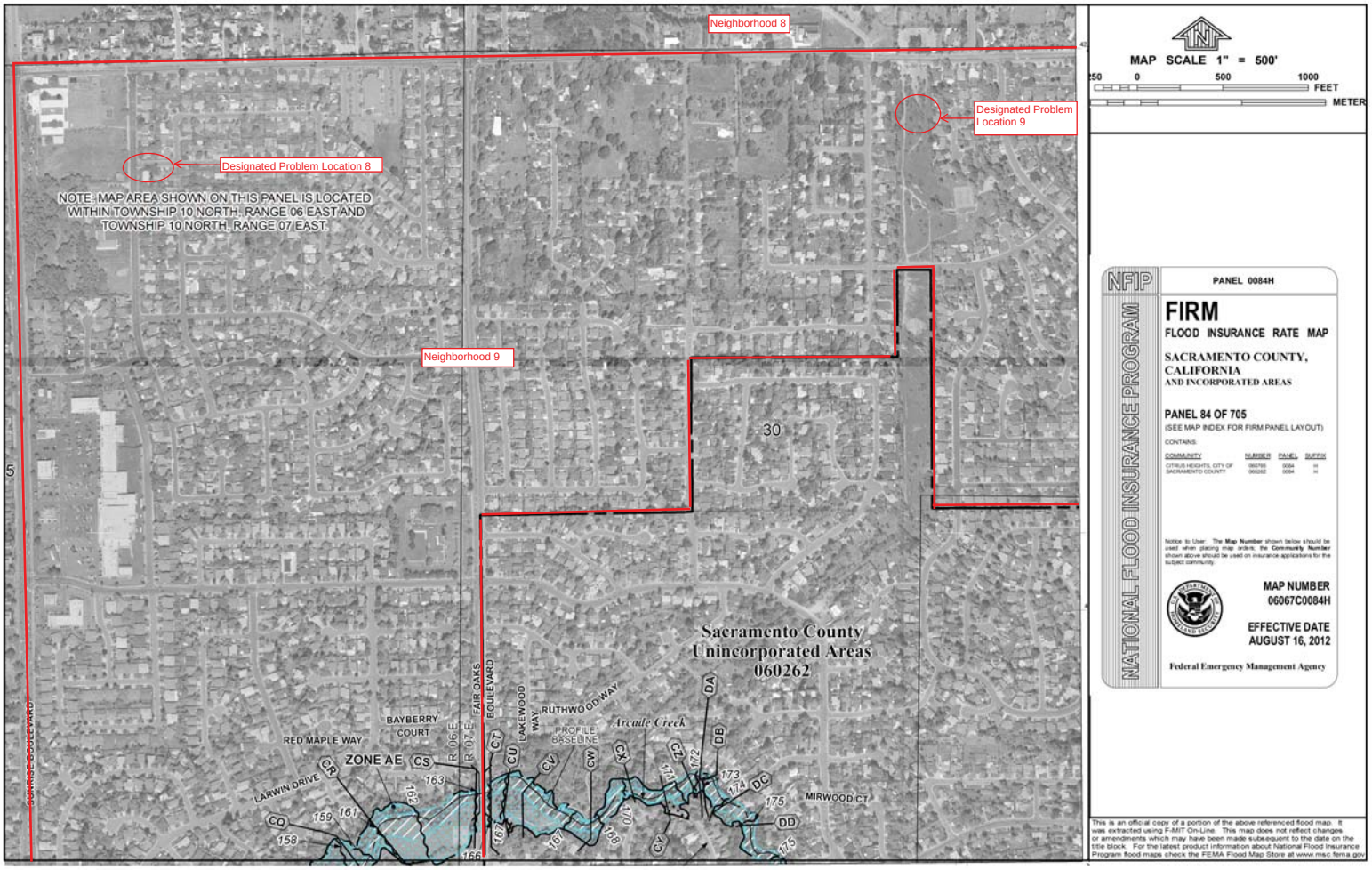
Neighborhood 8
Designated Problem Location 9
Designated Problem Location 8
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 06 EAST AND TOWNSHIP 10 NORTH, RANGE 07 EAST.
Neighborhood 9
30
5
Sacramento County
Unincorporated Areas
060262
SUNRISE BOULEVARD
RED MAPLE WAY
BAYBERRY COURT
LARWIN DRIVE
ZONE AE
R 06 E
R 07 E
FAIR OAKS BOULEVARD
LAKEWOOD WAY
RUTHWOOD WAY
PROFILE BASELINE
Arcade Creek
MIRWOOD CT
CQ
CR
CS
CT
CU
CV
CW
CX
CY
CZ
DA
DB
DC
DD
158
159
161
163
165
166
167
169
170
171
172
173
174
175
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0084H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 84 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0084 H
SACRAMENTO COUNTY 060262 0084 H
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MAP NUMBER
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EFFECTIVE DATE
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Federal Emergency Management Agency
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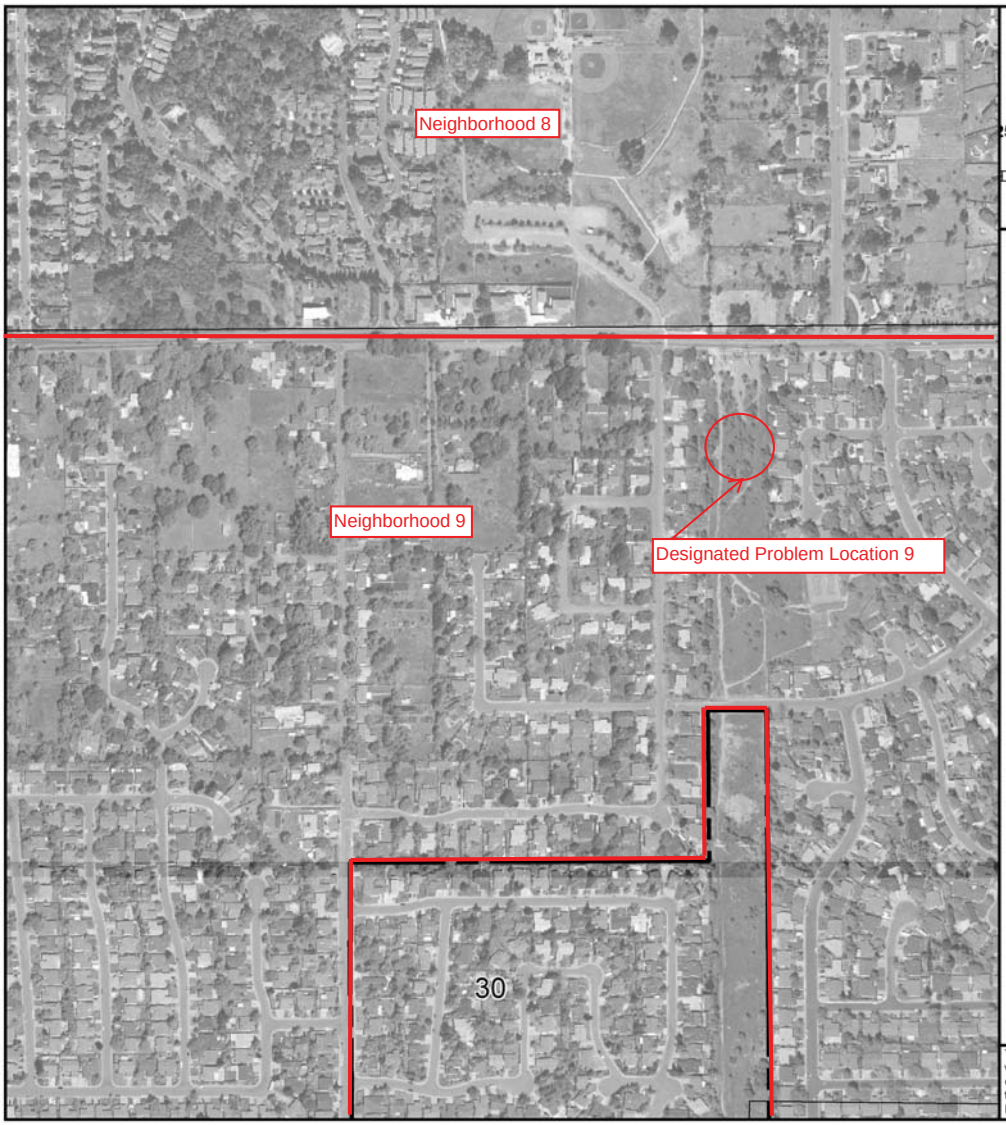

MAP SCALE 1" = 500'

250 0 500 1000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0084H

FIRM

FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 84 OF 705

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CITRUS HEIGHTS, CITY OF	060765	0084	H
SACRAMENTO COUNTY	060262	0084	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06067C0084H

EFFECTIVE DATE
AUGUST 16, 2012

Federal Emergency Management Agency

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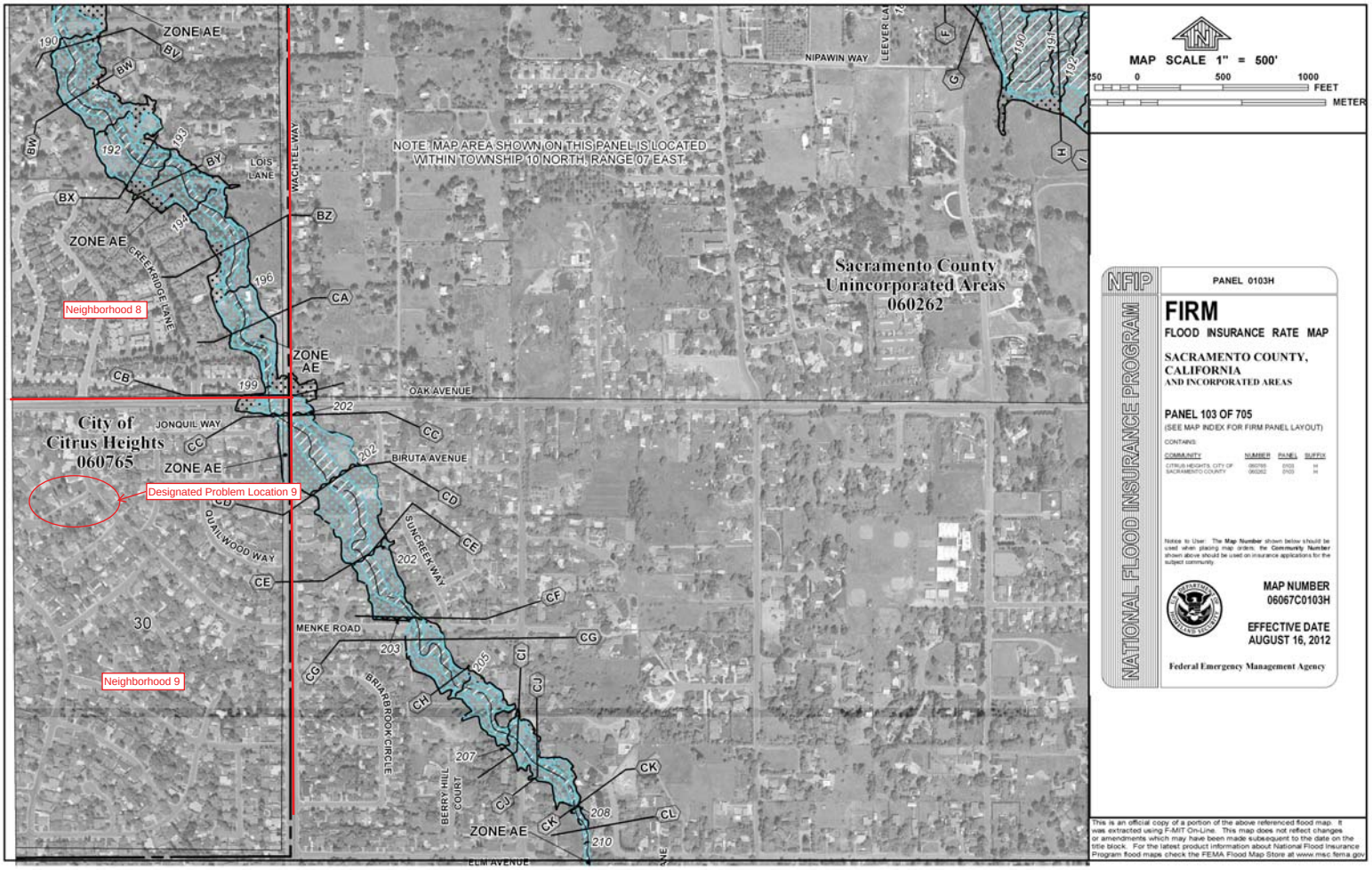
ZONE AE
NIPAWIN WAY
LEEVER LA
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 07 EAST
WACHTEL WAY
LOIS LANE
CREEKBRIDGE LANE
Neighborhood 8
Sacramento County
Unincorporated Areas
060262
ZONE AE
OAK AVENUE
City of
Citrus Heights
060765
JONQUIL WAY
BIRUTA AVENUE
Designated Problem Location 9
QUAILWOOD WAY
SUNCREEK WAY
MENKE ROAD
30
Neighborhood 9
BRIARBROOK CIRCLE
BERRY HILL COURT
ELM AVENUE
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0103H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 103 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0103 H
SACRAMENTO COUNTY 060262 0103 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0103H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
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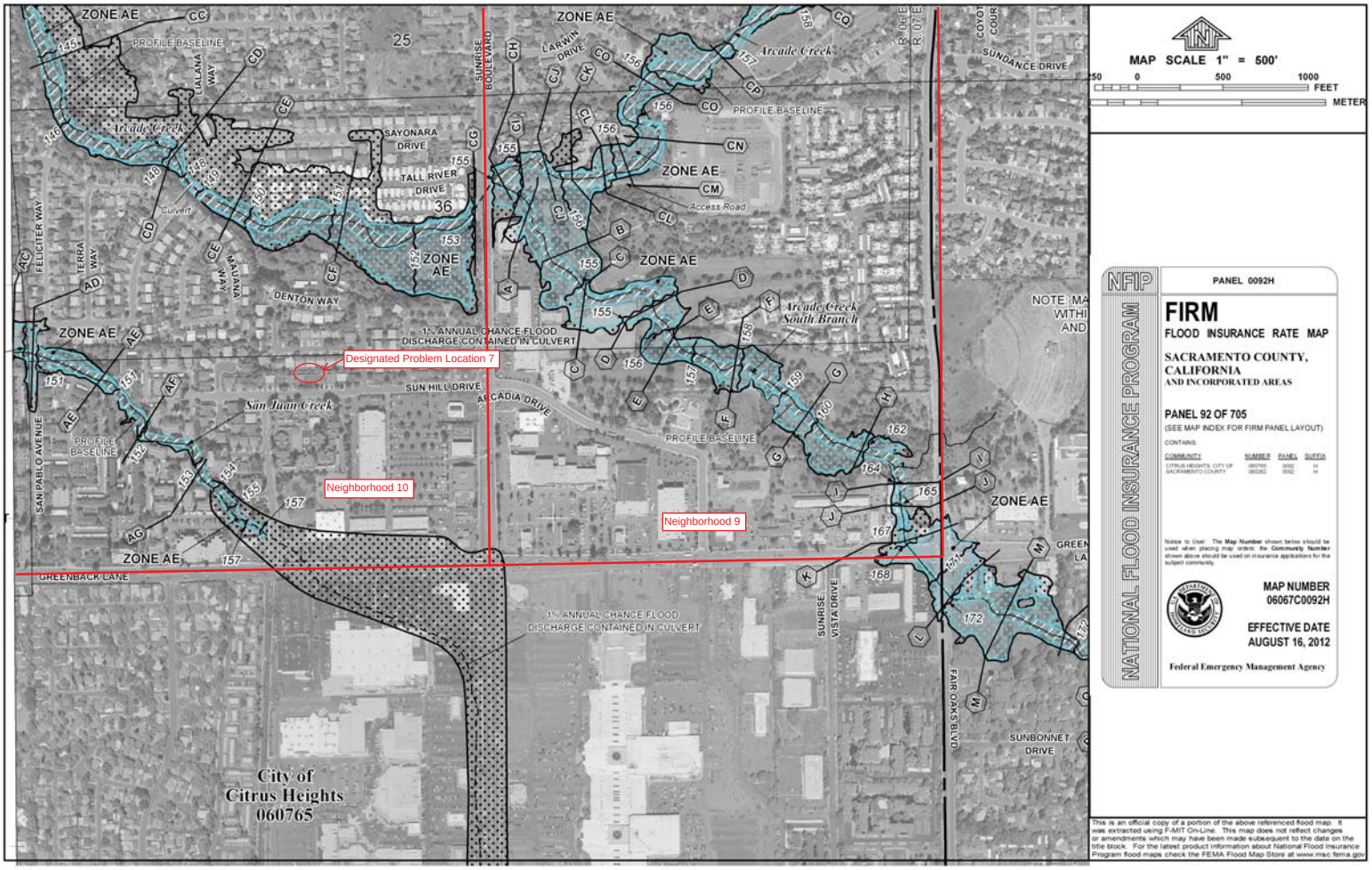
ZONE AE
PROFILE BASELINE
Arcade Creek
SAYONARA DRIVE
TALL RIVER DRIVE
Culvert
DENTON WAY
1% ANNUAL CHANCE FLOOD DISCHARGE CONTAINED IN CULVERT
Designated Problem Location 7
SUN HILL DRIVE
ARCADIA DRIVE
San Juan Creek
Neighborhood 10
Neighborhood 9
Access Road
Arcade Creek South Branch
GREENBACK LANE
SUNRISE VISTA DRIVE
FAIR OAKS BLVD
SUNBONNET DRIVE
SUNDANCE DRIVE
SUNRISE BOULEVARD
LARWIN DRIVE
SAN PABLO AVENUE
FELICITER WAY
TERRA WAY
MAUANNA WAY
JALANA WAY
City of Citrus Heights 060765
MAP SCALE 1" = 500'
250 0 500 1000 FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0092H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 92 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0092 H
SACRAMENTO COUNTY 060262 0092 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER 06067C0092H
EFFECTIVE DATE AUGUST 16, 2012
Federal Emergency Management Agency
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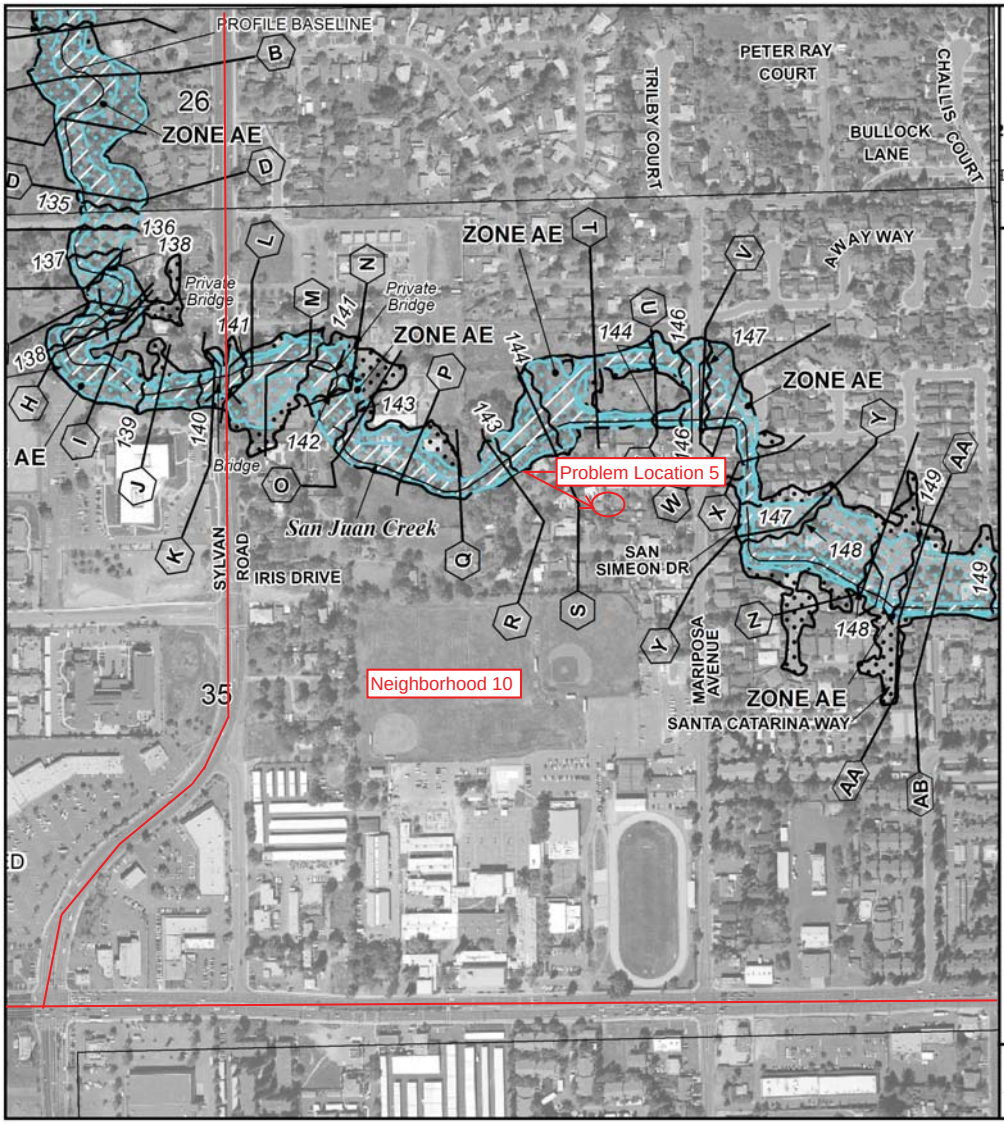

MAP SCALE 1" = 500'

250 0 500 1000 FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0091H

FIRM

FLOOD INSURANCE RATE MAP

SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 91 OF 705

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CITRUS HEIGHTS, CITY OF	060765	0091	H
SACRAMENTO COUNTY	060262	0091	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06067C0091H

EFFECTIVE DATE
AUGUST 16, 2012

Federal Emergency Management Agency

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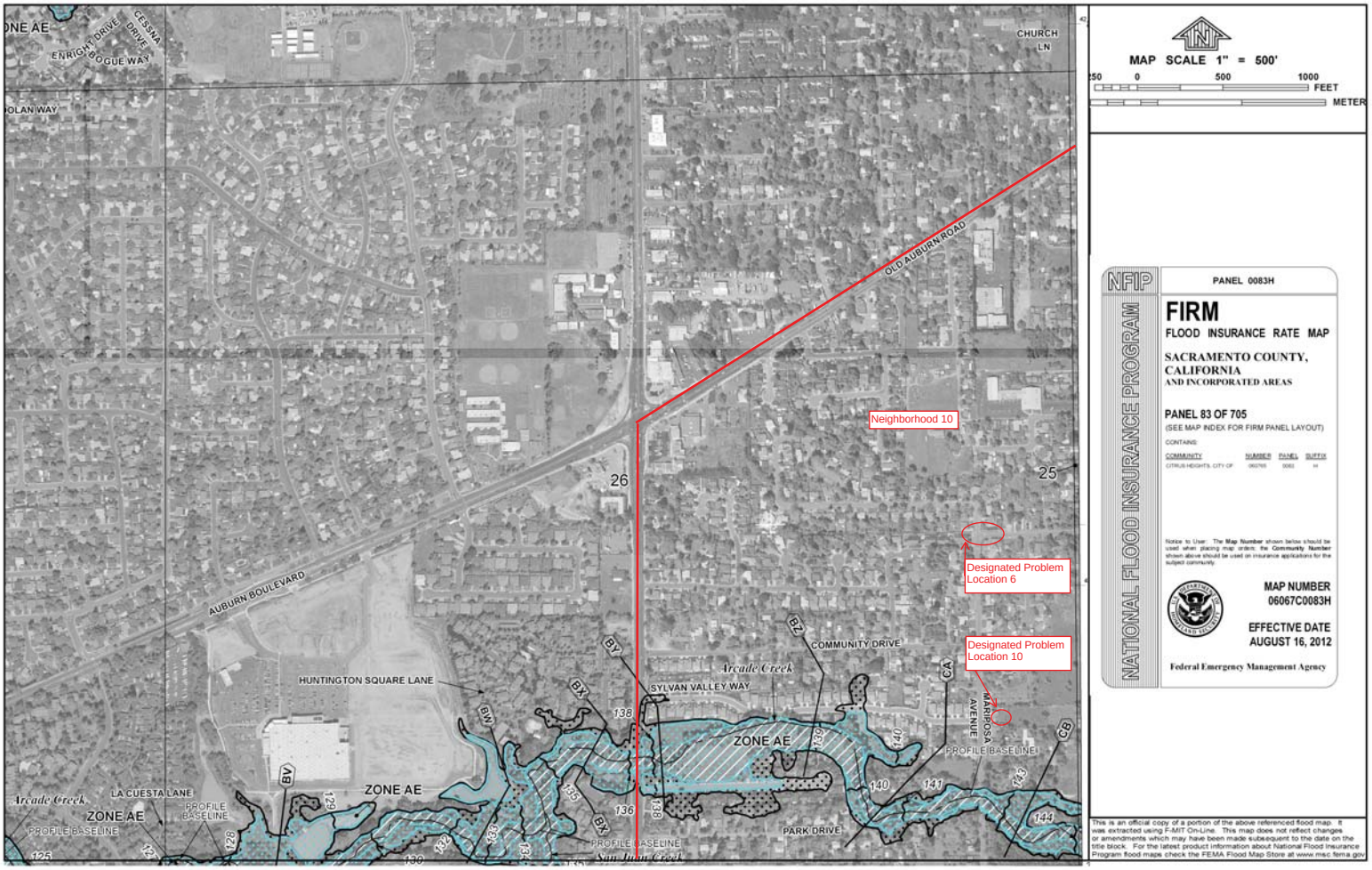
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0083H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 83 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0083 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
06067C0083H
EFFECTIVE DATE
AUGUST 16, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov
Neighborhood 10
Designated Problem Location 6
Designated Problem Location 10
OLD AUBURN ROAD
AUBURN BOULEVARD
HUNTINGTON SQUARE LANE
SYLVAN VALLEY WAY
COMMUNITY DRIVE
MARIPOSA AVENUE
PARK DRIVE
LA CUESTA LANE
CHURCH LN
ENRIGHT DRIVE
CESSNA DRIVE
ROGUE WAY
Arcade Creek
San Juan Creek
ZONE AE
PROFILE BASELINE
26
25

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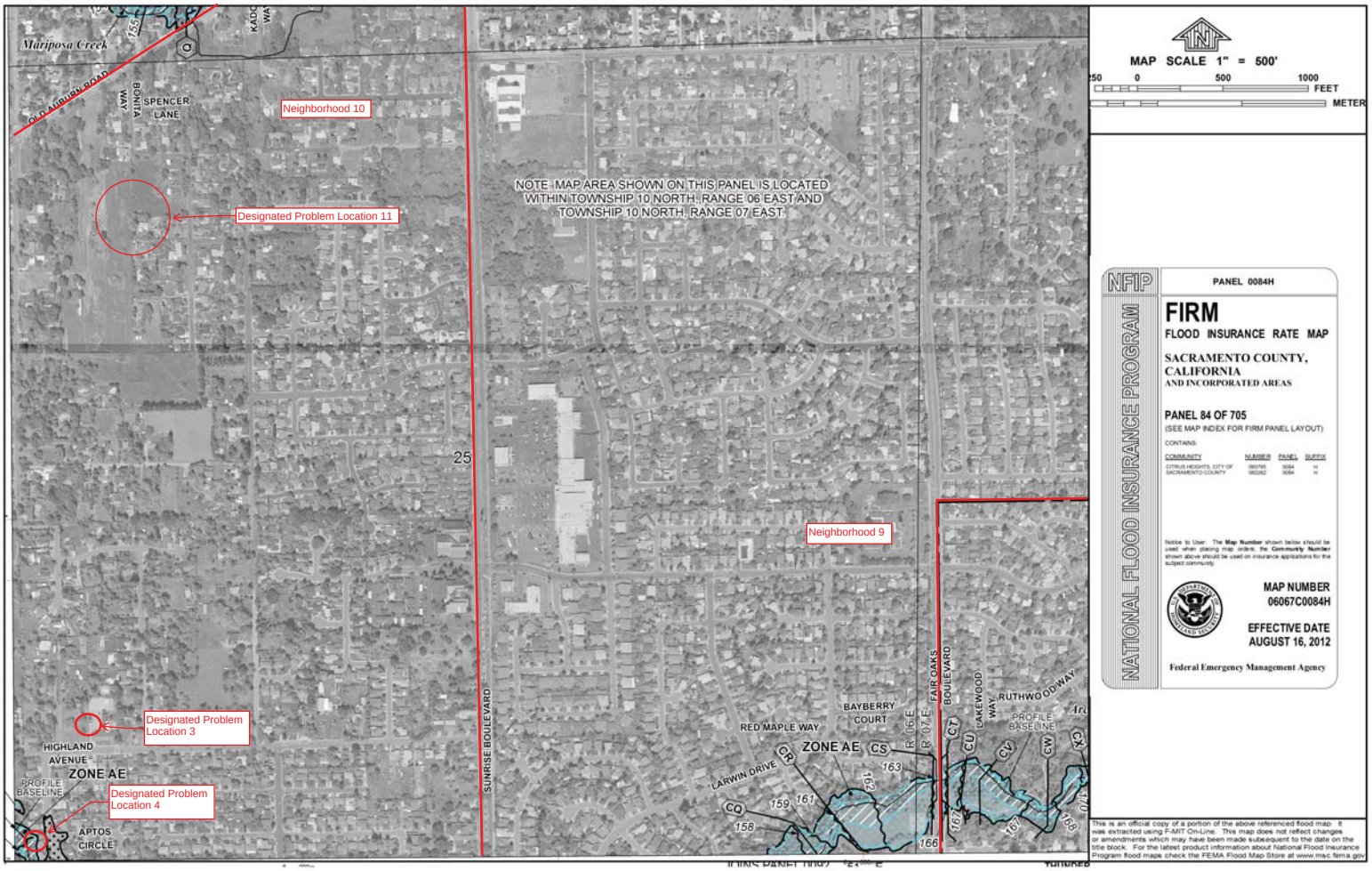
Mariposa Creek
OLD AUBURN ROAD
BONITA WAY
SPENCER LANE
Neighborhood 10
Designated Problem Location 11
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN TOWNSHIP 10 NORTH, RANGE 06 EAST AND TOWNSHIP 10 NORTH, RANGE 07 EAST
25
Neighborhood 9
SUNRISE BOULEVARD
Designated Problem Location 3
HIGHLAND AVENUE
ZONE AE
PROFILE BASELINE
Designated Problem Location 4
APTOS CIRCLE
RED MAPLE WAY
BAYBERRY COURT
LARWIN DRIVE
ZONE AE
FAIR OAKS BOULEVARD
LAKEWOOD WAY
RUTHWOOD WAY
PROFILE BASELINE
MAP SCALE 1" = 500'
250 0 500 1000
FEET
METER
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0084H
FIRM
FLOOD INSURANCE RATE MAP
SACRAMENTO COUNTY, CALIFORNIA
AND INCORPORATED AREAS
PANEL 84 OF 705
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CITRUS HEIGHTS, CITY OF 060765 0084 H
SACRAMENTO COUNTY 060262 0084 H
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
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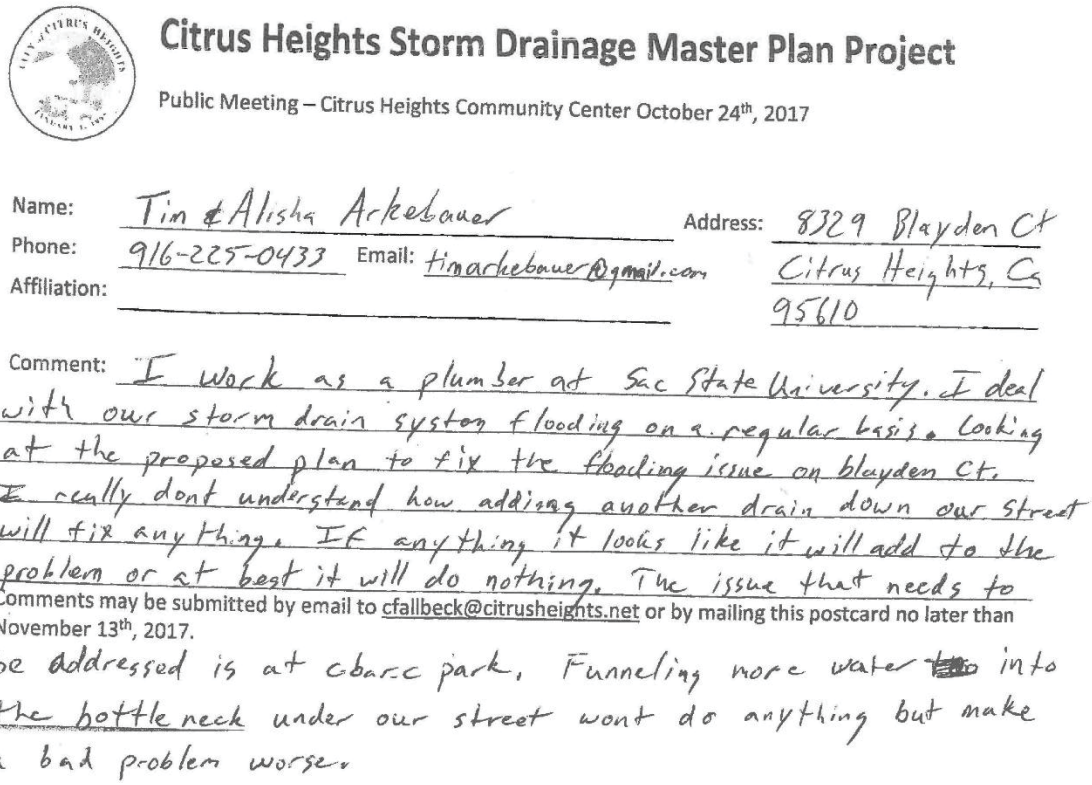
Appendix E — List of Abbreviated Terms

Abbreviation	Full Meaning
ADT	Average Daily Traffic
ARB	Air Resource Board
BMPs	Best Management Practices
CARB	California Air Resources Board
CAA	Clean Air Act
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CDFG	California Department Fish and Game
CDHS	California Department of Health Services
CDTSC	California Department of Toxic Substances Control
cfs	Cubic feet per second
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
City	City of Citrus Heights
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO2	Carbon dioxide
CWA	Clean Water Act
dbh	Diameter At Breast Height
DLRP	Division of Land Resource Protection
DOC	Department of Conservation
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FESA	Federal Endangered Species Act
FPPA	Farmland Protection Policy Act
GHG	Greenhouse Gas
HDD	Horizontal Directional Drilling
HFC	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
IS/MND	Initial Study/ Mitigated Negative Declaration
LUST	Leaking Underground Storage Tank
MLD	Most Likely Descendant
MS4	Municipal Separate Storm Sewer Systems
msl	Mean sea level
MTBA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NOx	Nitrogen Oxides
NRCS	Natural Resource Conservation Service

O3	Ozone
OPR	Office of Planning and Research
SacMetro AQMD	Sacramento Metropolitan Air Quality Management District
Pb	Lead
PFC	Perfluorocarbons
PM 2.5	Particulate matter-2.5 microns
PM10	Respirable Particulate Matter (particulate matter-10 microns)
ppm	Parts per million
PRC	Public Resources Code
Proposed Project	City of Citrus Heights Neighborhoods 8, 9 and 10 Storm Drainage Master Plan Project
ROG	Reactive Organic Gasses
ROWD	Report of Waste Discharge
RTP	Regional Transport Plans
RWQCB	Regional Water Quality Control Board
SAAQS	State Ambient Air Quality Standards
SIP	State Implementation Plan
SF6	Sulfur Hexafluoride
SSC	Special Species of Concern
Study	Storm Drainage Master Plan Study
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Loads
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
VOC	Volatile organic compounds
ZEV	Zero-emission vehicles

Appendix F — Response to Public Comments

Location 9 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Tim & Alisha Arkebauer Address: 8329 Blayden Ct Citrus Heights, Ca 95610

Phone: 916-225-0433 Email: timarkebauer@gmail.com

Affiliation:

Comment: I work as a plumber at Sac State University. I deal with our storm drain system flooding on a regular basis. Looking at the proposed plan to fix the flooding issue on blayden Ct. I really dont understand how adding another drain down our street will fix anything. If anything it looks like it will add to the problem or at best it will do nothing. The issue that needs to be addressed is at cbarc park. Funneling more water into the bottle neck under our street wont do anything but make a bad problem worse.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

I work as a plumber at Sac State University. I deal with our storm drain system flooding on a regular basis. Looking at the proposed plan to fix the flooding issue on Blayden Court, I really don't understand how adding another drain down our street will fix anything. If anything, it looks like it will add to the problem or at best it will do nothing. The issue that needs to be addressed is at C-Bar-C Park. Funneling more water into the bottleneck under our street won't do anything but make a bad problem worse.

Response to Location 9 – Comment 1

Thank you for your comment. The enlarged pipe along Blayden Court will allow flows to move under and past Blayden Court faster and provide more storage for flows. No additional runoff is being routed to Blayden Court. Based on public input and downstream hydraulic modeling, the City has added two small detention basins to the project. The first is within the SMUD easement south of Oak Avenue. The stormwater from the Blayden Court stormdrain would be diverted into this detention basin, which will reduce flow rates to C-Bar-C Park. Additionally, the City has added upsizing the pipe downstream of the inlet at the northwest corner of Blayden Court to the project. The larger pipe will allow runoff to drain from Blayden Court to the detention basin more quickly. The second detention basin would be south of Blayden Court, at Northwoods Park. This basin will provide storage of rainfall runoff that currently flows overland from the park to Blayden Court. The basin will reduce the peak flows to the Blayden Court drainage system, which will also reduce flooding.The detention basin would have a shallow depth of 1-3 feet and would be built with gradually sloped sides. The basin would be designed to follow natural contours to minimize visual impact and would be designed to drain within 92 hours following rain events.

The Initial Study has been updated to reflect these additional project features.

Location 9 – Comment 2

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Juley Chadwick Address: 8313 Blayden Court

Phone: 916 726-5165 Email: jewels@surewest.net Citrus Heights CA. 95610

Affiliation:

Comment: I just purchased a home here on Blayden Ct. on October 10, 2017. I was not made aware of the flooding problems until after my purchase. This is very concerning to me that I could potentially have flooding problems in my new home. I hope this new drainage master plan project will be completed soon.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

I just purchased a home here on Blayden Ct. on October 10th, 2017. I was not made aware of the flooding problems until after my purchase. This is very concerning to me that I could potentially have flooding problems in my new home. I hope this new drainage master plan project will be completed soon.

Response to Location 9 – Comment 2

Thank you for your comment. The City understands your concern and is working to implement the drainage master plan as quickly as feasible. Environmental clearance for the project is anticipated to be completed in late winter/ early spring of 2018 with construction beginning in some locations as early as summer 2018.

Location 9 – Comment 3

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Gerald L Housman [illegible]   Address: 8337 [illegible] Ct, Citrus Heights CA 95610

Phone: 916 356 1988   Email: [illegible]

Affiliation:

Comment: Please ensure that water run off from [illegible] or from the park will be taken care of. In the past water has backed up all the way to our [illegible] house.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

Please ensure that water runoff from [illegible] or from the park will taken care of. In the past water has backed up all the way to our [illegible] house.

Response to Location 9 – Comment 3

Thank you for your comment. The planned drainage improvements would improve the efficiency of the City's stormdrain infrastructure and is anticipated to reduce the frequency of flooding within the City.

Location 9 – Comment 4

RAYMOND J. LAPOINT JR
8321 BLAYDEN CT
CITRUS HTS, CA 95610

916-708-2540

(LOCATION 9)

PLACE STAMP HERE

City of Citrus Heights
ATTN: Chris Fallbeck
6360 Fountain Square Drive
Citrus Heights, CA 95621

I HAVE LIVED AT 8321 BLAYDEN CT FOR FORTY YEARS. AND DURING THIS TIME FLOODING HAS OCCURED MANY TIMES, DURING HEAVY RAIN STORMS.

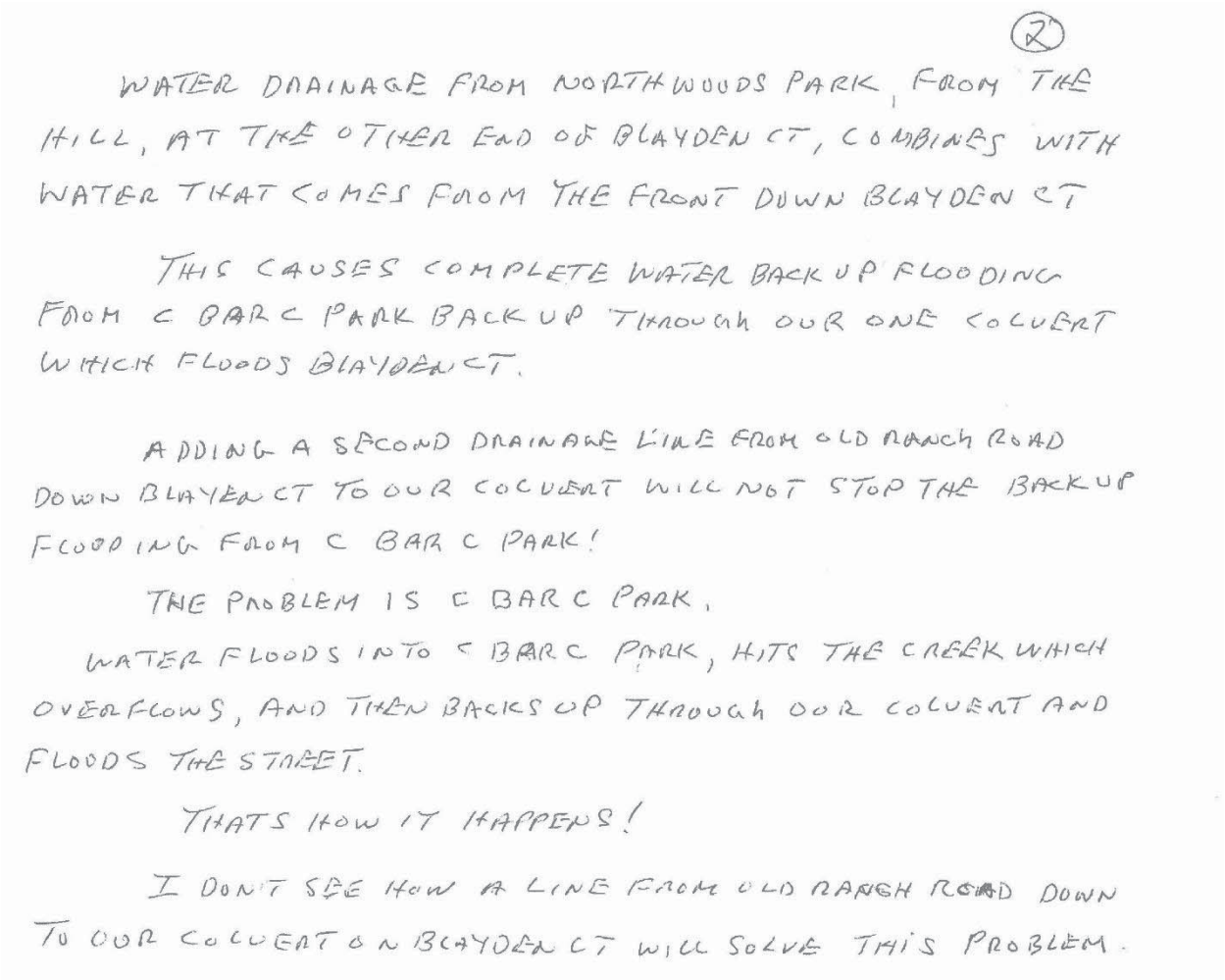
WHEN THEY BUILT HOMES ON THIS STREET, THEY DIDN'T ACCOUNT FOR A PROPER CULVERT SYSTEM WHICH WOULD TAKE THE HEAVY RAINS AND HOMES GOT FLOODED, DURING THIS PERIOD.

SINCE THEN FLOODING OCCURS EACH YEAR ON BLAYDEN CT. IT RUNS UP AT LEAST THREE QUARTERS OF EVERY DRIVEWAY WHEN IT STORMS. HOMES COULD EASILY FLOOD ABOVE THAT.

BLAYDEN COURT HAS RUSHING WATER COMING DOWN FROM OAK AVE, OLD RANCH ROAD, JORDELL CT AND INTO BLAYDEN COURT ALL AT THE SAME TIME. IT ALSO DRAINS DOWN FROM NORTWOODS PARK INTO THE BACK OF BLAYDEN CT TO OTHER HOMES AT 8300, 8301, 8305, 8309 BLAYDEN CT TO MORE HOMES.

RIGHT NOW THE ONE STORM DRAIN LINE GOES DOWN BLAYDEN CT FROM OLD RANCH ROAD INTO THE ONE STORM LINE BETWEEN MY HOME 8321 AND 8325 THROUGH THE CULVERT INTO THE FIELD (UNDERGROUND) ACROSS OAK AVE INTO CIRBY PARK.

(OVER)



(2)

WATER DRAINAGE FROM NORTHWOODS PARK, FROM THE HILL, AT THE OTHER END OF BLAYDEN CT, COMBINES WITH WATER THAT COMES FROM THE FRONT DOWN BLAYDEN CT

THIS CAUSES COMPLETE WATER BACK UP FLOODING FROM C BARC PARK BACK UP THROUGH OUR ONE CULVERT WHICH FLOODS BLAYDEN CT.

ADDING A SECOND DRAINAGE LINE FROM OLD RANCH ROAD DOWN BLAYDEN CT TO OUR CULVERT WILL NOT STOP THE BACK UP FLOODING FROM C BARC PARK!

THE PROBLEM IS C BARC PARK.

WATER FLOODS INTO C BARC PARK, HITS THE CREEK WHICH OVERFLOWS, AND THEN BACKS UP THROUGH OUR CULVERT AND FLOODS THE STREET.

THATS HOW IT HAPPENS!

I DONT SEE HOW A LINE FROM OLD RANCH ROAD DOWN TO OUR CULVERT ON BLAYDEN CT WILL SOLVE THIS PROBLEM.

Transcription:

I have lived at 8321 Blayden Court for Forty Years. And during this time flooding has occurred many times, during heavy rains storms.

When they built homes on this street, they didn't account for a proper culvert system which would take the heavy rains and homes got flooded during this period.

Since then flooding occurs each year on Blayden Court. It runs up at least three quarters of every driveway when it storms. Homes could easily flood above that.

Blayden Court has rushing water coming down from Oak Avenue, Old Ranch Road, Jordell Court, and into Blayden Court all at the same time. It also drains down from Northwoods Park into the back of Blayden Court to other homes at 8300, 8301, 8305, 8309 Blayden Court to more homes.

Right now the one storm drain line goes down Blayden Corut from Oak Ranch Road into the one storm line between my home 8321 and 8325 through the culvert into the field (underground) across Oak Avenue

into C-Bar-C Park.

Water drainage from Northwoods Park, from the hill, at the other end of Blayden Cout, combines with water that comes from the front down Blayden Court.

This causes complete water backup flooding from C-Bar-C Park up through our one culvert which floods Blayden Court.

Adding a second drainage line from Old Ranch Road down Blayden Court to our culvert will not stop the backup flooding from C-Bar-C Park!

The problem is C-Bar-C Park.

Water floods into C-Bar-C Park, hits the creek which overflows, and then backs up through our culvert and floods the street.

That's how it happens!

I don't see how a line from Old Ranch Road down to our culvert on Blayden Court will solve this problem.

Response to Location 9 – Comment 4

Thank you for your comment. The purpose of the proposed enlargement of the stormdrain under Blayden Court was underground temporary stormwater storage. Due to other existing utilities, a large diameter water storage pipe under the roadway was determined to not be feasible. The City has refined project design to include a water detention basin within the SMUD easement east of Blayden Court. The detention basin would moderate discharge to C-Bar-C Park .

With regards to backwater from C-Bar-C Park causing flooding within Blayden Court, the culvert under Oak Avenue is at too low an elevation to cause reverse flow into Blayden Court; however, elevated downstream water levels are potentially reducing the efficiency of the stormdrain system within Blayden Court. The proposed water detention basin would moderate downstream flows to C-Bar-C Park and is anticipated to reduce the potential for water surface elevations at C-Bar-C Park to influence the water surface elevations at Blayden Court.

Based on public comment, the City has analyzed the quantity of water entering Blayden Court from Northwoods Park. The City has added a small detention basin south of Blayden Court to the project design that would collect a portion of the runoff from Northwoods Park and reduce the rate of water flowing into Blayden Court from Northwoods Park. The proposed detention basins coupled with other drainage improvements at this location would reduce flooding within Blayden Court.

The Initial Study has been updated to reflect these additional project features.

Location 9 – Comment 5

Email Comment:

Dear Mr. Fallbeck,

This is a reply and comments on the Storm Drainage Master Plan Project slated for location 9 Citrus Heights.

My name is John Moore located at 8309 Blayden ct., west side of the court, backing up to the SMUD property. I have been in this location for close to 30 years and have seen the flooding that has occurred in the court over the years. It was not fun to watch. The first item I would like to mention is that the property below the SMUD electrical lines is crowned as it follows the lines. This crowning causes a slope that runs down to the back yard fence lines of the homes on Blayden ct. west side. Over the years of heavy down pours, rain water develops and flows into Northwoods Park and through and around the properties. This heavy runoff adds a large amount of water to the court and the drainage system. I have attempted to add a sump pump, more drainage lines were the water pools up and trenching to direct the runoff to the court. It seems to work well now but when I first moved in, I was taking in water from the runoff into my house.

As a solution to this excessive runoff, I would like to suggest a dirt trench system on the SMUD property just outside the fence line of the homes from Northwood Park to Oak Ave. It doesn't need to be deep, just enough to channel the runoff from the slope down to Oak Ave. The sunrise park district regularly has a tractor with a disk unit come out to knock down the tall grass for fire safety reasons. A tractor unit with a trenching attachment could easily eliminate this problem for the homeowners.

The plan as I see it is for the enlargement of the drain pipe from the corner of Oak Ave. and Blayden Ct. This sounds great and should help during heavy downpour events. This swale that was installed years ago has been helpful during downpours and the level of rain water back up has been reduced. Whatever you can do to keep the excessive rain water from backing up into the homes on Blayden Ct. would be greatly appreciated.

John Moore

Response to Location 9 – Comment 5

Thank you for your comment. The suggested trench system may be effective for redirecting water from the SMUD easement in the northern section of Blayden Court; however, there is an existing rise in the topography that would necessitate a very deep trench to direct water from the southern portion of Blayden Court to Oak Avenue. As an alternative solution, the City has added two detention basins and a series of shallow swales to the project design. One stormwater detention basin would be installed south of Blayden Court along the northern edge of Northwoods Park. This basin would collect runoff from the SMUD easement and Northwoods park and moderate flows into the stormdrain inlet south of Blayden Court. A shallow swale would be constructed to intercept water from the SMUD easement and direct it into the new detention basin. The second detention basin and swale would be installed near the outlet of the existing concrete lined overland release. This detention basin would intercept flow from a portion of the SMUD easement and from the overland release at the turn in Blayden Court and moderate downstream discharge to C-Bar-C Park. The City has also added increasing the size of the pipe downstream of the inlet at the northwest corner of Blayden Court to improve conveyance to the second detention basin.

The Initial Study has been updated to reflect these additional project features.

Location 9 – Comment 6

CITRUS HEIGHTS STORM DRAINAGE MASTER PLAN PROJECT

NAME: Rosa Umbach Address: 8325 Blayden Ct., Citrus Heights, CA 95610

Phone: (916) 342-7556 cell

(916) 722-6897 home

Project: Location #9 – Blayden Ct.

Comments:

Problem – Page 21:

The description of the location of the storm drain in Blayden Ct. is between two lots at the corner of Blayden Court. The storm drain is actually on Blayden Ct., approximately 220 feet from Old Ranch Road.

The size of the storm drain pipe is identified in the plan; however, water runoff from Old Ranch is not the only source of runoff into Blayden Court. Runoff also comes from the North from Oak Ave - see photo #1; East from Jordell Ct - see photo #2; from South off Old Ranch Road and the Northwoods Park - see photos 3- 7; and from the West (SMUD easement - see photo's 8 - 10).

The flooding in the court occurs at the North end of Blayden Court when there is a heavy down pour of water. The water flows in from the streets listed above, and flows out through the storm drain and the overland open trench. Water from the storm drain empties into the creek and water from the open trench empties into the SMUD easement.

Flooding occurs at the South end of Blayden Court as water drains from the park playground area down towards the fence. Although there is a storm drain in the park between the tennis courts and the rear of the properties on Blayden Ct., the amount of water is too much for the storm drain to handle. Water comes into the property at that end of Blayden Ct from the park (on the South) and the SMUD easement (on the West). As seen on photos #4 - 6, there is a small cement trough along the fence that will carry the water from the park to the storm drain; however, there is no such conveyance from the SMUD easement side to redirect the water away from the homes on Blayden Ct.

Also included is photo #11 showing the street next to the storm drain on Blayden Ct has begun to sink.

Proposed Solution – Page 22:

In reviewing the proposed changes to Amsell Court and the upsizing of the pipe in Blayden Court, it does not appear that the solution would address the water runoff that comes into Blayden Court from Oak Ave, Jordell Court, Northwoods Park, or the SMUD easement. By upsizing the pipe, it appears the pipe will be adding water to an already overloaded overland release path (i.e., the open trench between my neighbors and my yard). I'm concerned that the repairs will only increase the amount of water that is be piped into Blayden Court through the new drainage pipe. Additionally, there is no resolution designed to address the water coming into the court from the Park or the SMUD easement.

Response to Location 9 – Comment 6

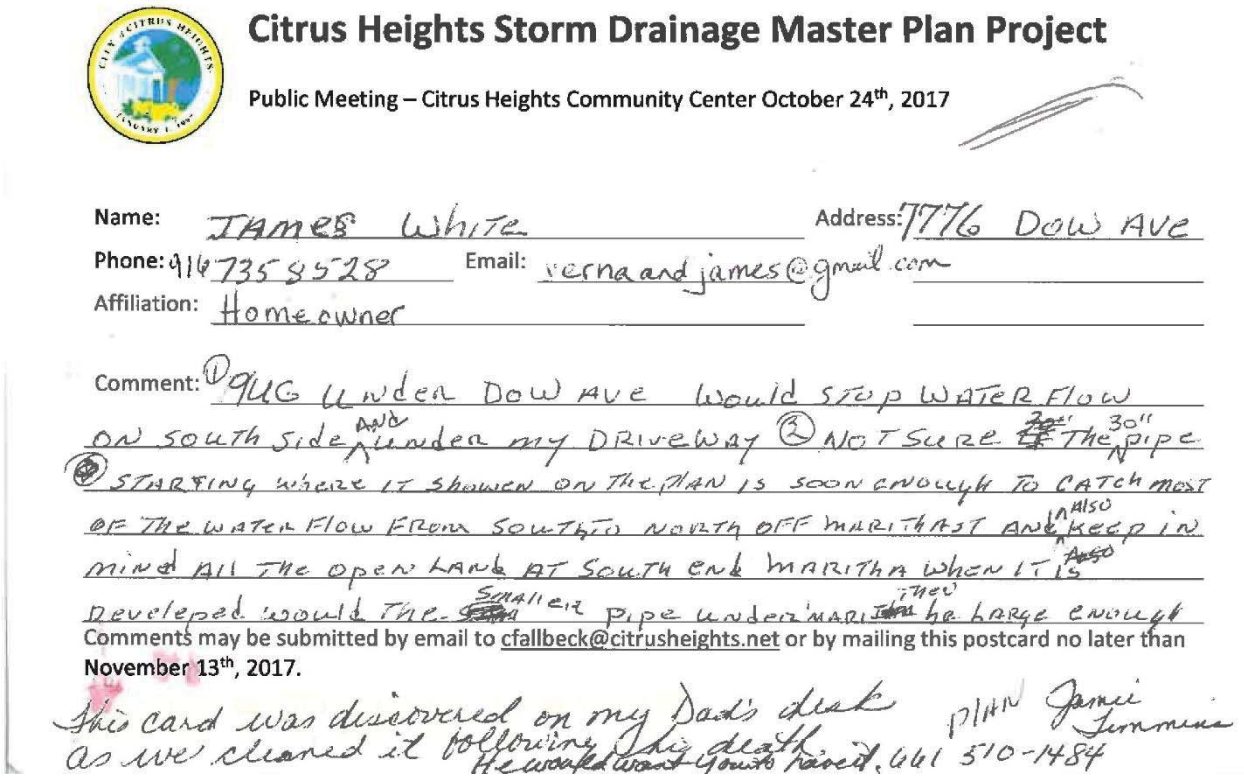
Thank you for your comment. The project description has been modified to clarify that the stormdrain and overland release are located approximately 220 feet from the intersection of Old Ranch Road, at the turn along Blayden Court. The design accounts for the runoff that reaches Blayden Court from the other streets mentioned.

To alleviate inflow from the SMUD utility easement and from Northwoods Park, the City has added two detention basins to the project design. One basin would be located south of Blayden Court. This basin would collect and temporarily store a portion of runoff from Northwoods Park, reducing the peak inflow from the Park to Blayden Court during storm events. The second basin would be located near the outlet from the concrete lined overland release located approximately 220 feet from the intersection of Old Ranch Road, at the turn along Blayden Court. This second basin would collect a portion of the sheet flow from the north end of the SMUD utility easement. The City has also added increasing the size of the storm drain pipe downstream of the inlet at the northwest corner of Blayden Court, to improve the ability of the Court to drain to the second basin.

The upsizing of the stormdrain system on Blayden Court would allow runoff to travel under and past Blayden Court more quickly and provide storage for runoff underground. The upsized stormdrain along Blayden Court would not contribute water to the overland release.

The Initial Study has been updated to reflect these additional project features.

Location 11 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: James White Address: 7776 Dow Ave

Phone: 9167358528 Email: verna and james@gmail.com

Affiliation: Homeowner

Comment: ① PLUG UNDER DOW AVE would STOP WATER FLOW ON SOUTH SIDE AND under my DRIVEWAY ② NOT SURE ~~IF~~ The 30" pipe ③ STARTING where it shown ON THE PLAN IS SOON ENOUGH TO CATCH MOST OF THE WATER FLOW FROM SOUTH TO NORTH OFF MARITHAST AND ALSO KEEP IN mind ALL THE OPEN LAND AT SOUTH END MARITHA WHEN IT IS ALSO Developed would THE ~~SMALL~~ SMALLER pipe under MARITHA THEY be LARGE ENOUGH

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

This card was discovered on my Dad's desk as we cleaned it following his death. He would want your input. PLAN Jamie Simmons 661 510-1484

Transcription:

Plug under Dow Avenue would stop water flow on south side and under my driveway. Not sure the 30” pipe starting where it is shown on the plan is soon enough to catch most of the water flow from south to north off Maretha St. and also keep in mind all the open land at south end of Maretha when it is developed. Would the smaller pipe under Maretha be large enough?

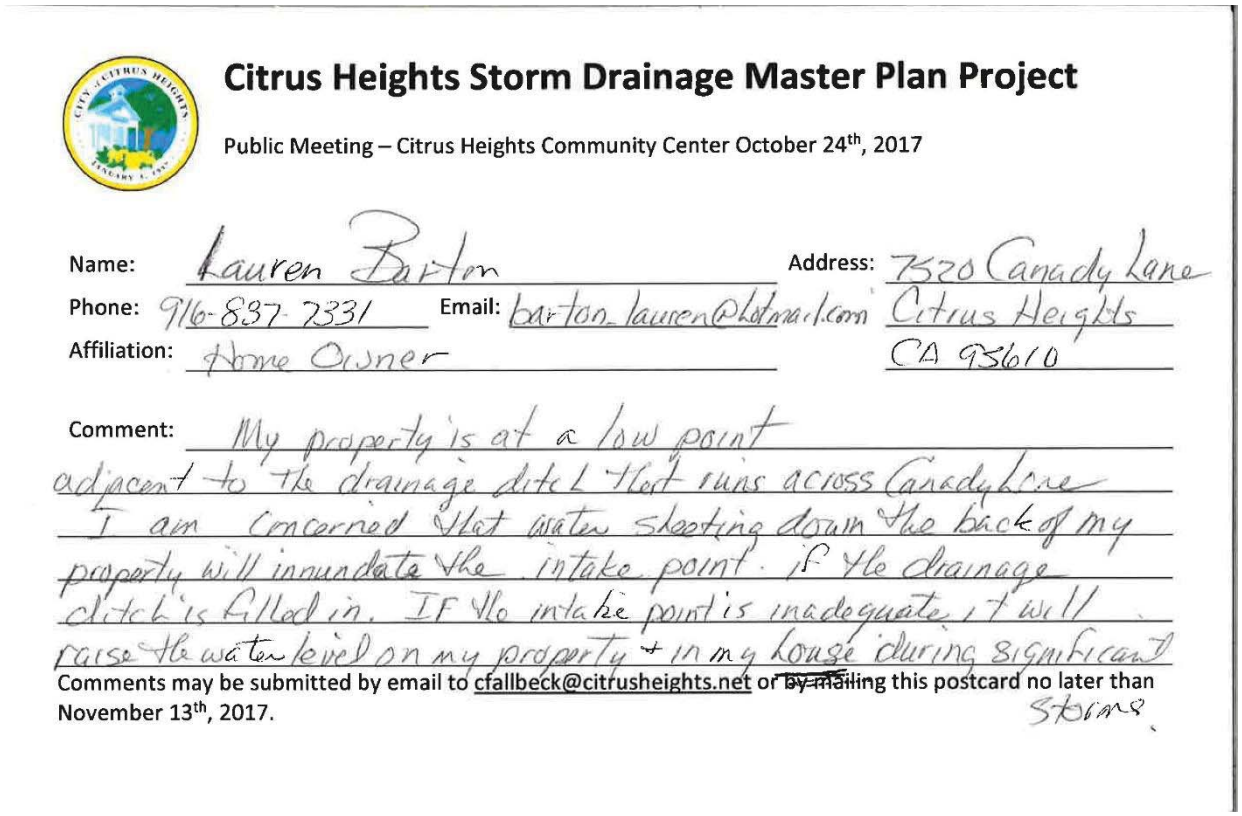
Response to Location 11 – Comment 1

Thank you for your comment. Water on Dow Avenue currently does not drain east into the existing Maretha Street storm drain because Dow Avenue is slightly downslope from Maretha Street. Instead, water from Dow Avenue flows north through a concrete lined gutter set between two homes. Plugging the existing underground pipe along Dow Avenue would prevent excess water from the Maretha Street storm drain from backing up into Dow Avenue.

The proposed project includes new underground storm drains along Maretha Street that have been designed to adequately convey storm runoff from the contributing watershed area. The project would extend the existing underground storm drain system in Maretha Street to convey drainage originating south of Dow Avenue north to Old Auburn Road. Surface flows would be collected along an asphalt concrete dike and channeled to a new inlet at the corner of Dow Avenue and Maretha Street.

With regards to potential development at the end of Maretha Street, the storm drain system would be designed based on existing conditions and would not account for future development or increased impervious cover. However, the City's development code requires that new developments do not increase storm runoff from existing conditions so it would be the responsibility of the developer to implement storm water mitigation and ensure no net increase in storm water discharge to the City's storm drain infrastructure.

Location 12 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Lauren Barton
Address: 7520 Canady Lane
Phone: 916-837-7331
Email: barton_lauren@hotmail.com
Citrus Heights
Affiliation: Home Owner
CA 95610

Comment: My property is at a low point adjacent to the drainage ditch that runs across Canady Lane. I am concerned that water sheeting down the back of my property will inundate the intake point if the drainage ditch is filled in. If the intake point is inadequate, it will raise the water level on my property + in my house during significant storms.

Comments may be submitted by email to cfallbeck@citrusheights.net or ~~by mailing~~ this postcard no later than November 13th, 2017.

Transcription:

My property is at a low point adjacent to the drainage ditch that runs across Canady Lane. I am concerned that water sheeting down the back of my property will inundate the intake point if the drainage ditch is filled in. if the intake point is inadequate, it will raise the water level on my property + in my house during significant storms.

Response to Location 12 – Comment 1

Thank you for your comment. The project would place a new underground stormdrain pipe and fill in the ditch adjacent to your property; however, a shallow swale would be contoured on top of the new stormdrain. Vertical inlets would be installed to allow water from the swale to drain into the stormdrain. Stormdrain improvements have been designed to drain your property and adjacent areas during storm events.

Location 12 – Comment 2

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: Allene Chapman Address: 7508 Candy Lane

Phone: (916) 768-5038 Email: allene.chapman@comcast.net Citrus Heights, Ca.

Affiliation: Property Owner - My property has been flooded into my house but am concerned these changes may cause problem

Comment: (1) Will the 48" pipe proposed along my property be under ground to maintain the current grade for water flow? If the grade is raised I will have flooding issues.
(2) Will the 48" pipe be directly connected to the existing inlet?
(3) There is a large volumne of water that flows across my property coming from the South (or from Oak Ave) which flows into the open ditch in the middle of the property. Will there be an inlet to allow this flow to enter the 48" pipe
Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.
(4) (MAJor Concern) the present inlet is only 30" to 24" so if that size is not enlarged to connect to the 48" pipe the present problems will continue (Photos attached)

Transcription:

My property has never flooded into my house but I am concerned these changes may cause problems.

(1) Will the 48” pipe proposed along my property be under ground to maintain the current grade for water flow (if the grade is raised I will have flooding issues)?
(2) Will the 48” Pipe be directly connected to the existing inlet?
(3) There is a large volume of water that flows across my property coming from the south (or from Oak Ave) which flows into the open ditch in the middle of the property. Will there be an inlet to allow this flow to enter the 48” pipe?
(4) (Major Concern) The present inlet is only 30” to 24” so if that size is not enlarged to connect to the 48” pipe, the present problems will continue.

Response to Location 12 – Comment 2

Thank you for your comment. The proposed stormdrain would be installed underground and would maintain the existing grade. The existing inlet along Canady Lane would be enlarged to allow more water to enter the new enlarged pipe. In addition, a swale would be graded on top of the new stormdrain west of Canady Lane and inlets would be installed periodically within the swale to allow overland sheet flow from adjacent properties to enter the new stormdrain.

Location 12 – Comment 3

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED
NOV 13 2017
BY:

Name: Bill Willcuts
Address: 7506 Minnesota Dr. Citrus Heights CA 95610
Phone: 916 601 7158
Email:
Affiliation:

Comment: 10/24/17 meeting at 6300 Fountain Sq. Dr. 6:30 PM
Mr. Fallbeck acknowledged unpermitted altering of drainage. Chris stated the buried, reduced in size pipe, at 7456 Minnesota Dr. would be inspected by fiber optics as 18 in is to small for a human. Chris also stated the unpermitted reduced pipe will be cleaned out. Debris removed to ensure proper flow of wrongly installed drainage. No clean outs!!

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED
NOV 13 2017
BY:

Name: Bill Williams
Address: 7506 Minnesota Dr. Citrus Heights CA 95610
Phone: 916 601 7158
Email:
Affiliation:

Comment: GOD and the rain made the existing drainage from F.O. Blvd To Sunrise Blvd and beyond. 7456 Minnesota Dr. altered reduced and buried the Natural drainage. This flawed and unplanned altering of gravity has resulted in flooding. Open the existing Path to original size and watch the damage claims reduce. 7456 Minn. is costing The city a lot of money. JUST Open Existing Drainage to ORIGINAL SIZE

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED NOV 13 2017 BY:

Name: Bill Williams
Phone: 916 601 7158 Email:
Affiliation:

Address: 7506 Minnesota Dr. Citrus Hts CA 95610

Comment: 7456 Minnesota altered natural Drainage. No one is allowed to alter, herbicide, pesticide, insecticide, install weed barrier ect. DO NOT ALTER. 7456 Minnesota Dr. disregarded ALL! F.O. Blvd, Minnesota Dr, Atkerson Ln, Cowdy Ln. now flood. 7456 is low spot on Topo map. Rain cannot drain fast enough into reduced drainage. Its full of Debris and un permitted

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

11/13/17

Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

RECEIVED NOV 13 2017 BY:

Name: Bill Williams
Phone: 916 601 7158 Email:
Affiliation:

Address: 7506 Minnesota Dr Citrus Heights CA 95610

Comment: OPen unpermitted alteration of natural drainage. 7456 Minnesota Dr. has changed the way we live, during rain season. Sand bags, sump pumps, french drains, regrade, insurance claims. Simple fix simple math 24in drain - reduced to 18in plastic pipe. Never reduce the size. What is the slope? Is there clean outs? No, no clean outs - 18in waist. Just Wrong

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017. 11/13/17

Transcription:

10/24/17 meeting at 6300 Fountain Square Drive 6:30 pm, Mr. Fallbeck acknowledged unpermitted altering of drainage. Chris stated the buried, reduced in size pipe at 7456 Minnesota Drive would be inspected by fiber optics as 18 inches is too small for a human. Chris also stated the unpermitted reduced pipe will be cleaned out. Debris removed to ensure proper flow of wrongly installed drainage. No clean outs!

God and the rain made the existing drainage from Fair Oaks Boulevard to Sunrise Boulevard and beyond. 7456 Minnesota Drive altered reduced and buried the natural drainage. This flawed and unplanned altering of gravity has resulted in flooding. Open the existing path to original size and watch damage claims reduce. 7456 Minnesota Drive is costing the City a lot of money. Just open the existing drainage to original size.

7456 Minnesota altered natural drainage. No one is allowed to alter, herbicide, pesticide, insecticide, install weed barrier ect. DO NOT ALTER! 7456 Minnesota Drive disregarded ALL! Fair Oaks Boulevard, Minnesota Drive, Anderson Lane, and Canady Lane now flood! 7456 is low spot on topo map. Rain cannot drain fast enough into reduced drainage. Its full of debris and unpermitted.

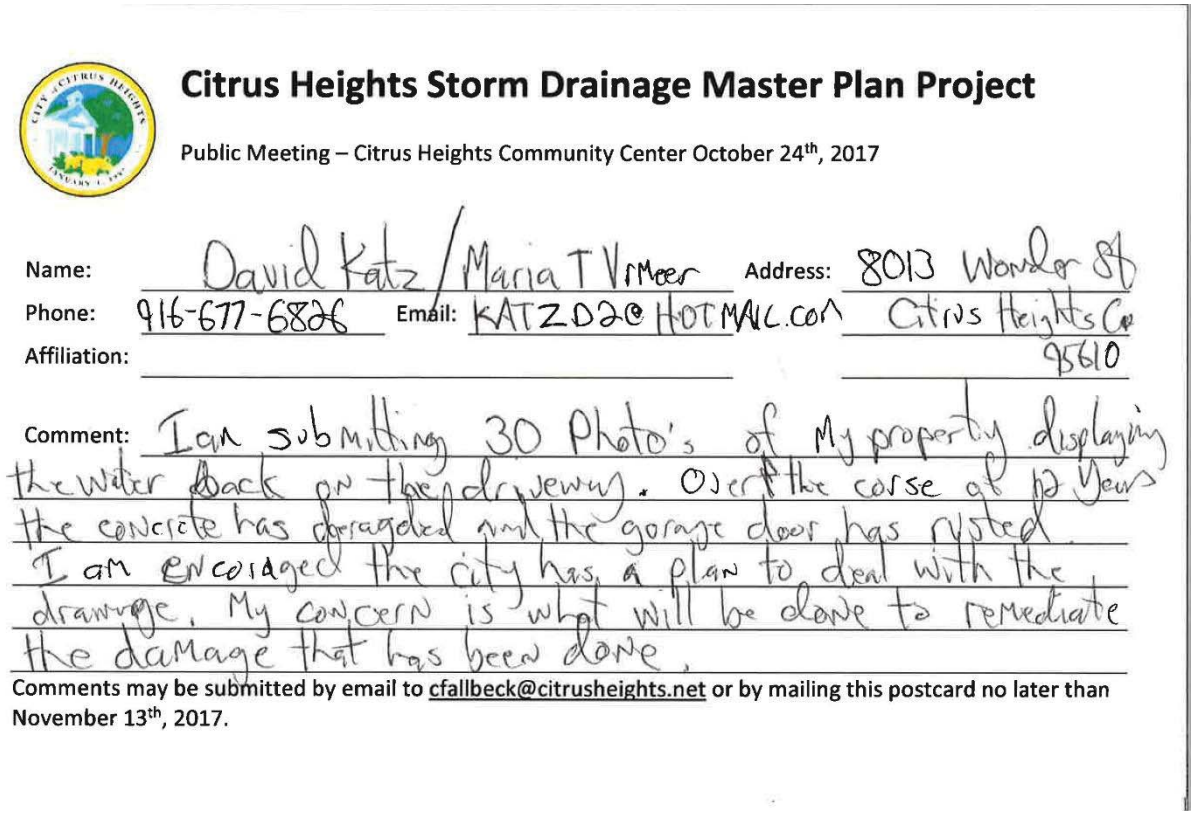
Open unpermitted alteration of natural drainage. 7456 Minnesota Drive has changed the way we live during rain season. Sand bags, sump pumps, French drains, regrade, insurance claims. Simple fix simple math 24 inch drain reduced to 18 inch plastic pipe. Never reduce the size. What is the slope? Are there clean outs? No, no clean outs – 18 inch waist. Just wrong.

Response to Location 12 – Comment 3

Thank you for your comment. The City has added features to the project to alleviate flooding along Minnesota Drive. New underground stormdrains would be installed along both sides of the roadway and enlarged drainage inlet would be installed to replace the existing non-standard inlet located between 7506 and 7456 Minnesota Drive. In addition, the City is considering including a new stormdrain in the field north of 7506 in the project design to direct flow from the new system under Minnesota Drive around the homes along Minnesota Drive and reduce the amount of water directed to the inlet between 7506 and 7456.

The Initial Study has been updated to reflect these additional project features.

Location 13 – Comment 1



Citrus Heights Storm Drainage Master Plan Project

Public Meeting – Citrus Heights Community Center October 24th, 2017

Name: David Katz / Maria T Vrmeer Address: 8013 Wonder St

Phone: 916-677-6826 Email: KATZD2@HOTMAIL.COM Citrus Heights Ca 95610

Affiliation:

Comment: I am submitting 30 Photo's of My property displaying the water back on the driveway. Over the corse of 12 Years the concrete has degraded and the garage door has rusted. I am encouraged the city has a plan to deal with the drainage. My concern is what will be done to remediate the damage that has been done.

Comments may be submitted by email to cfallbeck@citrusheights.net or by mailing this postcard no later than November 13th, 2017.

Transcription:

I am submitting 30 photos of my property displaying the water back on the driveway. Over the course of 12 years the concrete has degraded and the garage door has rusted. I am encouraged the City has a plan to deal with the drainage. My concern is what will be done to remediate the damage that has been done.

Response to Location 13 – Comment 1

Thank you for your comment. This project would establish a formal stormdrain along Wonder Street to convey stormwater north to Cripple Creek. The addition of this stormdrain would improve drainage and reduce ponding within the road right-of-way; however, the City cannot be held responsible for inadequate drainage on private property.

SMUD Comment (Page 1 of 2)

Powering forward. Together.

SMUD®

Sent Via E-Mail

November 13, 2017

Chris Fallbeck
Citrus Heights Irrigation District
6360 Fountain Square Drive
Citrus Heights, CA 95621
cfallbeck@citrusheights.net

Subject: **Citrus Heights Storm Drainage Master Plan Project (Clearinghouse #2017102040)**

Dear Mr. Fallbeck,

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the Mitigated Negative Declaration (MND) for the Citrus Heights Storm Drainage Master Plan Project (Project). SMUD is the primary energy provider for Sacramento County and the proposed Project area. SMUD's vision is to empower our customers with solutions and options that increase energy efficiency, protect the environment, reduce global warming, and lower the cost to serve our region. As a Responsible Agency, SMUD aims to ensure that the proposed Project limits the potential for significant environmental effects on SMUD facilities, employees, and customers.

It is our desire that the Project MND will acknowledge any Project impacts related to the following:

- Overhead and or underground transmission and distribution line easements. Please view the following links on smud.org for more information regarding transmission encroachment:
  - https://www.smud.org/en/business/customer-service/support-and-services/design-construction-services.htm
  - https://www.smud.org/en/do-business-with-smud/real-estate-services/transmission-right-of-way.htm
- Utility line routing

Based on our review of the Initial Study and our understanding of the proposed project, SMUD offers the following input:

1. Project Description: SMUD would like to be informed of any anticipated project related impacts on existing or future SMUD facilities. It is important that information regarding potential impacts to SMUD facilities in the vicinity of the

SMUD CSC | 6301 S Street | P.O. Box 15830 | Sacramento, CA 95852-0830 | 1.888.742.7683 | smud.org

SMUD Comment (Page 2 of 2)

proposed project be contained in the project description chapter of the MND, as well as the existing conditions discussion of the utilities, hazards and hazardous materials, and cumulative impact sections.

2. Planning and CEQA Considerations: As a Responsible Agency, SMUD requests that any conflicts related to SMUD facilities and any potential issues related to our facilities or easements be considered during the project design and planning and any associated impacts be considered in the MND.

SMUD would like to be kept apprised of the planning, capital improvements, and completion of the City of Citrus Heights' Storm Drainage Master Plan Project. Please ensure that the information included in this response is conveyed to the project planners and the appropriate project proponents.

Environmental leadership is a core value of SMUD and we look forward to collaborating with you on this Project. Again, we appreciate the opportunity to provide input on this MND. If you have any questions regarding this letter, please contact SMUD's Environmental Management Specialist, Ammon Rice, at ammon.rice@smud.org or 916.732.7466.

Sincerely,

Jamie Cutlip
Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313
Sacramento, CA 95817
jamie.cutlip@smud.org

Cc: Ammon Rice

(JC/sc)

SMUD CSC | 6301 S Street | P.O. Box 15830 | Sacramento, CA 95852-0830 | 1.888.742.7683 | smud.org

Response to SMUD Comment

Thank you for your comment. On December 5th, 2017, City staff met with SMUD to discuss potential construction and operational impacts to the SMUD utility corridor. SMUD staff explained that historically, SMUD did not allow detention basins or other drainage improvements to be constructed within their high voltage transmission corridors; however, SMUD recognizes the need for drainage improvements. The City would continue to coordinate with SMUD during final design of the Drainage Master Plan and would work with SMUD to develop a Joint Use Agreement between the Sunrise Parks District (property owner), SMUD, and the City of Citrus Heights.

A discussion of the SMUD utility corridor was added to Section 3.8 Hazards and Hazardous Materials and to Section 3.18 Utilities and Service Systems.

City of Citrus Heights Neighborhoods 8, 9, and 10

Storm Drainage Master Plan Study

Prepared for

City of Citrus Heights

February 2016

WEST YOST ASSOCIATES 25 YEARS 1990–2015

396-00-12-02

WEST YOST ASSOCIATES

consulting engineers

WATER WASTEWATER STORMWATER

City of Citrus Heights
Neighborhoods 8, 9, and 10

Storm Drainage
Master Plan Study

Prepared for

City of Citrus Heights

February 2016

396-00-12-02

REGISTERED PROFESSIONAL ENGINEER
MARK O. KUBIK
No. 50963
Exp. 9-30-17
CIVIL
STATE OF CALIFORNIA

Mark Kubik

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Chapter 5. Hydrologic and Hydraulic Model Development

Chapter 6. Analysis of Existing Pipes

Chapter 7. Analysis of Problem Locations

Chapter 8. Capital Improvement Program

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ES.1 INTRODUCTION

The City of Citrus Heights (City) incorporated in 1997. However, until 2010 the storm drainage facilities that serve the City were owned by the City and maintained by the County of Sacramento. The City has now taken over full responsibility for the drainage system and is in the process of developing a comprehensive drainage Capital Improvement Program to reduce or eliminate flooding and drainage problems. The City retained West Yost Associates (West Yost) to perform a drainage study for City Neighborhoods 8, 9, and 10. This study represents another step in the City's effort towards the development of the drainage Capital Improvement Program. A drainage study was completed by West Yost for Neighborhoods 6 and 7 in March 2012.

ES.1.1 Study Objectives

The main objectives of the study are as follows:

- Gain an understanding of the facilities that comprise the existing drainage system in the study area.
- Determine the flood control performance of the key elements of the existing drainage system.
- Identify local drainage and flooding problems and develop solutions to eliminate the problems.
- Develop a Capital Improvement Plan (CIP) that includes a list of the proposed drainage and flooding solutions, the associated costs, and an implementation schedule.

ES.1.2 Study Area

Neighborhoods 8, 9, and 10 are located in the central and eastern portions of the City (see Figure ES-1). These neighborhoods are comprised of rolling terrain that drains to one of the three major creeks in the area: Cripple Creek, Arcade Creek, or San Juan Creek (see Figure ES-2). Although the three creeks present a flood threat to portions of the study area, this study was focused on local flooding issues separate from the creek flooding. The creek flooding is considered a regional flooding issue that needs to be resolved in coordination with Sacramento County.

ES.1.3 Study Approach

The general approach to the study was as follows:

- Define the Existing Storm Drainage System – The first step of the study was to gain an understanding of the existing drainage system. To do so, we collected the available information on the drainage system and performed a field inventory of selected portions of the system.

- Identify Problems – The existing drainage and flooding problems were identified by the following activities:
  - Hydraulic analyses of trunk storm drains
  - Review of service call records
  - Input from City staff
  - Input from residents
- Develop Solutions for Problem – The identified problems were evaluated and recommended solutions were developed.
- Develop a CIP – A drainage CIP was developed that includes a prioritized list of recommended improvements. The CIP also includes estimated implementation costs and an implementation schedule.

Each of the tasks listed above is described in more detail below.

ES.2 EXISTING STORM DRAINAGE SYSTEM

To gain an understanding of the existing drainage system in the study area, West Yost gathered the existing available data that had already been prepared by others. We also performed a field inventory for selected portions of the drainage system.

ES.2.1 Data Collection

The data collected for this study generally fits into one of the following categories:

- Previous Studies Prepared by Others – This included the Flood Insurance Study prepared by FEMA.
- As-built Design Drawings – This included a number of construction drawings for the major storm drain pipes in the study area.
- Mapping Data – This included aerial topographic mapping, aerial photographs, and Geographic Information System (GIS) based storm drain system mapping.
- Field Evaluations Performed by West Yost Staff – This included a field review of key portions of the drainage system to verify the existence of and the approximate horizontal location of the facilities included in the City's GIS storm drainage facility mapping, to confirm that the information included on as-built plans is reasonably accurate, to fill in data gaps on important facilities, and to gain a general understanding of the drainage patterns in the study area.
- Service Calls and Public Input – Input was solicited from City residents at a public meeting and a list of past service calls received by the City and Sacramento County was obtained.

ES.3 IDENTIFICATION OF PROBLEMS

Drainage and flooding problems in the study area were identified by the following activities:

- Hydraulic analyses of trunk storm drains
- Review of service call records
- Input from City staff
- Input from residents

ES.3.1 Hydraulic Analyses of Trunk Storm Drains

Existing trunk storm drain pipes with diameters 36-inches or larger were analyzed to determine whether they have adequate capacity to carry runoff from storms (see Figure ES-2). All but one of the trunk pipe systems were found to have adequate capacity to meet the City's drainage criteria. The pipe system that was found to be inadequate is labeled as SD6 on Figure ES-2. This pipeline was identified as Problem Location 10 and improvements to the system were recommended as described later in this report.

ES.3.2 Review of Service Call Records

City staff provided a list of service calls that document problems reported by residents during prior storm events. This list included service calls recorded primarily by Sacramento County and to a lesser extent the City. This list was reviewed and used to prepare a preliminary list of problem areas within the study area.

ES.3.3 Input from City Staff

City staff have significant knowledge of the drainage issues in the study area based on prior discussions with residents and visual observations during storm events. West Yost met with City staff at the outset of the project to obtain input on known problem locations.

ES.3.4 Input from Residents

A public meeting was held in March 2012, to solicit input from residents on flooding and drainage problems in the area. Descriptions of potential problems were provided by the residents. A follow-up public meeting was held to provide interested residents with a status report and a description of preliminary solutions that had been developed for the problems.

Based on the above activities, a total of 12 flooding and drainage problems were identified. Figure ES-2 presents the general locations the problems.

ES.4 SOLUTIONS TO PROBLEMS

Each flooding and drainage problem location was evaluated and a recommended solution identified. In many cases, the proposed solutions affect more than one problem; therefore, multiple problems were grouped together for evaluation. The problem locations and recommended solutions are shown on Figures ES-3 through ES-12. Table ES-1 provides a summary of the problem locations and the recommended solutions.

ES.5 CAPITAL IMPROVEMENT PROGRAM

The CIP provides a prioritized list of the recommended improvements along with estimated implementation costs and an implementation schedule. The recommended improvements have been separated into three categories: high priority; medium priority; and low priority. The criteria used to define the priority of a given set of improvements are as follows:

- High Priority Improvements – The high priority improvements include those that address potential structure flooding, threats to health and safety, serious traffic hazards, and those that have a very high benefit to cost ratio. The benefit-cost ratios were determined qualitatively; formal determinations of damages and benefits were not performed.
- Medium Priority Improvements – Medium priority improvements include those that address potential flooding of lesser structures (e.g., garages, outbuildings), chronic ponding over large areas, and problems that require excessive maintenance.
- Low Priority Improvements – Low priority improvements include those that address minor or occasional ponding and nuisance drainage issues.

Table ES-1 lists the recommended projects along with the associated priority, estimated schedule for implementation, and estimated implementation cost. The estimated costs include the cost of construction as well as costs for planning, design, construction management, environmental permitting, and program management. The cost estimates are master planning level estimates suitable for decision making and budgeting purposes. More detailed cost estimates should be prepared to a greater level of accuracy as the projects advance to the design stage and more detailed information is developed. Also, the cost estimates were prepared based on the assumption that small projects will be bundled with large projects at the time of implementation to achieve better cost efficiency. The schedules for the project are based on input from City staff.

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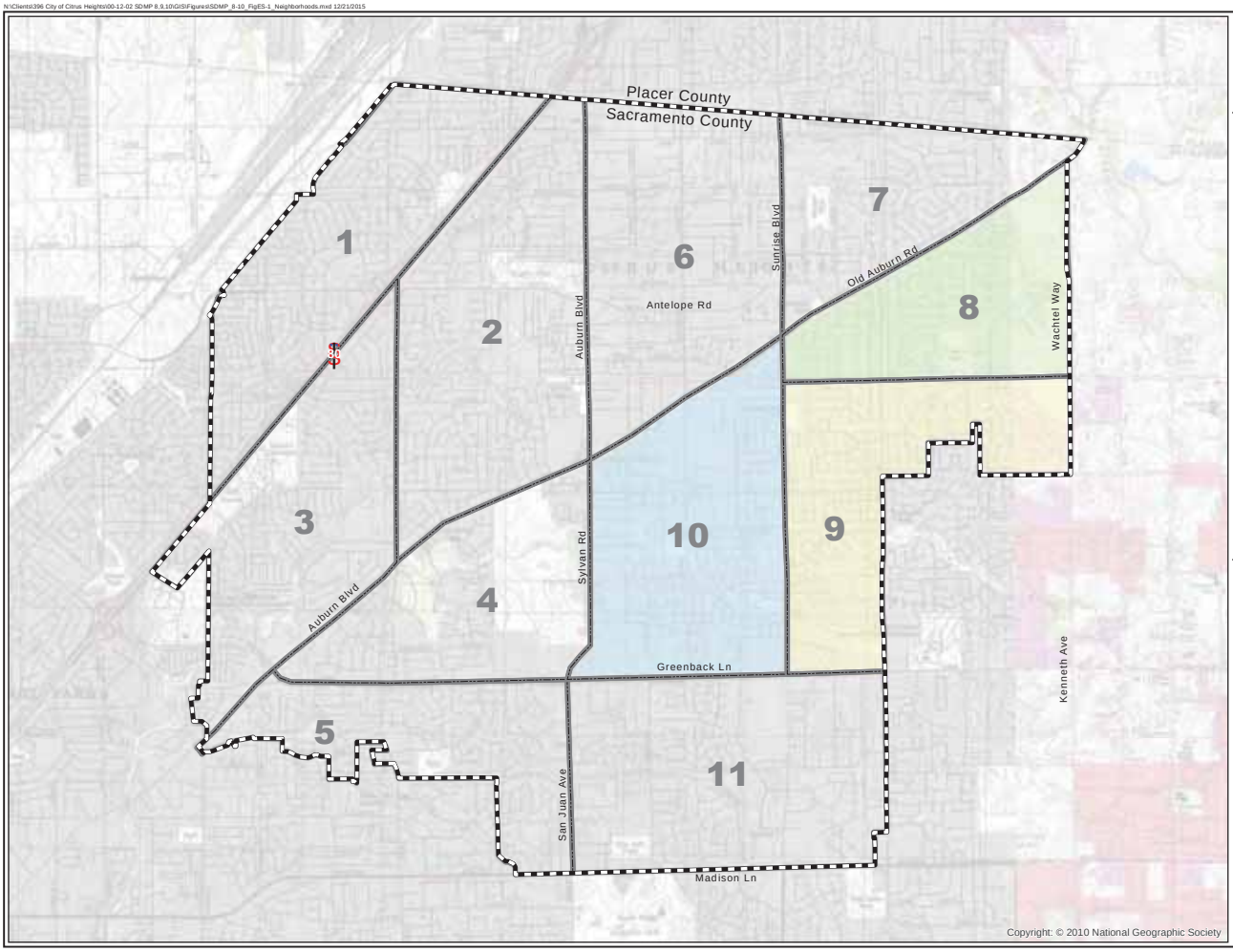


FIGURE ES-1

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

STUDY AREA

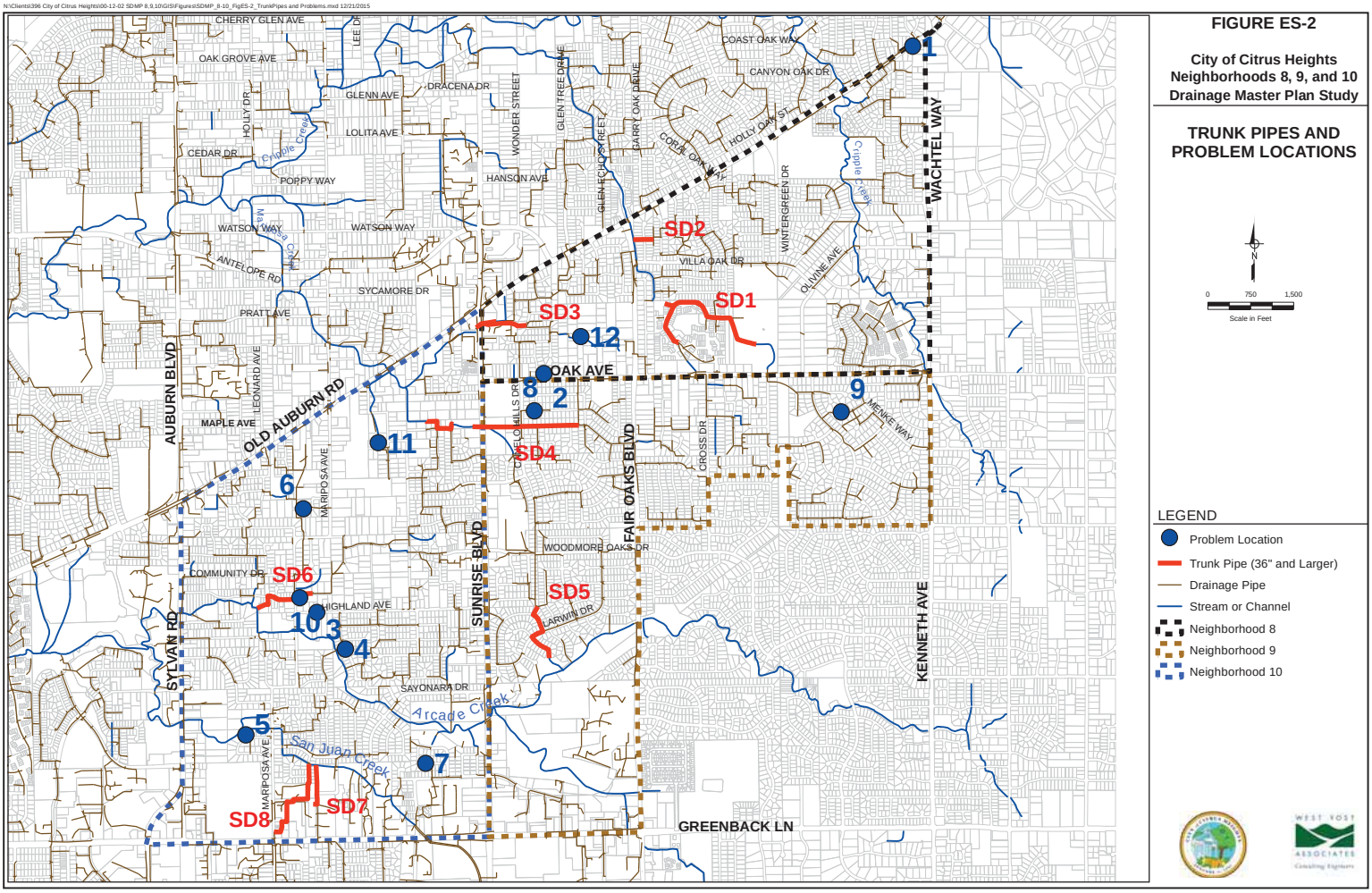
N

0 1,250 2,500

Scale in Feet

LEGEND

- City Limit
- Neighborhood 8
- Neighborhood 9
- Neighborhood 10
- Other Neighborhoods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CHERRY GLEN AVE
OAK GROVE AVE
LEE DR
GLENN AVE
DRACENA DR
HOLLY DR
LOLITA AVE
CEDAR DR
Cripple Creek
POPPY WAY
HANSON AVE
WONDER STREET
GLEN TREE DRIVE
GLEN ECHO STREET
BARRY OAK DRIVE
CORA OAK WAY
HOLLY OAK ST
COAST OAK WAY
CANYON OAK DR
WACHTEL WAY
WINTERGREEN DR
OLIVINE AVE
WATSON WAY
ANTELOPE RD
Miners Ravine Creek
SYCAMORE DR
PRATT AVE
VILLA OAK DR
SD1
SD2
SD3
SD4
SD5
SD6
SD7
SD8
12
8
2
11
6
10
3
4
5
7
1
9
OAK AVE
AUBURN BLVD
OLD AUBURN RD
LEONARD AVE
MAPLE AVE
MARIPOSA AVE
OAK HILLS DR
FAIR OAKS BLVD
GROSS DR
MENKE WAY
SUNRISE BLVD
WOODMORE OAKS DR
LARWIN DR
COMMUNITY DR
HIGHLAND AVE
SYLVAN RD
SAYONARA DR
Arcade Creek
San Juan Creek
MARIPOSA AVE
KENNETH AVE
GREENBACK LN
FIGURE ES-2
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
TRUNK PIPES AND
PROBLEM LOCATIONS
N
0
750
1,500
Scale in Feet
LEGEND
Problem Location
Trunk Pipe (36" and Larger)
Drainage Pipe
Stream or Channel
Neighborhood 8
Neighborhood 9
Neighborhood 10
WEST YOST
ASSOCIATES
Consulting Engineers

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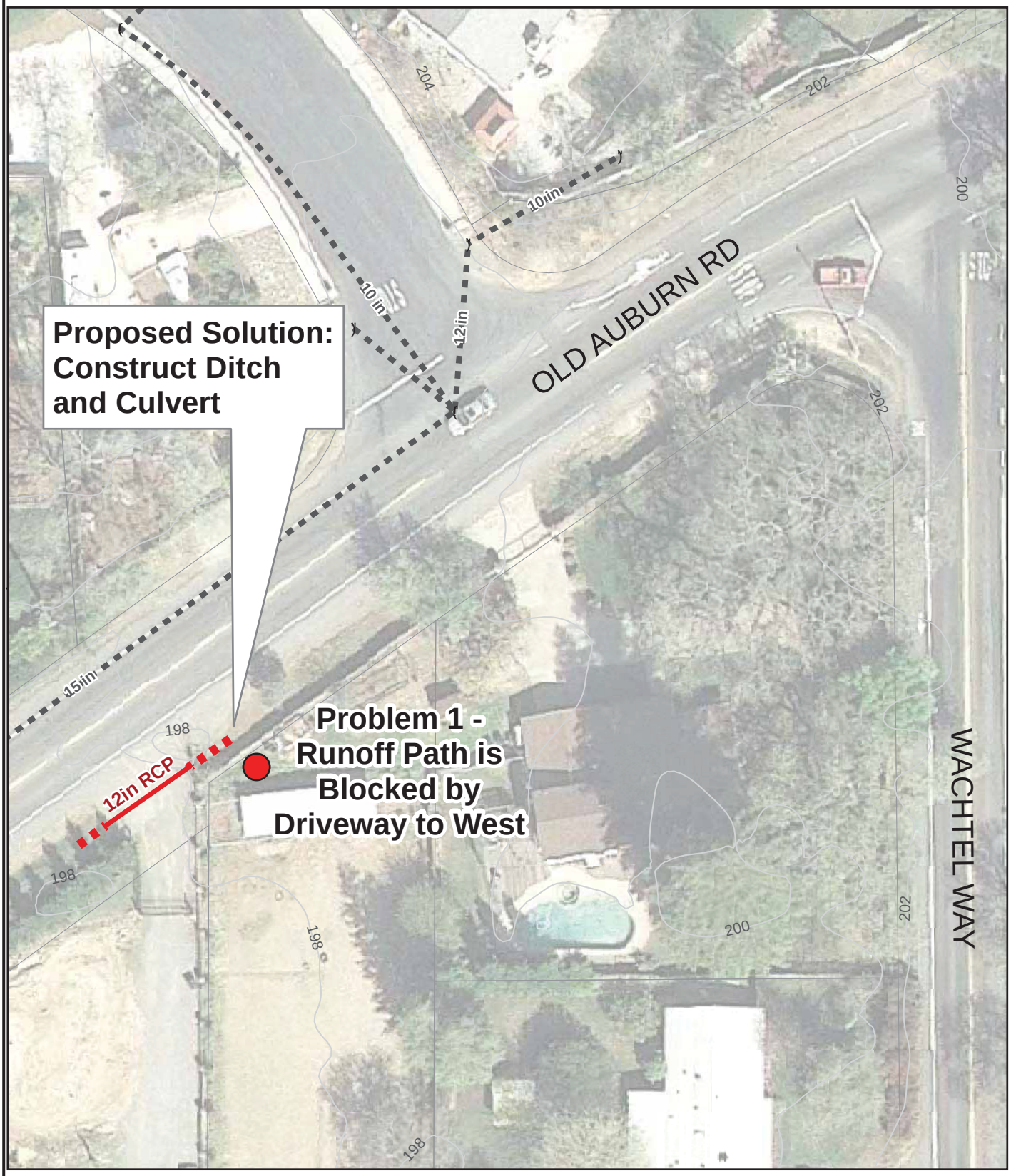

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline
- Proposed Ditch

N

0 20 40

Scale in Feet

Figure ES-3

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 1
and Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain

N

0 20 40

Scale in Feet

Figure ES-4

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 2 and Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers


Figure ES-5
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
Problem Locations 3 and 4
Proposed Solution
Scale in Feet
0
75
150
LEGEND
Problem Location
Stream or Channel
Existing Drain Pipe
Existing Inlet
Existing Outfall
Existing Manhole
Proposed Inlet
Proposed Outfall
Proposed Manhole
Elevation Contour (NAVD88)
Proposed Pipeline or Drain
Proposed Pipeline or Drain for Problem Location 10
Proposed Ditch Replacement
Proposed Overland Release
Problem 3 - Inadequate Drainage System Along Highland Ave. and Beam Dr.
Problem 4 - Flooding on Rinconada Dr.
Fill Ditch Const Valley Gutter
AC V-Ditch
30in RCP
30in RCP
21in RCP
27in RCP
36in RCP
42in RCP
Plug Pipe
Plug Pipe
Construct Larger Inlets
SYLVAN VALLEY WAY
HIGHLAND AVE
BEAM DR
ROSA VISTA AVE
SPRING VALLEY DRIVE
PACHECO WAY
APTOS CIRCLE
RINCONADA DR
MARIPOSA AVE
Arcade Creek

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain

N

0 50 100

Scale in Feet

Figure ES-6

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 5
and Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers

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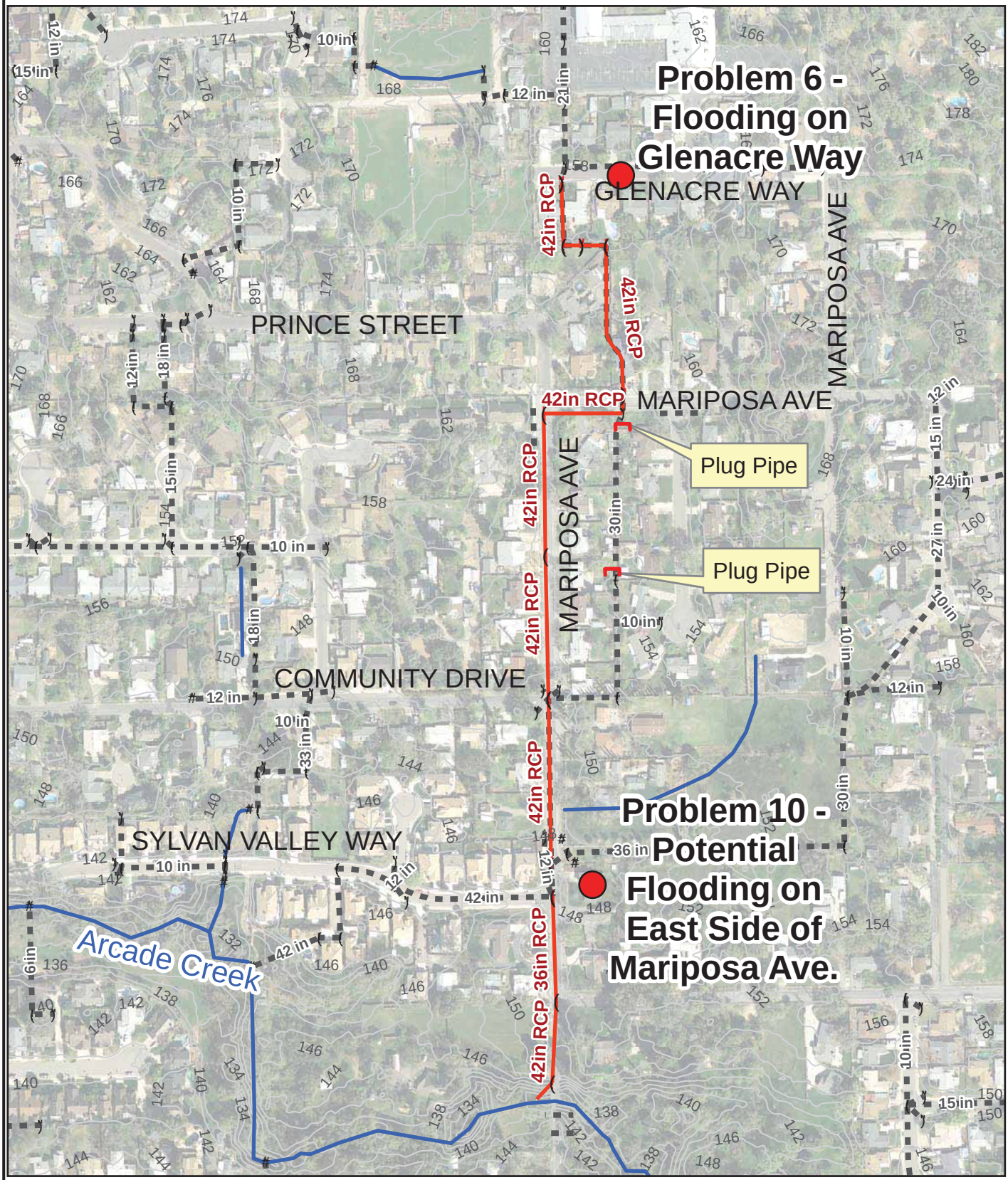

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Proposed Pipeline or Drain
- Proposed Inlet
- Proposed Outfall
- Proposed Manhole
- Elevation Contour (NAVD88)

N

0 150 300

Scale in Feet

Figure ES-7

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Locations 6 and 10
Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers

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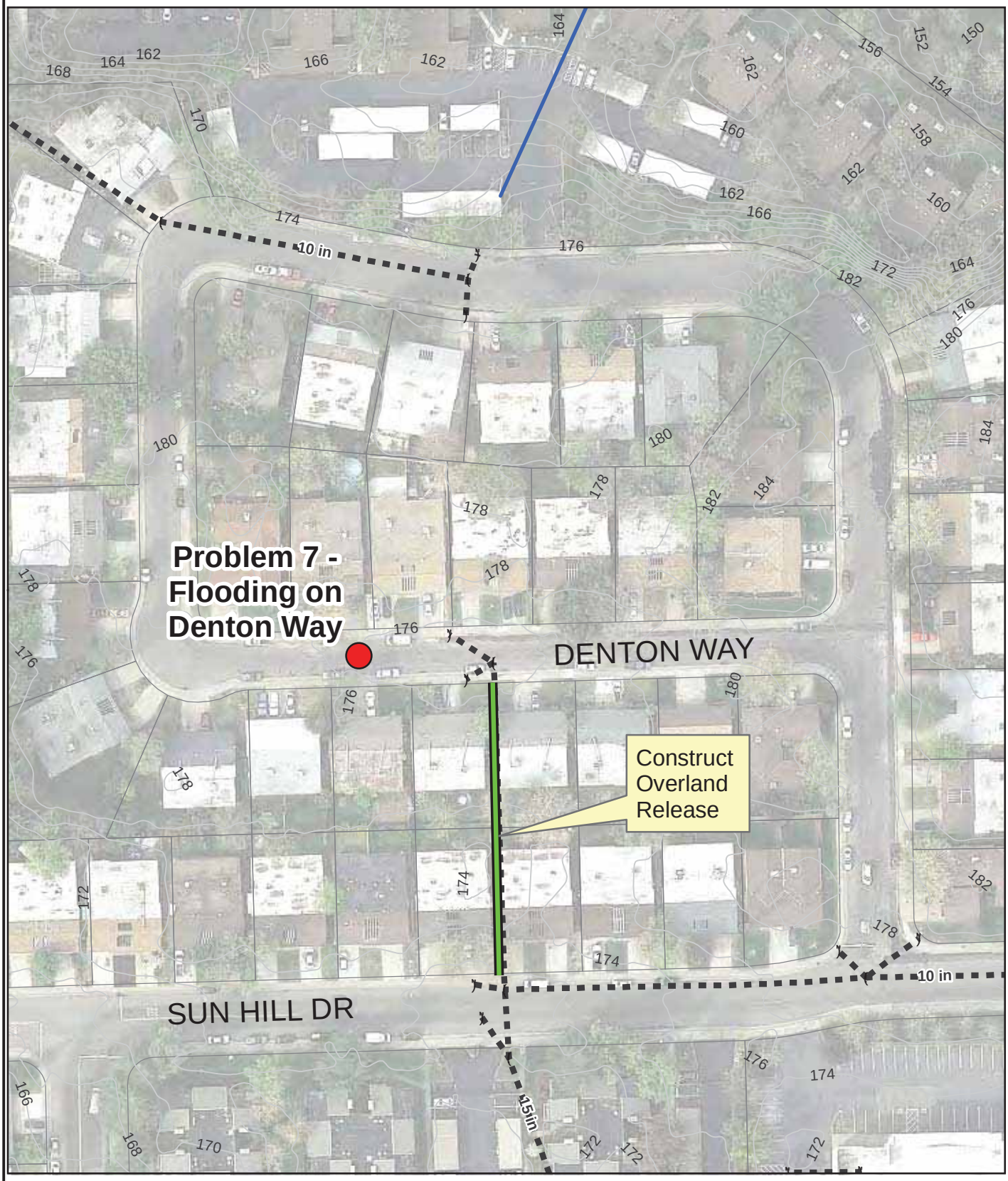

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Overland Release

N

0 50 100

Scale in Feet

Figure ES-8

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 7 Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain

N

0 50 100

Scale in Feet

Figure ES-9

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 8 Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers

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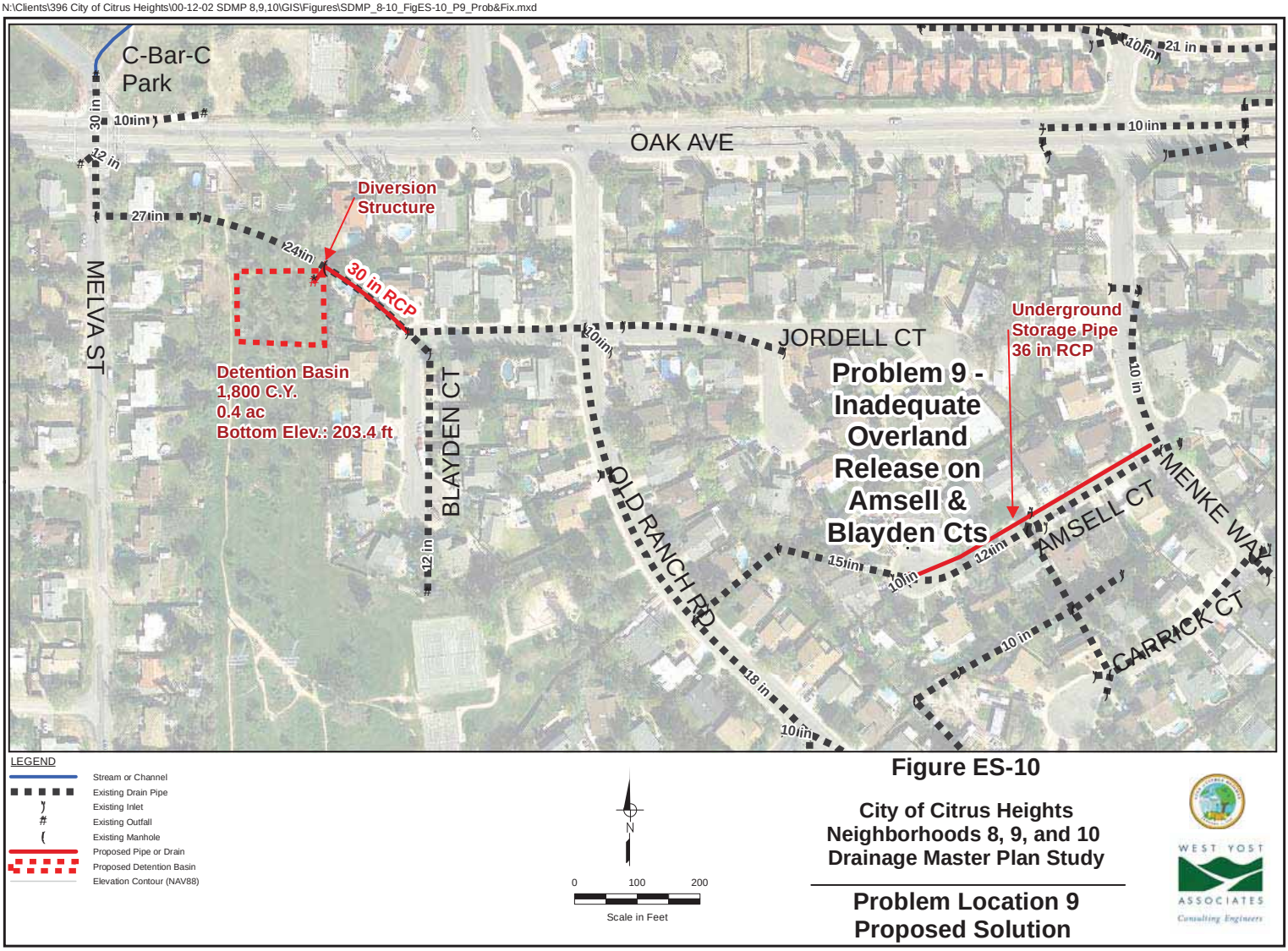

Figure ES-10

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 9
Proposed Solution

WEST YOST ASSOCIATES
Consulting Engineers

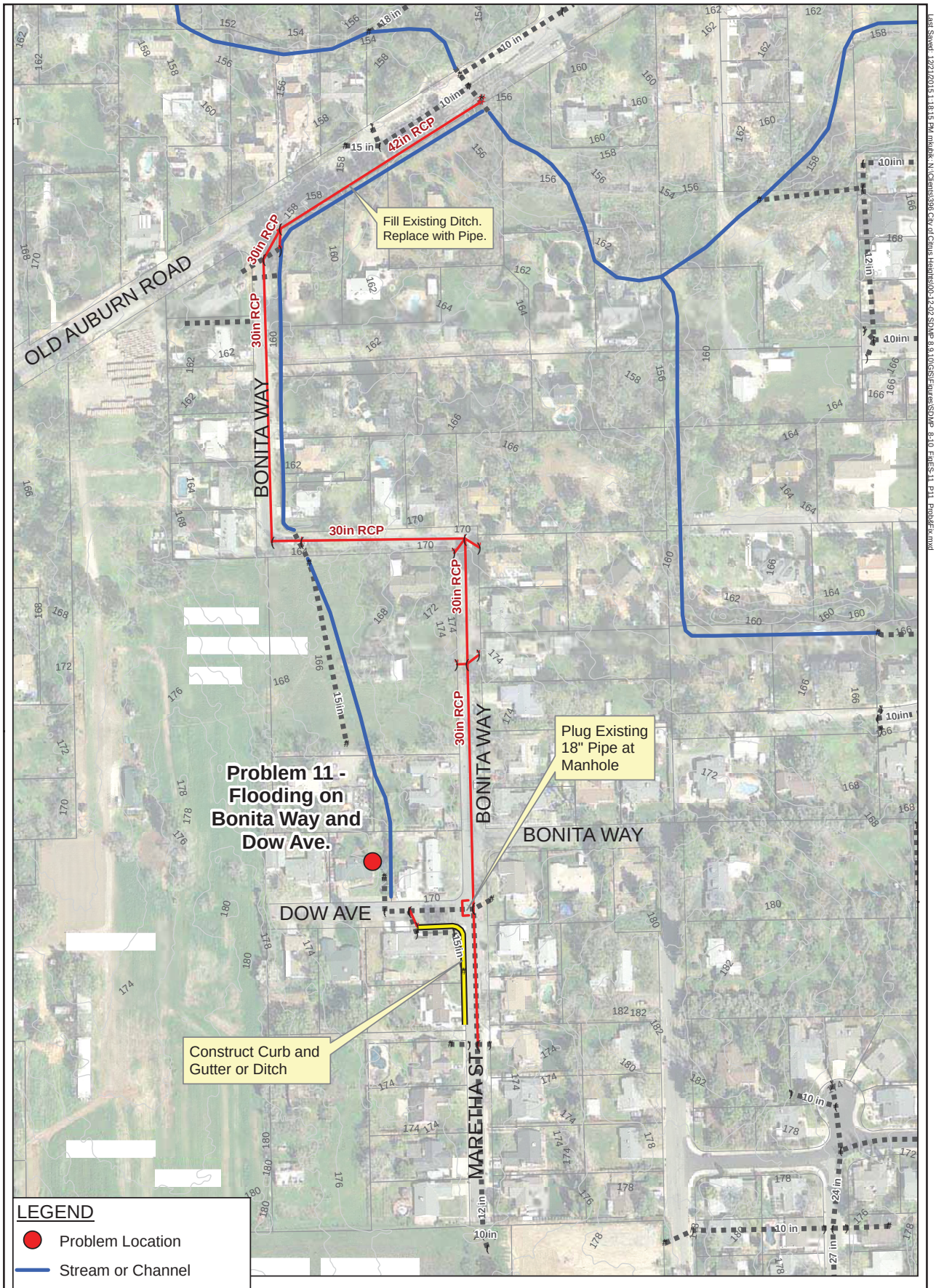

FIGURE ES-11

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 11 and Proposed Solution

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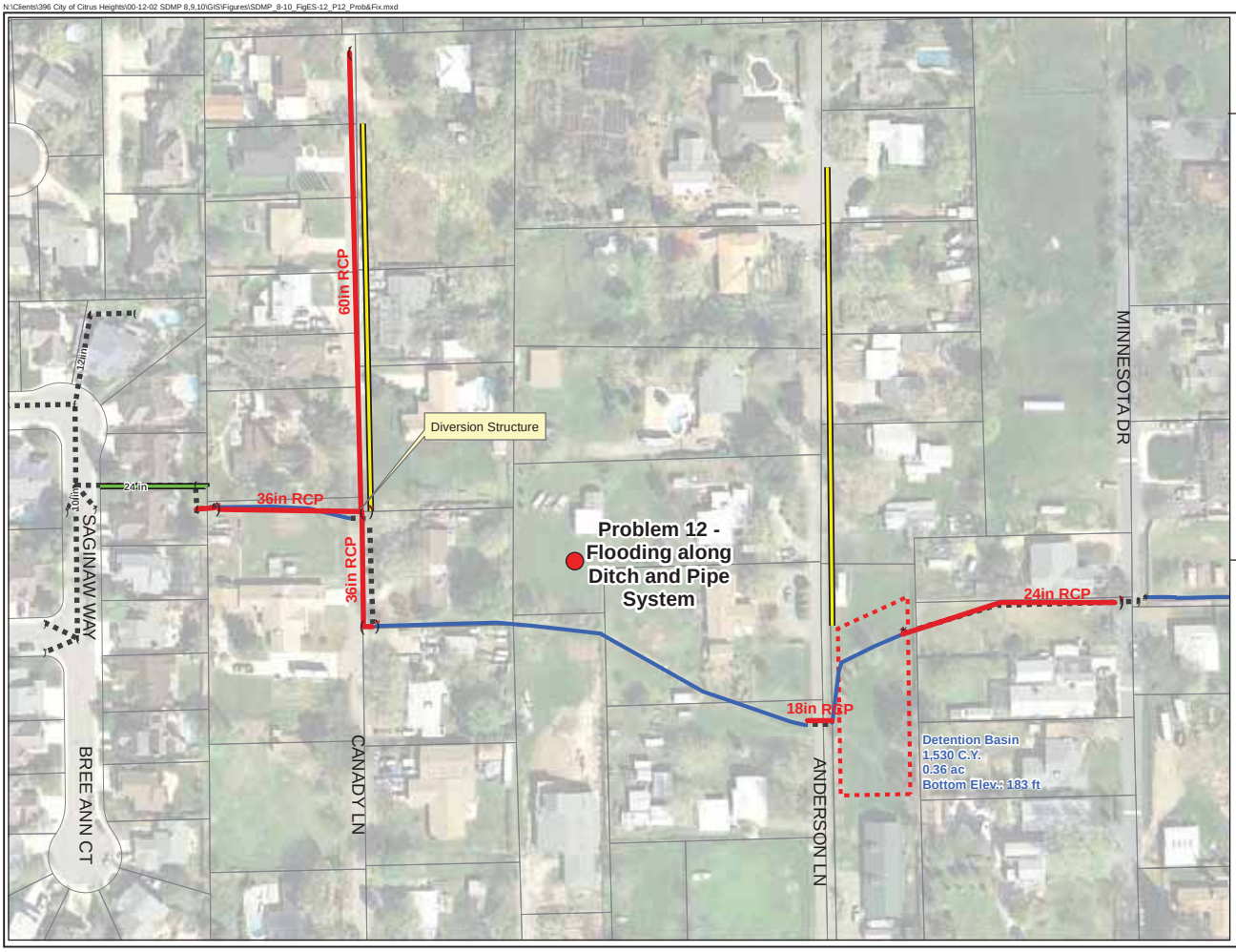

Figure ES-12

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 12 and Proposed Solution

N

0 50 100

Scale in Feet

LEGEND

- Elevation Contour (NAVD88)
- Stream or Channel
- Existing Drain Pipe
- Proposed Pipe or Drain
- Proposed Detention Basin
- Proposed Overland Release
- Proposed Ditch or Gutter
- Proposed Inlet
- Proposed Outfall
- Proposed Manhole

CHAPTER 1
Introduction

The City of Citrus Heights (City) is located in northern Sacramento County just south of the Placer County line. The City incorporated in 1997 and until 2010, the storm drainage facilities that serve the City were owned by the City and maintained by the County of Sacramento. The City has taken over responsibility for the drainage system and has retained West Yost Associates (West Yost) to perform a drainage study for City Neighborhoods 8, 9, and 10. This study represents a comprehensive effort towards the development of a drainage Capital Improvement Program (CIP) for Neighborhoods 8, 9, and 10, and ultimately the entire City.

1.1 STUDY OBJECTIVES

The main objectives of the study are as follows:

- Provide an inventory and condition assessment of key portions of the existing drainage system in the study area;
- Assess the flood control performance of the key elements of the existing drainage system;
- Recommend improvements to eliminate or reduce recurring local flooding and drainage problems; and
- Develop a CIP to help guide the City in implementing future drainage projects.

1.2 STUDY AREA

This study is focused on three of the City's 11 neighborhoods – Neighborhoods 8, 9, and 10. As shown on Figure 1-1, Neighborhoods 8, 9, and 10 are located in the central and eastern portions of the City. A drainage master plan study for Neighborhoods 6 and 7 was completed in March 2012.

The study area is comprised of rolling terrain that drains to one of the three major creeks traversing the area: Cripple Creek, Arcade Creek, and San Juan Creek (see Figure 1-2). Cripple Creek enters the study area at the intersection of Kenneth Avenue and Oak Avenue. The creek generally conveys runoff north through Neighborhood 8 before exiting the study area at Old Auburn Road. Arcade Creek enters the study area at Fair Oaks Boulevard in the southwest portion of Neighborhood 9. It conveys storm runoff west through Neighborhoods 9 and 10 before exiting the study area at Sylvan Road. San Juan Creek flows through the southern portion of Neighborhood 10 and joins Arcade Creek just downstream of Sylvan Road. All three creeks have the potential to overflow their banks during large storm events. The Federal Emergency Management Agency (FEMA) has prepared flood maps that show the floodplain along the two creeks. The floodplain defined by FEMA is presented on Figure 1-2. Although the three creeks present a flood threat to portions of the study area, this study was focused on local flooding issues separate from the creek flooding. The creek flooding is considered a regional flooding issue that needs to be resolved in coordination with Sacramento County. Sacramento County is currently preparing an updated flood study along the Arcade and Cripple Creek that could provide the basis for identifying and evaluating flood solutions along the creeks.

The emphasis of this study was the local drainage systems that serve the three neighborhoods. These systems include approximately 49 miles of pipes and culverts, 8 miles of streams and channels, 850 manholes, and hundreds more inlets and catch basins.

1.3 STUDY APPROACH

The general approach to the study was as follows:

- A data collection effort was performed to obtain available information related to the drainage systems within the study area. This included gathering previously prepared reports, floodplain studies, as-built drawings, topographic mapping, storm drainage facilities mapping, and any other relevant data. The data collection effort is described in more detail in Chapter 2.
- A drainage system inventory was performed to verify the locations and existence of the drainage system facilities contained in the City's Geographic Information System (GIS) database and to provide an assessment of the facility conditions. For this effort field crews visually inspected the drainage system from the surface and, in some cases, pulled manhole covers to view the subsurface conditions of the system. This effort was focused on key portions of the existing drainage system inventory as described in more detail in Chapter 3.
- The City's drainage system GIS database was updated to include the information developed during this study. This included updated information on the existing drainage system as determined during the field inventory and other new information developed during this study. A detailed description of the GIS database update is provided in Chapter 4.
- Hydrologic and hydraulic studies were performed to assess the capacities of the critical existing drainage systems and to define recommended improvements to improve conveyance capacity. This included analyses of the existing trunk pipes in the study area and evaluations of known problem areas. These analyses are described in Chapters 5 through 7.
- A storm drainage CIP was developed that defines the recommended improvements, provides estimated implementation costs, and prioritizes the improvements. The CIP is presented in Chapter 8.

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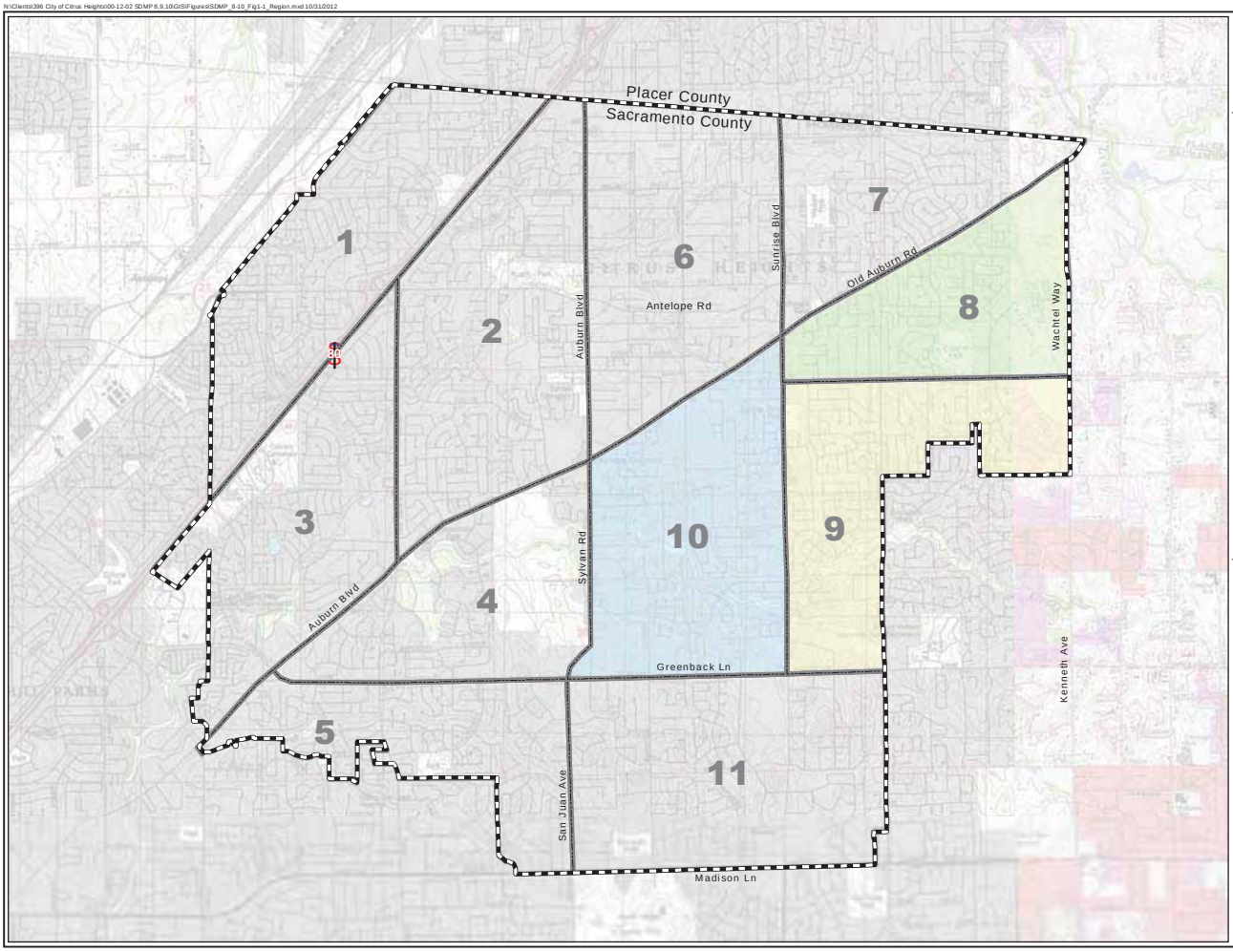


FIGURE 1-1

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

STUDY AREA

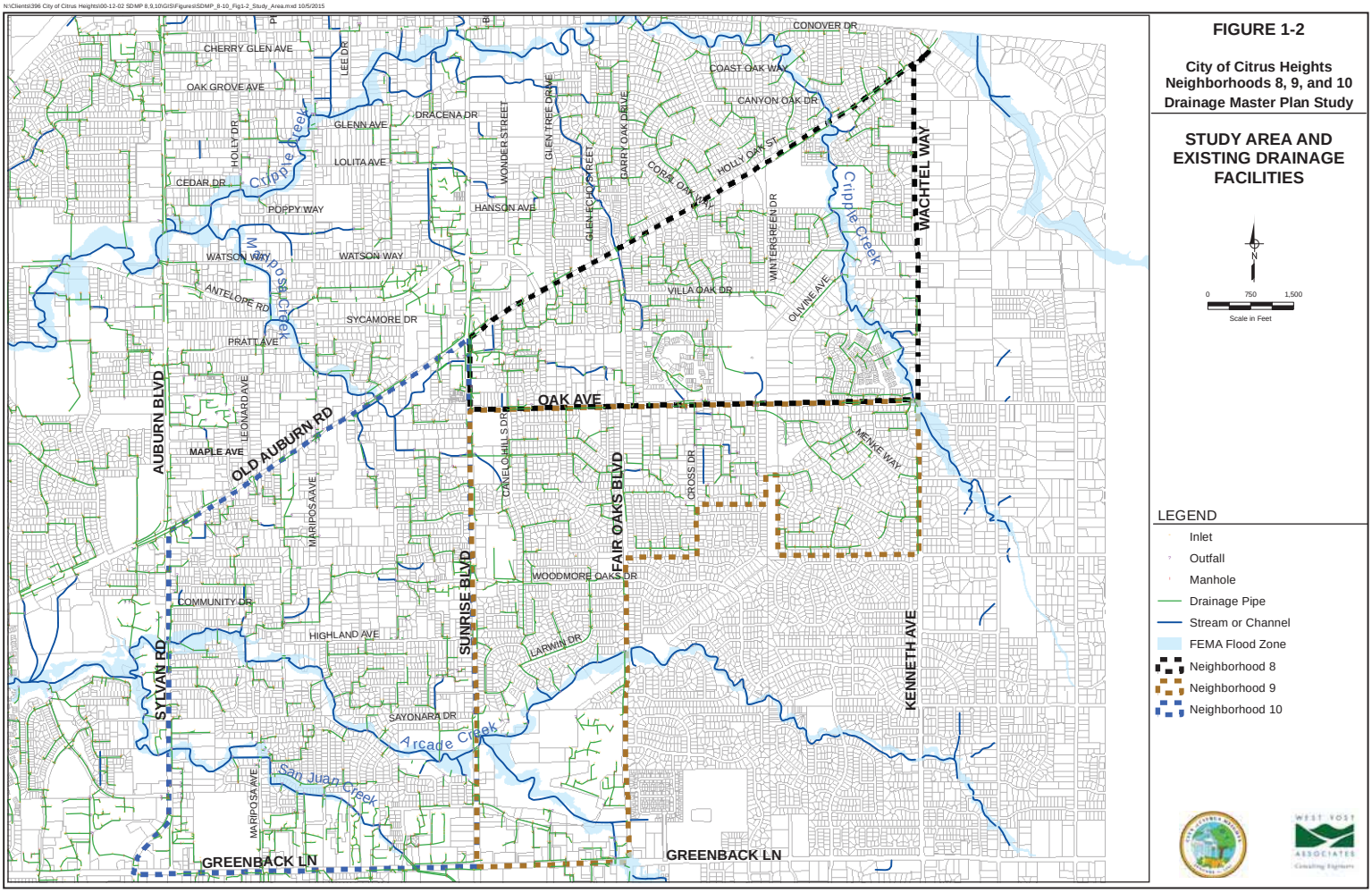
N

0 1,250 2,500

Scale in Feet

LEGEND

- City Limit
- Neighborhood 8
- Neighborhood 9
- Neighborhood 10
- 4 Other Neighborhoods


N:\Clients\396 City of Citrus Heights\00-12-02 SDMP 8,9,10\GIS\Figures\SDMP_8-10_Fig1-2_Study_Area.mxd 10/5/2015
CHERRY GLEN AVE
OAK GROVE AVE
LEE DR
GLENN AVE
DRACENA DR
HOLLY DR
LOLITA AVE
CEDAR DR
POPPY WAY
WONDER STREET
GLEN TREE DRIVE
GARRY OAK DRIVE
GLEN ECHO STREET
HANSON AVE
CORAL OAK WAY
HOLLY OAK ST
CONOVER DR
COAST OAK WAY
CANYON OAK DR
WINTERGREEN DR
OLIVINE AVE
VILLA OAK DR
MACHTEL WAY
Crippie Creek
Crippie Creek W
WATSON WAY
ANTELOPE RD
SYCAMORE DR
PRATT AVE
OAK AVE
AUBURN BLVD
OLD AUBURN RD
LEONARD AVE
MAPLE AVE
MARIPOSA AVE
CAMELOT HILLS DR
CROSS DR
MENKE WAY
FAIR OAKS BLVD
SUNRISE BLVD
WOODMORE OAKS DR
COMMUNITY DR
HIGHLAND AVE
LARWIN DR
SYLVAN RD
KENNETH AVE
SAYONARA DR
Arcade Creek
San Juan Creek
GREENBACK LN
GREENBACK LN
FIGURE 1-2
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STUDY AREA AND
EXISTING DRAINAGE
FACILITIES
N
0
750
1,500
Scale in Feet
LEGEND
Inlet
Outfall
Manhole
Drainage Pipe
Stream or Channel
FEMA Flood Zone
Neighborhood 8
Neighborhood 9
Neighborhood 10
WEST YOST
ASSOCIATES

CHAPTER 2
Data Collection

This chapter presents a summary of the data collected for use with the Storm Drainage Master Plan Study for Neighborhoods 8, 9, and 10. The data generally fits into one of five categories as follows:

- Previous Studies Prepared by Others
- As-built Design Drawings
- Mapping Data
- Field Evaluations Performed by West Yost Staff
- Service Calls and Public Input

For each category, the specific data collected is described below.

2.1 PREVIOUS STUDIES PREPARED BY OTHERS

Flood Insurance Study, Sacramento County, California, August 2012 – This flood study prepared by the FEMA defines the flood risk along the major waterways within Sacramento County, including the three major waterways that pass through the study area: Cripple Creek, Arcade Creek, and San Juan Creek. The flood study includes floodplain maps that present the limits of the 100-year and 500-year floodplains; and flood profiles for the 10-year, 50-year, 100-year, and 500-year storm events. For this study, the FEMA data was used to establish the downstream water surface elevations for the hydraulic analysis of storm drain systems that discharge to the creeks. Table 2-1 provides a listing of the FEMA floodplain map numbers and flood profile numbers that cover the study area.

Table 2-1. FEMA Floodplain Data for Study Area

Item	Map or Profile Numbers from the 2012 Flood Insurance Study
Floodplain Maps	06067C0083H, 06067C0084H, 06067C0091H, 06067C0092H, 06067C0103H
Flood Profiles	Arcade Creek – 19P, 20P Cripple Creek – 49P San Juan Creek – 132P

2.2 AS-BUILT DESIGN DRAWINGS

As-built plans were gathered from Sacramento County archives and, where available, were used to help define the sizes, lengths, slopes and invert elevations of the trunk storm drain pipes within the study area. Table 2-2 provides a list of the drawings that were gathered and the associated storm drain system. The trunk storm drain evaluations are described in detail in Chapter 6 and a figure showing the trunk drain locations is provided as Figure 6-1. For some trunk drains, there was no as-built data available. In other cases, the as-built data provided information on only a part of the trunk drain. For those systems, additional information was gathered through field evaluations as summarized below and as described in detail in Chapter 3.

Table 2-2. List of Trunk Storm Drains and Associated As-Built Plans	
Storm Drain ID	Associated As-Built Plan Set
SD1	Oak Crest Village
SD2	Woodside Oaks Unit No. 2
SD3	Lost Oaks, Chevron Station 7551 Sunrise Blvd.
SD4	Casa Grande Unit No. 3, Sunrise Estates
SD5	Tempo Unit No. 1, Tempo Unit No. 6
SD6	None
SD7	None
SD8	Park Wood Racket Club, 6244 Mariposa Avenue

2.3 MAPPING DATA

Mapping data used for the study include aerial topographic mapping, field survey data, aerial orthophotos, and GIS based storm drain system mapping. These items are described below.

- Aerial Topographic Mapping – LiDAR topographic mapping prepared for Sacramento County in 2004 was used to define watershed boundaries and general drainage patterns. This topographic data is based on the North American Vertical Datum of 1988. The coordinate system for the topographic mapping is the California State Plane Zone II NAD83.
- A field survey was performed along Highland Avenue between Mariposa Avenue and Rinconada Drive and a topographic map was also prepared. This survey and mapping was prepared in 2010 by Doucet & Associates, Inc. + Surveyors Group, Inc.
- Aerial Orthophotos – The aerial photographs used for this study were created in 2008 for the State of California Central Valley Flood Plain Evaluation and Delineation project. The coordinate system for the aerial photos is UTM Zone 10, NAD83.
- Storm Drainage Facility Maps – The City provided storm drainage facility mapping in GIS format. This mapping provides approximate locations of drainage pipes, manholes, inlets, outlets, streams, and other storm drainage facilities as well as pipe size data. The information is based on the County's CAD based storm drainage facilities maps and is considered approximate.

2.4 FIELD EVALUATIONS

West Yost performed field evaluations to verify the existence of and approximate horizontal location of the facilities included in the City's GIS storm drainage facility mapping, to confirm that the information included on as-built plans is reasonably accurate, to fill in data gaps on important facilities, and to gain a general understanding of the drainage patterns in the study area. This effort was focused on key portions of the existing drainage system inventory as described in more detail in Chapter 3.

2.5 PUBLIC INPUT

A public meeting was held on April 10, 2012. This meeting was well attended by residents within the study area and descriptions of potential problem areas were provided by the residents both verbally and in writing. City staff prepared a summary table that provides descriptions of each problem, the location of the problem, the name and address of the resident that reported the problem, and a problem category (i.e. flooding, drainage system, maintenance). This summary table is provided as Table 2-3. For this report, the names, addresses and phone numbers have been removed from the table. Each problem was assigned a Workshop Item No., which is simply the order the problem was recorded in the workshop. They were also given an Assigned Problem No. for the Master Plan, which corresponds to the problem identification number that is used later in this report (see Chapter 7). In some cases, problem identification numbers were not assigned to a reported problem because the problem was simply a maintenance issue to be addressed by City staff. Although these problems were not evaluated with the master plan study, City staff is addressing them or has already addressed them separate from this study. In other cases, the problems were related to flooding along one the major creeks. Creek flooding issues are not being addressed by this study, but may be considered at a future time after the County of Sacramento finalizes their updated hydrologic and hydraulic study for the Arcade Creek watershed.

2.6 SERVICE CALLS

To further assist with defining potential problem areas, City staff provided a list of service calls that document problems reported by residents during prior storm events. This list included service calls recorded by Sacramento County and the City. This list was reviewed and used to identify additional problems to be evaluated during this study.

Table 2-3. City of Citrus Heights - Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study
Citizen Feedback
Public Workshop - April 10, 2012

Workshop Item No.	Assigned Problem No. for Master Plan Study	First	Last	Address 1	Address 2	Phone Number	Citizen Comments, Edited	Category (D, F, CC)	City staff Understanding of Issue
1	n/a, maintenance issue				Smoke Tree Ct.		Outfall pipe to Arcade Creek has not been cleaned for over 10 years. Overrun by blackberries. Also, Tempo Park Remodel.	CC	The vegetation is overgrown and the outfall pipe was not visible. Sunrise Park & Recreation project in progress.
2	n/a, City staff coordinating response				Mica Way		I would like a visit to discuss a better solution to install pipe and cover with rock to match other side of drain and removed safety issue and filling with mud. I would even be willing to submit plans or info. Sac Sewer didn't repair dig out properly.	D	
3	1				Old Auburn Rd.		No open drainage out to the street. Neighbor in the back drains into our yard. Then neighbor raised the gravel driveway preventing the drainage from escaping.		
4	n/a, needed advice for private drainage issue				Quailwood Way		Who can I consult with regarding flooding on my residential property?		
5	n/a, leak unrelated to storm drainage system				Poulson St.		On my street there has been an underground leak for as long as I have lived there for 35 years. It runs all year.	D	Problems with ground water along Poulson Street.
6	n/a, private property issue already resolved				Cranford Way		We have a drainage situation at our home. Water comes from street and next door neighbor and drains down to our neighbor on Kenneth Ave. Recently, we replaced the pipes in our back yard as the pipes were filled with dirt and roots. Its draining beautifully but into our neighbor's yard. Our neighbor's house is on Kenneth and property sits downhill 10 feet below our home. We also have a drainage issue in our front yard. The pipes that lead to another home on Kenneth that sits behind us is blocked and puddles in front of the garage. If we fix the pipes (replace them) our other neighbors will receive the overflow of water and will flood. Water from our neighbor also drains into our yard. Water also drains in our next door neighbor's house as we both sit down from the street.	D	Issue is located on private property. Resident resolved issue. No further action needed.
7	3				Highland Ave.		Highland Ave. floods in heavy rains in the areas indicated. There are a number of students who walk to and from San Juan High School and the First Apostolic Church. The narrowness of Highland is a hazard. It is escalated when it is raining.	D,F	
8	3				Beam Dr.		Ditch that separates two private streets does not have enough capacity.	D,F	The ditch is shallow and doesn't have enough capacity. Private street. Adding ditch capacity will require changing receiving inlet.
9	2				Foxhills Dr.		Water runs off from the neighbors property when it rains or the sprinklers are left on for a long while.	D	Property to the east slopes gently towards his fence. Appears like multiple properties contribute to the runoff.

Table 2-3. City of Citrus Heights - Neighborhoods 8, 9, and 10 Storm Drainage Master Plan Study
Citizen Feedback
Public Workshop - April 10, 2012

Workshop Item No.	Assigned Problem No. for Master Plan Study	First	Last	Address 1	Address 2	Phone Number	Citizen Comments, Edited	Category (D, F, CC)	City staff Understanding of Issue
10	4				Rinconada Dr.		Inlets do not have enough capacity. More inlets needed.	D,F	The inlets are small and seem inadequate. Replacement and addition of inlets may solve issue.
11	3				Highland Ave.		The west end of Highland is very narrow and needs the ditch covered with a curb for the safety of students walking to or from school. It is a hazard to the motorists too.	D,F	Water fills the ditch along the north side and overflows between 7689 & 7677. The entire street needs to be redesigned.
12	n/a, private property issue, advice provided by City staff				Community Dr.		County project made a huge mess. City cleaned pipes. Theirs and their neighbor's driveway flood. There are only 2 clean-outs for 3 houses.	D	The issue is on private property. Possible solutions provided to the property owner. No further action needed.

Category Codes:
D= Drainage issue (the system is not working right or there is no system)
F= Flooding (issue is causing flooding repeatedly)
CC= Conservation Corp (issue can be solve by the crews, maintenance)

CHAPTER 3
Drainage System Inventory

3.1 INTRODUCTION

The purpose of the drainage system inventory was to verify the locations and existence of the drainage system facilities contained in the City's GIS database and to provide an assessment of the facility conditions. The drainage system within the study area contains more than 49 miles of pipeline, over 850 manholes, and hundreds more inlets and catch basins. Detailed verification and assessment of every facility in the study area would have been time consuming and costly and was not necessary to achieve the objectives of the study. Therefore, the system inventory was performed only for key portions of the study area as shown on Figure 3-1. These areas represent the trunk drainage systems and known problem areas. A detailed description of the approach used to perform the drainage system inventory is provided below along with the key findings.

3.2 APPROACH AND CRITERIA

The specific approach and criteria for conducting the drainage system inventory are presented below.

3.2.1 Facility Types

The drainage inventory was focused on the following facility types:

- Manholes
- Drop Inlets/Catch Basins
- Pipe Inlets and Outfalls
- Culverts
- Drainage Ditches

3.2.2 Assessment Type

Two types of assessments were performed during the drainage system inventory:

1. Surface Assessment – A surface assessment was performed for all the storm drain facilities included in the City's GIS drainage database within the areas shown on Figure 3-1. This step included a visual observation of drainage facilities visible from the surface. The assessment was performed from the public right-of-way; private property was not entered. The size, material, and condition of the facilities were observed and recorded where possible.
2. Subsurface Assessment – Targeted subsurface assessments were performed at key locations along major storm drain systems with pipe diameters 36-inches or greater. At key locations, manhole lids were opened to obtain the following information:
   a) Pipe shape
   b) Pipe size
   c) Pipe material
   d) Depth of pipe invert from surface
   e) Conditions of pipe invert as visible from surface

The data collected for the subsurface assessment were used to prepare hydraulic modeling as described in Chapter 5. In some cases, the data were used to verify the information included on the available as-built plans. In other cases, no as-built data was available and the field data collected during this task represented the key data source for preparing hydraulic models.

3.2.3 Facility Conditions

When the conditions of the existing facilities were assessed, the conditions were categorized with the codes used by the City's maintenance staff as follows:

- Physical Condition
  1. Facility appears in excellent condition (new looking, no rust or deformation).
  2. Facility appears in good condition with typical wear and tear (minimal rusting).
  3. Facility appears in fair condition (typical rusting, slight joint separation, minor root intrusion).
  4. Facility is unserviceable and needs replacement (severe rusting, collapse pipe, major joint separation, severe root intrusion).
- Cleanliness
  1. Facility is clean. Flow is not restricted.
  2. Facility has minor sediment and debris. Flow is not significantly restricted (blocked depth is less than 5 percent of the pipe diameter).
  3. Facility has moderate sediment and debris. Flow is moderately restricted (blocked depth is between 5 percent and 10 percent of the pipe diameter).
  4. Facility has excessive sediment and debris. Flow is significantly restricted (blocked depth is greater than 10 percent of the pipe diameter).

3.3 RESULTS

Data collected in the field were recorded on Drainage System Inventory Workmaps, which are included as Appendix A. Field staff recorded data on field assessment forms, and this data is provided in Table 3-1. Table 3-1 is organized by Storm Drain or Problem Area and contains field data which corresponds to the notations on the Workmaps. Descriptions of the key fields are provided below:

1. Item Type – Facility type (i.e., manhole, pipe, ditch, etc.).
2. ID No. – Corresponds to structure IDs designated in the GIS database. If a structure was not included in the GIS database, no ID No. is listed and a description of the facility is included in the Notes field.

Table 3-1. Field Data and Photo Index

Drainage System Inventory Workmap No.	Date	Item Type	ID No.	Size, in	Shape	Depth to Invert, feet	Material	Photo No.	Condition Code		Notes
									Physical	Cleanliness	
Storm Drain1	9/11/2012	MH	376-209-M47		Circ.	6.83	RC	IMG_4493	B	1	
Storm Drain1	9/11/2012	Pipe	376-209-M48:M47	12	Circ.		RCP		B	1	Small pipe coming in from south on Heritage Meadow, invert is above invert in manhole
Storm Drain1	9/11/2012	Pipe	376-209-T01:M47	36	Circ.	6.83	RCP		B	1	Large diameter pipe from creek to south
Storm Drain1	9/11/2012	Pipe	376-209-M47:T02	36	Circ.	6.83	RCP		B	1	Large diameter pipe flowing toward outfall to north
Storm Drain1	9/11/2012	MH	378-209-M52		Circ.	7.75	RC	IMG_4494	B	2	Manhole near NW outfall, some standing water at invert
Storm Drain1	9/11/2012	Pipe	378-209-453:M52								Piping from DI to manhole shown in GIS, connection not found in manhole
Storm Drain1	9/11/2012	Pipe	378-209-T01:M52	42	Circ.	5.70	RCP		B	1	Upstream pipe to west (size based on as-builts, field data not certain)
Storm Drain1	9/11/2012	Pipe	378-209-T01:M52	48	Circ.	6.00	RCP		B	1	Upstream pipe to east (size based on as-builts, field data not certain)
Storm Drain1	9/11/2012	Pipe	378-209-M52:C25	66	Circ.	7.75	RCP		B	2	Downstream pipe leading to outfall (size based on as-builts, field data not certain)
Storm Drain1	9/11/2012	MH	378-212-M27	48	Circ.	6.95	RC		B	1	Manhole on Quail Vista Lane
Storm Drain1	9/11/2012	Pipe	378-212-T02:M27	48	Circ.	6.95	RCP		B	1	Upstream of Quail Vista
Storm Drain1	9/11/2012	Pipe	378-212-M27:T03	48	Circ.	6.95	RCP		B	1	Downstream of Quail Vista
Storm Drain1	9/11/2012	Pipe	378-212-M41:M27	12	Circ.		Steel		B	1	South on Quail Vista, inverts are above invert of manhole
Storm Drain1	9/11/2012	Pipe	378-212-M43:M27	10	Circ.		Steel		B	1	North on Quail Vista, inverts are above invert of manhole
Storm Drain1	9/11/2012	Pipe	378-212-468:M27								Piping from DI to manhole shown in GIS, connection not found in manhole
Storm Drain 2	9/11/2012	MH	378-209-M35		Circ.	5.15	RC	IMG_4503, IMG_4504	B	1	On Ziebell Ct
Storm Drain 2	9/11/2012	Pipe	378-209-M60:M35	36	Circ.	5.15	RCP		B	2	Upstream of manhole (east)
Storm Drain 2	9/11/2012	Pipe	378-209-M35:C06	36	Circ.	5.15	RCP		B	2	Downstream of manhole (west)
Storm Drain 2	9/11/2012	Pipe	378-209-441:M35	10	Circ.	3.75	RCP		B	1	Connects to east side of street
Storm Drain 2	9/11/2012	Pipe	378-209-440:M35	10	Circ.	3.75	RCP		B	1	Connects to west side of street
Storm Drain 2	9/11/2012	Outfall	378-209-C06					IMG_4505, IMG_4506			Inaccessible, not located
Strom Drain 3	9/10/2012	MH	378-206-M31		Circ.	6.00	RC	IMG_4471	C	1	Corner of Saginaw Way
Strom Drain 3	9/10/2012	Pipe	378-206-427:M31	10	Circ.	4.10	RCP		C	2	Upstream pipe from north leg of Saginaw Way
Strom Drain 3	9/10/2012	Pipe	378-206-M32:M31	30	Circ.	5.50	RCP		C	2	Upstream pipe from eastern leg of Saginaw Way
Strom Drain 3	9/10/2012	Pipe	378-206-M31:542	36	Circ.	6.00	RCP		C	2	Downstream pipe from Saginaw to Sunrise Oaks Apts.
Strom Drain 3	9/10/2012	Overland Channel		24x64	Rect.	At street surface	RC	IMG_4472	C	2	Connects Saginaw Way and Sunrise Oaks Apts between yards, Downstream end has 2 openings (3'Wx24"H and 3'Wx15"H)
Strom Drain 3	9/10/2012	MH	378-206-M36				RC		C	2	Manhole at eastern end of Sunrise Oaks Apts, grate cover
Strom Drain 3	9/10/2012	Pipe	378-206-T03:M36	42	Circ.	5.15	RCP	IMG_4474	C	2	Upstream pipe from east, size estimated
Strom Drain 3	9/10/2012	Pipe	378-206-M36:M68	42	Circ.	5.15	RCP		C	2	Downstream pipe toward Sunrise, size estimated
Strom Drain 3	9/10/2012	Pipe	378-206-M37:M36	24	Circ.	5.15	RCP		C	2	Upstream pipe from south, sized estimated
Strom Drain 3	9/10/2012	MH	378-206-M43				RC		C	2	Manhole in west end of Sunrise Oaks Apts, grate cover 36" is shown connecting in GIS, not found in field (may be 48" inch connecting to manhole to north)
Strom Drain 3	9/10/2012	Pipe	378-206-M42:M43	42	Circ.	5.50	RCP		C	2	Upstream pipe to east from Sunrise Oaks parking lot
Strom Drain 3	9/10/2012	Pipe		42	Circ.	5.50	RCP		C	2	Downstream pipe heading west across Sunrise Blvd., May not be shown correctly in GIS, size estimated (not found in as-builts),
Strom Drain 3	9/10/2012	MH					RC		C	2	Manhole in grass between Sunrise Oaks Apts. and Valero. Not shown in GIS
Strom Drain 3	9/10/2012	Pipe		58x36	Rect.	5.20	RCP		C	2	Size based on as built plans, downstream pipe to west (not surveyed), Not shown correctly in GIS.
Strom Drain 3	9/10/2012	Pipe		36	Circ.	5.20	RCP		C	2	Size based on as built plans (field data not certain), downstream pipe to west. Not shown correctly in GIS
Strom Drain 3	9/10/2012	Pipe		48	Circ.	5.20	RCP		C	2	Size estimated, not found in as-builts, upstream pipe entering from east. Not shown correctly in GIS
Strom Drain 3	9/10/2012	Pipe		12	Circ.	5.20	RCP		C	2	Collector from north .Not shown correctly in GIS
Strom Drain 3	9/10/2012	Pipe		12	Circ.	5.20	RCP		C	2	Collector from north. Not shown correctly in GIS
Storm Drain 4	9/10/2012	MH	376-206-M32			7.25	RC		C	2	Corner of Meadowriver Way and Casa Bella Way
Storm Drain 4	9/10/2012	Pipe	376-206-M35:M32	12	Circ.	7.25	CMP		C	2	Collector that flows from west end of Meadowriver Way, not seen in manhole 376-206-M32, likely connects without manhole. Size is based on inspection of manhole at west end of Meadowriver Way
Storm Drain 4	9/10/2012	Pipe	376-206-M33:M32	36	Circ.	7.25	RCP		C	2	Flows north on Casa Bella Way to corner of Casa Bella Way and Meadowriver Way
Storm Drain 4	9/10/2012	Pipe	376-206-M29:M32	60	Circ.	7.25	RCP		C	2	Flows west on Meadowriver Way from Geowood Way to Casa Bella Way, Upstream end not clearly identified in MH 376-206-M29, but appears to connect a few feet south of structure
Storm Drain 4	9/10/2012	Pipe	376-206-M32M31	66							This pipe not located in MH 376-206-M32, flows found in manhole indicated that pipe was connected somewhere to the west without a manhole. Invert likely matching 376-206-M32
Storm Drain 4	9/10/2012	MH	376-206-M29			6.79	RC	IMG_4478	C	2	Corner of Geowood Way and Meadowriver Way, (connections shown in GIS not completely verifiable in field. Connections appears to happen a few feet to the south of structure).
Storm Drain 4	9/10/2012	Pipe	376-206-M30:M29	60	Circ.	6.79	CMP		C	2	Large diameter pipe from yard to north, connects to 48" inlet pipe that picks up about 10 feet to east
Storm Drain 4	9/10/2012	Pipe	376-206-452:M29	12	Circ.		CMP		C	2	To DI in intersection
Storm Drain 4	9/10/2012	Pipe	376-206-440:M29	12	Circ.		CMP		C	2	To DI in intersection
Storm Drain 4	9/10/2012	Pipe	376-206-M28:M29								Not clearly located, (pipe should connect to other pipes local to MH 376-206-M29, actual connections appear to happen a few feet south of manhole structure, pipe is assumed to exist but could not be physically verified).
Storm Drain 4	9/10/2012	Pipe	376-206-479:M30	48	Circ.		CMP	IMG_4479, IMG_4480	C	2	Outfall connection from creek to east to 60" that flows south to MH376206-
Storm Drain 4	9/10/2012	channel	376-206-39F02	60Wx48H	Rect.		Earthen		C	3	Lots of vegetation, small trees
Storm Drain 4	9/10/2012	MH	376-206-M21			6.75			C	2	Corner of San Cosme Dr and Canelo Hills Dr
Storm Drain 4	9/10/2012	Pipe	376-209-M11:M21	36	Circ.	6.75	RCP		C	2	Flows west from San Cosme Dr
Storm Drain 4	9/10/2012	Pipe	376-206-M21-M42	48	Circ.	6.75	RCP		C	2	Flows east from Canelo Hills Dr toward Sunrise
Storm Drain 4	9/10/2012	Pipe	376-206-M48:M21	12	Circ.				C	2	Flows south down Canelo Hills Dr
Storm Drain 4	9/10/2012	Pipe	376-206-M22:M21	12	Circ.				C	2	Flows north down Canelo Hills Drive
Storm Drain 4	9/10/2012	Pipe	376-206-434:M21	10	Circ.				C	2	From DI at NE corner
Storm Drain 4	9/10/2012	Pipe	376-206-435:M21	10	Circ.				C	2	From DI at SE corner
Storm Drain 4	9/10/2012	Pipe	376-206-436:M21	10"	Circ.				C	2	From DI at SW
Storm Drain 4	9/10/2012	MH	376-209-M09						C	2	On San Cosme Dr west of Alma Mesa Way
Storm Drain 4	9/10/2012	Pipe	376-209-M14:M09	36					C	2	From east
Storm Drain 4	9/10/2012	Pipe	376-209-479:M09	30					C	2	From north
Storm Drain 4	9/10/2012	Pipe	376-209-M09:M10	36					C	2	To west
Storm Drain 5	9/10/2012	MH	376-209-M08		Circ.	6.54	RC	IMG_4481	B	2	On Sugar Maple Way
Storm Drain 5	9/10/2012	Pipe	372-209-T01:M08	36	Circ.	6.54	RCP		B	2	From yard to northeast
Storm Drain 5	9/10/2012	Pipe	372-209-M08:M10	36	Circ.	6.54	RCP		B	2	To south on Sugar Maple Way
Storm Drain 5	9/10/2012	MH	372-209-M12				RC		B	2	End of Sweet Gum Ct

Table 3-1. Field Data and Photo Index

Drainage System Inventory Workmap No.	Date	Item Type	ID No.	Size, in	Shape	Depth to Invert, feet	Material	Photo No.	Condition Code		Notes
									Physical	Cleanliness	
Storm Drain 5	9/10/2012	Pipe	372-209-M09:M12	42	Circ.	6.35	RCP		B	2	From north on Sweet Gum Ct
Storm Drain 5	9/10/2012	Pipe	372-209-M12:C02	42	Circ.	6.35	RCP		B	2	To south toward creek on Sweet Gum Ct
Storm Drain 5	9/10/2012	Pipe	372-209-412:M12	10	Circ.		RCP		B	2	From DI on South Gum Ct
Storm Drain 5	9/10/2012	creek/outfall	372-209-11H10				earthen	IMG_4482, IMG_4483	B	2	In creek to south of Sweet Gum Ct
Storm Drain 6	9/10/2012	MH	372-203-M19		Circ.	5.00	RC	IMG_4493	C	2	Manhole at upstream end of west branch of SD6 model
Storm Drain 6	9/10/2012	Pipe	372-203-M22:M19	36	Circ.	5.00	RCP		C	2	From dirt driveway to east
Storm Drain 6	9/10/2012	Pipe	372-203-M19:M18	36	Circ.	5.00	RCP		C	2	Down Mariposa toward Sylvan Valley Way
Storm Drain 6	9/10/2012	Pipe	372-203-443:M19	12	Circ.				C	2	From DI to north
Storm Drain 6	9/10/2012	Pipe	372-203-449:M19	12	Circ.				C	2	From DI to south
Storm Drain 6	9/10/2012	MH	368-203-M40		Circ.	7.25	RCP		C	2	
Storm Drain 6	9/10/2012	Pipe	372-203-M16:M37	42	Circ.	7.25	RCP		C	2	Upstream Pipe from east. Size is based on city block maps (not determined in field)
Storm Drain 6	9/10/2012	Pipe	372-203-M37:M38	42	Circ.	7.25	RCP		C	2	Downstream Pipe to South. Size based on city block maps (not determined in field)
Storm Drain 7	9/10/2012	MH	368-203-M40		Circ.	9.25	RC		C	2	Manhole at upstream end of SD7, on Burich
Storm Drain 7	9/10/2012	Pipe	368-203-485:M40	36	Circ.	9.25	RC		C	2	
Storm Drain 7	9/10/2012	Pipe	368-203-M41-M40	24	Circ.	5.17	RC		C	2	
Storm Drain 7	9/10/2012	Pipe	368-203-426:M40	18	Circ.		RC		C	2	
Storm Drain 7	9/10/2012	Pipe	368-203-M40:T01	48	Circ.	9.25	RC		C	2	
Storm Drain 7	9/10/2012	Pipe	368-203-425:M40								Not found in field
Storm Drain 7	9/10/2012	MH	370-203-M08								Not found in field
Storm Drain 7	9/10/2012	Outfall	370-203-C35	48							Access restricted
Storm Drain 8	9/10/2012	MH	372-203-M08		Circ.	7.40	RC		C	2	Manhole at upstream end of SD8 model
Storm Drain 8	9/10/2012	Pipe	368-203-M07:M08	30	Circ.	4.90	RCP		C	2	Pipe upstream of 372-203-M08
Storm Drain 8	9/10/2012	Pipe	368-203-M08:M09	36	Circ.	7.40	RCP		C	2	Pipe downstream of 372-203-M08
Storm Drain 8	9/10/2012	MH	368-203-M39		Circ.	13.75	RC		C	2	Located in back parking lot of apartment complex
Storm Drain 8	9/10/2012	Pipe	368-203-T09:M39	48	Circ.	13.75	RCP				Size based on GIS (field data no certain)
Storm Drain 8	9/10/2012	Pipe	368-203-M39:Y09	48	Circ.	13.75	RCP				Size based on GIS (field data no certain)
Storm Drain 8	9/10/2012	MH	370-203-M07		Circ.	4.92	RC				Depth is to top of deck, Deck was ~48" above grade
Storm Drain 8	9/10/2012	Outfall	370-203-C32	48							Access restricted
Problem Area 1	9/11/2012	Ditch			trapezoidal	varies	earthen	IMG_4508, IMG_4509, IMG_4510, IMG_4511, IMG_4512, IMG_4513	C, F	3, 4	South side of Old Auburn Road, west of Wachtel Way, ditch is in various state of repair with more problematic parts near upstream end. Problems vary from cleaning needs to overgrowth. Some driveway culverts are present as well, a few of which are plugged or partially plugged with sediment.
Problem Area 1	9/11/2012	Ditch			trapezoidal	varies	earthen	IMG_4514, IMG_4515, IMG_4516, IMG_4517	C, F	3, 4	North side of Old Auburn Road, west of Wachtel Way, ditch is in various state of repair with more problematic parts near upstream end. Problems vary from cleaning needs to overgrowth. Some driveway culverts are present as well, a few of which are plugged or partially plugged with sediment.
Problem Area 2	9/11/2012	Outfall	376-209-484								Not able to locate in field, possibly in backyard
Problem Area 2	9/11/2012	MH	376-209-M03		Circular	4.00	RC	IMG_4498	B	2	Located on Oak Ave, east of Fox Hills Pipe to north has been plugged with concrete
Problem Area 2	9/11/2012	Pipe	376-209-405:M03	8	Circular	3.25	DIP		B	2	
Problem Area 2	9/11/2012	Pipe	376-209-484:M03								Pipe has been plugged with concrete
Problem Area 2	9/11/2012	Pipe	376-209-M03:M19	12	Circular	4.00	RCP		B	2	
Problem Area 2	9/11/2012	DI	376-209-404		Rect.	1.83	RC	IMG_4499	B	2	Corner of Oak Ave and Fox Hills Dr
Problem Area 2	9/11/2012	Pipe	376-209-404:431	10	Circular	1.83	PVC		B	2	
Problem Area 2	9/11/2012	DI	376-206-431		Rect.	1.83	RC		B	2	On Oak Ave, west of Fox Hills Dr
Problem Area 2	9/11/2012	Pipe	376-206-M46:431	10	Circular	0.83	PVC		B	2	

Table 3-1. Field Data and Photo Index

Drainage System Inventory Workmap No.	Date	Item Type	ID No.	Size, in	Shape	Depth to Invert, feet	Material	Photo No.	Condition Code		Notes
									Physical	Cleanliness	
Problem Area 2	9/11/2012	Pipe	376-206-431:428	10	Circular	0.83	PVC		B	2	
Problem Area 2	9/11/2012	MH	376-206-M19						C	4	Corner of Canelo Hills Drive and Oak Ave, Southeast side of street, Severe sedimentation, not draining
Problem Area 2	9/11/2012	Pipe	376-206-430:M19	10			PVC		B	2	
Problem Area 2	9/11/2012	Pipe	376-206-429:M19	12					B	2	
Problem Area 2	9/11/2012	Pipe	376-206-M19:428	Unknown					F	4	Filled with sediment, not draining
Problem Area 2	9/11/2012	DI	376-206-427			4.00	RC		B	2	Corner of Canelo Hills Drive and Oak, Northwest side of street,
Problem Area 2	9/11/2012	Pipe	376-206-428:427	12	Circular	4.00			B	2	
Problem Area 2	9/11/2012	Pipe	376-206-427:482	12	Circular	4.00			B	2	
Problem Area 3	9/10/2012	Ditch			trapezoidal	1.0 to 1.5	earthen	IMG_4491, IMG_4492	B, C	2, 3	South side of Highland Ave, between Rinconada and Mariposa. At upstream end near Rinconanda ditch is not present, but ground to south slopes away from street toward creek. 10" Culverts under driveways
Problem Area 4	9/10/2012	MH	372-203-M27		Circ.	6.75	RC		B	2	Manhole on Rinconada near Aptos Cir
Problem Area 4	9/10/2012	DI	372-203-431	12x18	Rect.	Unknown	RC	IMG_4489	C	2	DI connected to 372-203-M27, 6" outlet pipe likely too small for overland flow
Problem Area 4	9/10/2012	DI	372-203-430	12x18	Rect.	Unknown	RC	IMG_4490	C	2	DI connected to 372-203-M27, 6" likely too small for overland flow
Problem Area 4	9/10/2012	Pipe	372-203-M27:C18	24	Circ.	6.75	RC		B	2	Pipe between 372-203-M27 to outfall
Problem Area 4	9/10/2012	Pipe	372-203-M26:M27	24	Circ.	6.75	RC		B	2	Pipe upstream of 372-203-M27
Problem Area 4	9/10/2012	MH	372-203-M24		Circ.	5.50	RC		B	2	MH at Rinconada and Highland
Problem Area 4	9/10/2012	Pipe	372-203-M24:M25	12	Circ.	5.50	RC		B	2	Pipe south of 372-203-M24
Problem Area 5	10/30/2012	MH	370-203-M06		Circ.	4.41	RC	DSCN9289, DSCN9290	B	2	Manhole on North leg of Chula Vista
Problem Area 5	10/30/2012	Pipe	370-203-476:437	12	Circ.	4.41	RC		B	2	Connecting pipe from south
Problem Area 5	10/30/2012	Pipe	370-203-438:C04	15	Circ.	4.41	RC		B	2	Connecting pipe from north
Problem Area 5	10/30/2012	Outfall	370-203-C04	15	Circ.		RC	DSCN9291, DSCN9292	B	2	Outfall to creek
Problem Area 9	10/30/2012	MH	376-212-445				RC		B	2	Manhole on Blayden Ct
Problem Area 9	10/30/2012	Pipe	376-212-445:446	24		4.1	RC		B	2	Downstream pipe on Blayden
Problem Area 9	10/30/2012	Pipe	376-212-M35:445	18		4.1	RC		B	2	Upstream pipe on Blayden
Problem Area 9	10/30/2012	MH	376-212-M33				RC		B	2	Manhole on Old Ranch downstream from Amsell
Problem Area 9	10/30/2012	Pipe	376-212-M33:M34	18		4.4	RC		B	2	Downstream pipe on Old Ranch
Problem Area 9	10/30/2012	Pipe	376-212-439:M33	15		4.4	RC		B	2	Upstream pipe from Old Ranch to Amsell

3. Size – The size of a pipe measured during a subsurface investigation.
4. Shape – Shape of pipe or channel.
5. Depth to Invert – Depth from the ground/street surface to the invert of the pipe. Multiple pipe depths were listed with directional indicator (N, W, SE, etc.) to identify specific pipe depths.
6. Material – The facility material type code based on City's standard codes.
7. Photo No. – The file name of the digital photograph taken of the referenced facility. The digital photographs that are listed on Table 3-1 are provided as Appendix B which is included on the CD with this report.
8. Condition Code – Code identifications as described in Facility Conditions section, above.

3.3.1 General Observations

The project area contains a wide variety of facilities including drainage ditches, culverts, and channels, some located within private property. There are also some areas with more traditional curb and gutter systems that drain to an underground pipe system. All facilities ultimately drain to one of the three major creeks: Cripple Creek, Arcade Creek, or San Juan Creek. Examples of the types of facilities found in the study area are shown in Photos 3-1, 3-2, 3-3, and 3-4.

In general, field staff found that the majority of the existing drainage facilities in the study area are represented with reasonable accuracy in the City's GIS database. Field staff did find a few miscellaneous drainage facilities that were not included in the GIS database. In a one case, a significant portions of an existing drainage system was missing from the GIS database (i.e., portions of SD3 described in the next section).

Photo 3-1. Roadside Ditches and Driveway Culverts – Looking Northeast on Old Auburn Road toward Oakwood Hills Circle

Photo 3-2. Drainage Channel Outlet to Arcade Creek – Near Sweet Gum Court

Photo 3-3. No Roadside Ditches or Driveway Culverts – Heritage Meadow Lane near Black Tree Lane

Photo 3-4. Curb, Gutter and Inlet – Rinconada Way

3.3.2 Specific Findings

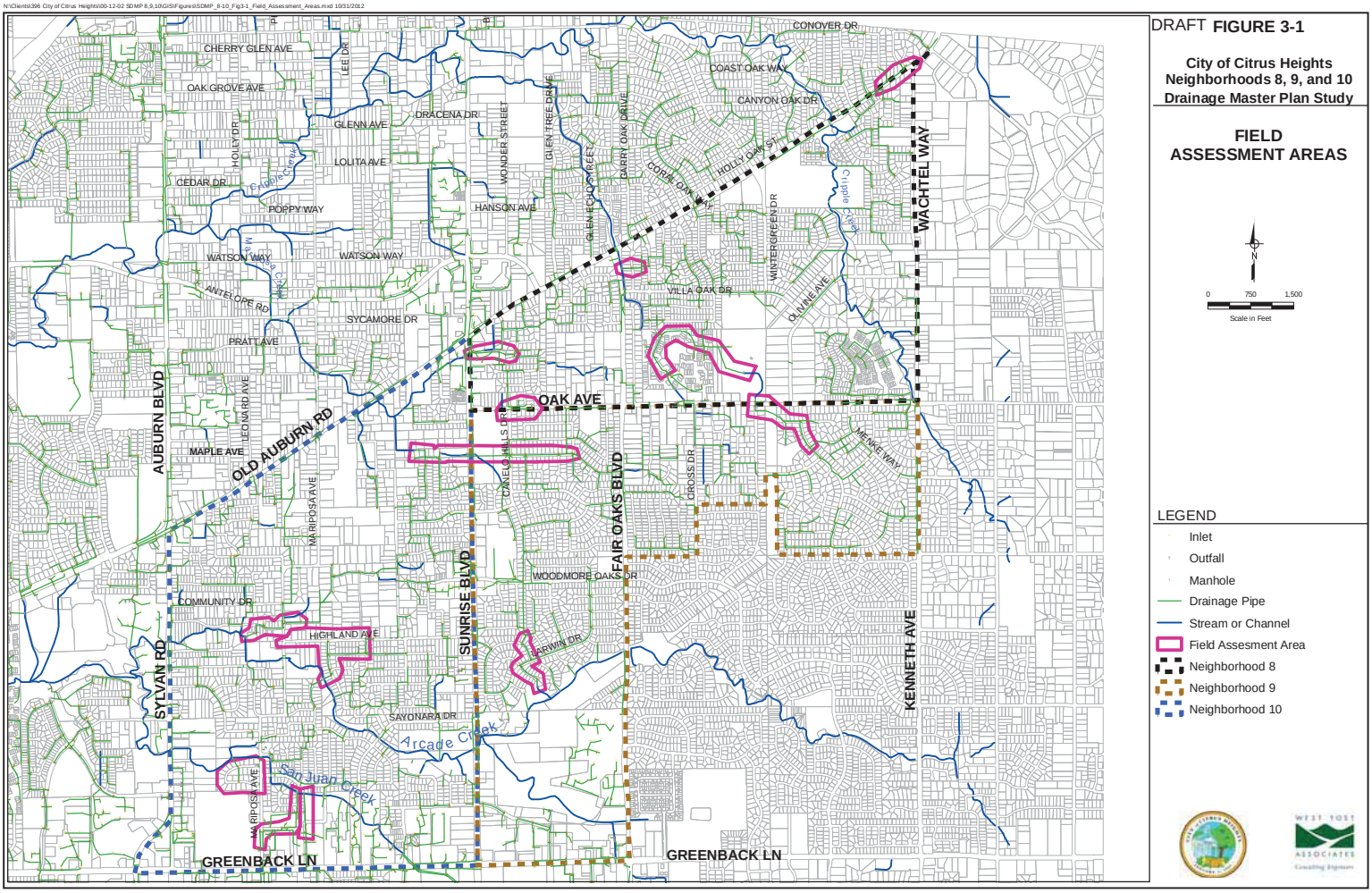
Major findings are summarized as follows:

- Piped Drainage Systems: The field observation noted the following discrepancies in the City's GIS database related to piped drainage systems:
  - Trunk Drain SD3 in Sunrise Blvd. south of Old Auburn Road – Connections shown for the single manhole shown in the driveway at 2522 Sunrise Boulevard in the GIS database are not accurately represented. An additional manhole and parallel pipe system were observed at this location.
  - 6235 Burich Avenue – A manhole in an apartment complex parking area was not found in the field. This facility may have been paved over by the owner.
  - 6316 Mariposa Avenue – A manhole along the south boundary of an apartment complex was not located, and may not be accurately delineated in the GIS database.

- Physical Condition of Facilities – The existing drainage facilities that were observed in the field appear to be in reasonably good condition with a few exceptions:
  - Oak Avenue near Fox Hills Drive – In a manhole on the south side of Oak Avenue, west of Fox Hills Drive, we observed a large amount of sediment in the outflowing pipe and, as a result, there was standing water in the manhole. Another manhole east of Fox Hills Drive on the same drainage system contained a concrete plug that was not shown in the GIS database.
  - Rinconada Drive near Aptos Circle – Two inlets on Rinconada Drive, although not in poor physical condition, appear to be undersized and may be restricting flow into the pipe system. These inlets would be good candidates for wet weather observations.

It should be noted that there are limitations to the inventory work that was performed for this study. To keep the cost of the inventory to a reasonable level, many of the drainage facilities were only reviewed from surface. In those areas, if the facilities observed on the surface matched the information in the GIS database, it was assumed that the underground system in that area was also consistent with the GIS database. Without additional subsurface investigation, it is not possible to confirm this. Also, in some instances there were small drainage channels and storm drains that were in private property which field staff could not verify.

The information collected during the field inventory was used to update and correct the City's GIS database. This is described in more detail in Chapter 4.


N:\Clients\396 City of Citrus Heights\00-12-02 SDMP 8,9,10\GIS\Figures\SDMP_8-10_Fig3-1_Field_Assessment_Areas.mxd 10/31/2012
DRAFT FIGURE 3-1
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
FIELD
ASSESSMENT AREAS
N
0
750
1,500
Scale in Feet
LEGEND
Inlet
Outfall
Manhole
Drainage Pipe
Stream or Channel
Field Assesment Area
Neighborhood 8
Neighborhood 9
Neighborhood 10
CHERRY GLEN AVE
OAK GROVE AVE
LEE DR
GLENN AVE
DRACENA DR
HOLLY DR
LOLITA AVE
CEDAR DR
POPPY WAY
HANSON AVE
WONDER STREET
GLEN TREE DRIVE
GLEN ECHO STREET
GARRY OAK DRIVE
CORAL OAK CT
HOLLY OAK CT
CONOVER DR
COAST OAK WAY
CANYON OAK DR
WINTERGREEN DR
OLIVINE AVE
WACHTEL WAY
WATSON WAY
ANTELOPE RD
SYCAMORE DR
PRATT AVE
VILLA OAK DR
OAK AVE
AUBURN BLVD
OLD AUBURN RD
LEONARD AVE
MAPLE AVE
MARIPOSA AVE
OAKELO MILLS DR
SUNRISE BLVD
FAIR OAKS BLVD
CROSS DR
MEMKE WAY
WOODMORE OAKS DR
COMMUNITY DR
HIGHLAND AVE
SYLVAN RD
IRWIN DR
SAYONARA DR
KENNETH AVE
Arcade Creek
San Juan Creek
GREENBACK LN
GREENBACK LN

CHAPTER 4
GIS Database Development

The City maintains a GIS database that includes data representing the existing drainage facilities in the City. For this study, West Yost obtained two shapefiles from the City: one that represents the point drainage facilities such as inlets, manholes, and outfalls; and one that represents line drainage facilities such as pipes, culverts, ditches, and creeks. These shapefiles were updated during this study to include corrected information related to the existing data or to include new information generated during the study.

4.1 GIS REVISIONS DEVELOPED FROM THE FIELD INVENTORY

West Yost performed a field inventory of the existing drainage facilities in the study area as described in Chapter 3. This task included verifying the existence and location of drainage facilities included in the City's GIS system. For some facilities, additional information was collected such as the facility condition, size, depth, etc. The findings from the drainage system inventory were used to update the City's GIS database. The approach to making these updates is described below.

1. Missing Facilities: Some drainage facilities were located during the field investigations that are not included in the City's original GIS database. The locations of these facilities were established in the field based on adjacent property lines or with a GPS unit. These facilities were added to the appropriate layer of the City's GIS database. Fields such as the X and Y coordinates and depth in the existing GIS database were filled in, as appropriate. The following additional fields were added to track the changes:
   - DATE_UPDAT – populated with mmyyyy (e.g., 092012)
   - UPDATE_BY – filled in with WEST YOST
   - LOC_Meth – includes a notation of either APPROX or GPS
   - NOTES – in the shapefile representing the point data, this field includes miscellaneous notes from the field and also an ID No. that corresponds to the ID No. on Table 3-1. For the shapefile representing the line data, this field may also include information on pipe size and condition.
2. Verified or Unverified Facilities: Facilities that were located in the field and found to be generally consistent with the existing mapping were tracked in the City's GIS database. New X and Y coordinates were provided for facilities that appeared to be located incorrectly in the original GIS database. Facilities that were accessible from the public right-of-way but could not be found were identified. Also, facilities that could not be assessed due to access limitations (e.g., private property) were identified. The verification status was included with "Verified – Found" (the facility was found), "Not Found" (the facility was not found), or "Not Verified – Private Property or Inaccessible" (the facility is on private property and its existence could not be verified). The date of verification corresponds to "DATE_UPDAT" field previously described.

The updated GIS shapefiles were renamed as follows:

- CH_RoadsideDrainage_update2012.shp
- CH_DrainageLinesMerge_update2012.shp
- CH_DrainagePointsMerge_update2012.shp

4.2 OTHER GIS DATA DEVELOPED DURING THE STUDY

In addition to the revisions described above, new drainage data was developed during the study and new shapefiles were created. The following data was developed during the study:

1. Watershed Boundaries for Trunk Pipes – As described in Chapter 6, hydrologic and hydraulic analyses were performed for the major trunk pipe systems within the study area. This included delineation of the watersheds draining to the pipe system. The watershed boundaries are represented in a new shapefile (trunk_pipe_sheds.shp).
2. Recommended Improvements – As described in Chapter 7, improvements were recommended to solve the flooding and drainage problems in the study area. The proposed improvements are schematically represented in the following shapefiles:
   - A shapefile representing proposed point facilities (Proposed Drain Point Solutions.shp)
   - A shapefile representing proposed pipe facilities (Proposed Pipeline Solutions.shp)
   - A shapefile representing proposed improvements to existing ditches (Proposed Ditch Solutions.shp)

CHAPTER 5
Hydrologic and Hydraulic Modeling Approach

West Yost performed hydrologic and hydraulic analyses of major storm drainage systems within the study area to assess their capacities, to determine deficiencies, and to define recommended new facilities. Descriptions of the types of facilities that were evaluated, the approach for the hydrologic and hydraulic analyses, and the criteria used to evaluate the performance of the facilities are provided below. Specific results from the analyses for the storm drains and problem areas are provided in Chapters 6 and 7.

5.1 FACILITIES EVALUATED DURING STUDY

Within the study area (see Figure 1-2), hydrologic and hydraulic analyses were performed to assess the performance of existing trunk drainage pipes that are 36-inches in diameter and larger. Significant flooding problems are less likely to occur in areas served by smaller pipe sizes because the small tributary watersheds typically served by these pipes tend to produce limited volumes of water. Even during large storms, the excess runoff from small watersheds can usually be conveyed or stored on the ground surface without causing property damage. Therefore, limiting the evaluation to the larger pipes was considered appropriate and allowed the level of effort for the study to be kept to a reasonable level. Descriptions of the specific trunk pipes analyzed during this study and the results of the analyses are provided in Chapter 6.

In addition to the trunk pipe systems, modeling was also performed for other areas that are known to have drainage or flooding problems. These areas were identified based on input from area residents, review of service calls compiled by the City and Sacramento County, and input from City staff. These known problem areas are served by a variety of drainage system types including pipes, roadside ditches, and channels. Descriptions of the specific problem areas and the results of the analyses are provided in Chapter 7. For most of the problem areas, hydrologic and hydraulic analyses were performed to size recommended facilities to eliminate or reduce the problems. Relatively complex problems were assessed using hydrologic and hydraulic modeling. Less complex problems were evaluated with spreadsheet calculations or normal depth analyses. For the simplest problems with relatively straightforward solutions, City staff directed that only qualitative analyses be performed. For those problems, general solutions were recommended without engineering calculations being performed.

As discussed previously, modeling was not performed for the major creeks in the area including Cripple Creek, Arcade Creek, and San Juan Creek. Although there are known flooding problems along these creeks, these problems represent regional flooding issues that need to be resolved in coordination with Sacramento County.

5.2 HYDROLOGIC ANALYSES

Peak flood flows were determined based on the methods in the County of Sacramento Municipal Services Agency Improvement Standards (County Standards) dated October 1, 2006. In accordance with these standards, peak flows for evaluating pipe systems were based on the Nolte Method. This method has been used in Sacramento County since the 1960's and produces peak flows that have a recurrence interval from 2- to 5-years. Nolte Method flood peaks were calculated for the major storm drainage facilities using Sacramento County's SacCalc software. SacCalc is a

program that was developed for Sacramento County to assist local engineers in preparing hydrologic models based on the County Standards.

Peak flows for evaluating overland flow paths were based on the 100-year storm. The 100-year peak flows were determined using the Sacramento Method charts in the County Standards.

Watershed boundaries were determined primarily from 2-foot contour LIDAR topographic mapping. In some cases as-built plans, aerial photographs, and field visits were also used to assist with the watershed boundary definitions.

The land use within each watershed was determined from high resolution aerial photographs that were produced in 2008 for the California Department of Water Resources Central Valley Flood Plain Evaluation and Delineation project. Because the study area is nearly built out, land-use densities are not expected to change significantly in the future. Therefore, flood flows were only calculated for existing land-use conditions.

5.3 HYDRAULIC ANALYSES

Hydraulic analyses were performed to evaluate the performance of major drainage facilities and to size recommended improvements to solve problems. Hydraulic calculations were performed in accordance with the County Standards. The hydraulic calculations for pipe systems were based on the Friction Loss Method 1, which neglects minor losses but uses a larger Manning's n value to compensate. Typical Manning's n values used for the study are presented in Table 5-1.

Table 5-1. Typical Manning's n Values

Item	Manning's n Value
Concrete Pipe	0.015
Corrugated Metal Pipe	0.024 - 0.028
Open Channel	0.04 - 0.06

For all trunk pipelines, and for many of the drainage systems at the known problem areas, hydraulic models were prepared using the XP-SWMM modeling software. The XP-SWMM models were configured to perform steady-state calculations using peak flows for the pipe design event (Nolte Method) and also for the 100-year storm event.

Pipe sizes, invert elevations, and materials were determined from as-built drawings when available (see Table 2-2). For pipes without as-built plans, pipe data was estimated from field measurements. Invert elevations were estimated at key locations by measuring the depth to the invert from the surface, and subtracting this value from the nearest spot elevation from the LiDAR topographic data. Typically, this was done at two or three key points along a pipe system and that information was used to estimate the invert elevations at other locations along the pipeline. Channel and ditch sizes, depths, and inverts were also estimated using field measurements, LiDAR topographic data, and photographs. Because no field surveying was performed, the elevations used in the models are considered approximate.

The method used to establish the starting water surface elevations at the downstream ends of the hydraulic models was dependent on the specific situation. For drainage systems that discharge directly to Cripple Creek, Arcade Creek, or San Juan Creek, the water surface profiles published by FEMA were used. For the Nolte pipe design event, the starting water surface elevation was set to the 10-year water surface elevation in the creek. For the 100-year event, it was set to the 100-year water surface elevation in the creek. In most other cases, the starting water surface elevations were typically set at normal depth.

5.4 PERFORMANCE CRITERIA

The performance of the drainage systems was evaluated using the following criteria:

- For pipe systems, Sacramento County Standards require that the hydraulic grade line based on the pipe design flow (Nolte Method) be a minimum of 0.5 foot below inlet grates. This criterion was used for proposed new pipe systems. However, for existing pipe systems, it was considered acceptable for the hydraulic grade line to rise up to the elevation of the inlet grates.
- For open ditches and channels, the capacity should be adequate to contain the peak flows based on the Nolte Method, at a minimum.
- Ideally, structures should be protected from the 100-year storm by limiting the hydraulic grade line during the 100-year storm to no greater than nearby building pad elevations. Pad elevations were estimated using LiDAR topographic data. The economic feasibility of providing this level of protection was considered when recommending proposed drainage facilities.

For proposed new drainage systems, the primary objective was eliminating or reducing flooding problems. However, consideration was also given to incorporating features into the improvements that would improve stormwater quality or promote infiltration of runoff.

CHAPTER 6
Analysis of Existing Trunk Pipes

6.1 INTRODUCTION

As described in Chapter 5, hydrologic and hydraulic analyses of the existing trunk storm drain pipes were performed to determine whether the major pipe systems in the study area have adequate capacity. The trunk pipes with diameters 36-inches or larger were evaluated and are shown on Figure 6-1. Eight distinct trunk pipes or pipe systems were identified for evaluation during this study. Each of the systems was given a unique identifier (SD1 through SD8).

6.2 HYDROLOGIC ANALYSIS OF EXISTING PIPES

For each of the eight trunk pipe systems that were evaluated, SacCalc models were prepared to calculate peak design flows based on the Nolte Method (see additional discussion on methodology in Chapter 5). The Nolte Method flow rates were used to assess the capacities of the pipe systems. Peak flows for the 100-year storm were determined using the Sacramento Method charts. The 100-year flows were used to assess the adequacy of the pipe system and associated overland flow paths.

The watershed boundaries for each of the trunk pipe systems are shown on Figures 6-2 through 6-4. The calculated flood flows are presented in Table 6-1.

6.3 HYDRAULIC ANALYSIS OF EXISTING PIPES

For each of the eight trunk pipe systems that were evaluated, XP-SWMM models were prepared to perform hydraulic calculations. Chapter 5 provides additional discussion on the approach used to perform these calculations. The results from the XP-SWMM models were used to determine whether each pipe system had adequate capacity to convey the pipe design flows based on the City's drainage standards. In addition, the models were used to assess the adequacy of the overland release path for the 100-year storm.

The pipe layouts for each of the trunk systems are presented on Figures 6-2 through 6-4. The input data for each pipe system are presented in Table 6-2. It should be reiterated that field surveying was not performed for this study. The pipe data listed in Table 6-2 was based on as-built plans or approximate field measurements and is considered approximate.

Table 6-1. Peak Flows for Existing Trunk Storm Drains

Contributing Watershed	Upstream Node	Downstream Node	Contributing Area, acres by Land-Use Type and Percent Impervious								Subshed Total		Cumulative Total at Upstream Node		Pipe Flow, cfs	100-year Flow, cfs
			Comm./ Office	Apts./ RD-20	RD-5	RD-4	RD-3	RD-2	RD-1	Open						
			90%	80%	50%	40%	30%	25%	20%	2%	Area, acres	% Imp.	Area, acres	% Imp.	Nolte Zone 1	Sac. Method Zone 3
Trunk Storm Drain SD1																
SD1A	SD1A	SD1B	-	-	-	55.1	-	-	-	16.1	71.2	31.4	71.2	31.4	27.8	96.0
SD1B	SD1B	SD1C	-	1.4	-	-	-	-	16.4	20.6	38.4	12.5	109.6	24.8	52.7	130.0
SD1C	SD1C	J1E	-	7.4	3.3	-	-	-	-	-	10.7	70.7	120.3	28.9	63.3	145.0
SD1D	SD1D	SD1E	-	-	-	-	76.1	21.0	-	-	97.1	28.9	97.1	28.9	42.7	122.0
SD1E	SD1E	J1E	-	-	-	-	-	10.6	-	-	10.6	25.0	107.7	28.5	51.1	130.0
-	J1E	SD1Out	-	-	-	-	-	-	-	-	0.0	0.0	228.0	28.7	141.1	240.0
Trunk Storm Drain SD2																
SD2A	SD2A	SD2B	-	-	9.7	47.6	-	7.3	-	-	64.6	39.8	64.6	39.8	24.7	95[(a)]
SD2B	SD2B	SD2Out	-	-	-	6.4	-	-	-	-	6.4	40.0	71.0	36.9	27.7	101.0
Trunk Storm Drain SD3																
SD3A	SD3A	J3B	-	-	-	14.3	-	32.0	-	-	46.3	29.6	46.3	29.6	15.6	68.0
SD3B	J3B	J3D	-	2.4	-	13.8	-	3.7	-	-	19.9	42.0	66.2	33.4	25.4	90.0
SD3C	SD3C	J3D	1.5	0.8	2.6	41.0	-	-	-	3.4	49.3	40.1	49.3	40.1	17.1	74.0
SD3D	J3D	SD3Out	25.5	1.0	-	5.8	-	-	-	-	32.3	80.7	147.8	45.9	93.4	190.0
Trunk Storm Drain SD4																
SD4A	SD4A	J4B	3.3	-	-	72.4	-	11.2	-	1.4	88.3	39.4	88.3	39.4	37.3	120.0
SD4B	J4B	J4C	-	-	-	18.6	-	-	-	-	18.6	40.0	106.9	39.5	50.4	140.0
SD4C	J4C	CH1	2.4	-	-	14.6	-	-	-	0.4	17.4	46.0	124.3	40.4	67.4	160.0
SD4D	CH1	J4E	13.6	-	-	5.5	-	-	-	17.7	36.8	40.2	161.1	40.3	105.6	200.0
SD4E	J4E	J4F	-	-	-	15.3	-	-	-	-	15.3	40.0	176.4	40.3	115.3	210.0
SD4F	J4F	SD4Out	4.3	-	-	38.7	-	3.9	-	-	46.9	43.3	223.3	41.0	144.0	255.0
Trunk Storm Drain SD5																
SD5A	SD5A	SD5B	12.3	-	63.3	-	-	-	-	-	75.6	56.5	75.6	56.5	31.3	117[(a)]
SD5B	SD5B	SD5Out	-	-	50.4	-	-	-	-	-	50.4	50.0	126.0	53.9	69.6	180.0
Trunk Storm Drain SD6																
SD6A	SD6A	SD6B	-	3.5	13.2	-	-	48.5	-	-	65.2	33.0	65.2	33.0	25.0	90.0
SD6B	SD6B	SD6C	6.6	-	-	-	77.0	-	-	-	83.6	34.7	148.8	34.0	92.2	165.0
Trunk Storm Drain SD7																
SD7A	SD7A	SD7Out	3.4	11.4	30.3	-	-	-	-	-	45.1	60.6	45.1	60.6	17.0	79.0
Trunk Storm Drain SD8																
SD8A	SD8A	SD8B	6.5	6.2	64.7	-	-	-	-	-	77.4	55.8	77.4	55.8	32.1	122.0
SD8B	SD8B	SD8C	-	1.7	-	12.3	-	-	-	-	14.0	44.9	91.4	54.1	39.7	135.0
SD8C	SD8C	SD8D	-	7.7	-	-	-	-	-	-	7.7	80.0	99.1	56.1	44.8	145.0
SD8D	SD8D	SD8Out	-	4.0	-	2.4	-	-	-	-	6.4	65.0	105.5	56.6	50.0	155.0

[(a)] Due to lack of adequate overland flow paths in the upstream watershed, the full 100-year flow cannot reach this point. See the report for a more detailed discussion.

Table 6-2. Results from Hydraulic Analysis for Trunk Storm Drains

Conduit	Conduit Type	Upstream Node	Downstream Node	Length, ft	Upstream Invert Elevation, ft[a]	Downstream Invert Elevation, ft[a]	Slope, ft/ft	Manning's n Value	Pipe Diameter, in	Avg. Ditch Bottom Width, ft	Avg. Ditch or Street Flow Depth, ft	Avg. Side Slope, (H:V)	Est. Ground or Top of Channel Elev., ft[a]	Est. Low Pad Elev., ft[a]	Upstream Pipe Design hgl, ft[a,b]	Upstream 100-Year hgl, ft [a],[b]
Trunk Storm Drain SD1																
P_1A	Pipe	SD1A	J1A	340	194.0	187.5	0.0191	0.015	36	-	-	-	197.5	n/a	195.4	198.6
P_J1A	Pipe	J1A	SD1B	392	187.5	184.1	0.0087	0.015	36	-	-	-	195.6	n/a	189.1	196.0
P_1B	Pipe	SD1B	SD1C	133	184.1	183.6	0.0038	0.015	48	-	-	-	192.3	n/a	186.6	193.1
P_1C	Pipe	SD1C	J1Ca	147	183.6	182.9	0.0048	0.015	48	-	-	-	190.5	192.2	186.2	191.7
P_1Ca	Pipe	J1Ca	J1Cb	340	182.9	181.5	0.0041	0.015	48	-	-	-	190.3	192.9	185.6	189.8
P_1Cb	Pipe	J1Cb	J1E	470	181.5	179.4	0.0045	0.015	60	-	-	-	193.6	195.7	183.8	185.3
P_1D	Pipe	SD1D	J1D	161	181.7	181.1	0.0037	0.015	36	-	-	-	189.2	190.8	185.5	189.1
P_J1D	Pipe	J1D	SD1E	225	181.1	180.4	0.0031	0.015	36	-	-	-	188.2	190.2	184.7	188.3
P_1E	Pipe	SD1E	J1E	392	180.4	179.7	0.0018	0.015	42	-	-	-	185.9	188.7	183.6	186.0
PJ1E	Pipe	J1E	SD1Out	187	177.7	175.2	0.0134	0.015	66	-	-	-	185.0	188.2	180.2	180.8
OLR_1C	Street Surface	SD1C	J1Ca	147	190.5	192.0	-0.0102	0.020	-	5	1.0	1:1	190.5	192.2	186.2	191.7
OLR_1Ca	Street Surface	J1Ca	J1Cb	340	192.0	196.0	-0.0118	0.020	-	5	1.0	1:1	190.3	192.9	185.6	189.8
OLR_1Cb	Street Surface	J1Cb	J1E	470	196.0	185.4	0.0226	0.020	-	25	1.0	10:1	193.6	195.7	183.8	185.3
OLR_1D	Street Surface	SD1D	J1D	161	188.5	187.9	0.0037	0.020	-	25	1.0	10:1	189.2	190.8	185.5	189.1
OLR_J1D	Street Surface	J1D	SD1E	225	187.9	185.6	0.0102	0.020	-	25	1.0	10:1	188.2	190.2	184.7	188.3
OLR_1E	Street Surface	SD1E	J1E	392	185.6	185.4	0.0005	0.020	-	25	1.0	10:1	185.9	188.7	183.6	186.0
OLR_1Eb	Overland Flow	SD1E	SD1Out	260	185.5	180.0	0.0212	0.040	-	0	1.0	25:1	185.9	188.7	183.6	186.0
Trunk Storm Drain SD2																
P_2A	Pipe	SD2A	J2A	145	174.0	173.1	0.0062	0.015	30	-	-	-	178.3	181.7	175.3	181.0
P_J2A	Pipe	J2A	SD2B	163	172.2	170.9	0.0080	0.015	36	-	-	-	181.7	181.7	171.2	178.1
P_2B	Pipe	SD2B	SD2Out	179	170.9	169.9	0.0056	0.015	36	-	-	-	176.7	180.1	170.2	176.8
Trunk Storm Drain SD3																
P_3A	Pipe	SD3A	J3B	293	166.3	166.0	0.0010	0.015	36	-	-	-	172.4	175.0	168.6	173.7
P_3B	Pipe	J3B	J3D	476	166.0	164.2	0.0038	0.015	36	-	-	-	171.2	173.4	168.4	172.2
P_3C	Pipe	SD3C	J3D	400	166.8	163.3	0.0088	0.015	36	-	-	-	169.7	173.4	168.2	171.1
P1_3D	Pipe	J3D	J3E	140	163.3	162.1	0.0086	0.024	36	-	-	-	168.5	171.1	167.6	169.5
P2_3D	Pipe	J3D	J3E	140	163.3	162.1	0.0086	0.024	57x36 arch	-	-	-	168.5	171.1	167.6	169.5
P_3E	Pipe	J3E	SD3Out	94	162.1	162.0	0.0016	0.015	60	-	-	-	167.5	169.2	166.4	167.6
OLR_3A	Pipe	SD3A	J3B	125	172.7	171.8	0.0072	0.015	24x63 box	-	-	-	172.4	175.0	168.6	173.7
OLR_3B	Street Flow	J3B	J3D	476	171.7	169.7	0.0042	0.020	-	25.0	0.5	20:1	171.2	173.4	168.4	172.2
OLR_3C	Street Flow	J3C	J3D	400	170.5	168.7	0.0045	0.020	-	20.0	1.0	1:1	169.7	173.4	168.2	171.1
OLR_3D	Street Flow	J3D	J3E	140	168.8	168.3	0.0036	0.020	-	1.0	0.5	70:1	168.5	171.1	167.6	169.5
OLR_3E	Street Flow	J3E	SD3Out	90	169.0	168.5	0.0056	0.020	-	1.0	0.5	50:1	167.5	169.2	166.4	167.6
Trunk Storm Drain SD4																
P_4A	Pipe	SD4A	J4B	700	174.1	170.6	0.0050	0.015	36	-	-	-	181.7	182.9	176.7	182.5
P_4B	Pipe	J4B	J4C	271	170.6	168.4	0.0081	0.015	36	-	-	-	176.3	178.5	173.9	177.6
P_4C	Pipe	J4C	J4D	680	168.4	165.3	0.0046	0.015	42	-	-	-	173.6	177.1	172.0	176.8
P_4D	Pipe	J4D	CH1	60	165.3	164.6	0.0117	0.015	42	-	-	-	171.6	175.4	167.8	170.5
SD4_Chan	Open Channel	CH1	CH2	350	164.6	161.1	0.0100	0.060	-	5.0	7.0	2:1	167.5	175.4	167.3	168.5
P_CH2	Pipe	CH2	Junc	33	161.1	160.6	0.0152	0.015	48	-	-	-	164.7	168.4	163.5	166.8
P_Junc	Pipe	Junc	J4E	50	159.6	159.3	0.0060	0.015	60	-	-	-	n/a	168.4	163.0	166.0
P_4E	Pipe	J4E	J4F	250	159.3	158.5	0.0032	0.015	60	-	-	-	165.2	168.4	162.9	165.8
P_4F	Pipe	J4F	SD4Out	328	158.0	157.0	0.0030	0.015	66	-	-	-	165.2	166.7	162.1	164.3
OLR_4A	Street Flow	SD4A	J4B	700	181.7	176.7	0.0071	0.020	-	-	1.0	30:1	181.7	182.9	176.7	182.5
OLR_4B	Street Flow	J4B	J4C	271	176.7	174.5	0.0081	0.020	-	-	1.0	30:1	176.3	178.5	173.9	177.6
OLR_4C	Street Flow	J4C	J4D	470	176.0	172.0	0.0085	0.020	-	-	1.0	30:1	173.6	177.1	172.0	176.8
OLR_4D	Overland Flow	J4D	CH1	90	171.4	170.4	0.0111	0.020	-	-	0.5	50:1	171.6	175.4	167.8	170.5
OLRCH2	Overland Flow	CH2	J4E	50	165.5	166.5	-0.0200	0.040	-	-	1.0	1:1	164.7	168.4	163.5	166.8
OLR_4E	Overland Flow	J4E	J4F	250	166.1	165.5	0.0024	0.020	-	-	0.5	50:1	165.2	168.4	162.9	165.8

Table 6-2. Results from Hydraulic Analysis for Trunk Storm Drains

Conduit	Conduit Type	Upstream Node	Downstream Node	Length, ft	Upstream Invert Elevation, ft[a]	Downstream Invert Elevation, ft[a]	Slope, ft/ft	Manning's n Value	Pipe Diameter, in	Avg. Ditch Bottom Width, ft	Avg. Ditch or Street Flow Depth, ft	Avg. Side Slope, (H:V)	Est. Ground or Top of Channel Elev., ft[a]	Est. Low Pad Elev., ft[a]	Upstream Pipe Design hgl, ft[a,b]	Upstream 100-Year hgl, ft [a],[b]
Trunk Storm Drain SD5																
PSD5AB	Pipe	SD5A	J5A	170	166.5	165.5	0.0059	0.015	36	-	-	-	176.0	177.0	168.4	173.5
PSJ5AB	Pipe	J5A	SD5B	350	165.5	163.8	0.0048	0.015	36	-	-	-	171.6	174.1	167.5	172.2
PSD5BD	Pipe	SD5B	SD5D	215	163.3	162.0	0.0062	0.015	42	-	-	-	170.4	172.4	166.0	171.0
PSD5DE	Pipe	SD5D	SD5E	344	162.0	154.7	0.0212	0.015	42	-	-	-	169.1	170.9	163.9	168.8
PSD5EF	Pipe	SD5E	SD5F	173	154.7	154.3	0.0023	0.015	42	-	-	-	160.2	162.9	158.8	162.1
OLR_J5A	Street Flow	J5A	SD5B	350	171.7	170.3	0.0040	0.020	-	0.0	1.0	40:1	171.6	174.1	167.5	172.2
CDSD5BD	Street Flow	SD5B	SD5D	215	170.3	169.0	0.0060	0.020	-	0.0	1.0	40:1	170.4	172.4	166.0	171.0
CDSD5DE	Street Flow	SD5D	SD5E	344	168.4	160.5	0.0230	0.020	-	0.0	1.0	40:1	169.1	170.9	163.9	168.8
CDSD5EF	Overland Flow	SD5E	SD5F	173	161.5	159.0	0.0145	0.020	-	5.0	2.0	1.5:1	160.2	162.9	158.8	162.1
Trunk Storm Drain SD6 - With 10-year and 100-year FEMA Tailwater																
P_6A	Pipe	SD6A	J6A	280	144.7	143.0	0.0061	0.015	36	-	-	-	149.5	n/a	149.1	150.9
P_J6A	Pipe	J6A	SD6B	69	143.0	142.3	0.0101	0.015	36	-	-	-	147.8	147.8	**148.6**	**149.4**
P_6B	Pipe	SD6B	J6B	555	142.3	136.2	0.0110	0.015	42	-	-	-	148.2	147.8	**148.5**	**149.4**
P_J6B	Pipe	J6B	SD6Out	461	136.2	131.2	0.0108	0.015	42	-	-	-	143.3	145.2	142.4	144.2
OLR_6A	Overland Flow	SD6A	J6A	280	148.3	146.8	0.0054	0.040	-	3.0	1.0	1:1	149.5	n/a	149.1	150.9
OLR_J6A	Street Flow	J6A	SD6B	69	148.3	148.0	0.0043	0.020	-	40.0	0.5	50:1	147.8	147.8	**148.6**	**149.4**
OLR_6B	Street Flow	SD6B	J6B	555	148.5	143.4	0.0092	0.020	-	0.0	1.0	25:1	148.2	147.8	**148.5**	**149.4**
OLR_J6B	Street Flow	J6B	SD6_OLROut	250	143.4	140.2	0.0128	0.020	-	0.0	1.0	25:1	143.3	145.2	142.4	144.2
Trunk Storm Drain SD6 - No Tailwater																
P_6A	Pipe	SD6A	J6A	280	144.7	143.0	0.0061	0.015	36	-	-	-	149.5	n/a	146.4	150.9
P_J6A	Pipe	J6A	SD6B	69	143.0	142.3	0.0101	0.015	36	-	-	-	147.8	147.8	145.2	**149.4**
P_6B	Pipe	SD6B	J6B	555	142.3	136.2	0.0110	0.015	42	-	-	-	148.2	147.8	145.2	**149.4**
P_J6B	Pipe	J6B	SD6Out	461	136.2	131.2	0.0108	0.015	42	-	-	-	143.3	145.2	139.1	144.0
OLR_6A	Overland Flow	SD6A	J6A	280	148.3	146.8	0.0054	0.040	-	3.0	1.0	1:1	149.5	n/a	146.4	150.9
OLR_J6A	Street Flow	J6A	SD6B	69	148.3	148.0	0.0043	0.020	-	40.0	0.5	50:1	147.8	147.8	145.2	**149.4**
OLR_6B	Street Flow	SD6B	J6B	555	148.5	143.4	0.0092	0.020	-	0.0	1.0	25:1	148.2	147.8	145.2	**149.4**
OLR_J6B	Street Flow	J6B	SD6_OLROut	250	143.4	140.2	0.0128	0.020	-	0.0	1.0	25:1	143.3	145.2	139.1	144.0
Trunk Storm Drain SD7																
P_SD7	Pipe	SD7A	SD7Out	650	148.6	145.1	0.0054	0.015	48	-	-	-	157.8	158.2	149.8	151.6
Trunk Storm Drain SD8																
P_SD8A	Pipe	SD8A	J8A	114	152.9	152.0	0.0079	0.015	36	-	-	-	160.4	161.7	154.6	161.2
P_J8A	Pipe	J8A	SD8B	620	152.0	147.4	0.0074	0.015	42	-	-	-	161.7	160.7	153.6	159.8
P_SD8B	Pipe	SD8B	SD8C	115	147.4	146.5	0.0081	0.015	42	-	-	-	156.0	156.6	149.2	**156.5**
P_SD8C	Pipe	SD8C	J8C	299	146.5	144.3	0.0073	0.015	48	-	-	-	153.3	n/a	148.4	155.6
P_J8C	Pipe	J8C	SD8D	255	144.3	143.5	0.0031	0.015	48	-	-	-	155.3	158.1	146.8	153.5
P_SD8D	Pipe	SD8D	SD8Out	358	143.5	142.5	0.0028	0.015	48	-	-	-	151.3	155.2	146.2	151.8
OLR_A	Street Flow	SD8A	OLR_AC	310	160.3	158.6	0.0055	0.020	-	0.0	1.0	30:1	160.4	161.7	154.6	161.2
OLR_AC	Overland Flow	OLR_AC	SD8C	432	158.6	154.2	0.0102	0.035	-	34.0	0.5	1:1	158.9	n/a	158.6	159.2
OLR_CD	Overland Flow	SD8C	SD8D	460	155.0	151.7	0.0072	0.020	-	15.0	0.5	1:1	153.3	n/a	148.4	155.6
OLR_8D	Street Flow	SD8D	SD8Out	358	151.0	149.5	0.0042	0.020	-	0.0	0.5	30:1	151.3	155.2	146.2	151.8

[a] All elevations are based on the North American Vertical Datum 1988.

[b] Hgl values with red and bold text indicate that the performance criteria is not met at that location.

6.4 RESULTS FROM THE ANALYSIS OF EXISTING PIPES

Calculated water surface elevations along the pipe systems are presented in Table 6-2. These water surface elevations were used to determine whether the pipe systems have adequate capacity based on the following criteria:

- The pipe design hydraulic grade line (hgl) should be below the inlet grate elevation; and
- The 100-year hgl should be below the lowest adjacent pad elevation.

At those locations where the calculated water surface (i.e., the hgl) does not meet the capacity criteria above, the water surface elevation is highlighted in Table 6-2 with a bold red font. As Table 6-2 shows, each of the pipe system meets the criteria with the exception of trunk pipe SD6. That pipeline does not meet the City's criteria for either the pipe design storm event or the 100-year storm event at Nodes J6A or SD6B, which are located near the upstream end of the pipeline at Mariposa Avenue.

For the pipe design storm event, the predicted flooding is largely the result of the high tailwater in Arcade Creek, which is approximately 2.6 feet above the top of the outfall pipe. If the tailwater is low, the pipe has sufficient capacity to convey the design flow without flooding. To illustrate this, water surface elevations for trunk pipe SD6 are presented for both the high tailwater and low tailwater conditions in Table 6-2. As shown in the table, when the tailwater is low, there is no flooding predicted during the pipe design event.

For the 100-year storm, flooding is predicted at Mariposa Avenue regardless of the tailwater conditions. One lot on the east side of the roadway sits lower than the roadway and the ground around the lot. This lot is at risk of flooding during a large storm event. This potential flooding problem was added to the list of problems that also includes problems that were identified through public outreach and a review of service call records. The evaluations of potential solutions to solve all of the identified problems are described in Chapter 7. In that chapter, the problem along trunk drain SD6 is included as Problem 10.

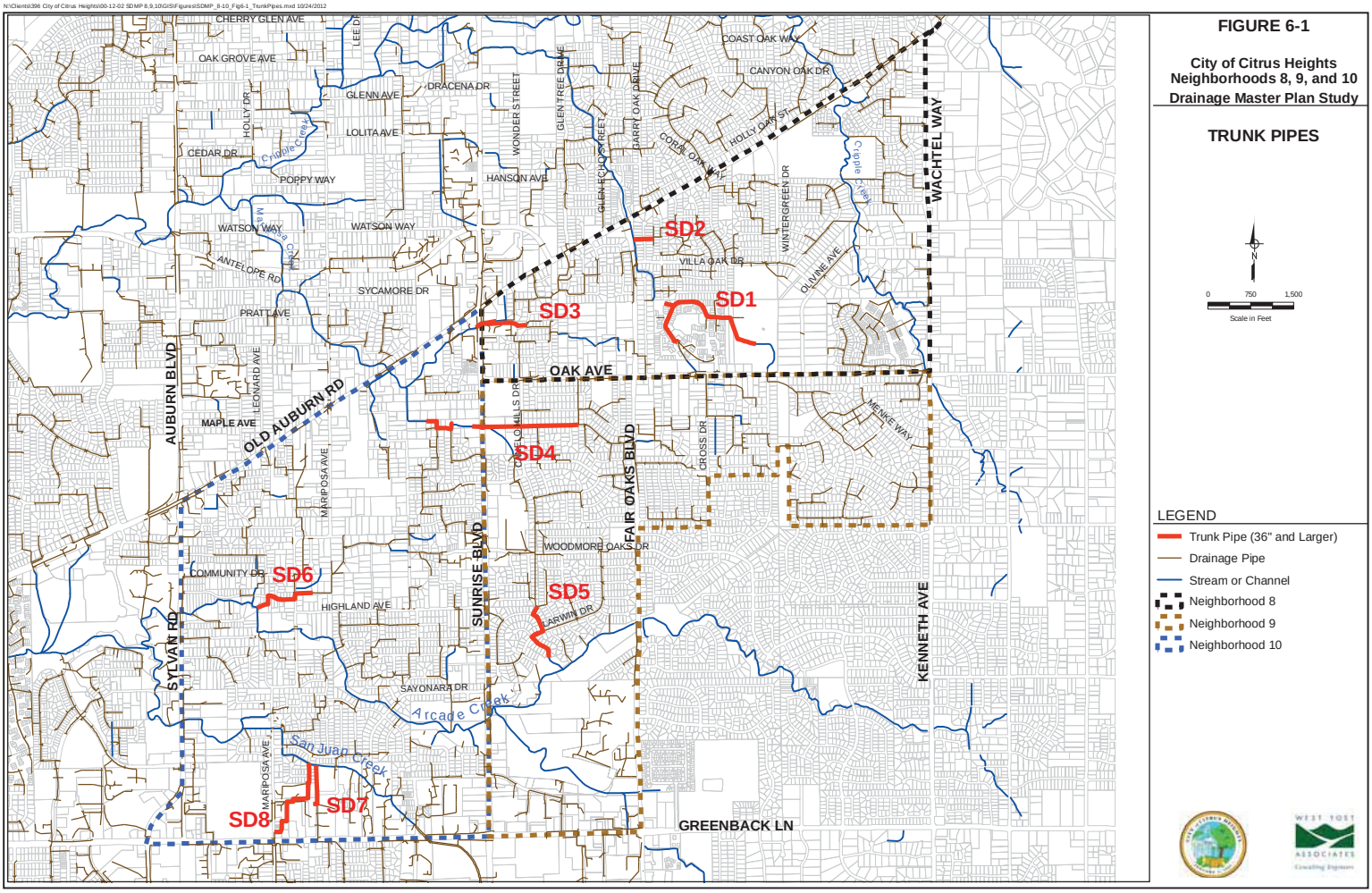


FIGURE 6-1

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

TRUNK PIPES

N

0 750 1,500

Scale in Feet

LEGEND

- Trunk Pipe (36" and Larger)
- Drainage Pipe
- Stream or Channel
- Neighborhood 8
- Neighborhood 9
- Neighborhood 10

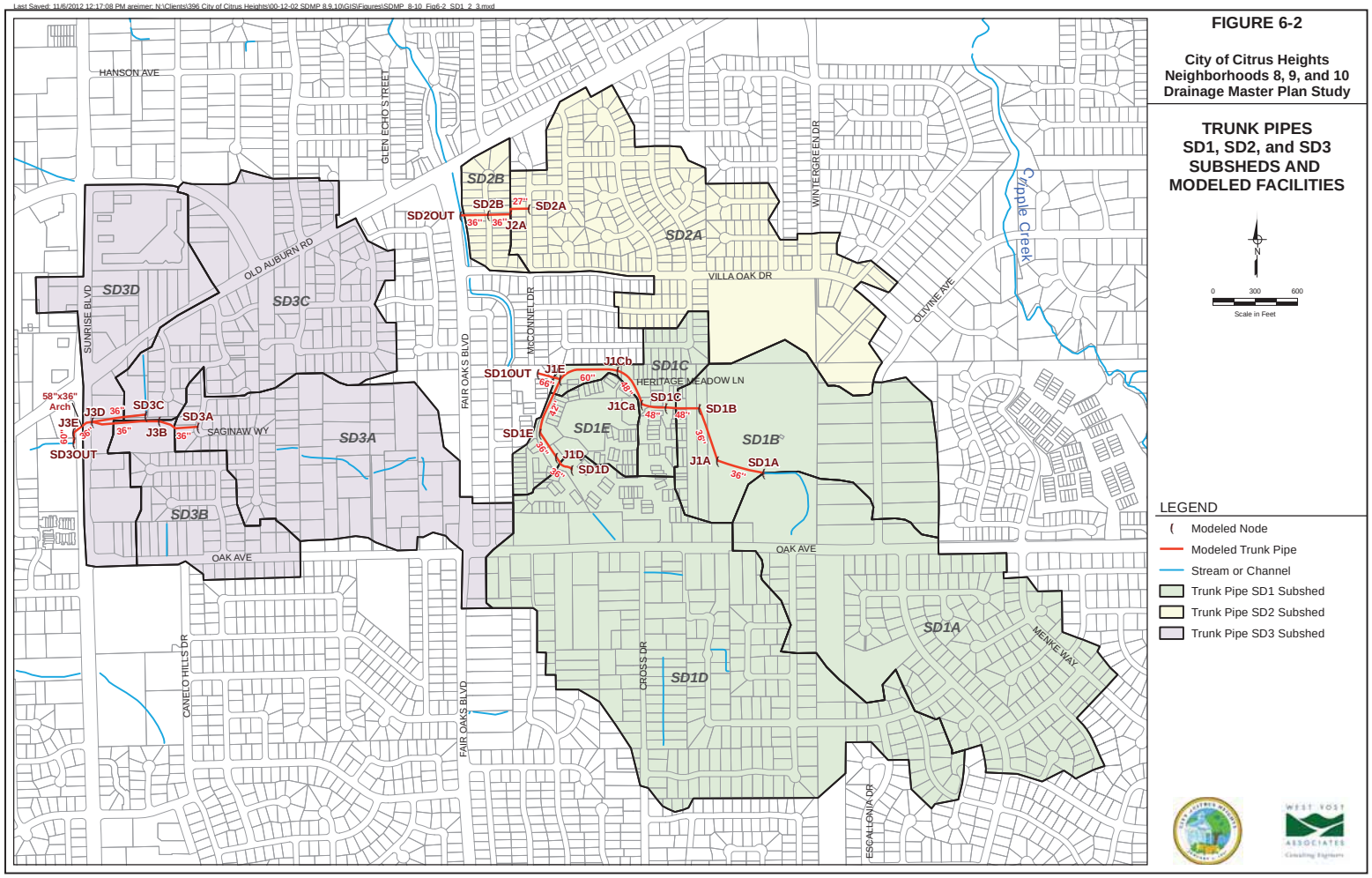


FIGURE 6-2

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

TRUNK PIPES
SD1, SD2, and SD3
SUBSHEDS AND
MODELED FACILITIES

N

0 300 600
Scale in Feet

LEGEND

- Modeled Node
- Modeled Trunk Pipe
- Stream or Channel
- Trunk Pipe SD1 Subshed
- Trunk Pipe SD2 Subshed
- Trunk Pipe SD3 Subshed

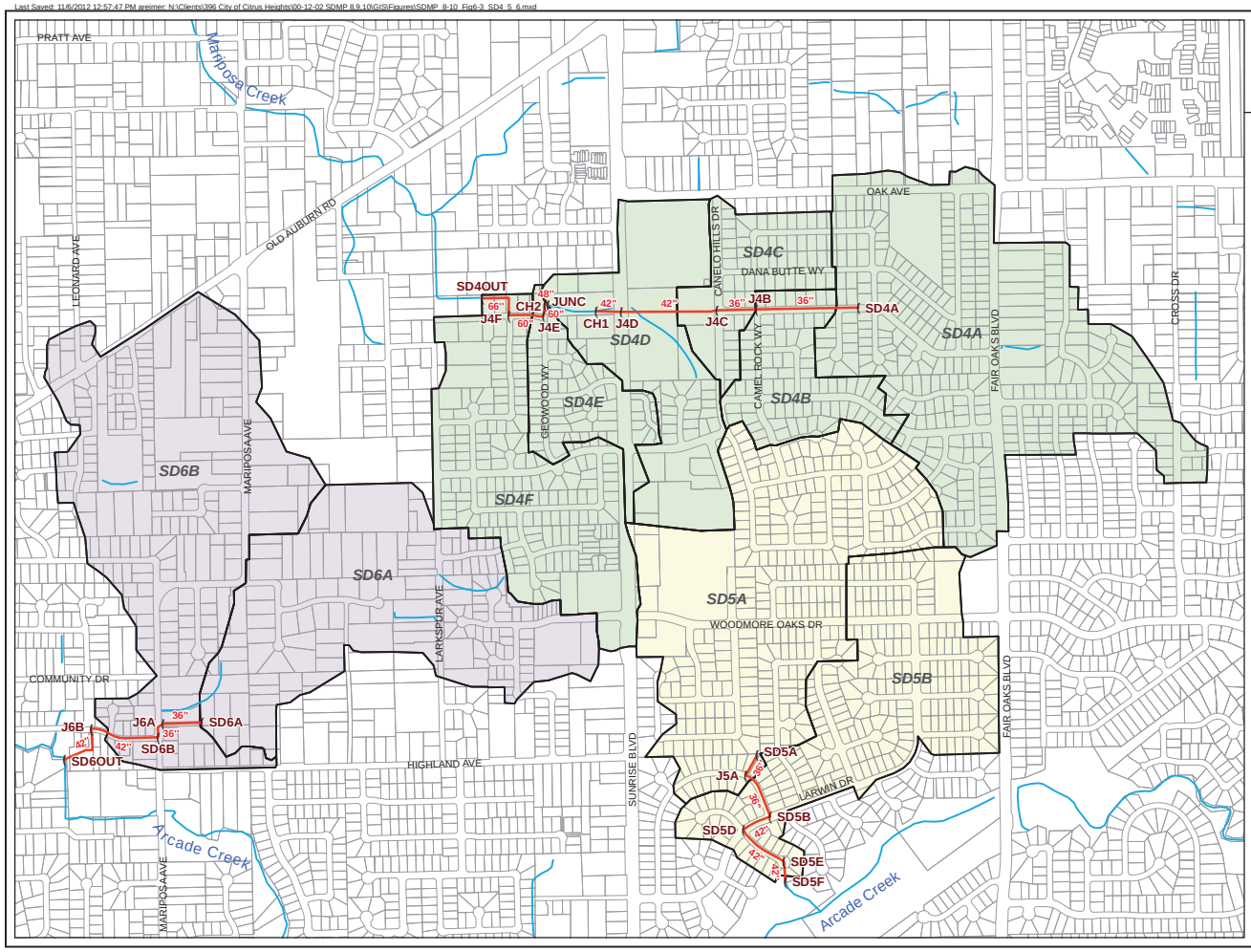


FIGURE 6-3

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

TRUNK PIPES SD4, SD5, and SD6 SUBSHEDS AND MODELED FACILITIES

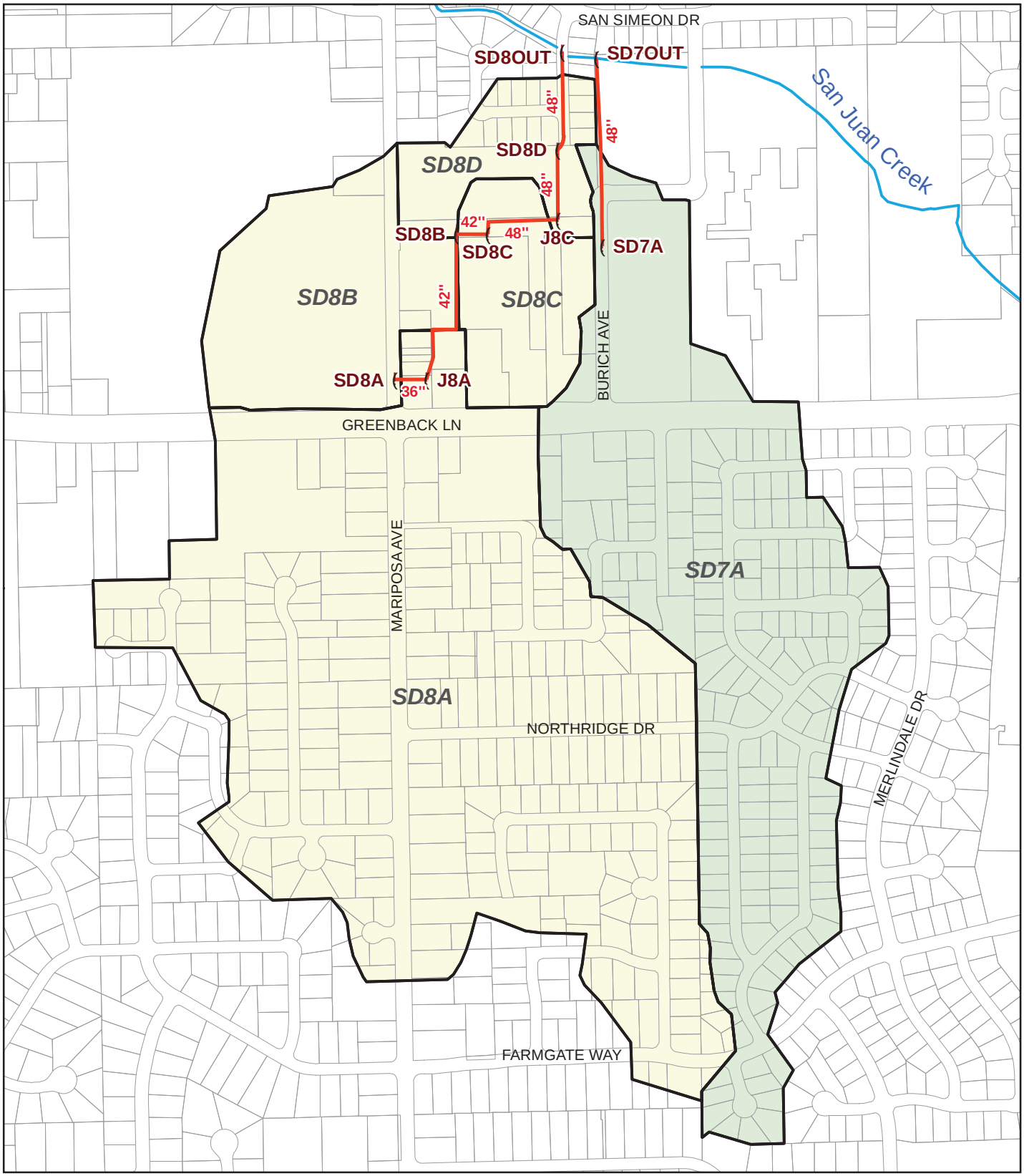
N

0 325 650

Scale in Feet

LEGEND

- Modeled Node
- Modeled Trunk Pipe
- Stream or Channel
- Trunk Pipe SD4 Subshed
- Trunk Pipe SD5 Subshed
- Trunk Pipe SD6 Subshed



LEGEND

- Modeled Node
- Modeled Trunk Pipe
- Stream or Channel
- Trunk Pipe SD7 Subshed
- Trunk Pipe SD8 Subshed

N

0 250 500

Scale in Feet

FIGURE 6-4

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
TRUNK PIPES SD7 AND SD8
SUBSHEDS AND MODELED FACILITIES

WEST YOST ASSOCIATES
Consulting Engineers

7.1 INTRODUCTION

One of the key objectives of this study was to identify significant drainage and flooding problems in the study area and to develop solutions to reduce or eliminate the problems. The problem locations were identified from the following activities:

- Existing Trunk Pipe Analyses – As discussed in Chapter 6, hydraulic analyses were performed for the existing trunk pipe systems within the detailed study area. One trunk pipe system, SD6, was found to have a potential flooding problem.
- Review of Service Call Records – As discussed in Chapter 2, City staff provided service call records that document problems reported by residents during prior storm events. These records were reviewed to determine potential problem locations.
- Input from City Staff – City staff have significant knowledge of the drainage issues in the study area based on prior discussions with residents and visual observations during storm events. West Yost met with City staff at the outset of the project to obtain input on known problem locations.
- Input from Public – A public meeting was held on April 10, 2012 to solicit input from area residents on potential flooding and drainage problems. Descriptions of potential problems were provided by the residents both orally and in writing. As discussed in Chapter 2, a summary table was prepared after the meeting that provides descriptions of each problem, the location of the problem, the name and address of the resident that reported the problem, and a problem category (i.e., flooding, drainage system, maintenance). This summary table was provided in Table 2-3. Additional problems were reported by residents outside of the public meeting forum.

Based on the above activities, a total of 12 flooding and drainage problems were identified for evaluation. The general locations of the problems are shown on Figure 7-1. Relatively complex problems were assessed using hydrologic and hydraulic modeling. Less complex problems were evaluated with spreadsheet calculations or normal depth analyses. For the simplest problems with relatively straightforward solutions, City staff directed that only qualitative analyses be performed. For those problems, general solutions were recommended without engineering calculations being performed.

For all problem areas where modeling or other hydraulic calculations were performed, pipe and channel sizes, depths, and inverts were estimated from limited field measurements, LiDAR topographic data, and photographs. Pad elevations, which were used to estimate flooding thresholds, were also estimated from LiDAR topographic data. As a result, the hydraulic calculations are approximate. They are considered adequate for planning purposes, but field surveying will be necessary prior to the final planning and design of the recommended improvements. The hydraulic calculations for the problem evaluations are provided in Appendix C.

Each flooding and drainage problem area is described in the following sections along with descriptions of the evaluation performed and the recommended solution. In some cases, multiple problems were grouped together for evaluation due to their proximity to one another. Therefore, some of the sections below include discussions of more than one problem.

7.2 PROBLEM LOCATION 1

7.2.1 Description of Problem Location 1

Problem Location 1 is at the northeast corner of the study area along Old Auburn Road (see Figure 7-2). Runoff from a small watershed (approximately 2.3 acres) flows to the northwest corner of a lot located near the intersection of Old Auburn Road and Wachtel Way. The runoff does not effectively drain from the lot because it is blocked by a driveway located just west of the lot along Old Auburn Road. The runoff is intended to drain into a roadside ditch along Old Auburn Road and flow under the driveway in culvert. However, the roadside ditch at that location is not well defined and the existing culvert under the adjacent driveway has been buried and no longer functions as intended.

7.2.2 Proposed Solution for Problem Location 1

The proposed solution for Problem Location 1 is shown on Figure 7-2. The solution includes re-grading the roadside ditch along Old Auburn Road in front of the problem location and construction of a new culvert underneath the adjacent driveway. The ditch should have a one-foot bottom width, 1 to 1 side slopes, and a minimum depth of 1.5 feet. A 12-inch concrete culvert should be constructed under the driveway. An XP-SWMM model was prepared for the culvert sizing. Results from the modeling can be found in Appendix C.

7.3 PROBLEM LOCATION 2

7.3.1 Description of Problem Location 2

A residential lot on Fox Hills Drive has drainage problems due to runoff entering the lot from the surrounding properties and poor drainage within the backyard (see Figure 7-3). The resident has constructed a drainage swale in the backyard, but it appears that the ditch may not have sufficient depth to effectively convey runoff.

7.3.2 Proposed Solution for Problem Location 2

The proposed solution for this problem is to provide an under sidewalk drain along the south side of the residential lot. This will provide the resident with the ability to create a deeper swale or ditch to drain the backyard (See Figure 7-3). The location of the sidewalk drain should be coordinated with the property owner prior to construction. This solution was developed qualitatively; no hydrologic or hydraulic modeling was performed.

7.4 PROBLEM LOCATIONS 3 AND 4

7.4.1 Description of Problem Location 3

Highland Avenue has a roadside ditch system that conveys runoff from the surrounding areas to the west. The ditch is small and does not provide adequate capacity to serve the area. Flooding has been reported by several residents that live along Highland Avenue west of Beam Drive. In addition, Beam Drive is drained by a small ditch between the northbound and southbound lanes. This ditch conveys runoff south to Highland Avenue. The ditch is small and shallow and does not provide adequate capacity. During large storms, overflow from the ditch produces property flooding along the west side of Beam Drive. This problem location is shown on Figure 7-4.

7.4.2 Description of Problem Location 4

Flooding has been reported along Rinconada Drive. There is a low point along the roadway south of Aptos Circle that has very small inlets that drain into a pipe system that coveys runoff east between two lots and into Arcade Creek. During large storms that exceed the capacity of the pipe system, the excess flows form a pond in the street. Because there is no overland release path to allow the excess flows to be safely conveyed to the creek, some of the lower lying homes are at risk of flooding during large storm events. A contributing factor to the flooding problem is that, during large storms, runoff that exceeds the capacity of the Highland Avenue drainage system (Problem Location 3) flows over Highland Avenue and continues south to the low point on Rinconada Drive. This problem location is shown on Figure 7-4.

7.4.3 Proposed Solution for Problem Locations 3 and 4

Two options were developed for solving the problems at Locations 3 and 4. Both options are described below and a recommended option is identified.

7.4.3.1 Proposed Solution for Problem Locations 3 and 4 – Option 1

The improvements included with Option 1 are shown on Figure 7-5A. For this option, the solution for Problem Location 3 includes an asphalt concrete v-ditch along Beam Drive that will replace the existing shallow earthen ditch. This v-ditch will have side slopes of 3:1 (H:V), and will be 1 foot deep and 6 feet wide. This ditch will convey flows up to the 10-year peak flow of 7.2 cfs. At the time of design, if it is determined that additional ditch width can be accommodated, the ditch should be widened to increase the flow capacity up to the 100-year peak flow of 11 cfs. The ditch design will need to accommodate traffic safety features since it is in the middle of the road. The v-ditch in Beam Drive will convey runoff south to a new pipe system in Highland Avenue that will convey runoff west to Mariposa Avenue. The size of the pipe varies from 21 to 24 inches in diameter. At Mariposa Avenue, the new pipe will connect to another new pipe that is proposed for Problem Location 10 (see discussion below). The new pipe in Mariposa Avenue will convey runoff south to Arcade Creek. The existing roadside ditch on the north side of Highland Drive between Beam Drive and Mariposa Avenue will be filled and replaced with a valley gutter to collect runoff and direct it to inlets connected to the pipe system.

To help reduce the flooding at Problem Location 4, runoff entering the existing inlet at the southeast corner of Highland Avenue and Rinconada Drive will be re-directed into the new Highland Avenue pipe system instead of the pipe that conveys runoff south along Rinconada Drive. The existing 10-inch pipe in Rinconada Drive will be abandoned between Highland Avenue and Spring Valley Avenue. Additional improvements to reduce the flooding risk on Rinconada Drive include enlarged drain inlets at the low point and an overland release structure, which is essentially a small rectangular concrete channel, between two lots on Rinconada Drive to allow some of the excess flow during large storms to be conveyed overland to Arcade Creek.

7.4.3.2 Proposed Solution for Problem Locations 3 and 4 – Option 2

As shown on Figure 7-5B, Option 2 includes all of the elements as Option1 plus the pipe system in Highland Avenue will be extended east to Pacheco Way. This allows more runoff to be diverted into the Highland Avenue pipe system that would otherwise flow to the problem area on Rinconada Drive. The existing pipe on Pacheco Way between Highland Avenue and Spring Valley Avenue would be plugged and abandoned. The size of the extended pipe in Highland Avenue would be 27 inches. Because this option directs more runoff into the new pipe in Highland Avenue east of Beam Street than Option 1, the size of the pipe along this reach needs to be increased to 30 inches for Option 2. The new pipe proposed in Mariposa Avenue for the solution to Problem Location 10 has adequate capacity for this option.

7.4.3.3 Recommended Solution for Problem Locations 3 and 4

Option 2 is the recommended solution for Problem Locations 3 and 4. Although Option 2 is significantly more costly than Option 1 ($878,000 versus $529,000), Option 2 provides significantly better flood protection for Problem Location 4 on Rinconada Drive. Option 2 would lower the 100-year water surface elevation on Rinconada Drive by an additional 1 foot compared to Option 1. Option 2 could provide protection against the 100-year storm event depending on the water elevations in Arcade Creek at the time of the local peak flow. Option 1 would not provide 100-year protection. Hydraulic calculations for the proposed pipe system included with Option 2 are provided in Appendix C.

7.5 PROBLEM LOCATION 5

7.5.1 Description of Problem Location 5

Chula Vista Drive and the surrounding area are drained by a roadside ditch system that delivers runoff to a 15-inch storm drain pipe that discharges to San Juan Creek (see Figure 7-6). The outfall pipe to the creek passes through a residential lot and the owner of the lot reports that the pipe may be failing and causing his driveway to sag and crack. In addition, there is not an adequate overland release path for flows that exceed the capacity of the pipe system.

7.5.2 Proposed Solution for Problem Location 5

The proposed solution for Problem Location 5 is to replace the existing 15-inch outfall pipe with a 24-inch pipe. This pipe will provide 3.5 times the capacity of the existing outfall and would be adequate to convey the 10-year flow of 16.8 cfs. The proposed solution is shown on Figure 7-6. Normal depth hydraulic calculations were performed and are summarized in Appendix C.

7.6 PROBLEM LOCATIONS 6 AND 10

Problem Locations 6 and 10 are shown on Figure 7-7 and are described below.

7.6.1 Description of Problem Location 6

Residents on Glenacre Way have reported multiple flooding instances ranging from flooded garages to flooded homes. A small storm drain collects runoff from the eastern portion of Glenacre Way and conveys it to a low point near the west end of the road. From this point, runoff is conveyed south between two residential lots in a 24-inch storm drain. A 21-inch storm drain from the north also conveys runoff to the 24-inch pipe. The 24-inch pipe drains a watershed of approximately 50 acres. The main problem is that the roadway and the homes on the south side of the road lie relatively low compared to the surrounding area. There is no overland release path for conveyance of flows in excess of the pipe system capacity. Therefore, during large storm events, runoff collects in the street. If the storm is large enough, the water can pond to a level that causes flooding.

To assist with evaluating the problem, a XP-SWMM hydraulic model was prepared for the Glenacre Way drainage system. Because Glenacre Way is tributary to trunk pipe SD6, the modeling prepared for SD6 was extended upstream to the Glenacre Way area. Model results for existing conditions indicate that five building pads on the south side of Glenacre Way could be inundated during a 100-year storm event.

7.6.2 Description of Problem Location 10

Problem Location 10 is at the intersection of Mariposa Avenue and Sylvan Valley Way. A residential lot on the east side of Mariposa Avenue sits lower than the roadway and is predicted to be at risk of flooding during a large storm that exceeds the capacity of the nearby trunk pipe system, which is trunk drain SD6. This problem was identified during the trunk drain modeling performed for trunk drain SD6 (see Chapter 6).

7.6.3 Proposed Solution for Problem Locations 6 and 10

Three options were considered for solving the problems at Locations 6 and 10. All three options were evaluated with XP-SWMM hydraulic models. These options are described below and a preferred option is recommended.

7.6.3.1 Proposed Solution for Problem Locations 6 and 10 – Option 1

For this option, the flooding at Problem Location 6 would be addressed by construction of a detention basin in the playfield of the church property to the north of Glenacre Way (see Figure 7-8A). The basin would cover 1.3 acres and would be approximately seven feet deep. Flow would be diverted from the nearby pipe system into the detention basin when the pipe system begins to surcharge but prior to flooding occurring on Glenacre Way. Hydraulic modeling indicates that the detention basin would reduce the 100-year flood elevation at Glenacre Way by 0.8 feet and would prevent three of the five at-risk pads from flooding. Two pads are still predicted to flood.

To help solve the flood potential at Problem Location 10, a pipe would be constructed in Mariposa Avenue from the intersection of Sylvan Valley Way south to Arcade Creek. The pipe would be 36-inches in diameter from Sylvan Valley Way to Highland Avenue and 42-inches from Highland Avenue to Arcade Creek. This pipe extension would reduce the 100-year water surface elevation below the pad elevation of the at-risk lot. The pipe from Highland Avenue to Arcade Creek is sized to accept flow from the new pipeline proposed to be constructed in Highland Avenue that will help to reduce the flooding at Problem Locations 3 and 4. This pipeline is not shown on Figure 7-8A, which shows the other improvements for this option, but can be seen on Figure 7-8B.

7.6.3.2 Proposed Solution for Problem Locations 6 and 10 – Option 2

For Option 2, the capacity of the pipe system that conveys runoff from Glenacre Way would be increased. As shown on Figure 7-8B, the existing pipes between Glenacre Way and Sylvan Valley Way would be increased to 42-inches in diameter. A portion of the existing pipe system that currently runs through backyards would be relocated into Mariposa Avenue. In addition, just as with Option 1, a new pipe ranging in size from 36-inches to 42-inches would be extended south along Mariposa Avenue from Sylvan Valley Way to Arcade Creek. Hydraulic modeling indicates that this option would reduce the 100-year water surface elevation at Glenacre Way (Problem Location 6) by 0.9 feet and would eliminate all pad flooding. The potential 100-year flooding at Problem Location 10 would also be eliminated.

7.6.3.3 Proposed Solution for Problem Locations 6 and 10 – Option 3

For Option 3, the houses at the at-risk lots would be raised above the predicted flood elevation. To reduce the number of houses that would be raised, underground detention storage would be also constructed in Glenacre Way (see Figure 7-8C). Approximately 450 feet of 2'x12' box culvert would be constructed in the street to provide detention storage. A weir structure would be constructed at the existing manhole at the west end of Glenacre Way. During large storm events when the existing pipe system begins to surcharge, flow would spill over the weir into the box culvert. This alternative would reduce the 100-year water surface elevation at Glenacre Drive by approximately 0.2 feet. Three pads would remain in the floodplain and the houses at these locations would be raised above the flood elevation.

As with Options 1 and 2, a pipe would be constructed in Mariposa Avenue from the intersection of Sylvan Valley Way south to Arcade Creek (see Figure 7-8B). The pipe would range in size from 36-inches to 42-inches and would be sized to accept flow from the new pipeline proposed in Highland Avenue to help solve the flooding at Problem Locations 3 and 4.

7.6.3.4 Recommended Solution for Problem Locations 6 and 10

Option 2, which would increase the existing pipe system capacity, is the recommended solution for Problem Location 6. Option 2 provides the best flood control performance, can be constructed entirely within public easements or rights of way, and also would provide significant benefits to other areas along the pipe system. The major disadvantage of Option 2 is cost. The cost to implement Option 2 is estimated at approximately $1.43 million. Although Option 1 is estimated to be significantly less costly, it would be constructed almost entirely on private property and the feasibility of obtaining an easement is uncertain. Without the cost an easement included, Option 1 is estimated at $0.70 million. The cost of an easement is uncertain but Option 1 is still likely to be significantly less costly than Option 2 with the easement cost included. However, due to the uncertainty of being able to obtain and easement and due to the inferior flood control performance of this option, Option 2 is considered the better option. The cost for Option 3 is estimated to be $2.14 million. Because of its high cost and inferior flood control performance, and private property impacts, Option 3 is not recommended. Cost estimates for all three options are provided later in this chapter.

7.7 PROBLEM LOCATION 7

7.7.1 Description of Problem Location 7

Runoff on Denton Way flows to a low point in the street where a small storm drain collects the runoff and conveys it south through two residential lots. There is not an adequate overland release path for flows that exceed the capacity of the pipe system and flooding along the street has been reported. This problem location is shown on Figure 7-9.

7.7.2 Proposed Solution for Problem Location 7

The proposed solution for Problem Location 7 is to construct an overland release structure between Denton Way and Sun Hill Drive. The overland release structure would be constructed over the top of the existing storm drain within the existing drainage easement. A schematic of the proposed solution is shown on Figure 7-9. This solution was developed qualitatively and no hydraulic calculations were performed.

7.8 PROBLEM LOCATION 8

7.8.1 Description of Problem Location 8

Runoff is collected at a low point in Dana Butte Way at the intersection with Alma Mesa Way. A storm drain system conveys runoff west to Canelo Hills Drive. The storm drain system is too small and there have been several reports of street flooding at the low point in Dana Butte Way. This problem location is shown on Figure 7-10.

7.8.2 Proposed Solution for Problem Location 8

The recommended solution for Problem Location 8 is to replace the existing storm drains from the intersection of Dana Butte Way and Alma Mesa Way to the intersection of Canelo Hills Drive and San Cosme Drive. The existing 10-inch and 12-inch pipes will be replaced with a 15-inch pipe as shown on Figure 7-10. This solution was developed qualitatively and no hydraulic calculations were performed. Problem Location 9

7.8.3 Description of Problem Location 9

This problem location is shown on Figure 7-11. A storm drain system conveys runoff to the west end of Amsell Court where it continues through residential lots to Old Ranch Road. The storm drain continues north along Old Ranch Road, then west on Blayden Court and then between two lots at the turn on Blayden Court. From there it continues to the northwest to C-Bar-C Park. There is not an adequate overland release path at the west end of Amsell Court for flows that exceed the capacity of the pipe system. As a result, flooding has been reported at this location. The same problem occurs at the turn of Blayden Court and flooding has been reported there also.

7.8.4 Proposed Solution for Problem Location 9

Two options were developed for solving the problems at Location 9. A XP-SWMM model was prepared to analyze the two options. Both options are described below and a recommended option is identified.

7.8.4.1 Proposed Solution for Problem Location 9 – Option 1

For Option 1, a 24-inch pipe would be constructed from the end of Amsell Court to Old Ranch Road. This pipe would replace the existing 15-inch pipe. A 30-inch pipe would be constructed to replace the existing 24-inch pipe from the turn at Blayden Court to the existing junction/inlet located on the west side of the power line corridor. To mitigate for the potential increase in flows downstream of these pipe improvements, a detention basin would be constructed within the power line corridor west of Blayden Court. The detention basin would cover approximately 0.60 acres and would store a volume of approximately 1.2 acre-feet at the peak of the 100-year storm. Hydraulic modeling indicates that this option would eliminate the predicted 100-year pad flooding at both Amsell Court and Blayden Court without increasing flood flows downstream. This option is shown on Figure 7-12A.

7.8.4.2 Proposed Solution for Problem Location 9 – Option 2

For Option 2, underground detention storage would be constructed in Amsell Court in the form of 400 feet of 36-inch pipe. A weir structure would be constructed at the existing manhole at the end of the court. During large storm events when the existing pipe system begins to surcharge, flows would spill over the weir into the 36-inch pipe. A flapgate on the end of the 36-inch pipe would prevent flows from entering the pipe except from over the weir, but would allow the pipe to empty when the storm recedes.

A 30-inch pipe would be constructed to replace the existing 24-inch pipe from the turn at Blayden Court to the east side of the power line corridor. To mitigate for the potential increase in flows downstream of these pipe improvements, a detention basin would be constructed within the power line corridor. Because of the underground storage constructed in Amsell Court, the size of this detention basin is reduced for Option 2. The detention basin would cover approximately 0.4 acres and would store a volume of approximately 0.9 acre-feet at the peak of the 100-year storm.

Hydraulic modeling indicates that this option would eliminate the predicted 100-year pad flooding at both Amsell Court and Blayden Court without increasing flood flows downstream. This option is shown on Figure 7-12B.

7.8.4.3 Recommended Solution for Problem Location 9

It is recommended that Option 2 be implemented to solve the problem at location 9. Both options would provide adequate flood protection, but Option 2 is less costly. The estimated implementation costs for Options 1 and 2 are $495,000 and $417,000, respectively, without the cost of an easement for the detention basin. Because Option 2 requires less land for the detention basin, the cost differential will be even larger when the cost of an easement is included.

7.9 PROBLEM LOCATION 11

7.9.1 Description of Problem Location 11

This problem location is shown on Figure 7-13. The storm drainage system at this problem location consists of a combination of underground pipes, channels, and roadside ditches. The existing system is inadequately sized and property flooding has been reported on Bonita Way and Dow Avenue during large storms.

7.9.2 Proposed Solution for Problem Location 11

As shown on Figure 7-13, the recommended solution for Problem Location 11 is to construct a new 30-inch storm drain along Maretha Street and Bonita Way, and a 42-inch storm drain along Old Auburn Road. On Maretha Street, the new 30-inch pipe will replace an existing 15-inch drain. The existing pipe that drains west along Dow Avenue will be plugged at the new manhole at the intersection of Maretha Street and Dow Avenue. On the west side of Maretha Street the existing curb will be extended north to Dow Avenue and along Dow Avenue to a new inlet and 12-inch pipe that will collect runoff and convey it to the existing drain in Dow Avenue. Alternatively, a ditch could be constructed. The purpose of the curb and gutter or ditch is to convey flow that exceed the pipe capacity in Maretha Street into the Dow Avenue Storm Drain without flowing across the property at the southwest corner of the intersection. The existing roadside ditch along Bonita Way will remain and will be used to collect runoff from the adjacent lots and to convey flows in excess of the pipe capacity during very large storm events. On Old Auburn Road, the 42-inch pipe will replace the existing ditch that is currently eroding and is planned to be filled by the City.

7.10 PROBLEM LOCATION 12

7.10.1 Description of Problem Location 12

This problem location is shown on Figure 7-14. An existing 15-inch pipe collects runoff at Minnesota Drive and coveys it west to a ditch system near Anderson Lane. The pipe is inadequately sized for large storm events and the overland release path is inadequate to convey flows in excess of the pipe capacity. The ditch system that begins near Anderson Lane conveys runoff west to a pipe system that begins just west of Canady Lane. The ditch system also lacks capacity for larger storm events and structure flooding has occurred at several locations. In addition, both Anderson Lane and Canady Lane receive runoff from adjacent properties. Because there are inadequate conveyance facilities along these roads (e.g., curb and gutter or road side ditch), during large storm events, runoff crosses the road and flows through properties on the opposite side of the road causing property flooding.

7.10.2 Proposed Solution for Problem Location 12

As shown on Figure 7-14, the proposed solution for this problem location includes a 24-inch pipe that will convey runoff from Minnesota Drive to the west. This pipe will replace the existing 15-inch pipe and is sized to convey the 100-year peak flow without causing overland flow through the adjacent properties. The 24-inch pipe will discharge to a new detention basin to be constructed on the east side of Anderson Lane. The detention basin would cover approximately 0.36 acres and would store a volume of approximately 1.0 acre-foot at the peak of the 100-year storm. Runoff will be discharged from the detention basin through the existing 18-inch culvert under Anderson Lane plus a new 18-inch culvert. At Canady Lane, flow in the ditch will be directed to a new 36-inch drain that will convey runoff to the north along the road before turning west. The 36-inch pipe will connect to an existing storm drain manhole located in the backyard of a property on Saginaw Way. To help reduce the peak flows discharged to the existing storm drain system, a 60-inch pipe will be constructed in Canady Lane. A diversion structure will prevent flow from the 36-inch pipe from entering the 60-inch pipe until the 36-inch pipe begins to surcharge during larger storm events. Then flows will be diverted into the pipe, which will act as an underground detention basin to reduce the peak flows continuing to the west from Canady Lane. During very large storm events, some overland flow is expected along the existing pipe system that passes along the side yard of a lot on Saginaw Way. Therefore, an overland release structure is proposed along the side yard of this lot. Finally, it is proposed that curb and gutter or roadside ditches be constructed along at least one side of Anderson and Canady Lanes to prevent runoff from crossing the road and flooding adjacent properties.

7.11 COST ESTIMATES FOR PROPOSED SOLUTIONS

Implementation cost estimates were prepared for the drainage improvements discussed above. Implementation costs include estimates of construction, contingencies, and other project costs. The cost estimates presented in this chapter are master planning level accuracy and are for decision making and budgeting purposes only. As projects advance through preliminary design and preparation of plans and specifications, estimates can be made in more detail to greater accuracy. The major assumptions used to estimate costs for the drainage improvements are listed below.

- Unit costs are based on current construction costs. (July 2015 ENR 20 Cities CCI of 10037).
- The unit costs used to determine construction costs were based on cost data from recently constructed projects, manufacturer quotes, estimating guides, engineering judgment, and input from City staff.
- For pipelines proposed within existing streets, costs include repairing the pavement. For estimating these costs, it was assumed that the width of the trench would be equal to the inside diameter of the pipe plus two feet.
- The cost of raising homes (Problem Location 6 – Option 3) was based on the costs per square foot used for the Benefit/Cost Analysis for Raising Residential Structures in the Beach Stone Lakes Area, Ensign & Buckley, June 1996 escalated to current cost levels. The costs in that report were based on the average cost to raise 16 structures along Dry Creek in Sacramento County in the 1990s. Actual costs can vary significantly based on site specific conditions.
- Land acquisition costs were not included. These costs will require negotiation between the property owner and the City and it may not be desirable to publish an assumed land value prior to negotiations.
- A contractor's mobilization/demobilization cost of 5 percent was included as part of the construction cost.
- A construction contingency of 20 percent was included to account for the planning level uncertainties (e.g., utility relocations, etc.) and construction cost uncertainties associated with the estimates.
- The following mark-ups were added to the total construction cost to obtain the estimated total project implementation cost or capital cost.
  - Planning & Design at 10 percent
  - Construction Management at 10 percent
  - Environmental Permits and Mitigation at 5 percent
  - Program Management at 5 percent

The soft cost percentages above may not be appropriate for small projects. For this study, it is assumed that small projects will be bundled with larger ones during the design and construction phases to achieve better cost efficiency.

A summary of the estimated costs for the proposed solutions for each problem location are presented on Table 7-1. Detailed cost estimates for each of the proposed solutions are provided on Table 7-2.

Table 7-1. Summary of Capital Cost Estimates for Proposed Solutions

Item	Estimated Total Project Capital Cost, dollars
Problem Location 1 Solution	8,000
Problem Location 2 Solution	9,000
Problem Locations 3 and 4 Solution (Option 2)	878,000
Problem Location 5 Solution	90,000
Problem Locations 6 and 10 Solution (Option 2)	1,425,000
Problem Location 7 Solution	70,000
Problem Location 8 Solution	117,000
Problem Location 9 Solution (Option 2)	417,000
Problem Location 11 Solution	1,060,000
Problem Location 12 Solution	871,000
Total Estimated Cost of all Solutions	**$4,945,000**

Table 7-2. Cost Estimates for Proposed Solutions

Item	Quantity	Unit of Measure	Unit Cost, dollars	Item Cost, dollars
Problem Location 1 Solution				
12-Inch Storm Drain	32	ft	84	2,688
Ditch Grading	1	lump sum	2,200	2,200
Mobilization/demobilization (at 5 percent)				200
Construction Contingency (at 20 percent)				1,000
Estimated Construction Cost				6,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				2,000
Estimated Capital Cost				**8,000**
Problem Location 2 Solution				
Install Under Sidewalk Drain	1	lump sum	5,500	5,500
Mobilization/demobilization (at 5 percent)				300
Construction Contingency (at 20 percent)				1,000
Estimated Construction Cost				7,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				2,000
Estimated Capital Cost				**9,000**
Problem Locations 3 and 4 Solution - Option 1				
12-Inch Storm Drain	96	ft	84	8,064
15-Inch Storm Drain	30	ft	105	3,150
21-Inch Storm Drain	462	ft	147	67,914
24-Inch Storm Drain	580	ft	168	97,440
Valley Gutter	1,090	ft	33	36,115
Drain Inlets	7	each	4,600	32,200
Maintenance Holes	3	each	5,500	16,500
Outfall Structure	1	each	5,700	5,700
Existing Pavement Repair	4,400	sf	9	39,600
Overland Flow Structure	110	ft	177	19,470
Mobilization/demobilization (at 5 percent)				16,000
Construction Contingency (at 20 percent)				65,000
Estimated Construction Cost				407,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				122,000
Estimated Capital Cost				**529,000**
Problem Locations 3 and 4 Solution - Option 2				
12-Inch Storm Drain	96	ft	84	8,064
15-Inch Storm Drain	30	ft	105	3,150
21-Inch Storm Drain	86	ft	147	12,642
27-Inch Storm Drain	670	ft	189	126,630
30-Inch Storm Drain	956	ft	210	200,760
AC Ditch	1,090	ft	30	32,700
Drain Inlets	7	each	4,600	32,200
Maintenance Holes	5	each	5,500	27,500
Outfall Structure	1	each	5,700	5,700
Existing Pavement Repair	7,900	sf	9	71,100
Overland Release Structure	110	ft	177	19,470
Mobilization/demobilization (at 5 percent)				27,000
Construction Contingency (at 20 percent)				108,000
Estimated Construction Cost				675,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				203,000
Estimated Capital Cost				**878,000**
Problem Location 5 Solution				
24-Inch Storm Drain	194	ft	168	32,592
Drain Inlets	1	each	4,600	4,600
Maintenance Holes	1	each	5,500	5,500
Outfall Structure	1	each	5,700	5,700
Existing Pavement Repair	75	sf	9	675
Miscellaneous Items (related to private property impacts)	1	lump sum	5,500	5,500
Mobilization/demobilization (at 5 percent)				3,000
Construction Contingency (at 20 percent)				11,000
Estimated Construction Cost				69,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				21,000
Estimated Capital Cost				**90,000**
Problem Locations 6 and 10 Solution - Option 1				
18-Inch Storm Drain	363	ft	126	45,738
21-Inch Storm Drain	102	ft	147	14,994
36-Inch Storm Drain	410	ft	252	103,320
Maintenance Holes	5	each	5,500	27,500
Outfall Structure	1	each	5,700	5,700
Diversion Structure and Inlet/Outlet	1	each	11,000	11,000
Existing Pipe Disposal	690	lf	10	6,900
Existing Pavement Repair	380	sf	9	3,420
Excavation & Disposal	10,500	cy	15	157,500
Turf Replacement	56,600	sf	0.38	21,508
Irrigation Replacement	1.3	acre	25,000	32,500
Mobilization/demobilization (at 5 percent)				22,000
Construction Contingency (at 20 percent)				86,000
Estimated Construction Cost				538,000
Land/Easement	1.3	acre	TBD	TBD
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				161,000
Estimated Capital Cost				**699,000**

Table 7-2. Cost Estimates for Proposed Solutions

Item	Quantity	Unit of Measure	Unit Cost, dollars	Item Cost, dollars
Problem Locations 6 and 10 Solution - Option 2				
36-Inch Storm Drain	220	ft	252	55,440
42-Inch Storm Drain	1,975	ft	294	580,650
Drain Inlets	4	each	4,200	16,800
Maintenance Holes	9	each	5,500	49,500
Outfall Structure	1	each	5,700	5,700
Existing Pipe Disposal	1,419	lf	10	14,190
Existing Pavement Repair	8,870	sf	9	79,830
Utility Relocation	1	lump sum	75,000	75,000
Mobilization/demobilization (at 5 percent)				44,000
Construction Contingency (at 20 percent)				175,000
Estimated Construction Cost				1,096,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				329,000
Estimated Capital Cost				**1,425,000**
Problem Locations 6 and 10 Solution - Option 3				
36-Inch Storm Drain	410	ft	252	103,320
2'x12' Box	450	ft	800	360,000
Maintenance Holes	4	each	5,500	22,000
Outfall Structure	1	each	5,700	5,700
Weir Box Structure	1	each	8,800	8,800
Existing Pavement Repair	8,350	sf	9	75,150
Raise Homes	13,740	sf	54	741,960
Mobilization/demobilization (at 5 percent)				66,000
Construction Contingency (at 20 percent)				263,000
Estimated Construction Cost				1,646,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				494,000
Estimated Capital Cost				**2,140,000**
Problem Location 7 Solution				
Overland Release Structure	210	ft	177	37,170
Miscellaneous Items (related to private property impacts)	1	lump sum	5,500	5,500
Mobilization/demobilization (at 5 percent)				2,000
Construction Contingency (at 20 percent)				9,000
Estimated Construction Cost				54,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				16,000
Estimated Capital Cost				**70,000**
Problem Location 8 Solution				
15-Inch Storm Drain	535	ft	105	56,175
Existing Pavement Repair	1,750	sf	9	15,750
Mobilization/demobilization (at 5 percent)				4,000
Construction Contingency (at 20 percent)				14,000
Estimated Construction Cost				90,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				27,000
Estimated Capital Cost				**117,000**
Problem Location 9 Solution - Option 1				
24-Inch Storm Drain	390	ft	168	65,520
30-Inch Storm Drain	548	ft	210	115,080
Drain Inlets	2	each	4,600	9,200
Maintenance Holes	2	each	5,500	11,000
Inlet/Outlet Structure	1	each	5,700	5,700
Fence Removal/Replacement	40	ft	22	880
Existing Pipe Disposal	938	ft	10	9,380
Existing Pavement Repair	200	sf	9	1,800
Overland Release Reconstruction	140	ft	200	28,000
Miscellaneous Items (related to private property impacts)	1	lump sum	5,500	5,500
Excavation & Disposal	3,300	cy	15	49,500
Hydroseeding	0.6	acre	5,500	3,300
Mobilization/demobilization (at 5 percent)				15,000
Construction Contingency (at 20 percent)				61,000
Estimated Construction Cost				381,000
Land/Easement	0.6	acre	TBD	TBD
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				114,000
Estimated Capital Cost				**495,000**
Problem Location 9 Solution - Option 2				
30-Inch Storm Drain	180	ft	210	37,800
36-Inch Storm Drain	400	ft	252	100,800
Drain Inlets	1	each	4,600	4,600
Maintenance Holes	3	each	5,500	16,500
Weir Box Structure	1	each	8,800	8,800
Inlet/Outlet Structure	1	each	5,700	5,700
Fence Removal/Replacement	20	ft	20	400
Existing Pipe Disposal	180	ft	10	1,800
Existing Pavement Repair	2,000	sf	9	18,000
Overland Release Reconstruction	140	ft	200	28,000
Miscellaneous Items (related to private property impacts)	1	lump sum	5,500	5,500
Excavation & Disposal	1,800	cy	15	27,000
Hydroseeding	0.4	acre	5,500	2,035
Mobilization/demobilization (at 5 percent)				13,000
Construction Contingency (at 20 percent)				51,000
Estimated Construction Cost				321,000
Land/Easement	0.6	acre	TBD	TBD
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				96,000
Estimated Capital Cost				**417,000**

Table 7-2. Cost Estimates for Proposed Solutions

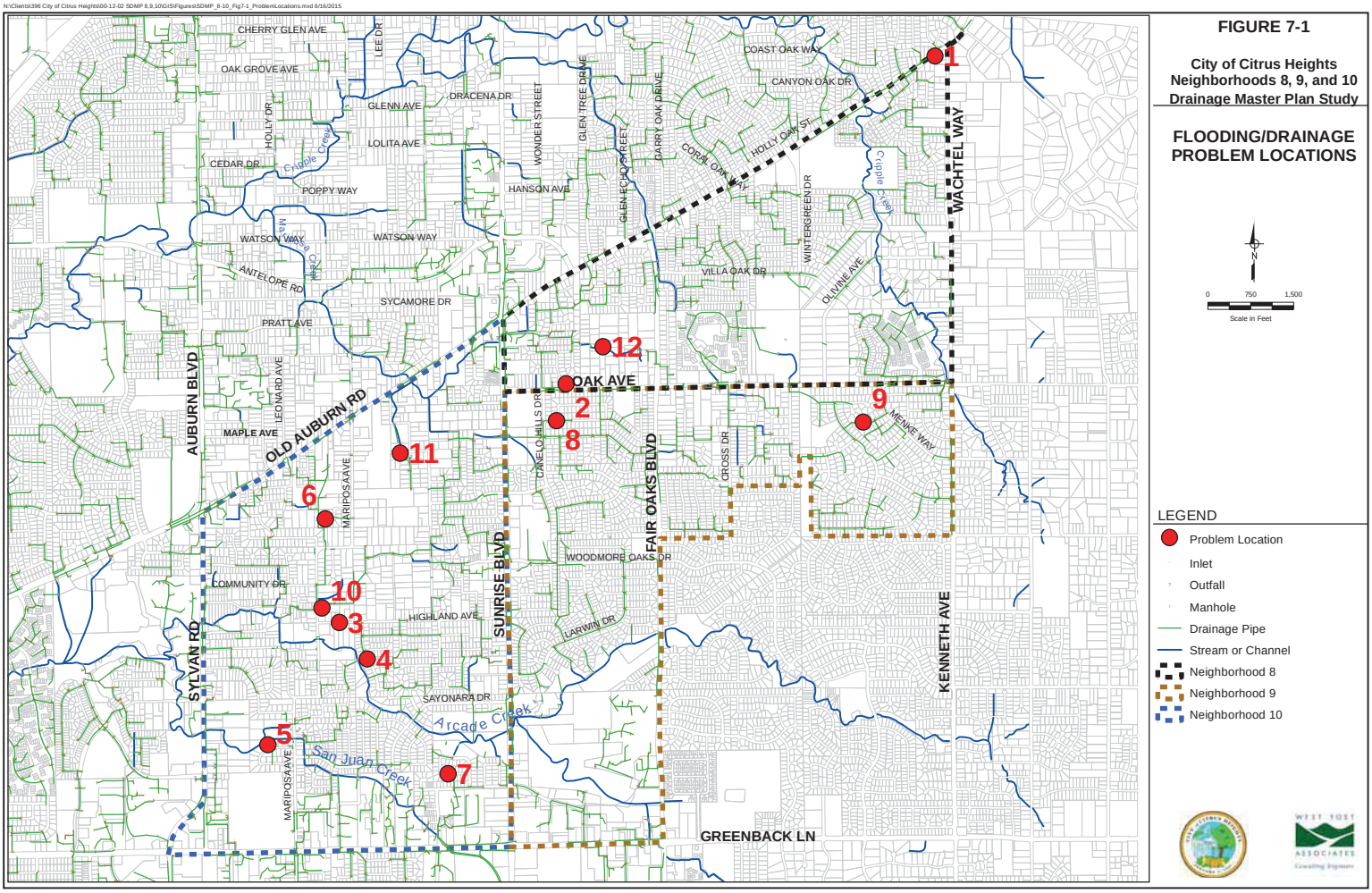
Item	Quantity	Unit of Measure	Unit Cost, dollars	Item Cost, dollars
Problem Location 11 Solution				
12-Inch Storm Drain	130	ft	84	10,920
30-Inch Storm Drain	1,725	ft	210	362,250
42-Inch Storm Drain	400	ft	294	117,600
Drain Inlets	6	each	4,600	27,600
Maintenance Holes	8	each	5,500	44,000
Inlet/Outlet Structure	1	each	5,700	5,700
Existing Pipe Disposal	222	ft	10	2,220
Existing Pavement Repair	7,605	sf	9	68,445
Curb and Gutter	233	lf	55	12,815
Mobilization/demobilization (at 5 percent)				33,000
Construction Contingency (at 20 percent)				130,000
Estimated Construction Cost				815,000
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				245,000
Estimated Capital Cost				**1,060,000**
Problem Location 12 Solution				
18-Inch Storm Drain	30	ft	126	3,780
24-Inch Storm Drain	244	ft	168	40,992
36-Inch Storm Drain	300	ft	252	75,600
60-Inch Storm Drain	500	ft	420	210,000
Drain Inlets	4	each	4,600	18,400
Maintenance Holes	2	each	5,500	11,000
Diversion Structure and Inlet/Outlet	1	each	11,000	11,000
Existing Pipe Disposal	370	ft	10	3,700
Existing Pavement Repair	6,700	sf	9	60,300
Curb and Gutter	925	lf	55	50,875
Overland Release Structure	115	ft	177	20,355
Miscellaneous Items (related to private property impacts)	1	lump sum	5,500	5,500
Excavation & Disposal	1,530	cy	15	22,950
Hydroseeding	0.4	acre	5,500	1,980
Mobilization/demobilization (at 5 percent)				27,000
Construction Contingency (at 20 percent)				107,000
Estimated Construction Cost				670,000
Land/Easement	0.4	acre	TBD	TBD
Engineering, CM/Insp, CEQA, City Admin (At 30 percent, see Note 1)				201,000
Estimated Capital Cost				**871,000**

Notes:

1) Soft costs include and allowance of 30 percent comprised of the following:
   - Planning and design at 10 percent of the construction cost
   - Construction management at 10 percent of the construction cost
   - Environmental permits and mitigation at 5 percent of the construction cost
   - Program management (City administration during design and construction) at 5 percent

2) The unit costs and soft cost percentages are based on the assumption that small projects will be bundled with larger projects to achieve better cost efficiency.

3) Costs are for July 2015 ENRCCI 20 City Average 10,037.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CHERRY GLEN AVE
OAK GROVE AVE
LEE DR
GLENN AVE
DRACENA DR
HOLLY DR
LOLITA AVE
CEDAR DR
Cripple Creek
POPPY WAY
WONDER STREET
HANSON AVE
GLEN TREE DRIVE
GLEN ECHO STREET
GARRY OAK DRIVE
COAST OAK WAY
CANYON OAK DR
CORAL OAK WAY
HOLLY OAK ST
WINTERGREEN DR
OLIVINE AVE
WACHTEL WAY
WATSON WAY
WATSON WAY
Mariposa Creek
ANTELOPE RD
SYCAMORE DR
VILLA OAK DR
PRATT AVE
AUBURN BLVD
LEONA RD AVE
OAK AVE
OLD AUBURN RD
MAPLE AVE
MARIPOSA AVE
CANELO HILLS DR
FAIR OAKS BLVD
CROSS DR
MENKE WAY
WOODMORE OAKS DR
COMMUNITY DR
HIGHLAND AVE
SUNRISE BLVD
LARWIN DR
SYLVAN RD
SAYONARA DR
Arcade Creek
San Juan Creek
MARIPOSA AVE
KENNETH AVE
GREENBACK LN
1
2
3
4
5
6
7
8
9
10
11
12
FIGURE 7-1
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
FLOODING/DRAINAGE
PROBLEM LOCATIONS
N
0
750
1,500
Scale in Feet
LEGEND
Problem Location
Inlet
Outfall
Manhole
Drainage Pipe
Stream or Channel
Neighborhood 8
Neighborhood 9
Neighborhood 10

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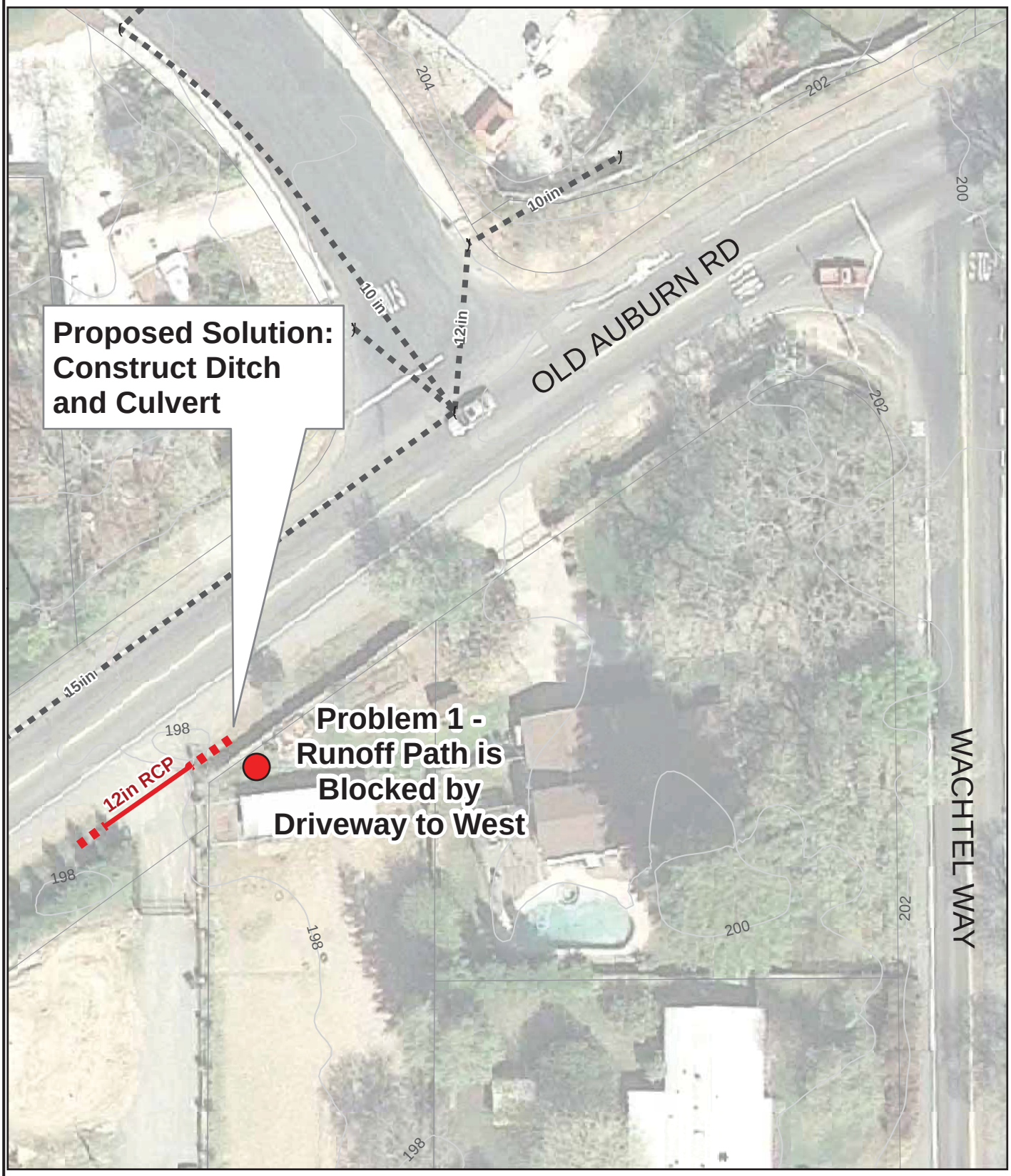

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline
- Proposed Ditch

N

0 20 40

Scale in Feet

Figure 7-2

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 1
and Proposed Solution

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain

N

0 20 40

Scale in Feet

Figure 7-3

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 2 and Proposed Solution

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Consulting Engineers

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Figure 7-4

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Locations 3 and 4

N

0 75 150

Scale in Feet

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)

Figure 7-5A

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Locations 3 and 4 Proposed Solution Option 1

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Proposed Inlet
- Proposed Outfall
- Proposed Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain
- Proposed Pipeline or Drain for Problem Location 10
- Proposed Ditch Replacement
- Proposed Overland Release

Figure 7-5B

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Locations 3 and 4 Proposed Solution Option 2

N

0 75 150

Scale in Feet

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Proposed Inlet
- Proposed Outfall
- Proposed Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain
- Proposed Pipeline or Drain for Problem Location 10
- Proposed Ditch Replacement
- Proposed Overland Release

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain

N

0 50 100

Scale in Feet

Figure 7-6

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 5 and Proposed Solution

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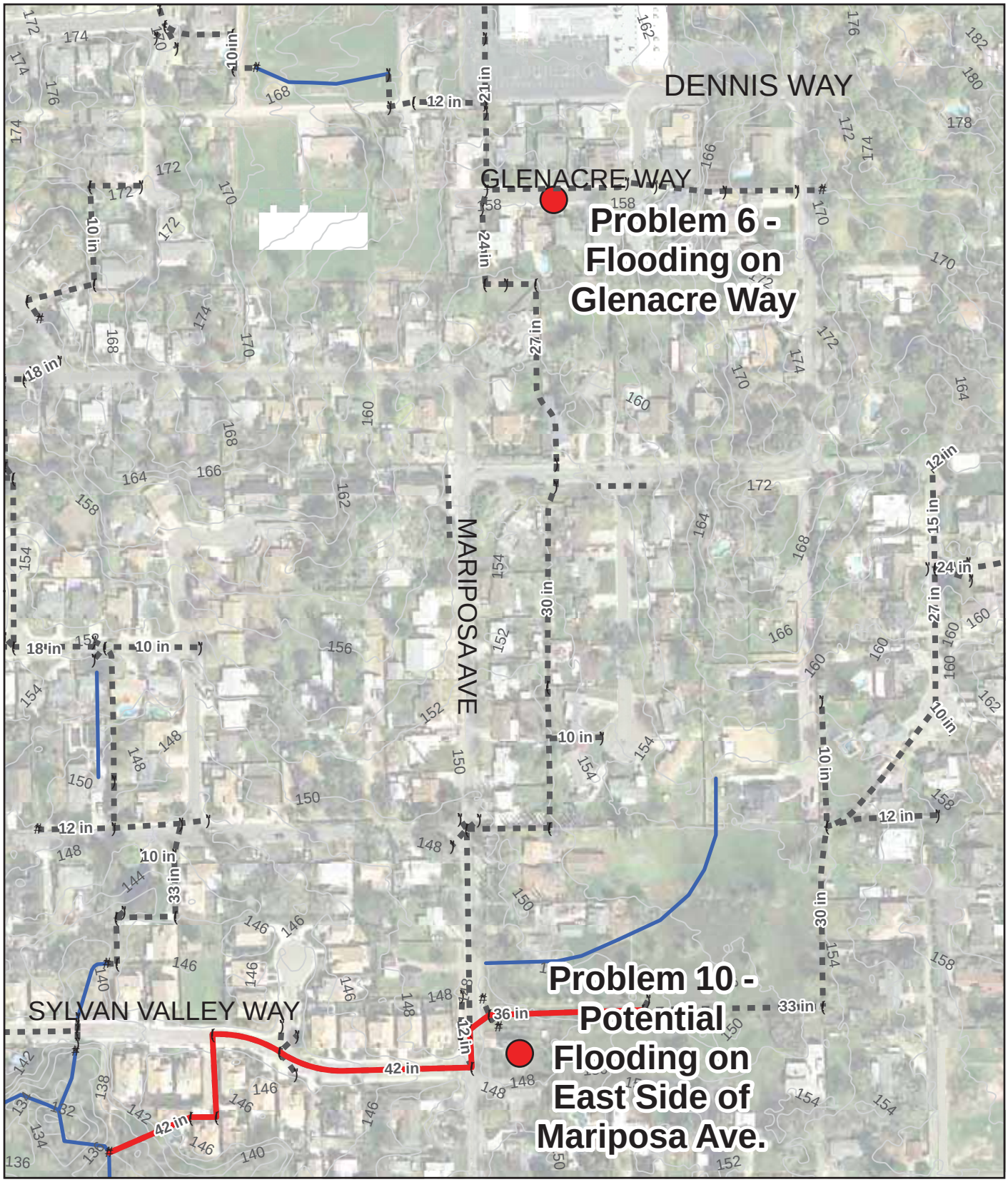

LEGEND

- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Stream or Channel
- Trunk Pipe SD6

N

0 125 250

Scale in Feet

Figure 7-7

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Locations 6 and 10

WEST YOST ASSOCIATES Consulting Engineers

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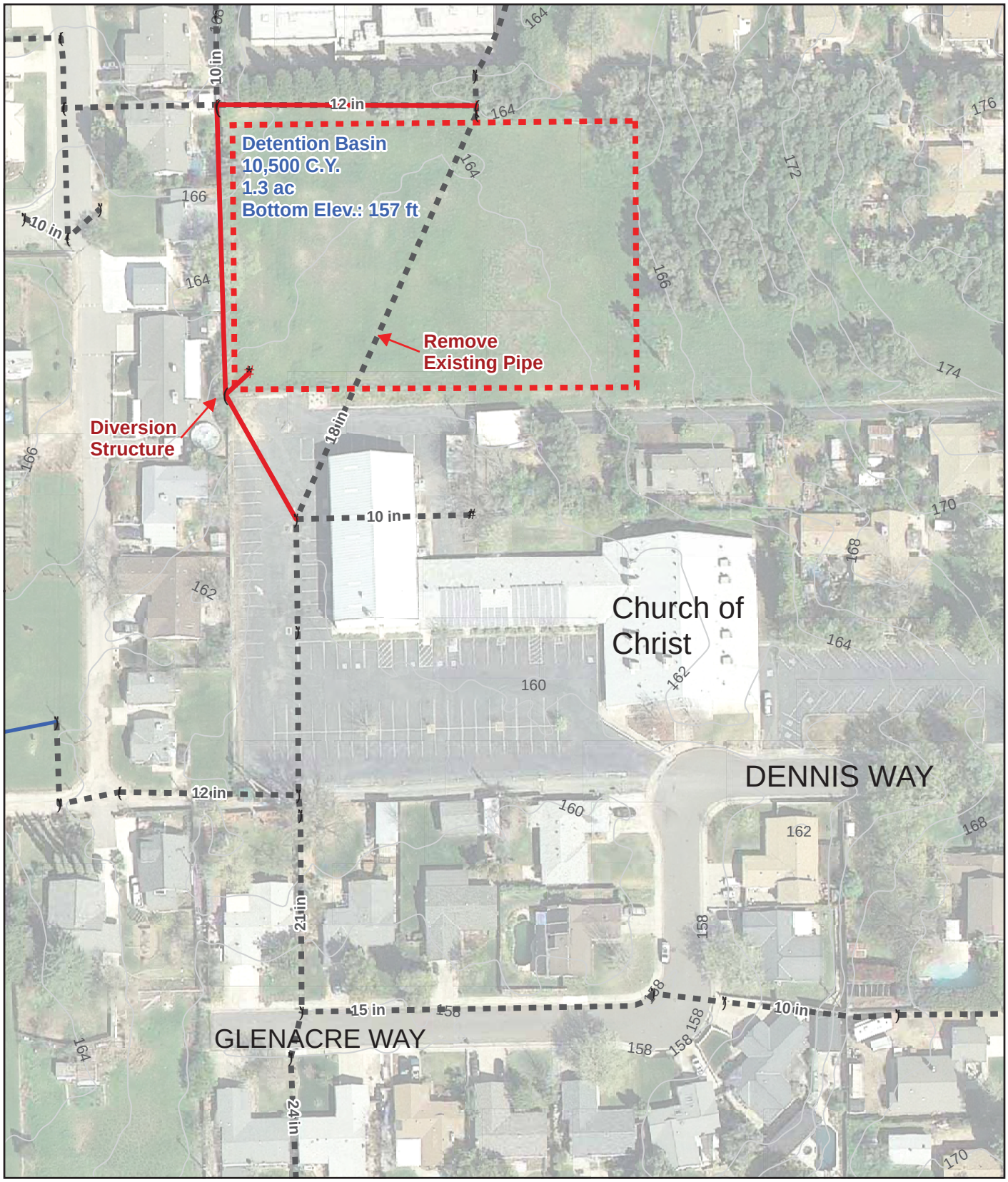

LEGEND

- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Proposed Pipeline or Drain
- Proposed Manhole
- Proposed Outfall
- Proposed Detention Basin
- Elevation Contour (NAVD88)

N

0 50 100

Scale in Feet

Figure 7-8A

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 6 Proposed Solution - Option 1

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Proposed Pipeline or Drain
- Proposed Inlet
- Proposed Outfall
- Proposed Manhole
- Elevation Contour (NAVD88)

N

0 150 300

Scale in Feet

Figure 7-8B

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Locations 6 and 10
Proposed Solution - Option 2

WEST YOST ASSOCIATES Consulting Engineers

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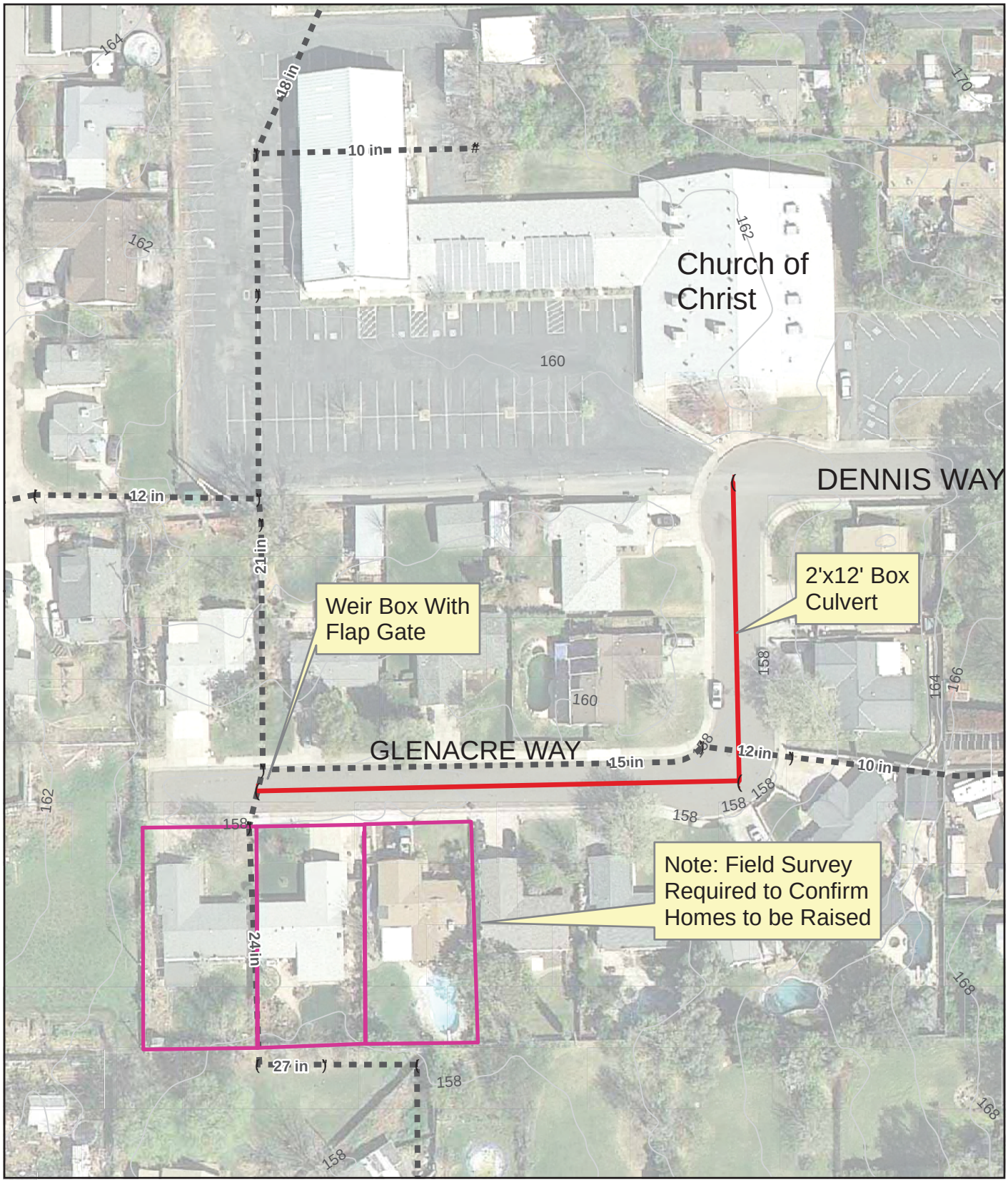

LEGEND

- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Proposed Manhole
- Proposed Outfall
- Elevation Contour (NAVD88)
- Raise Homes

N

0 50 100

Scale in Feet

Figure 7-8C

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Locations 6 and 10 Proposed Solution - Option 3

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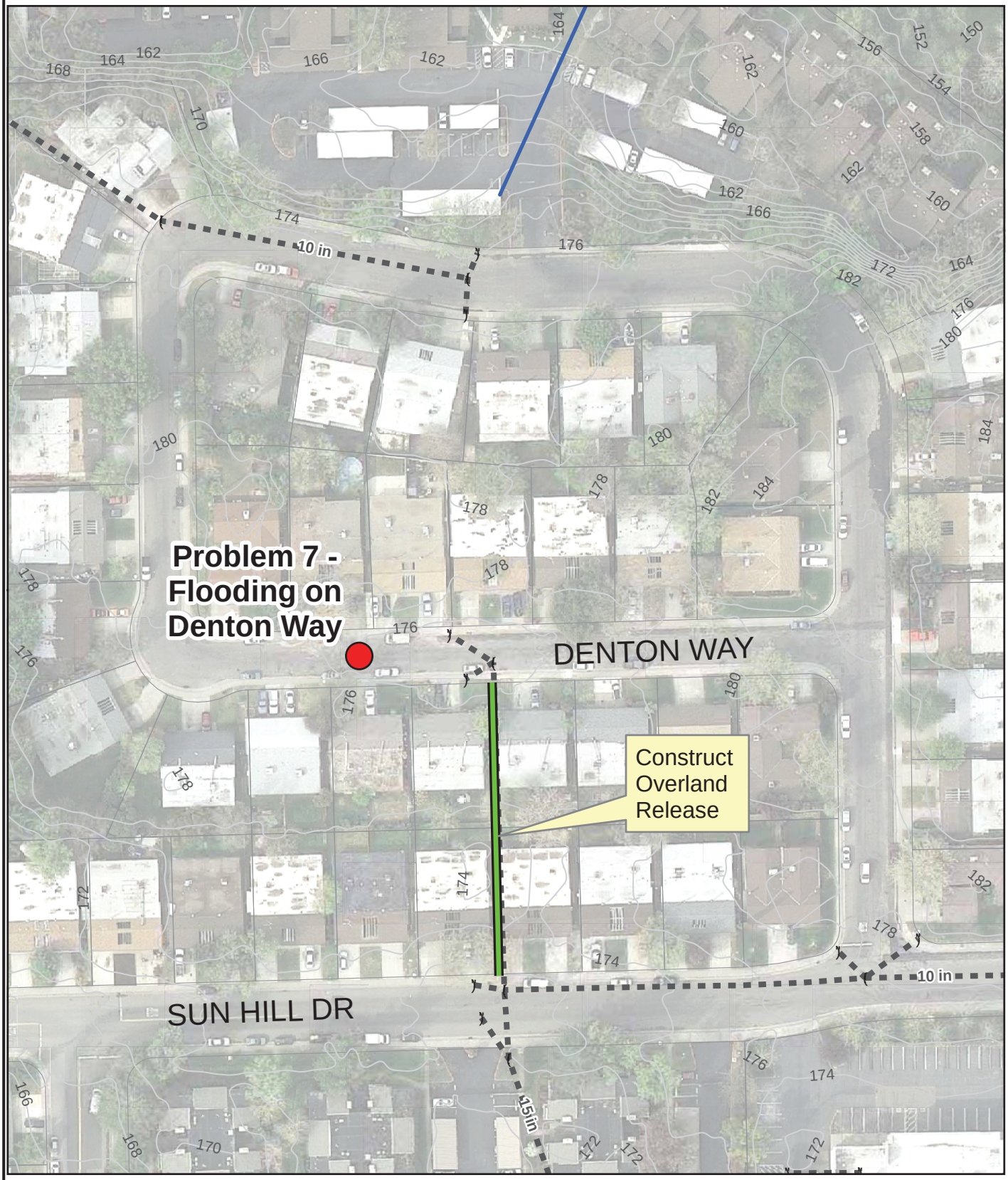

LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Overland Release

N

0 50 100

Scale in Feet

Figure 7-9

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 7
Proposed Solution

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAVD88)
- Proposed Pipeline or Drain

N

0 50 100

Scale in Feet

Figure 7-10

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 8 Proposed Solution

WEST YOST ASSOCIATES Consulting Engineers

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LEGEND

- Stream or Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole
- Elevation Contour (NAV88)

N

0 100 200

Scale in Feet

Figure 7-11

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 9

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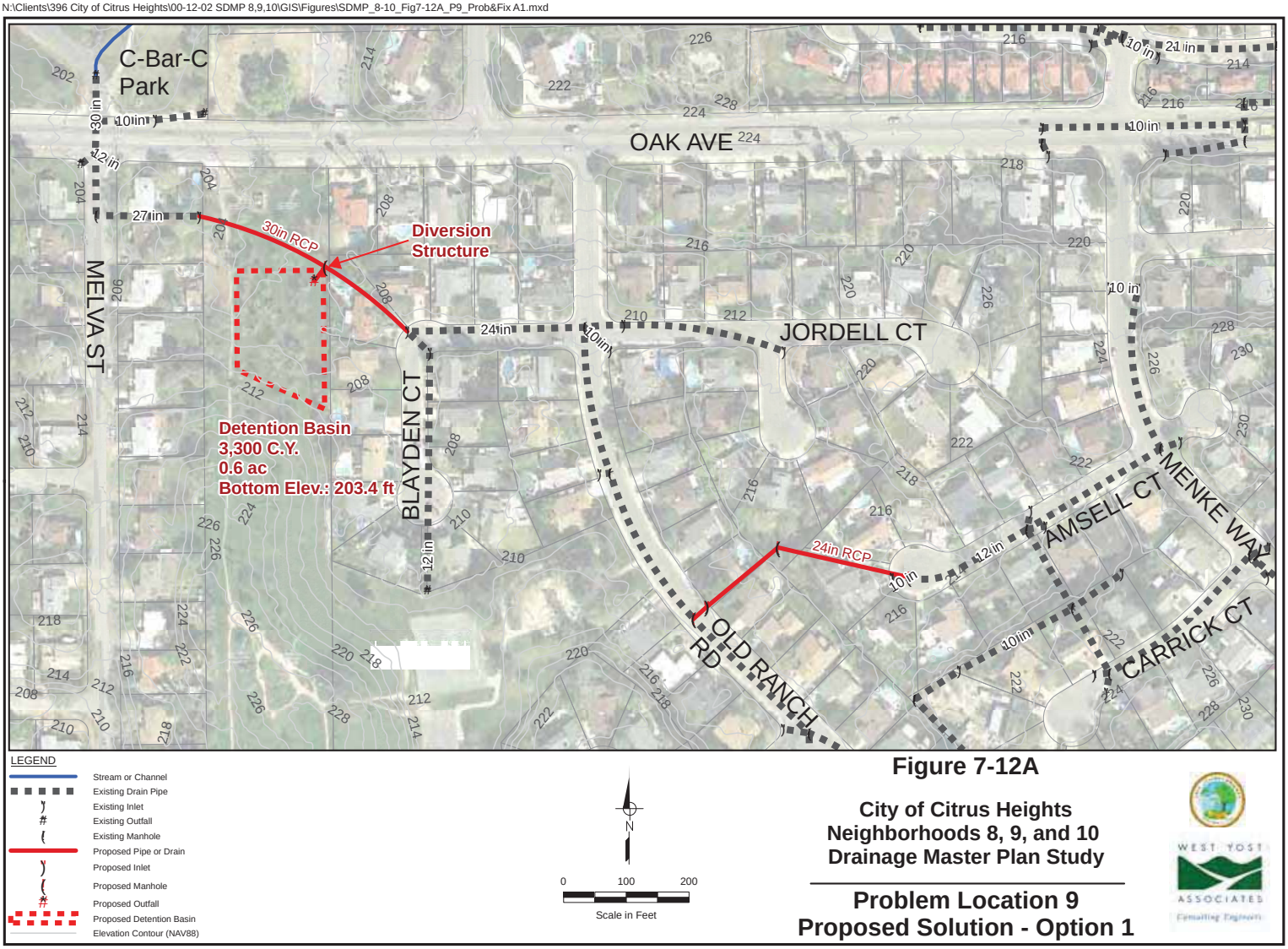

Figure 7-12A

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 9
Proposed Solution - Option 1

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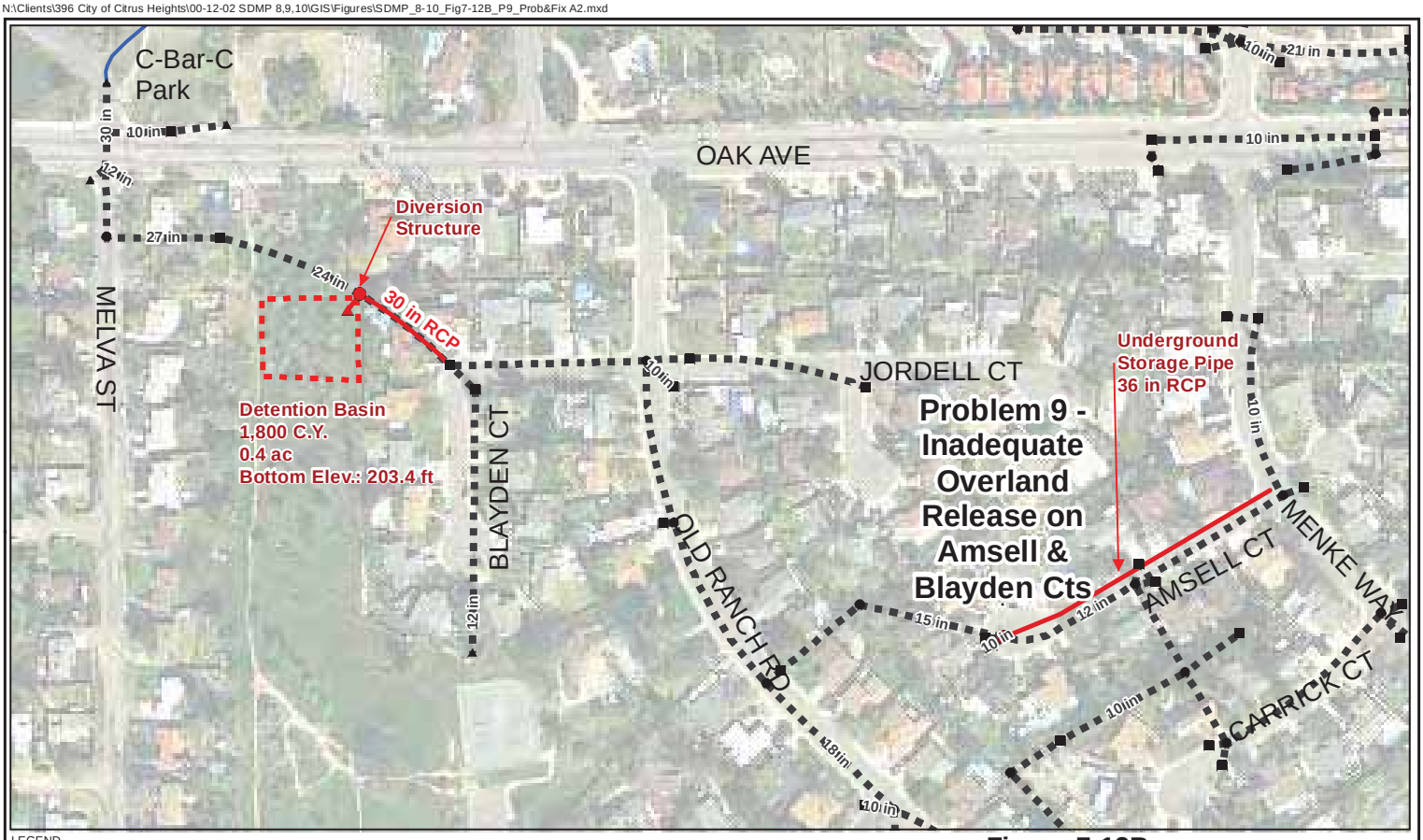
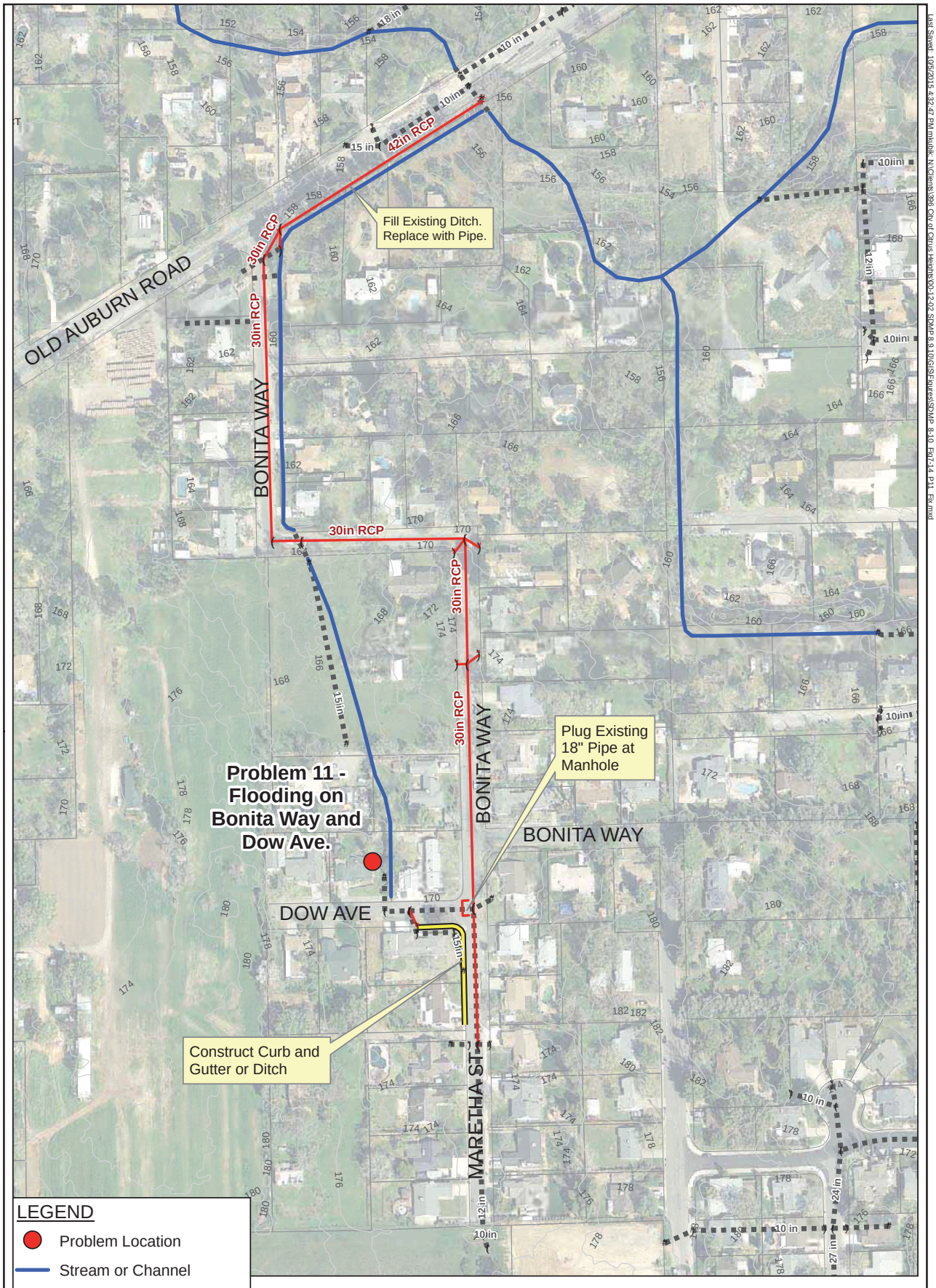


Figure 7-12B

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 9
Proposed Solution - Option 2



DRAFT **FIGURE 7-13**

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 11 and Proposed Solution

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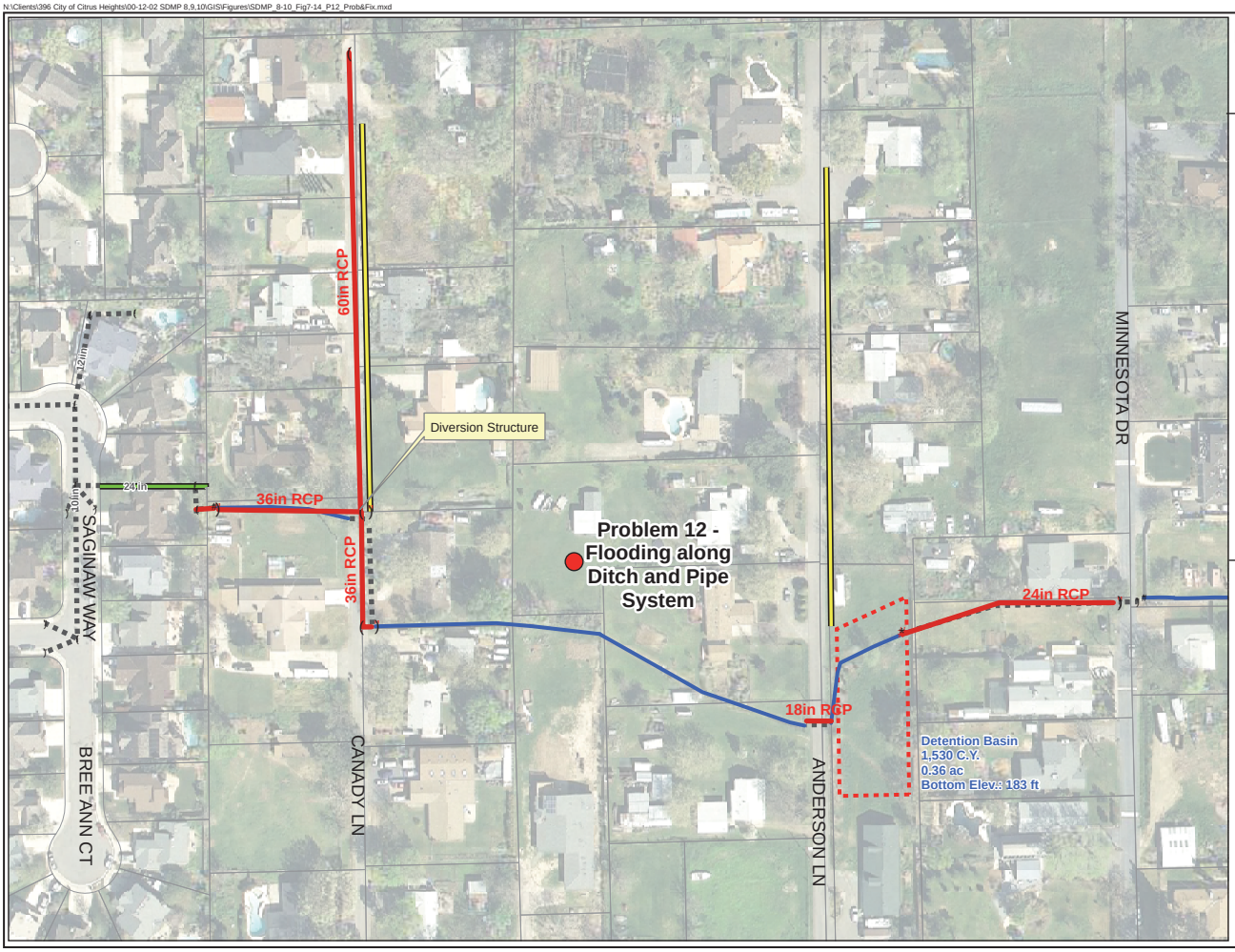


DRAFT **Figure 7-14**

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 12 and Proposed Solution

N

0 50 100

Scale in Feet

LEGEND

- Elevation Contour (NAVD88)
- Stream or Channel
- Existing Drain Pipe
- Proposed Pipe or Drain
- Proposed Detention Basin
- Proposed Overland Release
- Proposed Ditch or Gutter
- Proposed Inlet
- Proposed Outfall
- Proposed Manhole

CHAPTER 8
Capital Improvement Program

The flooding and drainage problems and recommended solutions have been described in previous chapters. This chapter provides a summary of the recommended capital improvements, the cost of the improvements, and the priorities for the implementation of the improvements based on the criteria described below.

8.1 PRIORITIZATION CRITERIA

The recommended capital improvements have been separated into three categories: high priority; medium priority; and low priority. The criteria used to define the priority of a given set of improvements are as follows:

8.1.1 High Priority Improvements

The high priority improvements include those that address potential structure flooding, threats to health and safety, serious traffic hazards, and those that have a very high benefit to cost ratio. The benefit-cost ratios were determined qualitatively; formal determinations of damages and benefits were not performed.

8.1.2 Medium Priority Improvements

Medium priority improvements include those that address potential flooding of lesser structures (e.g., garages, outbuildings), chronic ponding over significant areas, and problems that require excessive maintenance.

8.1.3 Low Priority Improvements

Low priority improvements include those that address minor or occasional ponding and nuisance drainage issues.

8.2 CAPITAL IMPROVEMENT PROGRAM

Costs for recommended capital improvements within each priority classification are presented in Table 8-1. Also shown in the table are the estimated implementation dates for the improvements. As indicated previously in this report, the cost estimates presented in the table are master planning level estimates suitable for decision making and budgeting purposes only. More detailed cost estimates need to be prepared to a greater level of accuracy as the projects advance to the design stage and more detailed information is developed.

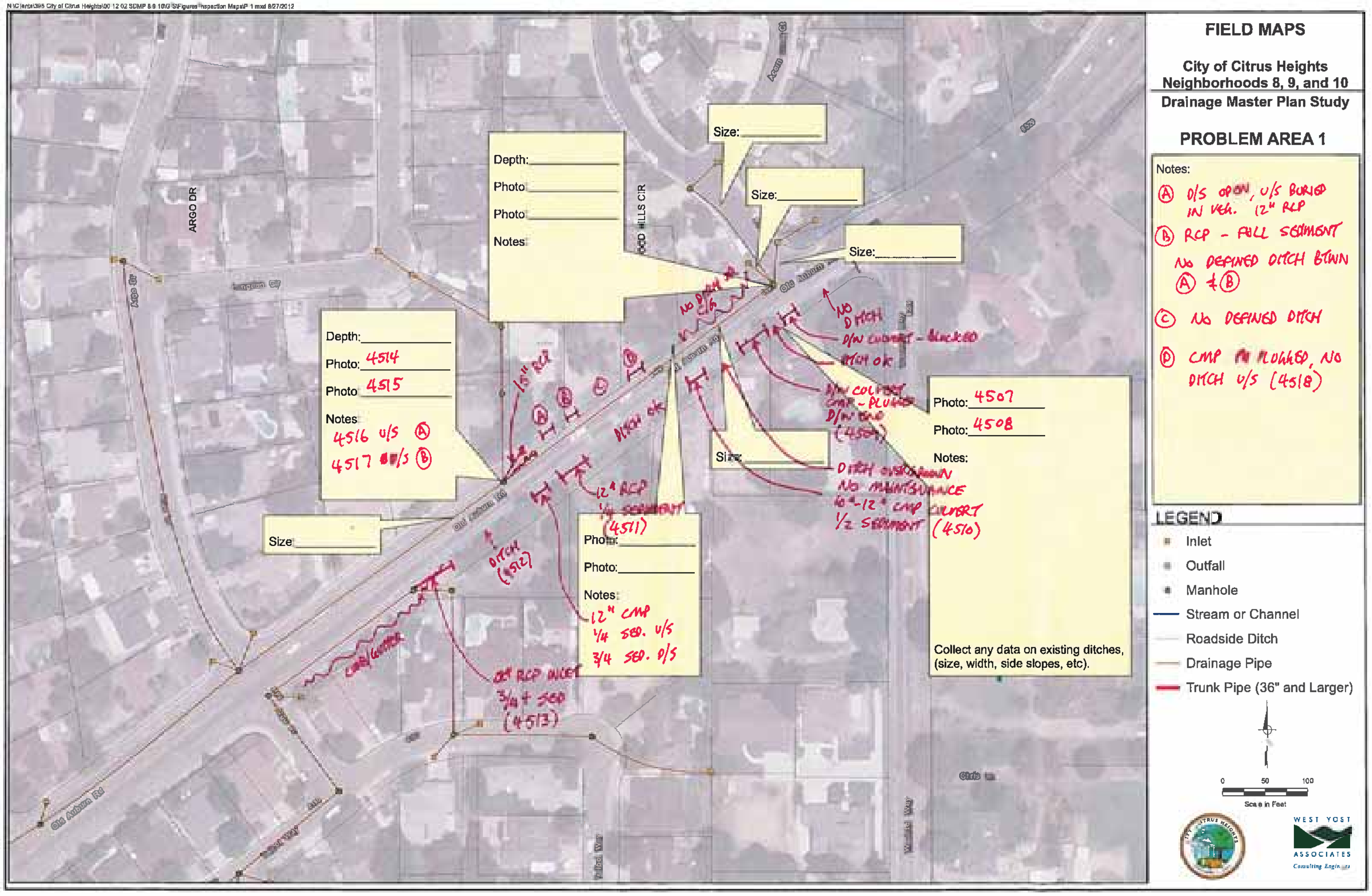
Table 8-1. Summary of Implementation Dates and Costs for Proposed Solutions

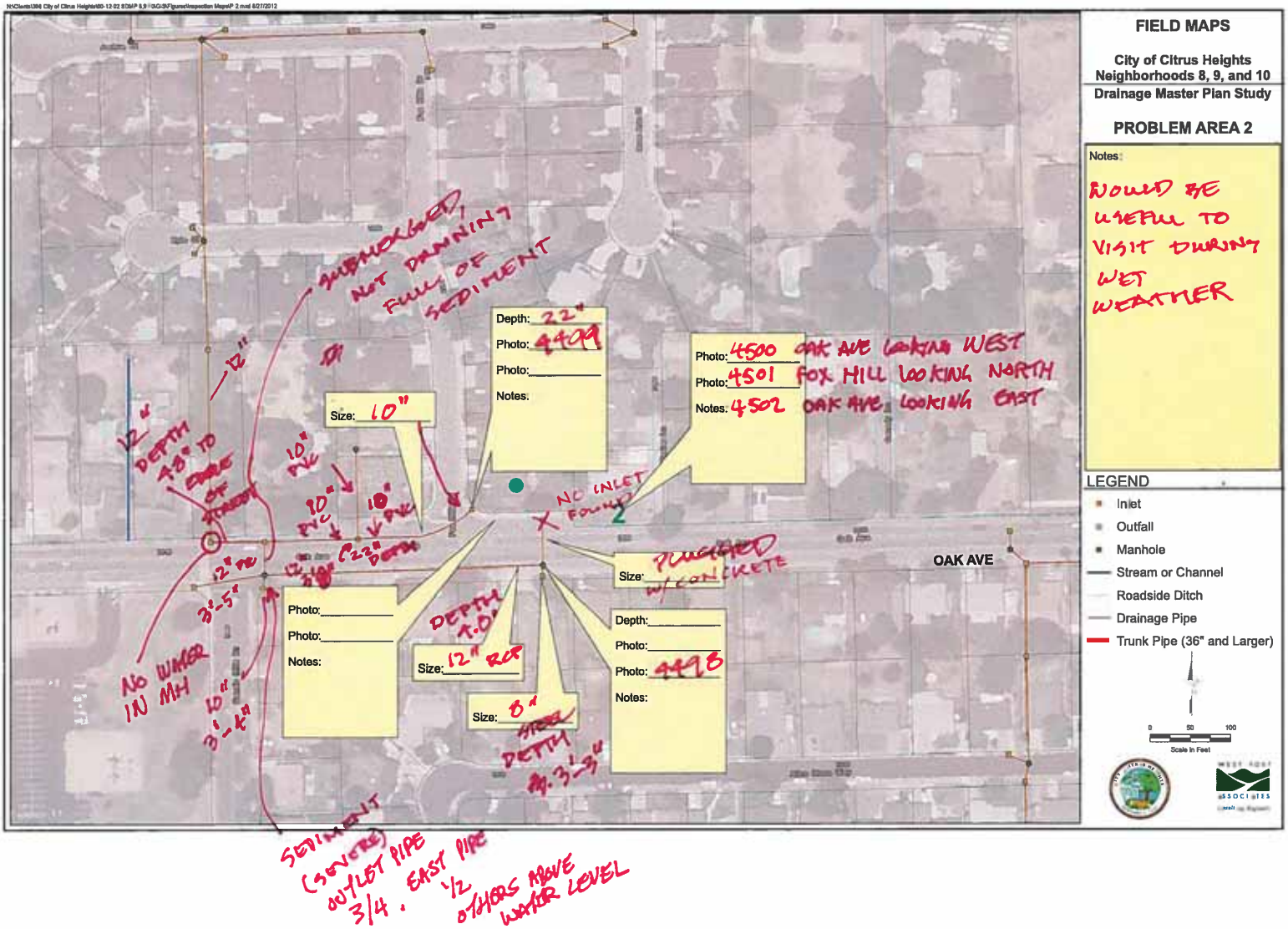
Problem Location Number	Solution Description	Figure Showing Proposed Improvements	Target Implementation Date	Total Estimated Improvements Cost, dollars[(a)]
High Priority				
3 and 4	Highland Avenue Pipe System and Rinconada Overland Release (Option 2)	7-5b	Spring 2017	878,000
6 and 10	Pipe Improvements along Mariposa Ave. from Glenacre Way to Arcade Creek (Option 2)	7-8b	Spring 2019	1,425,000
7	Overland Release Structure from Denton Way to Sun Hill Drive	7-9	Spring 2019	70,000
9	Underground Storage at Amsell Ct., Pipe Improvements at Blayden Ct., and Detention Basin in Power Line Corridor (Option 2)	7-12b	Spring 2018	417,000
11	Pipe Improvements along Maretha St., Bonita Way, and Old Auburn Rd. Curb and Gutter on Maretha St. and Dow Ave.	7-13	Spring 2018	1,060,000
12	Pipe Improvements between Minnesota Dr. and Anderson Ln. and near Canady Ln. Detention Basin near Anderson Ln. Underground Storage Pipe in Canady Ln. Overland Release Structure near Saginaw Way	7-14	Spring 2017	871,000
			Total Estimated Cost of High Priority Improvements	**4,721,000**
Medium Priority				
1	Ditch and Driveway Culvert on Auburn Blvd.	7-2	Summer 2016	8,000
5	Upsize Outfall on Chula Vista Drive	7-6	>Summer 2017	90,000
8	Upsize Pipe on Dana Butte Way and Canelo Hills Drive	7-11	Spring 2017	117,000
			Total Estimated Cost of Medium Priority Improvements	**215,000**
Low Priority				
2	Under Sidewalk Drain on Oak Ave.	7-3	Summer 2016	9,000
			Total Estimated Cost of Low Priority Improvements	**9,000**
			Total Estimated Cost of All Improvements	**4,945,000**

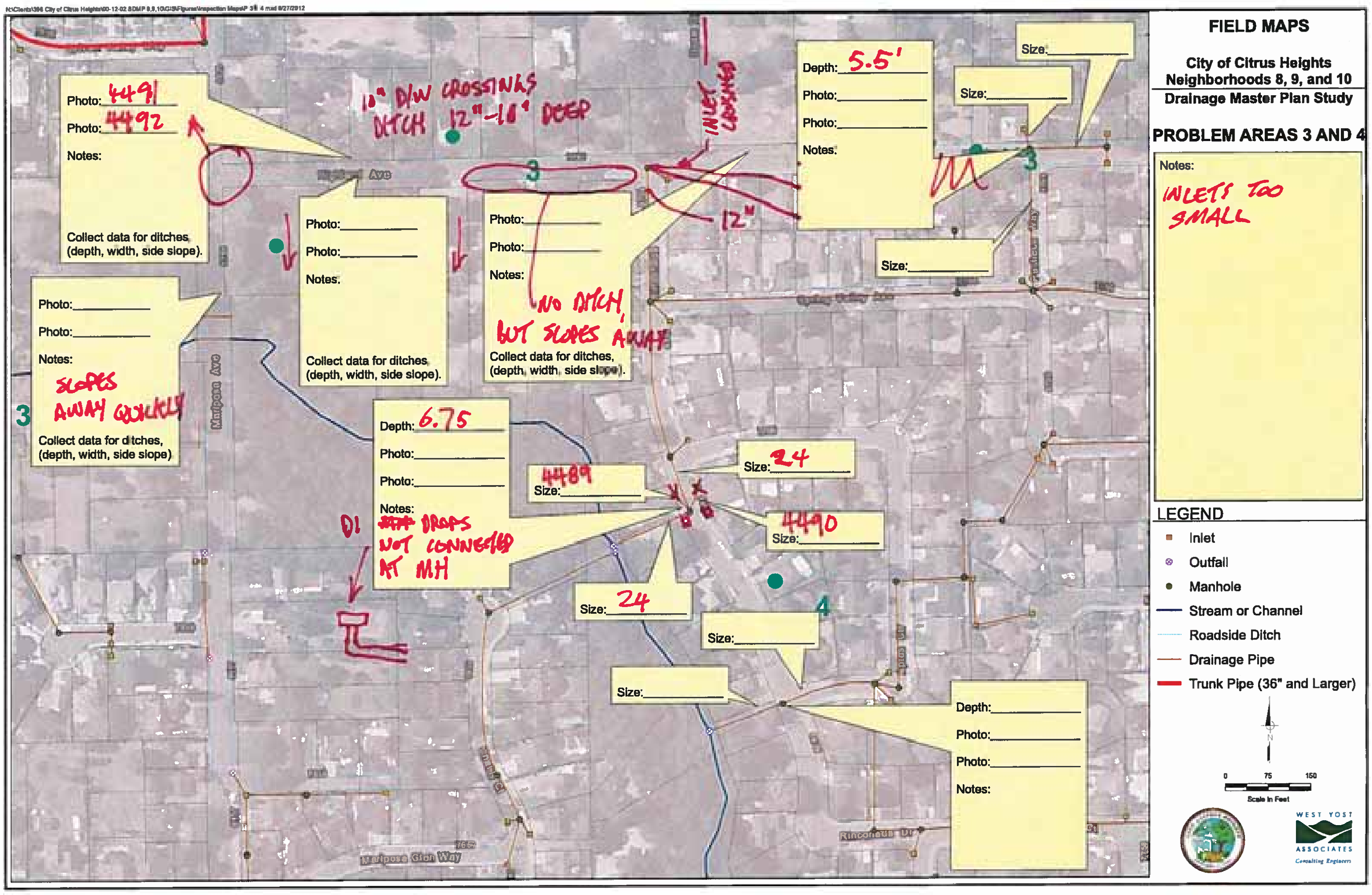
[(a)] The estimated costs for Problem Locations 9 and 12 solutions do not include the cost of easement acquisition.

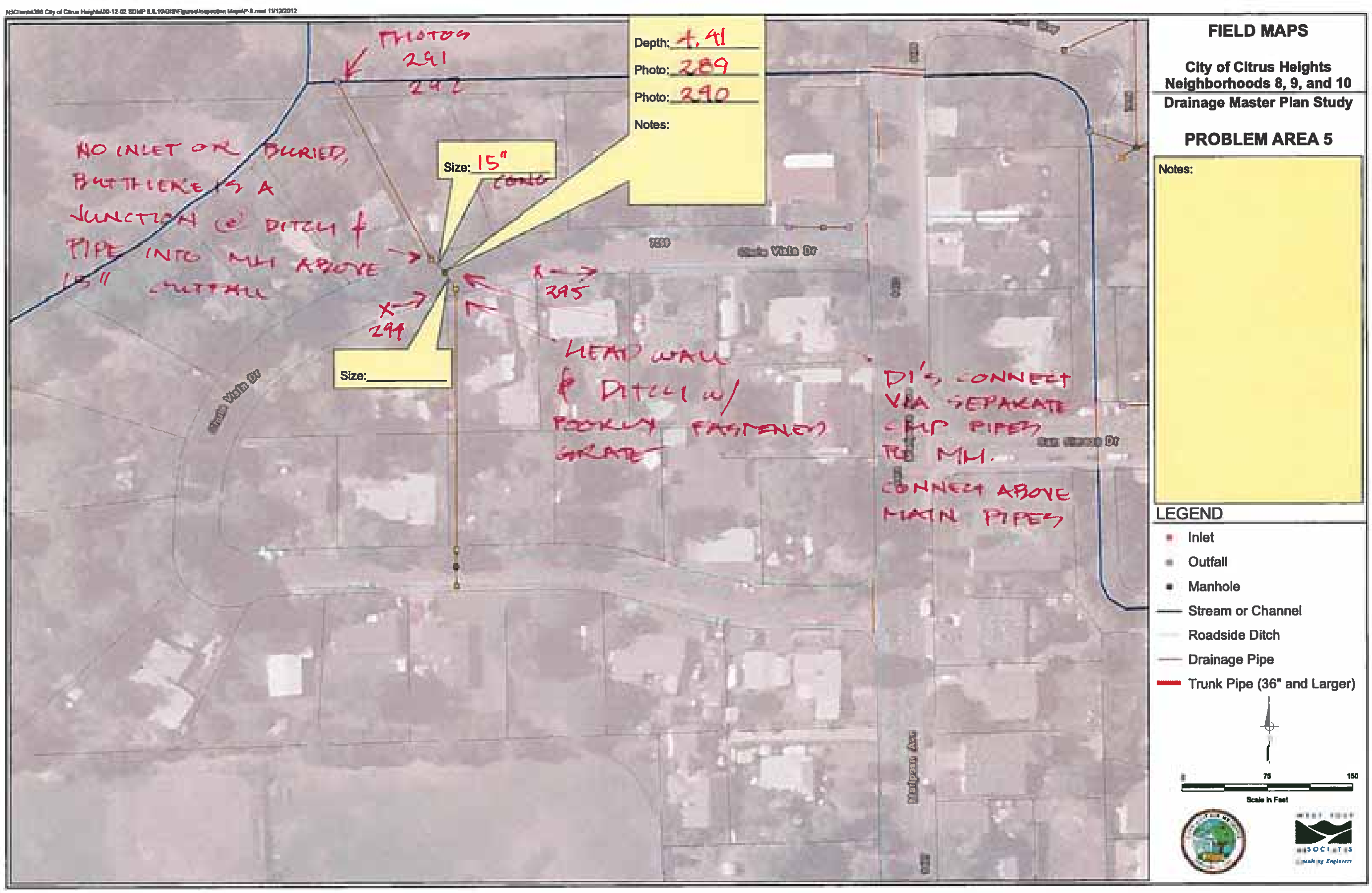
APPENDIX A

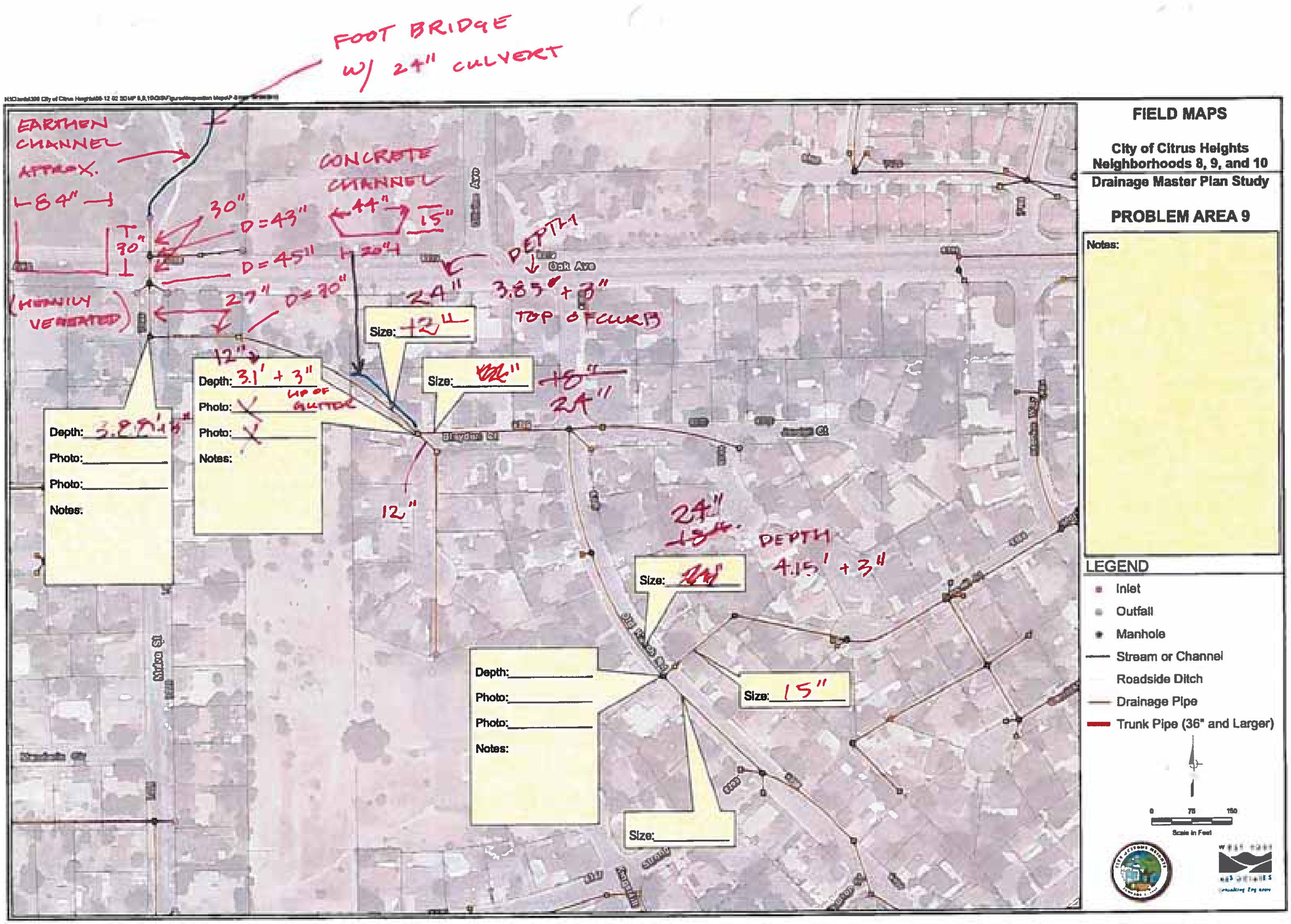
Master Field Notes

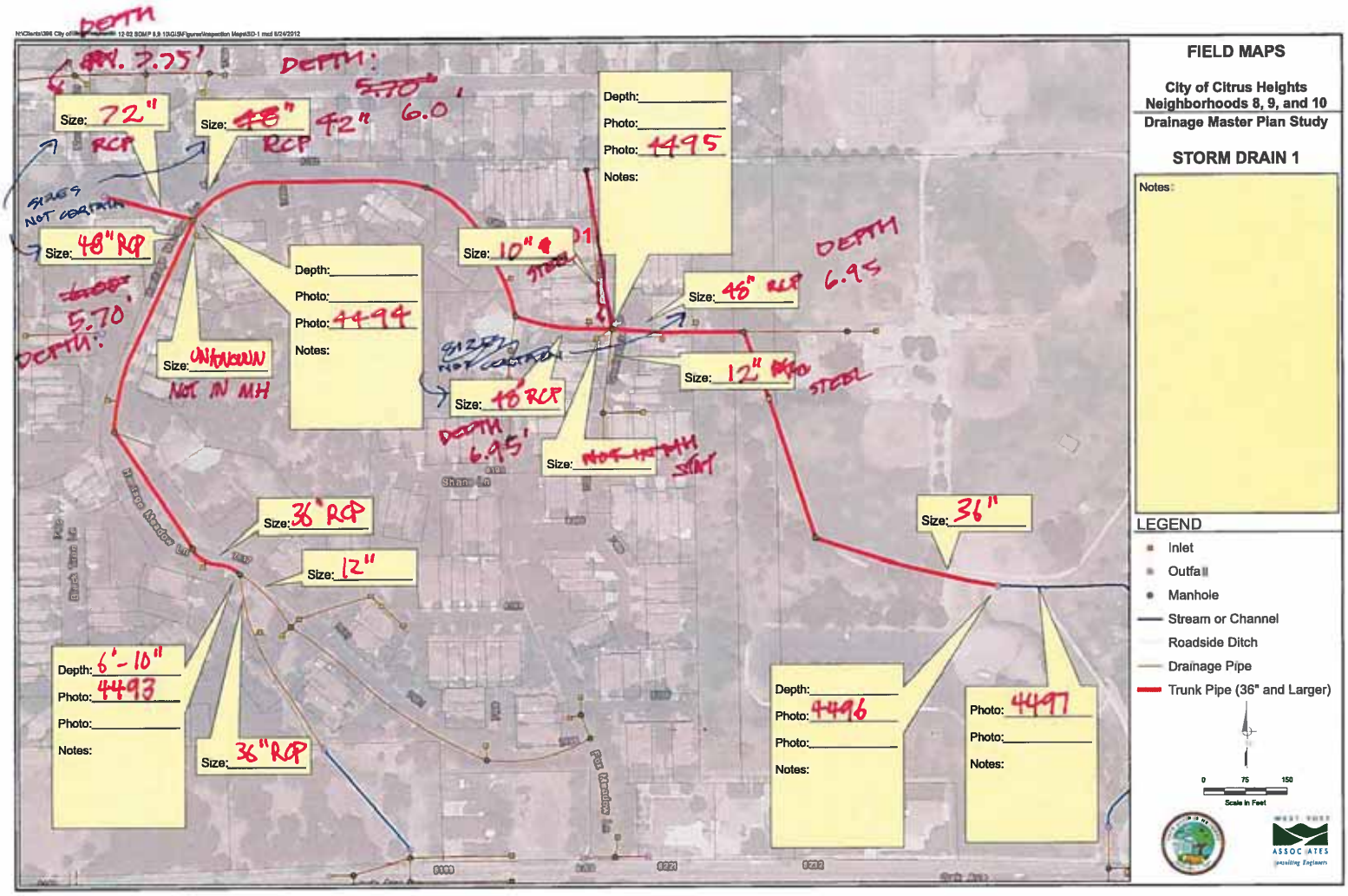

FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
PROBLEM AREA 1
Notes:
Ⓐ O/S OPEN, U/S BURIED IN VEG. 12" RCP
Ⓑ RCP - FULL SEDIMENT
NO DEFINED DITCH BTWN Ⓐ & Ⓑ
Ⓒ NO DEFINED DITCH
Ⓓ CMP PLUGGED, NO DITCH U/S (4518)
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
0
50
100
WEST YOST ASSOCIATES
ARGO DR
Depth:
Photo: 4514
Photo: 4515
Notes:
4516 U/S Ⓐ
4517 D/S Ⓑ
Size:
Depth:
Photo:
Photo:
Notes:
Size:
Size:
Size:
Size:
Photo: 4507
Photo: 4508
Notes:
Collect any data on existing ditches, (size, width, side slopes, etc).
Photo:
Photo:
Notes:
12" CMP
1/4 SED. U/S
3/4 SED. D/S
15" RCP
12" RCP
1/4 SEDIMENT
(4511)
DITCH OK
DITCH (4512)
CURB/GUTTER
NO DITCH
D/W CULVERT - BLOCKED
DITCH OK
DITCH OVERGROWN
NO MAINTENANCE
10"-12" CMP CULVERT
1/2 SEDIMENT (4510)
Old Auburn Rd

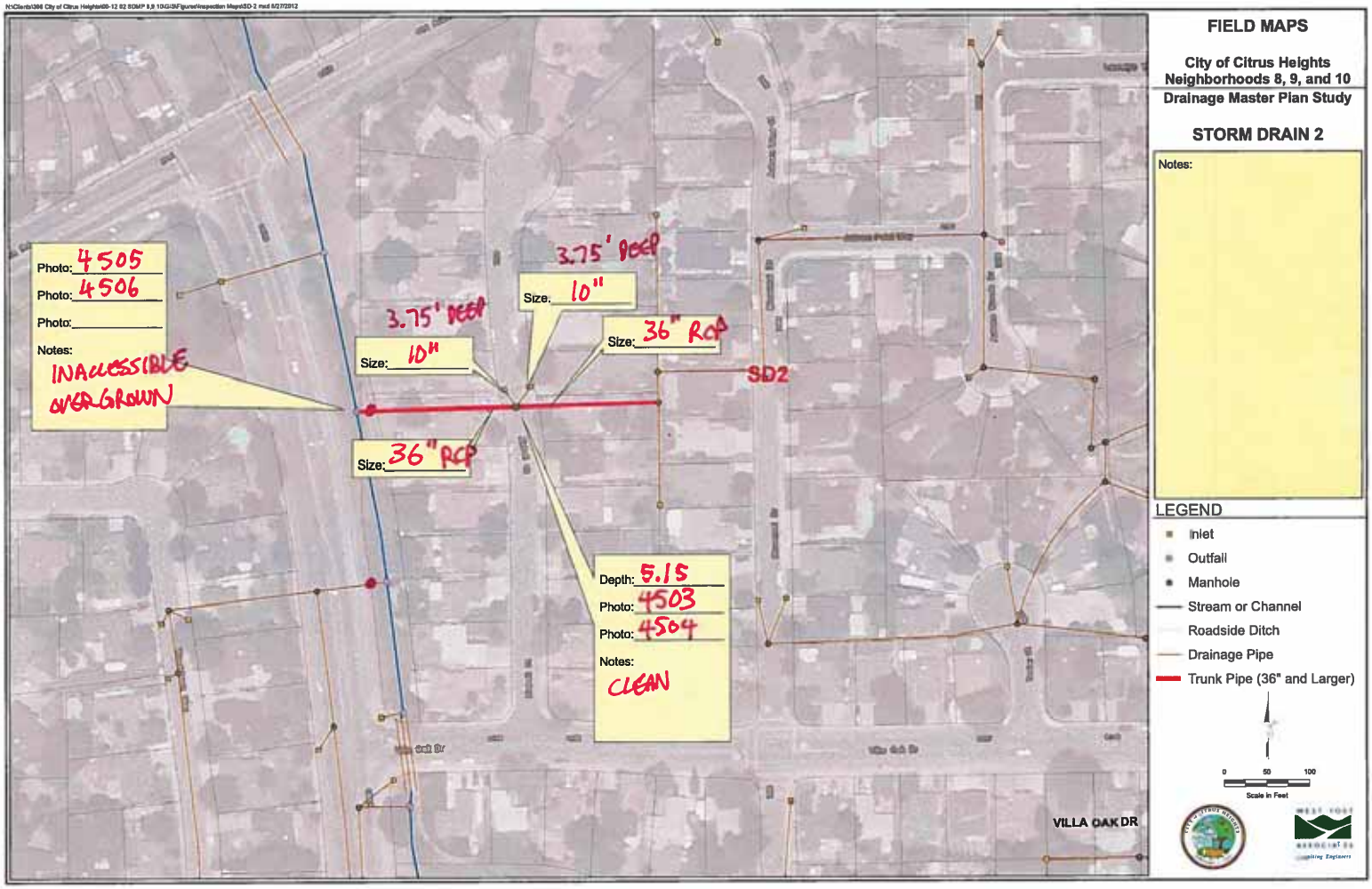

FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
PROBLEM AREA 2
Notes:
WOULD BE USEFUL TO VISIT DURING WET WEATHER
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
OAK AVE
SUBMERGED NOT DRAINING FULL OF SEDIMENT
Depth: 22"
Photo: 4499
Photo:
Notes:
Size: 10"
Photo: 4500 OAK AVE LOOKING WEST
Photo: 4501 FOX HILL LOOKING NORTH
Notes: 4502 OAK AVE LOOKING EAST
NO INLET FOUND
Size: PLUGGED W/CONCRETE
Depth:
Photo: 4498
Notes:
Photo:
Photo:
Notes:
Size: 12" RCP
Size: 8"
DEPTH 1.0'
DEPTH @ 3'-3"
12" DEPTH 3'-5"
10" DEPTH 3'-4"
NO WATER IN MH
SEDIMENT (SEWER)
OUTLET PIPE 3/4 . EAST PIPE 1/2
OTHERS ABOVE WATER LEVEL

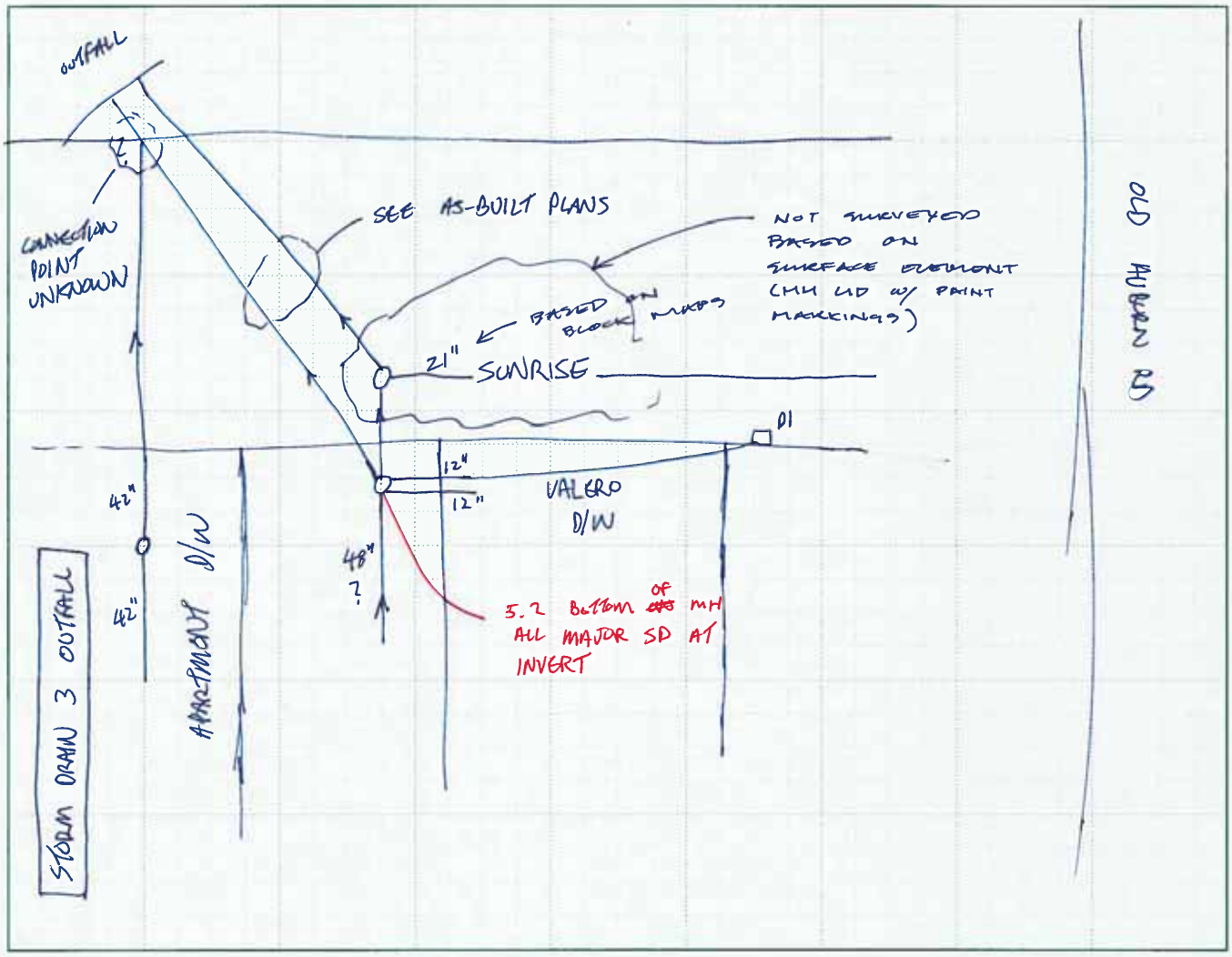

FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
PROBLEM AREAS 3 AND 4
Notes:
INLETS TOO SMALL
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
0
75
150
Photo: 4491
Photo: 4492
Notes:
Collect data for ditches (depth, width, side slope).
10" D/W CROSSINGS
DITCH 12"-18" DEEP
INLET CROSSING
12"
Depth: 5.5'
Photo:
Photo:
Notes:
Size:
Size:
Size:
Photo:
Photo:
Notes:
Collect data for ditches (depth, width, side slope).
Photo:
Photo:
Notes:
NO DITCH, BUT SLOPES AWAY
Collect data for ditches, (depth, width, side slope).
Photo:
Photo:
Notes:
SLOPES AWAY QUICKLY
Collect data for ditches, (depth, width, side slope)
Depth: 6.75
Photo:
Photo:
Notes:
DI DROPS NOT CONNECTED AT MH
Size: 4489
Size: 24
Size: 4490
Size: 24
Size:
Size:
Depth:
Photo:
Photo:
Notes:
Mariposa Ave
Rinconada Dr
Mariposa Glen Way
3
3
3
4
WEST YOST ASSOCIATES
Consulting Engineers


FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
PROBLEM AREA 5
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
Depth: 4.41
Photo: 289
Photo: 290
Notes:
Size: 15" CONC
Size:
PHOTOS 291 292
NO INLET OR BURIED, BUT THERE IS A JUNCTION @ DITCH & PIPE INTO MH ABOVE 15" OUTFALL
X 294
X 295
HEAD WALL & DITCH W/ POORLY FASTENED GRATE
DI'S CONNECT VIA SEPARATE CMP PIPES TO MH. CONNECT ABOVE MAIN PIPES
Vista Dr


FOOT BRIDGE
W/ 24" CULVERT
EARTHEN CHANNEL APPROX.
84"
30"
30"
D=43"
D=45"
27"
D=30"
(HEAVILY VEGETATED)
CONCRETE CHANNEL
44"
15"
DEPTH
3.85' + 3"
TOP OF CURB
24"
Oak Ave
Size: 12"
Size:
18"
24"
Depth: 3.1' + 3"
LIP OF GUTTER
Photo:
Photo:
Notes:
Depth:
Photo:
Photo:
Notes:
12"
12"
24"
18"
DEPTH
4.15' + 3"
Size:
Size: 15"
Depth:
Photo:
Photo:
Notes:
Size:
Mirko St
FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
PROBLEM AREA 9
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet

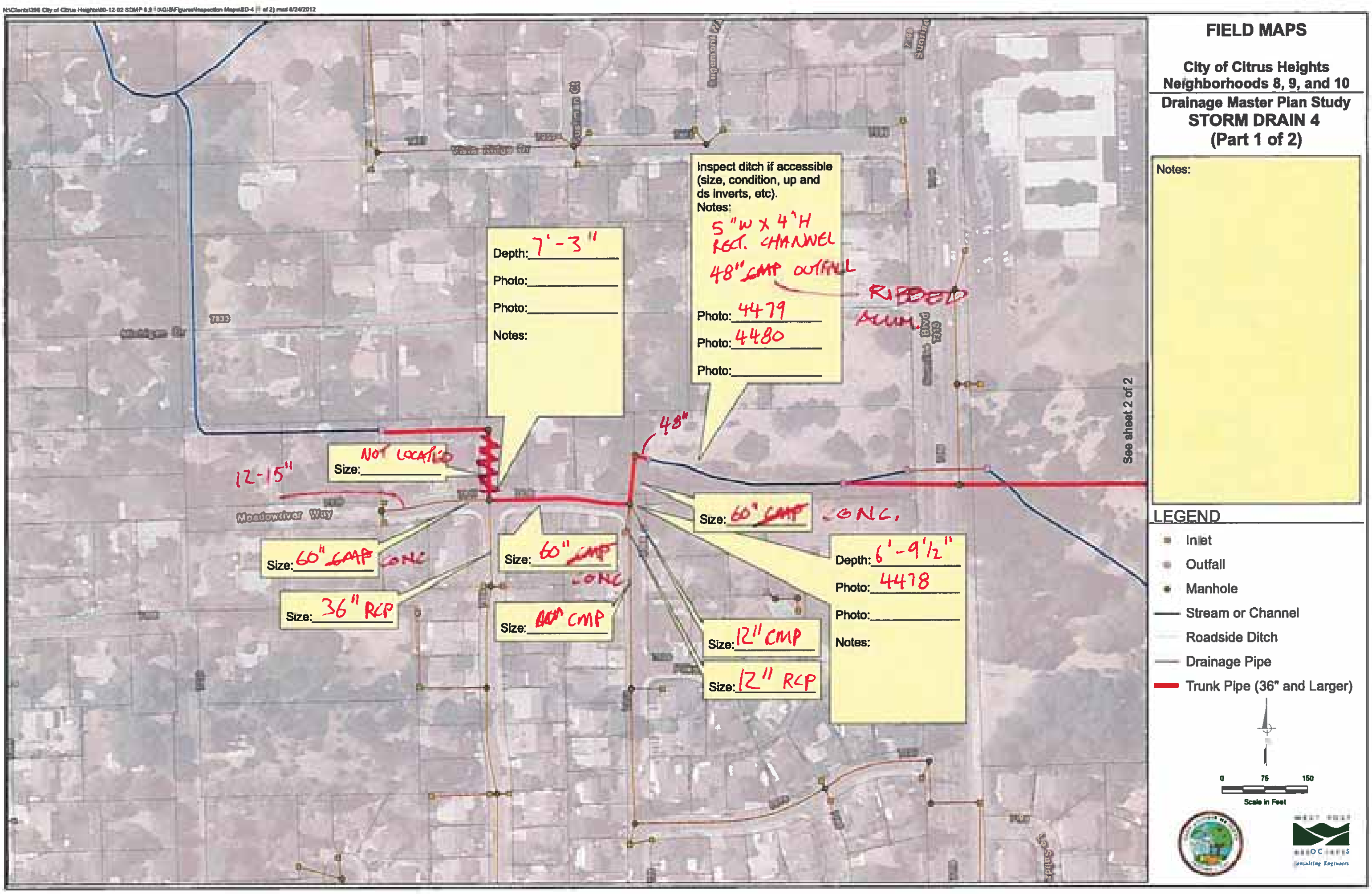

FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 1
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
Size: 72" RCP
Size: 48" RCP
Size: 48" RCP
Size: UNKNOWN NOT IN MH
Depth:
Photo:
Photo: 4494
Notes:
Size: 10" STEEL
Depth:
Photo:
Photo: 4495
Notes:
Size: 48" RCP
Size: 12" STEEL
Size: 48" RCP
Size: 36" RCP
Size: 12"
Size: 36"
Depth: 6'-10"
Photo: 4493
Photo:
Notes:
Size: 36" RCP
Depth:
Photo: 4496
Photo:
Notes:
Photo: 4497
Photo:
Notes:

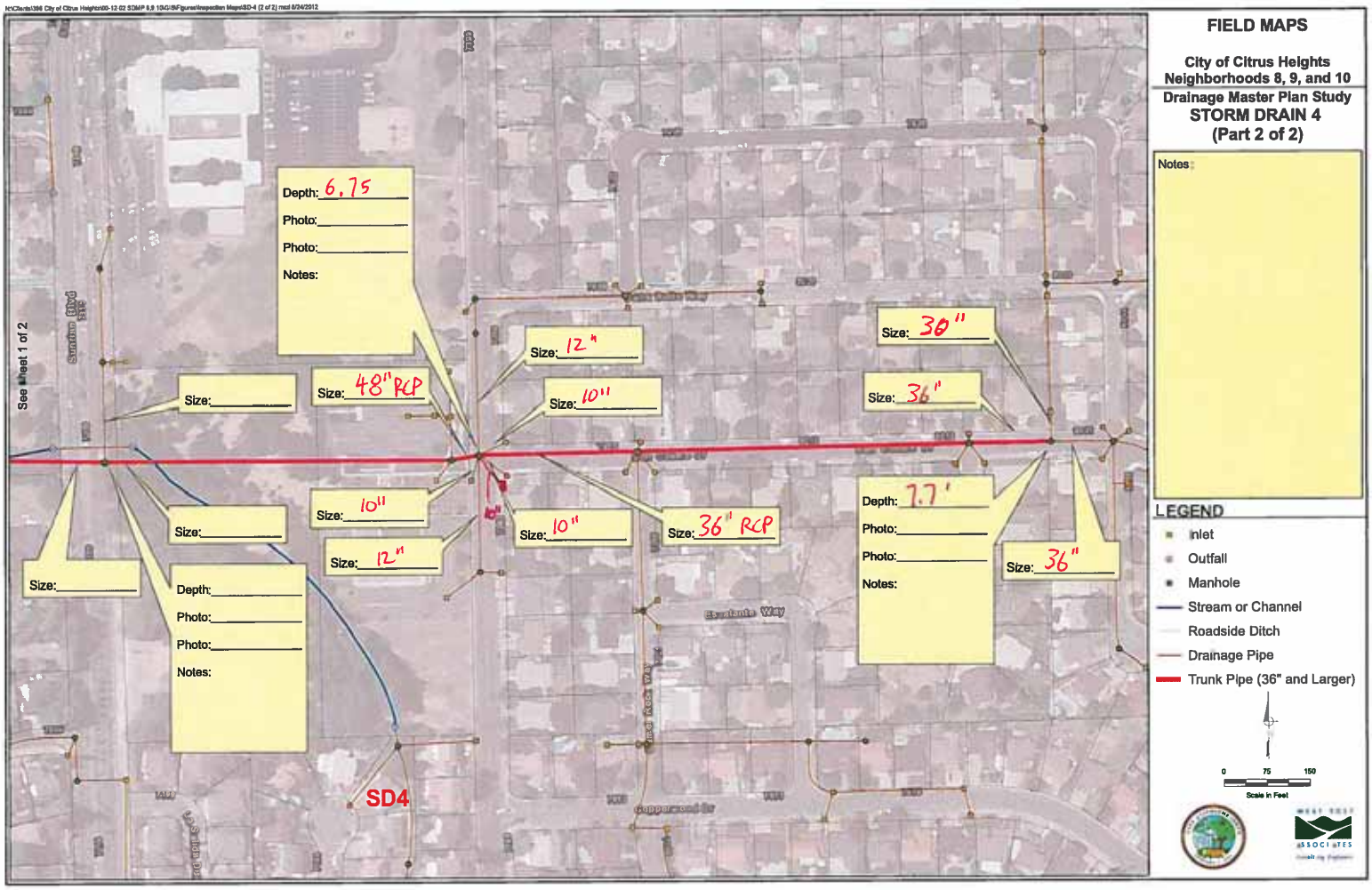

FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 2
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
Photo: 4505
Photo: 4506
Photo:
Notes:
INACCESSIBLE
OVERGROWN
3.75' DEEP
Size: 10"
3.75' DEEP
Size: 10"
Size: 36" RCP
SD2
Size: 36" RCP
Depth: 5.15
Photo: 4503
Photo: 4504
Notes:
CLEAN
VILLA OAK DR

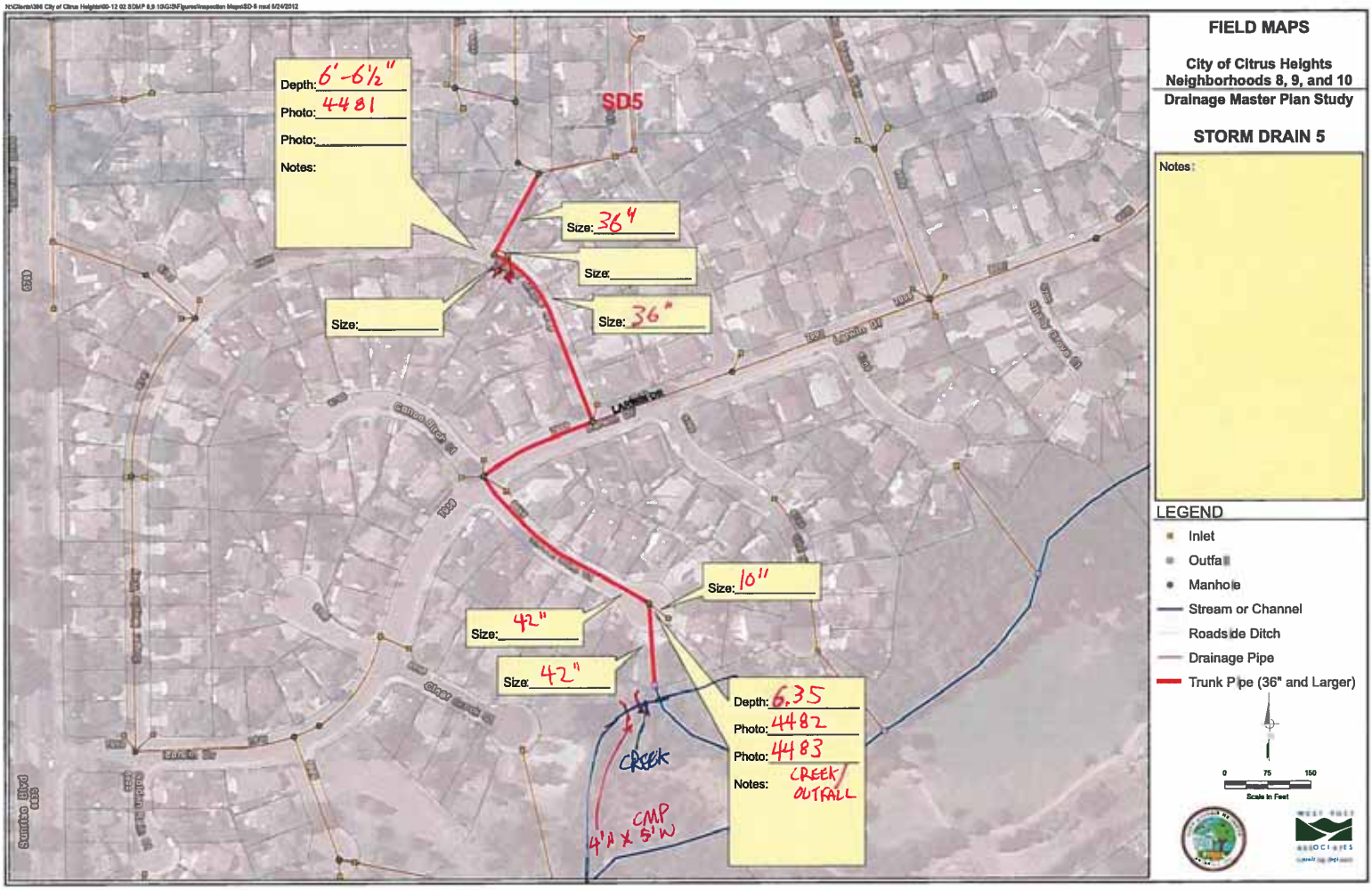


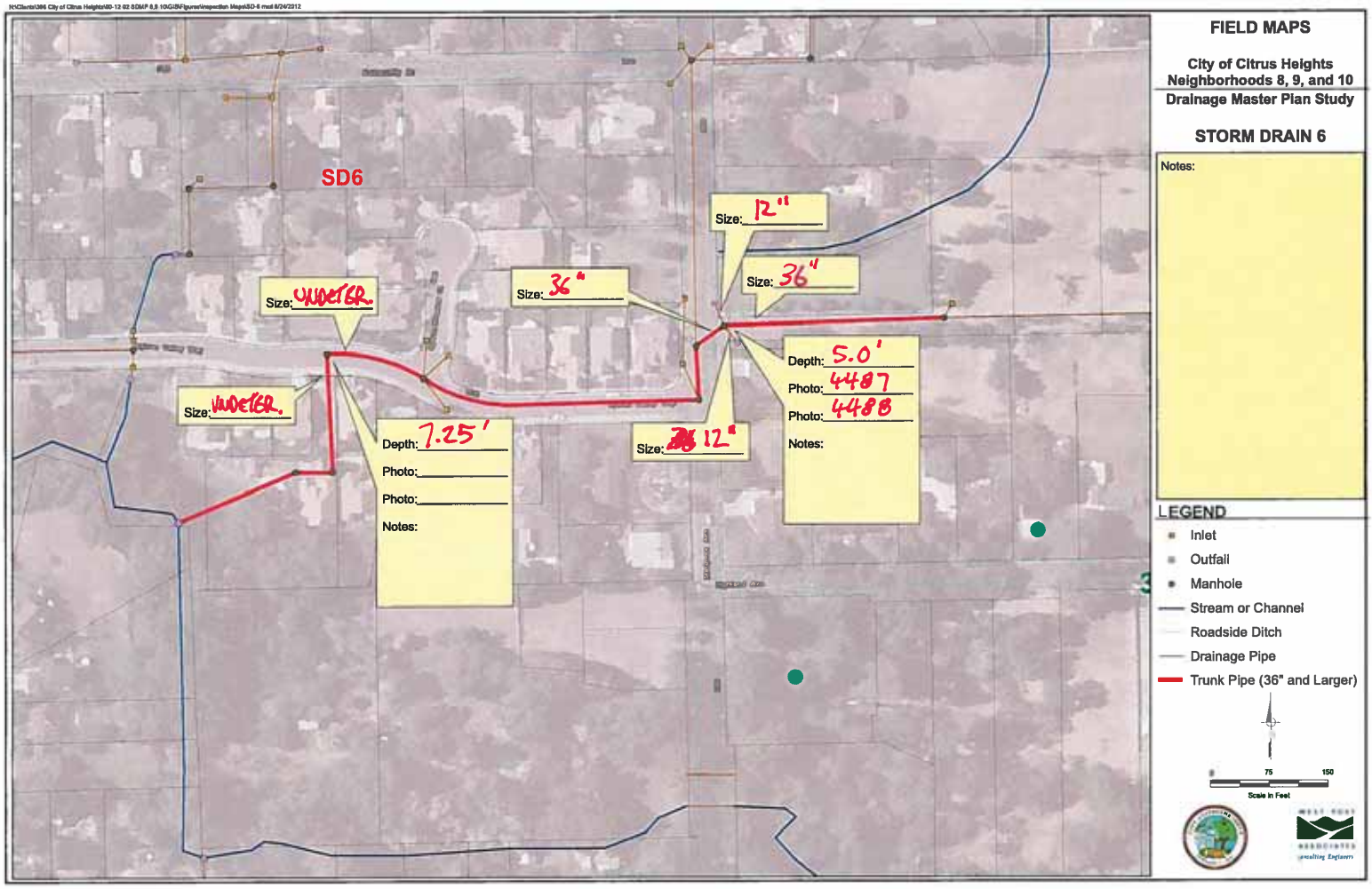
Project
Job No.
Calc. By
Date
Chkd. By
of

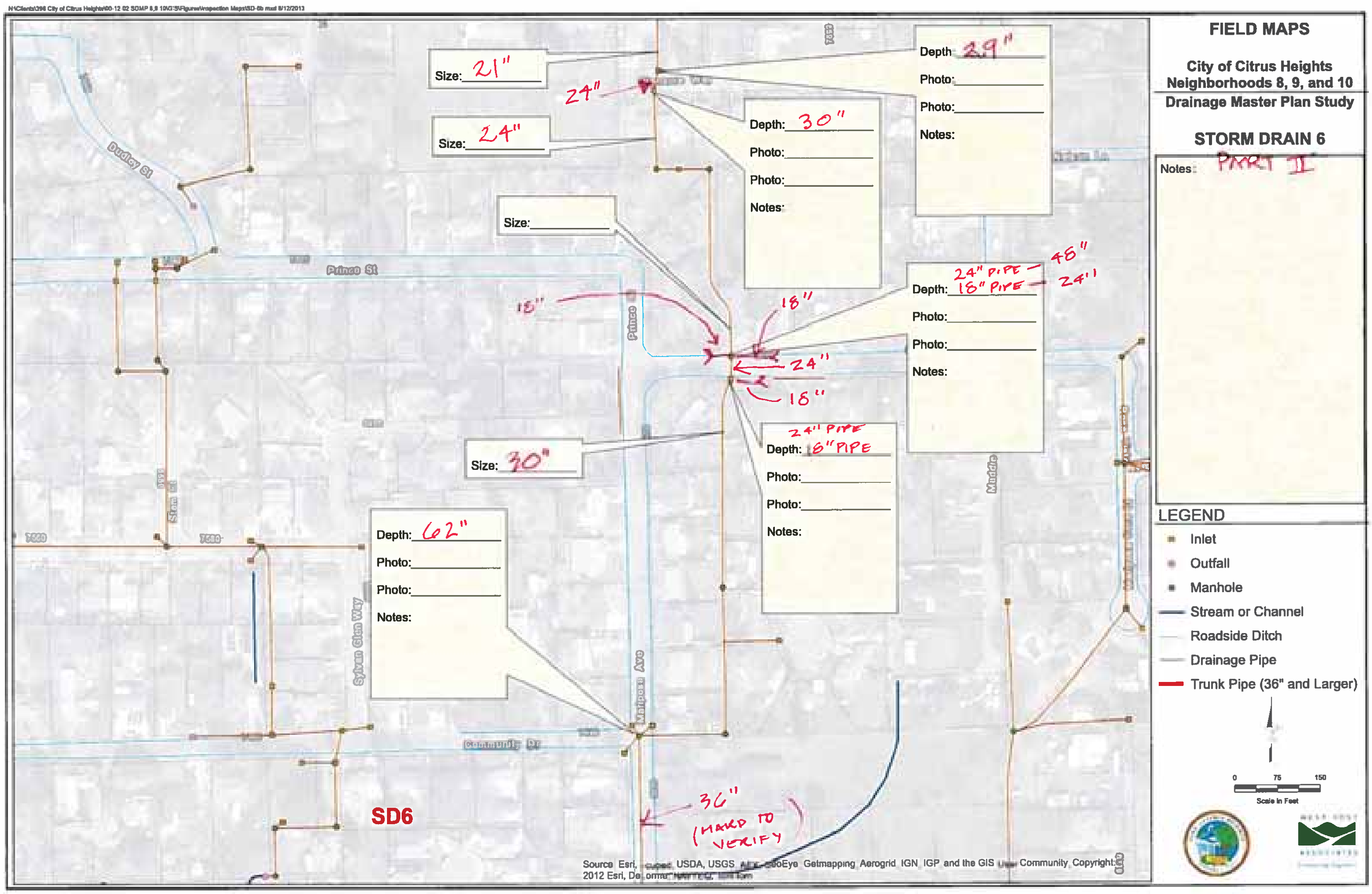
WEST YOST ASSOCIATES
Consulting Engineers

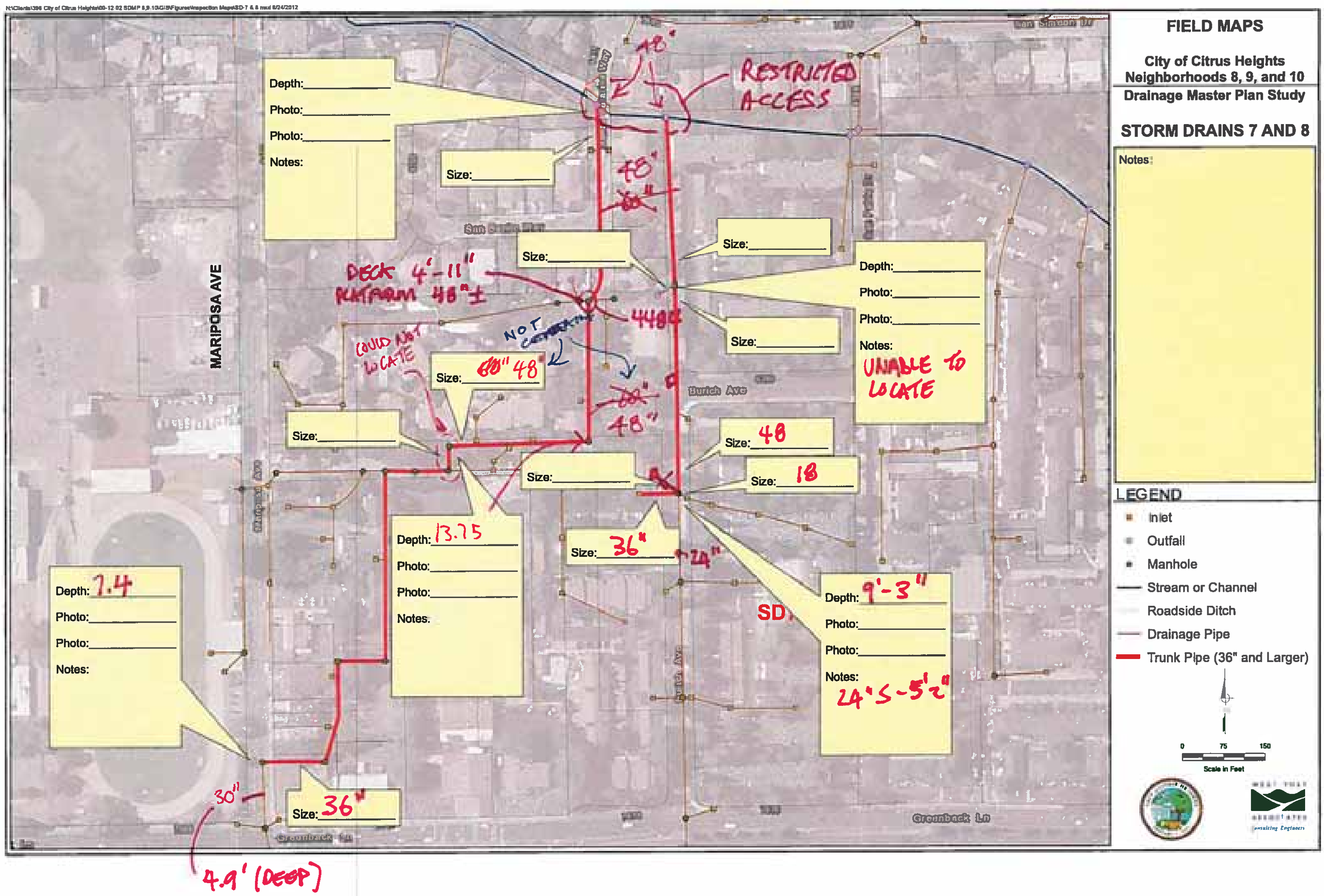

FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 4
(Part 1 of 2)
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
Depth: 7'-3"
Photo:
Photo:
Notes:
Inspect ditch if accessible (size, condition, up and ds inverts, etc).
Notes:
5"W x 4'H RECT. CHANNEL
48" CMP OUTFALL
RIBBED ALUM.
Photo: 4479
Photo: 4480
Photo:
48"
NOT LOCATED
Size:
12-15"
Size: 60" CMP CONC.
Size: 60" CMP CONC
Size: 60" CMP CONC.
Size: 36" RCP
Size: CMP
Size: 12" CMP
Size: 12" RCP
Depth: 6'-9½"
Photo: 4478
Photo:
Notes:
Meadowriver Way
See sheet 2 of 2


FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 4
(Part 2 of 2)
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
0 75 150
Scale in Feet
See Sheet 1 of 2
Depth: 6.75
Photo:
Photo:
Notes:
Size:
Size: 48" RCP
Size: 12"
Size: 10"
Size: 10"
Size: 36" RCP
Size: 30"
Size: 36"
Size: 10"
Size: 12"
Size:
Size:
Depth:
Photo:
Photo:
Notes:
Depth: 7.7'
Photo:
Photo:
Notes:
Size: 36"
SD4


FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 5
Notes:
SD5
Depth: 6'-6½"
Photo: 4481
Photo:
Notes:
Size: 36"
Size:
Size:
Size: 36"
Size: 10"
Size: 42"
Size: 42"
Depth: 6.35
Photo: 4482
Photo: 4483
Notes: CREEK / OUTFALL
CREEK
4'H x 5'W CMP
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
0 75 150
Scale in Feet


SD6
Size: UNDETER.
Size: UNDETER.
Depth: 7.25'
Photo:
Photo:
Notes:
Size: 36"
Size: 12"
Size: 12"
Size: 36"
Depth: 5.0'
Photo: 4487
Photo: 4488
Notes:
FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 6
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
0
75
150
Scale in Feet


FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAIN 6
Notes: PART II
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
0 75 150
Scale in Feet
SD6
Size: 21"
Size: 24"
24"
Depth: 29"
Photo:
Photo:
Notes:
Depth: 30"
Photo:
Photo:
Notes:
Size:
18"
18"
Depth: 24" PIPE - 48" 18" PIPE - 24"
Photo:
Photo:
Notes:
24"
18"
Depth: 24" PIPE 18" PIPE
Photo:
Photo:
Notes:
Size: 30"
Depth: 62"
Photo:
Photo:
Notes:
36" (HARD TO VERIFY)
Dudley St
Prince St
Prince St
Mariposa Ave
Sylvan Glen Way
Community Dr
Muddie
Source: Esri, USDA, USGS, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community, Copyright: 2012 Esri, DeLorme


FIELD MAPS
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
STORM DRAINS 7 AND 8
Notes:
LEGEND
Inlet
Outfall
Manhole
Stream or Channel
Roadside Ditch
Drainage Pipe
Trunk Pipe (36" and Larger)
Scale in Feet
MARIPOSA AVE
Burich Ave
Greenback Ln
RESTRICTED ACCESS
48"
DECK 4'-11"
CATCH BASIN 48"±
COULD NOT LOCATE
NOT
Depth:
Photo:
Photo:
Notes:
UNABLE TO LOCATE
Size: 48
Size: 18
Size: 36"
24"
Depth: 13.75
Depth: 7.4
Depth: 9'-3"
Notes: 24'5-5'2"
Size: 36"
30"
4.9' (DEEP)

APPENDIX B

Photos on CD

APPENDIX C

Hydraulic Calculations for Proposed Solutions

Table C-1. Peak Flows for Problem Locations

Contributing Subshed	Upstream Node	Downstream Node	Contributing Area (acres) by Land-Use Type and/or Percent Impervious								Subshed Total		Cumulative Total at Node				
			Comm./ Office	Apts./ RD-20	RD-5	RD-4	RD-3	RD-2	RD-1	Open Space					Pipe Flow (cfs)	10-Year Flow (cfs)	100-Year Flow (cfs)
			90%	80%	50%	40%	30%	25%	20%	2%	Area (acres)	% Imp.	Area (acres)	% Imp.	Nolte Zone 1	Sac. Method Zone 3	Sac. Method Zone 3
Problem Location 1																	
P1A	P1A	P1B	-	-	-	-	-	2.3	-	-	2.3	25.0	2.3	25.0	0.6	n/a	4.2
Problem Location 2 - Qualitative Solution Defined, No Hydrologic Calculations Performed																	
Problem Location 3 - Option 1																	
P3A	P3A	J3B	-	-	-	3.6	-	-	-	-	3.6	40.0	3.6	40.0	1.0	6.2	9.0
P3B	P3B	J3B	-	-	-	-	4.6	-	-	-	4.6	30.0	4.6	30.0	1.3	7.2	11.0
-	J3B	P3C	-	-	-	-	-	-	-	-	0.0	0.0	8.2	34.4	2.3	12.3	18.0
P3C	P3C	P3D	-	-	-	1.1	-	-	-	-	1.1	40.0	9.3	35.1	2.6	13.2	19.5
P3D	P3D	P3E	-	-	-	-	1.4	-	-	-	1.4	30.0	10.7	34.4	3.0	15.0	22.5
P3E	P3E	P3Out	-	-	-	-	0.9	-	-	-	0.9	30.0	11.6	34.1	3.3	16.0	23.0
Problem Location 3 - Option 2																	
P3	P3	J3B	-	-	0.6	-	8.5	-	6.9	-	16.0	26.4	16.0	26.4		20.0	
P3A	P3A	J3B	-	-	-	3.6	-	-	-	-	3.6	40.0	3.6	40.0		6.2	
P3B	P3B	J3B	-	-	-	-	4.6	-	-	-	4.6	30.0	4.6	30.0		7.2	11.0
-	J3B	P3C	-	-	-	-	-	-	-	-	0.0	0.0	8.2	34.4		12.3	
P3C	P3C	P3D	-	-	-	1.1	-	-	-	-	1.1	40.0	25.3	29.6		29.0	
P3D	P3D	P3E	-	-	-	-	1.4	-	-	-	1.4	30.0	26.7	29.6		30.0	
P3E	P3E	P3Out	-	-	-	-	0.9	-	-	-	0.9	30.0	27.6	29.6		31.5	
Problem Location 4 - Existing																	
P4A	P4A	P4AOut	-	-	-	25.5	-	3.1	7.0	-	35.6	34.8	35.6	34.8	11.1	40.0	57.0
Problem Location 4 - Option 1																	
P4A	P4A	P4AOut	-	-	-	24.4	-	3.1	7.0	-	34.5	34.6	34.5	34.6	10.6	39.0	56.0
Problem Location 4 - Option 2																	
P4A	P4A	P4AOut	-	-	-	18.5	-	-	-	-	18.5	40.0	18.5	40.0	5.4	24.0	35.0
Problem Location 5																	
P5A	P5A	P5B	1.4	-	-	-	6.6	-	-	5.1	13.1	25.5	13.1	25.5	3.7	16.8	
Problem Locations 6 and 10 - Unsteady Calculations Performed (See Table A-2)																	
Problem Locations 7 & 8 - Qualitative Solution Defined, No Hydrologic Calculations Performed																	
Problem Location 9 - Unsteady Calculations Performed (See Table A-2)																	
Problem Location 11																	
P11A	P11A	P11B	-	-	-	-	3.6	-	7.7	-	11.3	23.2	11.3	23.2	3.2	14.2	20.5
P11B	P11B	P11C	-	-	-	-	3.8	-	-	-	3.8	30.0	15.1	24.9	4.3	18.5	26.7
P11C	P11C	P11D	-	-	-	-	1.6	-	-	-	1.6	30.0	16.7	25.4	4.8	20.3	29.2
P11D	P11D	P11D2	-	-	-	-	2.1	-	-	-	2.1	30.0	18.8	25.9	5.4	22.6	32.4
P11E	P11E	P11E2	-	-	-	-	-	-	3.3	1.9	5.2	13.4	24.0	23.2	7.1	27.3	39.1
P11F	P11F	P11F2	-	-	-	-	2.3	-	-	-	2.3	30.0	26.3	23.8	7.8	29.6	42.3
P11G	P11G	P11G2	-	-	-	-	4.2	-	-	1.7	5.9	21.9	32.2	23.5	9.8	34.9	49.6
Problem Location 12 - Unsteady Calculations Performed (See Table A-2)																	

Table C-2. Hydrologic Model Parameters for Unsteady Flow Calculations - Problem Locations 4, 6, 9, 10, and 12

Subbasin	Area (acres)	Mean Elevation (ft, NAVD)	Basin Length (ft)	Basin Centroid Length (ft)	Basin Slope (ft/ft)	Land-Use (acres) and Percent Imperviousness								
						Comm./ Office	Apts./ RD-20	RD-5	RD-4	RD-3	RD-2	RD-1	Open Space	Average % Imp.
						90%	80%	50%	40%	30%	25%	20%	2%	
Problem 4 (Option 2)														
P4A1	18.5	154	2360	1000	0.0186	-	-	-	18.5	-	-	-	-	40.0
P4B1	12.8	162	1680	840	0.0142	-	-	-	12.8	-	-	-	-	40.0
P4B2	5.4	158	930	450	0.0180	-	-	-	5.4	-	-	-	-	40.0
P4B3	3.3	154	680	340	0.0120	-	-	-	3.3	-	-	-	-	40.0
P4B4	6.8	148	770	300	0.0100	-	-	-	6.8	-	-	-	-	40.0
Problems 6 & 10														
6A1	5.1	181	830	440	0.0217	-	-	-	5.1	-	-	-	-	40.0
6A2	12.4	192	1210	680	0.0264	-	3.5	-	8.2	-	-	-	0.7	49.1
6A3	19.6	172	1380	800	0.0167	-	-	-	-	-	-	19.6	-	20.0
6A4	16.0	170	1410	650	0.0156	-	-	-	-	-	-	16.0	-	20.0
6A5	12.2	160	1290	650	0.0155	-	-	-	-	-	12.2	-	-	25.0
6B1	8.0	170	1080	520	0.0111	-	-	-	-	8.0	-	-	-	30.0
6B2	14.7	168	1000	470	0.0080	3.9	-	-	-	10.8	-	-	-	45.9
6B3	13.5	169	960	480	0.0188	2.7	-	-	-	7.9	-	-	2.9	36.0
6B4	14.6	168	1350	670	0.0178	-	-	-	4.6	-	-	10.0	-	26.3
6B5	9.2	164	1000	490	0.0160	-	-	-	3.2	-	6.0	-	-	30.2
6B6	10.3	160	1250	650	0.0168	-	-	-	-	10.3	-	-	-	30.0
6B7	6.3	150	740	320	0.0108	-	-	-	-	-	6.3	-	-	25.0
6B7J	3.3	146	570	220	0.0123	-	-	-	3.3	-	-	-	-	40.0
6B8	27.5	162	2720	1600	0.0132	1.2	-	0.6	1.2	8.4	9.2	6.9	-	29.3
Problem 9														
P9A	5.6	228	870	460	0.0069	-	-	-	5.6	-	-	-	-	86.3
P9B	5.7	223	780	300	0.0103	-	-	-	5.7	-	-	-	-	86.9
P9C	2.5	214	360	100	0.0167	-	-	-	2.5	-	-	-	-	87.5
P9D	16.2	220	1800	600	0.0200	-	-	-	16.2	-	-	-	-	87.0
P9E	10.1	213	750	380	0.0187	-	-	-	9.4	-	-	-	0.7	86.0
P9F	9.2	210	800	300	0.0125	-	-	-	5.1	-	-	-	4.1	86.6
P9H	1.8	210	500	250	0.0400	-	-	-	-	-	-	-	1.8	86.5
P9I	10.0	210	1050	500	0.0240	-	-	-	9.6	-	-	-	0.4	86.3
Problem 12														
SD3A1a	5.5	200	1,400	695	0.0114	-	-	-	3.4	-	2.1	-	-	34.3
SD3A1b	5.0	194	605	300	0.0198	-	-	-	0	-	5.0	-	-	25.0
SD3A2	9.2	192	750	320	0.0160	-	-	-	0	-	9.2	-	-	25.0
SD3A3	12.7	190	770	390	0.0156	-	-	-	0	-	12.7	-	-	25.0
SD3A4	3.7	184	550	225	0.0145	-	-	-	0.7	-	3.0	-	-	27.8
SD3A5	3.6	180	600	300	0.0150	-	-	-	3.6	-	-	-	-	40.0
SD3A6	6.6	178	725	300	0.0110	-	-	-	6.6	-	-	-	-	40.0
SD3B	19.9	180	2,080	800	0.0087	-	2.4	-	13.8	-	3.7	-	-	42.0
SD3C	49.3	188	2,970	1,810	0.0061	1.5	0.8	2.6	41.0	-	-	-	3.4	40.1
SD3D	32.3	182	1,800	960	0.0133	25.5	1.0	-	5.8	-	-	-	-	80.7

Table C-3. Problem Location 1 XPSWMM Node Data and Results

Node Name	Proposed Solution			
	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	Nolte Water Surface Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)
P1A	198.80	196.80	197.14	197.73
P1B	198.40	196.50	196.79	197.42
P1C	197.70	196.10	196.36	196.87
P1D	196.60	194.70	194.96	195.47

Table C-4. Problem Location 1 XPSWMM Link Data and Results

Name	Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max Nolte Flow cfs	Max Nolte Velocity ft/s	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
Proposed Solution													
P1A_Ditch	Link1	P1A	P1B	Trapezoidal	1.00	33	196.80	196.50	0.040	0.6	1.3	4.2	2.3
P1B_Culv	Link2	P1B	P1C	Circular	1.00	32	196.50	196.10	0.015	0.6	3.3	4.2	5.6
P1C_Ditch	Link3	P1C	P1D	Trapezoidal	1.00	65	196.10	194.70	0.040	0.6	1.8	4.2	3.1

Table C-5. Problem Location 3 Hydraulic Data for Proposed Solution									
Reach No.	Upstream Node	Downstream Node	Design Flow - 10-Year (cfs)	Pipe Diameter (in.)	Manning's Roughness	Length (ft)	Approximate Slope (ft/ft)	Flow Depth (ft)	Flow Velocity (ft/s)
1	P3	P3C	20.0	27	0.015	670	0.0056	1.8	5.8
2	P3A	J3B	6.2	15	0.015	30	0.0123	1.0	5.8
3	P3B	J3B	7.2	V-Ditch[1]	0.015	250	0.0045	0.9	2.9
4	J3B	P3C	12.3	21	0.015	86	0.0080	1.4	5.8
5	P3C	P3D	29.0	30	0.015	376	0.0067	2.0	6.8
6	P3D	P3E	30.0	30	0.015	390	0.0072	2.0	7.0

Notes: 1. V-ditch is 1 foot deep with 3:1 side slopes.

Table C-6. Problem Location 4 XPSWMM Node Data and Results				
	Proposed Solution (Option 2)			
Node Name	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	10-Year Water Surface Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)
P4A1	146.00	138.30	144.69	145.43
P4A_Out	146.00	138.00	141.60	144.30
P4B1	150.50	146.50	150.47	150.47
P4B1b	148.00	142.50	147.16	147.26
P4B2	154.00	150.00	154.76	154.79
P4B3	154.00	149.00	153.27	153.29
P4B4	148.00	141.80	147.67	148.08
P4B4b	148.00	141.30	144.94	146.16
P4B_Out	148.00	141.00	142.75	144.90
PB4_23	152.00	147.80	151.69	151.97

Table C-7. Problem Location 4 XPSWMM Link Data and Results

Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 10-Year Flow cfs	Max 10-Year Velocity ft/s	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
Option 2												
P_4A1	P4A1	P4A_Out	Circular	1.75	146	138.30	138.00	0.015	20.2	8.3	12.3	5.0
OLR_4A1	P4A1	P4A_Out	Rectangular	1.50	146	144.00	143.60	0.015	2.8	2.8	7.9	3.9
P_4B2	P4B2	PB4_23	Circular	0.83	314	150.00	148.00	0.015	2.6	4.7	2.5	4.5
P_PB4-23	PB4_23	P4B4	Circular	1.00	414	147.80	142.60	0.015	4.0	5.0	3.6	4.5
P_4B4	P4B4	P4B4b	Circular	1.75	167	141.80	141.30	0.015	17.8	7.3	15.5	6.3
P_4B4b	P4B4b	P4B_Out	Circular	1.75	136	141.30	141.00	0.015	17.5	7.2	13.3	5.5
OLR_4b-4a	P4B4b	P4A1	Trapezoidal	0.50	370	145.80	143.80	0.020	0.0	0.0	8.1	0.6
P_4B1	P4B1	P4B1b	Circular	1.25	140	146.50	142.70	0.015	9.4	7.6	9.1	7.3
OLR_B1-B1b	P4B1	P4B1b	Trapezoidal	0.50	812	150.00	145.80	0.020	16.1	1.6	15.8	1.4
P_4B1b	P4B1b	P4B4	Circular	1.50	444	142.50	141.80	0.015	6.2	3.5	-5.1	2.2
OLR_B1b	P4B1b	P4B4b	Trapezoidal	0.50	250	146.80	145.80	0.020	5.9	1.4	11.4	1.6
P_4B3	P4B3	PB4_23	Circular	0.83	198	149.00	148.00	0.015	1.8	3.3	1.7	3.0

Table C-8. Problem Location 5 Hydraulic Data for Proposed Solution									
Reach No.	Upstream Node	Downstream Node	Design Flow - 10-Year (cfs)	Pipe Diameter (in.)	Manning's Roughness	Length (ft)	Approximate Energy Slope (ft/ft)	Flow Depth (ft)	Flow Velocity (ft/s)
1	P5A	P5B	16.8	24	0.015	151	0.0073	Full Pipe	5.35

Table C-9. Problem Locations 6 & 10 XPSWMM Node Data and Results

Node Name	Existing Conditions				Proposed Solution (Option 2)				Change in Water Surface Elevation	
	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	10-Year Water Surface Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	10-Year Water Surface Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	10-Year	100-Year
SD6B1	166.00	162.50	165.74	165.82	166.00	162.50	165.74	165.82	0.00	0.00
SD6B2	164.50	160.50	164.37	164.46	164.50	160.50	164.37	164.46	0.00	0.00
J6B2	160.50	156.20	160.46	160.57	160.50	156.20	160.46	160.57	0.00	0.00
SD6B3	160.00	155.40	159.56	159.76	160.00	155.40	159.50	159.71	-0.05	-0.04
J6B3	158.50	157.70	159.09	159.74	158.50	157.70	158.52	158.86	-0.58	-0.89
SD6B4	159.00	154.80	159.09	159.74	159.00	153.30	156.41	158.78	-2.68	-0.96
J6B4	157.80	153.60	157.26	157.90	157.80	152.00	155.84	157.88	-1.42	-0.02
SD6B5	156.10	151.60	155.23	155.85	156.10	151.10	154.01	155.53	-1.22	-0.33
Mar_OLR	154.90	154.40	154.40	154.59	154.90	154.40	154.40	154.56	0.00	-0.04
SD6B6	150.00	144.10	149.82	149.92	150.00	144.10	149.75	149.87	-0.08	-0.06
6B6b_Out	146.20	145.70	146.12	146.22	146.20	145.70	146.05	146.17	-0.08	-0.06
SD6B7	149.50	142.30	148.41	149.10	149.50	142.30	147.56	147.41	-0.86	-1.69
SD6A1	174.10	171.50	173.94	174.03	174.10	171.50	173.94	174.03	0.00	0.00
SD6A2	174.20	170.70	174.14	174.77	174.20	170.70	174.14	174.77	0.00	0.00
J6A2a	173.40	170.00	171.08	171.14	173.40	170.00	171.08	171.14	0.00	0.00
J6A2b	167.40	163.00	167.78	167.97	167.40	163.00	167.78	167.97	0.00	0.00
J6A2c	167.50	162.50	167.23	167.44	167.50	162.50	167.23	167.44	0.00	0.00
SD6A3	165.30	160.80	164.55	164.68	165.30	160.80	164.55	164.68	0.00	0.00
SD6A4	160.30	155.70	160.26	160.47	160.30	155.70	160.26	160.46	0.00	0.00
J6A4a	159.20	154.70	159.68	160.33	159.20	154.70	159.68	160.33	-0.01	0.00
J6A4b	155.00	150.50	155.01	155.41	155.00	150.50	154.99	155.41	-0.02	0.00
J6A4c	153.20	147.50	151.53	152.81	153.20	147.50	151.30	152.78	-0.23	-0.03
SD6A5	149.50	144.70	149.71	150.47	149.50	144.70	149.48	150.20	-0.23	-0.27
J6A5	148.80	143.00	148.56	149.11	148.80	143.00	148.08	148.38	-0.49	-0.73
J6B7	144.40	136.20	142.15	143.90	144.40	136.20	143.32	142.75	1.17	-1.15
SD6Out	140.00	131.20	139.60	141.00	140.00	131.20	139.60	141.00	0.00	0.00
SD6_OLROut	141.20	140.20	140.20	141.00	141.20	140.20	140.20	141.00	0.00	0.00
SD6B8	N/A	N/A	N/A	N/A	149.70	141.10	144.34	145.06	N/A	N/A
SD6MOut	N/A	N/A	N/A	N/A	146.60	139.50	142.74	143.60	N/A	N/A

Table C-10. Problem Locations 6 & 10 XPSWMM Link Data and Results

Name	Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 10-Year Flow cfs	Max 10-Year Velocity ft/s	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
Existing Conditions													
ORL_6B1	ORL_6B1	SD6B1	J6B2	Trapezoidal	0.50	300	165.50	160.00	0.035	10.6	2.0	17.0	2.4
P_6B2	C_6B2	SD6B2	J6B2	Circular	1.50	324	160.50	156.20	0.015	10.3	6.0	10.2	5.9
OLR_6B2	C_6B2	SD6B2	J6B2	Trapezoidal	0.50	324	164.00	160.00	0.035	16.1	1.6	28.6	1.8
P_6B1	C_6B1	SD6B1	SD6B2	Circular	1.00	302	162.50	161.00	0.015	3.1	3.9	3.2	4.1
P_J6B2	C_J6B2	J6B2	SD6B3	Circular	1.75	216	156.20	155.40	0.015	9.7	4.0	9.6	4.0
PLR_J6B2	C_J6B2	J6B2	SD6B3	Trapezoidal	0.50	216	160.00	158.80	0.020	24.7	1.9	43.4	2.1
P_6B3	C_6B3	SD6B3	SD6B4	Circular	1.75	143	155.40	154.80	0.015	14.3	5.9	14.2	5.9
OLR_6B3a	OLR6B3a	SD6B3	J6B3	Trapezoidal	0.70	425	158.90	157.80	0.020	38.8	1.8	68.4	2.0
OLR_6B3b	OLR6B3b	J6B3	SD6B4	Trapezoidal	0.50	280	157.80	157.70	0.020	17.3	0.6	27.0	0.7
P_6B4	C_6B4	SD6B4	J6B4	Circular	2.00	173	154.80	153.60	0.015	22.8	7.2	24.0	7.6
P_J6B4	C_J6B4	J6B4	SD6B5	Circular	2.25	471	153.60	151.60	0.015	22.8	5.8	24.0	6.1
P_6B5	C_6B5	SD6B5	SD6B6	Circular	2.50	776	151.60	144.10	0.015	29.8	6.9	31.2	7.0
Mar1_OLR	C_Mar1_OLR	SD6B5	Mar_OLR	Trapezoidal	0.50	140	155.60	154.40	0.020	0.0	0.0	3.9	1.5
Mar2_OLR	C_Mar2_OLR	Mar_OLR	SD6B6	Trapezoidal	0.50	650	154.40	149.40	0.020	0.0	0.0	2.3	0.9
OLR_6b6b.1	OLR_6B6b	SD6B6	6B6b_Out	Trapezoidal	0.50	505	149.40	145.70	0.020	13.5	2.3	23.3	2.7
P_6B6	C_6B6	SD6B6	SD6B7	Circular	2.50	434	144.10	143.30	0.015	35.0	7.2	35.3	7.2
OLR_6B6	C_6B6	SD6B6	SD6B7	Trapezoidal	0.50	434	149.40	148.50	0.020	6.0	1.1	12.0	1.4
P_SD6A1	C_SD6A1	SD6A1	J6A2c	Circular	0.83	399	171.50	163.70	0.015	2.9	5.5	2.8	5.5
OLR_6A1	C_SD6A1	SD6A1	J6A2c	Trapezoidal	0.50	399	173.60	167.00	0.035	5.5	1.5	10.7	1.9
P_SD6A2	C_SD6A2	SD6A2	J6A2a	Circular	2.00	197	170.70	170.00	0.015	21.2	7.0	23.8	7.9
CH_J6A2a	C_J6A2a	J6A2a	J6A2b	Trapezoidal	1.00	320	170.00	165.50	0.035	21.1	3.3	23.8	3.3
P_J6A2b	C_J6A2b	J6A2b	J6A2c	Circular	1.50	86	163.00	162.50	0.015	11.2	6.3	11.3	6.3
OLR_6A2b	C_J6A2b	J6A2b	J6A2c	Trapezoidal	0.16	86	167.20	167.00	0.035	7.1	1.1	15.9	1.3
P_J6A2c	C_J6A2c	J6A2c	SD6A3	Circular	1.50	67	162.50	161.30	0.015	18.4	10.3	18.8	10.5
OLR_6A2c	C_J6A2c	J6A2c	SD6A3	Trapezoidal	0.50	67	167.00	164.80	0.035	2.5	1.9	12.3	2.9
P_SD6A3	C_SD6A3	SD6A3	SD6A4	Circular	2.00	735	160.80	156.00	0.015	16.8	5.6	16.9	5.6
OLR_6A3	C_SD6A3	SD6A3	SD6A4	Trapezoidal	0.50	735	164.00	159.60	0.020	30.7	2.4	54.2	2.7
P_SD6A4	C_SD6A4	SD6A4	J6A4a	Circular	2.25	255	155.70	154.70	0.015	30.4	7.7	30.4	7.7
OLR_6A4	C_SD6A4	SD6A4	J6A4a	Trapezoidal	0.70	255	159.60	158.40	0.020	45.3	2.3	82.1	2.5
P_J6A4a	C_J6A4a	J6A4a	J6A4b	Circular	2.25	297	154.70	150.80	0.015	37.1	9.3	37.3	9.4
OLR_6A4a	C_J6A4a	J6A4a	J6A4b	Trapezoidal	0.50	297	158.70	154.50	0.060	13.2	2.0	35.3	2.8
P_JA64b	C_J6A4b	J6A4b	J6A4c	Circular	2.50	329	150.50	147.80	0.015	38.8	7.8	38.2	7.7
OLR_A64b	C_J6A4b	J6A4b	J6A4c	Trapezoidal	0.50	329	154.50	152.50	0.035	9.4	1.3	37.4	1.9
P_J6A4c	C_J6A4c	J6A4c	SD6A5	Circular	2.75	181	147.50	145.00	0.015	46.1	8.5	53.9	9.0

Table C-10. Problem Locations 6 & 10 XPSWMM Link Data and Results

Name	Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 10-Year Flow cfs	Max 10-Year Velocity ft/s	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
OLR_6A4c	C_J6A4c	J6A4c	SD6A5	Trapezoidal	0.70	181	152.50	148.30	0.035	0.0	0.0	16.0	0.4
P_6A	C_SD6A5	SD6A5	J6A5	Circular	3.00	280	144.70	143.00	0.015	43.0	7.0	40.5	6.7
OLR_6A	C_SD6A5	SD6A5	J6A5	Trapezoidal	1.00	280	148.30	146.80	0.040	14.8	2.3	33.8	3.0
P_J6A	C_J6A	J6A5	SD6B7	Circular	3.00	69	143.00	142.30	0.015	53.3	7.5	44.4	6.3
OLR_J6A	C_J6A	J6A5	SD6B7	Trapezoidal	0.50	69	148.30	148.00	0.020	21.3	1.5	67.2	1.4
P_6B	C_6B7	SD6B7	J6B7	Circular	3.50	555	142.30	136.20	0.015	93.7	10.1	89.5	9.3
OLR_6B	C_6B7	SD6B7	J6B7	Trapezoidal	1.00	555	148.50	143.40	0.020	0.0	0.0	29.0	3.2
P_J6B	C_J6B	J6B7	SD6Out	Circular	3.50	461	136.20	131.20	0.015	93.7	9.7	96.5	10.0
OLR_J6B	C_J6B7	J6B7	SD6_OLROut	Trapezoidal	1.00	250	143.40	140.20	0.020	0.0	0.0	20.7	3.3
Proposed Solution													
ORL_6B1	ORL_6B1	SD6B1	J6B2	Trapezoidal	0.50	300	165.50	160.00	0.035	10.6	2.0	17.0	2.5
P_6B2	C_6B2	SD6B2	J6B2	Circular	1.50	324	160.50	156.20	0.015	10.3	6.1	10.2	6.0
OLR_6B2	C_6B2	SD6B2	J6B2	Trapezoidal	0.50	324	164.00	160.00	0.035	16.2	1.6	28.6	1.8
P_6B1	C_6B1	SD6B1	SD6B2	Circular	1.00	302	162.50	161.00	0.015	3.2	4.1	3.5	4.4
P_J6B2	C_J6B2	J6B2	SD6B3	Circular	1.75	216	156.20	155.40	0.015	11.3	4.7	11.3	4.7
PLR_J6B2	C_J6B2	J6B2	SD6B3	Trapezoidal	0.50	216	160.00	158.80	0.020	24.4	1.9	43.3	2.2
P_6B3	C_6B3	SD6B3	SD6B4	Circular	1.75	143	155.40	154.80	0.015	20.5	8.5	20.7	8.6
OLR_6B3a	OLR6B3a	SD6B3	J6B3	Trapezoidal	0.70	425	158.90	157.80	0.020	31.0	1.8	65.8	2.1
OLR_6B3b	OLR6B3b	J6B3	SD6B4	Trapezoidal	0.50	280	157.80	157.70	0.020	21.5	1.1	50.8	1.3
P_6B4	C_6B4	SD6B4	J6B4	Circular	3.50	173	153.30	152.00	0.015	56.0	6.8	66.5	6.9
P_J6B4	C_J6B4	J6B4	SD6B5	Circular	3.50	471	152.00	151.10	0.015	55.7	5.7	65.9	6.8
P_6B5	C_6B5	SD6B5	SD6B6	Circular	3.50	776	151.10	144.10	0.015	65.5	7.8	74.8	7.9
OLR_6B5	C_6B5	SD6B5	SD6B6	Trapezoidal	0.50	810	155.60	149.40	0.020	0.0	0.0	0.0	0.0
Mar1_OLR	C_Mar1_OLR	SD6B5	Mar_OLR	Trapezoidal	0.50	140	155.30	154.40	0.020	0.0	0.0	2.5	1.2
Mar2_OLR	C_Mar2_OLR	Mar_OLR	SD6B6	Trapezoidal	0.50	650	154.40	149.40	0.020	0.0	0.0	1.4	0.7
OLR_6b6b.1	OLR_6B6b	SD6B6	6B6b_Out	Trapezoidal	0.50	505	149.40	145.70	0.020	8.0	2.0	17.1	2.5
P_6B6	C_6B6	SD6B6	SD6B7	Circular	3.50	434	144.10	143.30	0.015	63.4	6.6	74.6	7.8
OLR_6B6	C_6B6	SD6B6	SD6B7	Trapezoidal	0.50	434	149.40	148.50	0.020	3.5	0.9	7.6	1.2
P_SD6A1	C_SD6A1	SD6A1	J6A2c	Circular	0.83	399	171.50	163.70	0.015	2.9	5.5	2.8	5.5
OLR_6A1	C_SD6A1	SD6A1	J6A2c	Trapezoidal	0.50	399	173.60	167.00	0.035	5.5	1.5	10.7	1.9
P_SD6A2	C_SD6A2	SD6A2	J6A2a	Circular	2.00	197	170.70	170.00	0.015	21.2	7.0	23.8	7.9
CH_J6A2a	C_J6A2a	J6A2a	J6A2b	Trapezoidal	1.00	320	170.00	165.50	0.035	21.1	3.3	23.8	3.3
P_J6A2b	C_J6A2b	J6A2b	J6A2c	Circular	1.50	86	163.00	162.50	0.015	11.2	6.3	11.3	6.3
OLR_6A2b	C_J6A2b	J6A2b	J6A2c	Trapezoidal	0.16	86	167.20	167.00	0.035	7.1	1.1	15.9	1.3
P_J6A2c	C_J6A2c	J6A2c	SD6A3	Circular	1.50	67	162.50	161.30	0.015	18.4	10.3	18.8	10.5

Table C-10. Problem Locations 6 & 10 XPSWMM Link Data and Results

Name	Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 10-Year Flow cfs	Max 10-Year Velocity ft/s	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
OLR_6A2c	C_J6A2c	J6A2c	SD6A3	Trapezoidal	0.50	67	167.00	164.80	0.035	2.5	1.9	12.3	2.9
P_SD6A3	C_SD6A3	SD6A3	SD6A4	Circular	2.00	735	160.80	156.00	0.015	16.8	5.6	16.9	5.6
OLR_6A3	C_SD6A3	SD6A3	SD6A4	Trapezoidal	0.50	735	164.00	159.60	0.020	30.7	2.4	54.2	2.7
P_SD6A4	C_SD6A4	SD6A4	J6A4a	Circular	2.25	255	155.70	154.70	0.015	30.4	7.7	30.4	7.7
OLR_6A4	C_SD6A4	SD6A4	J6A4a	Trapezoidal	0.70	255	159.60	158.40	0.020	45.2	2.4	82.1	2.5
P_J6A4a	C_J6A4a	J6A4a	J6A4b	Circular	2.25	297	154.70	150.80	0.015	37.4	9.4	37.4	9.4
OLR_6A4a	C_J6A4a	J6A4a	J6A4b	Trapezoidal	0.50	297	158.70	154.50	0.060	13.1	2.0	35.2	2.8
P_JA64b	C_J6A4b	J6A4b	J6A4c	Circular	2.50	329	150.50	147.80	0.015	42.7	8.7	42.2	8.6
OLR_A64b	C_J6A4b	J6A4b	J6A4c	Trapezoidal	0.50	329	154.50	152.50	0.035	8.4	1.2	37.0	1.9
P_J6A4c	C_J6A4c	J6A4c	SD6A5	Circular	2.75	181	147.50	145.00	0.015	47.4	9.5	56.7	9.5
OLR_6A4c	C_J6A4c	J6A4c	SD6A5	Trapezoidal	0.70	181	152.50	148.30	0.035	0.0	0.0	12.9	0.4
P_6A	C_SD6A5	SD6A5	J6A5	Circular	3.00	280	144.70	143.00	0.015	54.6	7.7	60.1	8.4
OLR_6A	C_SD6A5	SD6A5	J6A5	Trapezoidal	1.00	280	148.30	146.80	0.040	11.3	2.3	26.4	2.9
P_J6A	C_J6A	J6A5	SD6B7	Circular	3.00	69	143.00	142.30	0.015	57.8	8.2	75.8	10.7
OLR_J6A	C_J6A	J6A5	SD6B7	Trapezoidal	0.50	69	148.30	148.00	0.020	0.0	0.0	2.4	0.7
P_6B	C_6B7	SD6B7	J6B7	Circular	3.50	555	142.30	136.20	0.015	76.6	8.0	81.6	9.1
OLR_6B	C_6B7	SD6B7	J6B7	Trapezoidal	1.00	555	148.50	143.40	0.020	0.0	0.0	0.0	0.0
P_J6B	C_J6B	J6B7	SD6Out	Circular	3.50	461	136.20	131.20	0.015	78.9	8.2	86.0	8.9
OLR_J6B	C_J6B7	J6B7	SD6_OLROut	Trapezoidal	1.00	250	143.40	140.20	0.020	0.0	0.0	0.0	0.0
P_6B72	C_6B72	SD6B7	SD6B8	Circular	3.00	220	143.50	141.60	0.015	44.7	9.1	68.6	9.7
OLR_6B72	C_6B72	SD6B7	SD6B8	Trapezoidal	0.50	220	148.00	149.20	0.020	0.0	0.0	0.0	0.0
P_6B8	C_6B8	SD6B8	SD6MOut	Circular	3.50	190	141.10	139.50	0.015	56.8	8.6	104.1	10.4
OLR_6B8	C_6B8	SD6B8	SD6MOut	Trapezoidal	0.50	190	149.20	146.10	0.020	0.0	0.0	0.0	0.0

Table C-11. Problem Location 9 XPSWMM Node Data and Results

Node Name	Existing Conditions			Proposed Solution (Option 2)			Change in Water Surface Elevation
	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	
P9A	222.60	218.20	222.64	222.60	218.20	222.64	0.00
P9B	215.90	211.10	215.82	215.90	211.10	215.82	0.00
Node18	N/A	N/A	N/A	217.00	209.00	209.00	N/A
Node19	N/A	N/A	N/A	212.50	208.95	213.91	N/A
P9C	212.50	208.90	214.61	212.50	208.90	213.91	-0.70
P9D	209.80	205.40	209.88	209.80	205.40	209.88	-0.01
P9E	208.60	203.70	208.87	208.60	203.70	208.84	-0.03
P9F	209.00	202.70	208.26	209.00	202.70	207.79	-0.48
P9G	207.00	201.90	206.45	207.00	201.40	206.53	0.08
PFb	208.70	207.00	207.25	208.70	207.00	207.15	-0.09
P9H	205.00	201.00	204.38	205.00	201.00	204.34	-0.05
P9I	204.20	200.30	203.65	204.20	200.30	203.37	-0.28
P9Hb	204.60	203.30	204.09	204.60	203.30	204.05	-0.04
P9J	203.60	198.90	201.56	203.60	198.90	201.16	-0.41
P9K	201.40	189.40	198.95	201.40	189.40	198.87	-0.08
P9L	200.00	194.00	196.55	200.00	194.00	196.47	-0.08

Table C-12. Problem Location 9 XPSWMM Link Data and Results

Name	Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
Existing Conditions											
PAB	LnkAB	P9A	P9B	Circular	1.00	264	218.20	211.10	0.015	5.1	6.4
PBC	LnkBC	P9B	P9C	Circular	1.00	211	211.10	209.00	0.015	4.8	6.0
ChBC	LnkBC	P9B	P9C	Trapezoidal	0.50	211	215.40	212.00	0.020	18.0	1.8
PCD	LnkCD	P9C	P9D	Circular	1.25	390	208.90	206.20	0.015	7.4	6.0
PDE	LnkDE	P9D	P9E	Circular	2.00	507	205.40	203.70	0.015	11.0	4.0
ChDE	LnkDE	P9D	P9E	Trapezoidal	0.50	507	209.30	208.10	0.020	21.6	1.5
PEF	LnkEF	P9E	P9F	Circular	2.00	282	203.70	202.70	0.015	15.9	5.0
ChEF	LnkEF	P9E	P9F	Trapezoidal	0.50	282	208.10	207.50	0.020	29.9	1.8
PFG	LinkFH	P9F	P9G	Circular	2.00	180	202.70	201.90	0.015	20.5	6.5
OLRFFb	LinkFFb	P9F	PFb	Trapezoidal	1.50	180	206.50	207.00	0.020	17.5	3.8
PGH	LinkGH	P9G	P9H	Circular	2.00	204	201.90	201.00	0.015	20.5	6.5
OLRHI	LinkFbHb	PFb	P9H	Trapezoidal	1.00	210	207.00	204.00	0.040	17.5	1.6
PHI	LinkHI	P9H	P9I	Circular	2.25	164	201.00	200.30	0.015	29.8	7.5
OLRHHb	LinkHHb	P9H	P9Hb	Trapezoidal	1.00	80	204.00	203.30	0.040	12.7	1.2
PIJ	LinkIJ	P9I	P9J	Circular	2.25	100	200.30	198.90	0.015	42.8	10.7
OLRHbJ	LinkHbJ	P9Hb	P9J	Trapezoidal	0.50	180	203.60	202.60	0.020	12.6	2.0
PJK	LinkJK	P9J	P9K	Circular	2.50	170	198.90	196.40	0.015	45.0	9.4
CHKL	LinkKL	P9K	P9L	Trapezoidal	4.00	500	196.40	194.00	0.080	45.0	1.8
Proposed Solution											
PAB	LnkAB	P9A	P9B	Circular	1.00	264	218.20	211.10	0.015	5.1	6.4
PBC	LnkBC	P9B	P9C	Circular	1.00	211	211.10	209.00	0.015	4.9	6.1
ChBC	LnkBC	P9B	P9C	Trapezoidal	0.50	211	215.40	212.00	0.020	17.7	2.4
P_Stor	Link18	Node18	Node19	Circular	3.00	400	209.00	208.95	0.015	0.0	0.0
Weir	Link18	Node18	Node19	Circular	3.00	400	209.00	208.95	0.015	0.0	0.0
Weir_conn	Link19	Node19	P9C	Circular	3.00	33	208.95	208.90	0.015	-10.7	0.0
Weir.1	Link19	Node19	P9C	Circular	3.00	33	208.95	208.90	0.015	-10.7	0.0

Table C-12. Problem Location 9 XPSWMM Link Data and Results

Name	Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
PCD	LnkCD	P9C	P9D	Circular	1.25	390	208.90	206.20	0.015	7.0	5.7
PDE	LnkDE	P9D	P9E	Circular	2.00	507	205.40	203.70	0.015	11.4	3.9
ChDE	LnkDE	P9D	P9E	Trapezoidal	0.50	507	209.30	208.10	0.020	21.0	1.5
PEF	LnkEF	P9E	P9F	Circular	2.00	282	203.70	202.70	0.015	20.3	6.4
ChEF	LnkEF	P9E	P9F	Trapezoidal	0.50	282	208.10	207.50	0.020	26.1	1.7
PFG	LinkFH	P9F	P9G	Circular	2.50	180	202.70	201.40	0.015	34.5	7.0
OLRFFb	LinkFFb	P9F	PFb	Trapezoidal	1.50	180	206.50	207.00	0.020	7.7	2.6
PGH	LinkGH	P9G	P9H	Circular	2.00	204	201.40	201.00	0.015	24.0	7.6
OLRDB	LinkGH	P9G	P9H	Trapezoidal	0.30	100	206.40	204.00	0.040	10.3	1.2
OLRHI	LinkFbHb	PFb	P9H	Trapezoidal	1.00	210	207.00	204.00	0.040	7.7	1.2
PHI	LinkHI	P9H	P9I	Circular	2.25	164	201.00	200.30	0.015	29.8	7.5
OLRHHb	LinkHHb	P9H	P9Hb	Trapezoidal	1.00	80	204.00	203.30	0.040	10.2	1.1
PIJ	LinkIJ	P9I	P9J	Circular	2.25	100	200.30	198.90	0.015	41.6	10.5
OLRHbJ	LinkHbJ	P9Hb	P9J	Trapezoidal	0.50	180	203.60	202.60	0.020	10.2	1.9
PJK	LinkJK	P9J	P9K	Circular	2.50	170	198.90	196.40	0.015	42.6	9.4
CHKL	LinkKL	P9K	P9L	Trapezoidal	4.00	500	196.40	194.00	0.080	42.5	1.8

Table C-13. Problem Location 11 XPSWMM Node Data and Results

Node Name	Existing Conditions			Proposed Solution (Option 2)			Change in Water Surface Elevation
	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	
P11A	171.90	168.20	171.88	171.90	167.00	171.63	-0.24
P11B	171.30	167.20	171.28	171.30	166.70	171.09	-0.19
P11C	170.80	166.90	169.41	170.80	166.90	167.99	-1.42
P11D	168.30	166.30	168.17	168.30	166.30	167.85	-0.32
P11D2	168.20	166.10	168.11	168.20	166.10	167.84	-0.27
P11E	166.90	164.00	166.80	166.90	164.00	166.43	-0.37
P11E2	165.10	162.10	164.85	165.10	159.50	163.22	-1.63
P11E3	164.80	161.30	163.80	164.80	161.30	162.53	-1.27
P11E4	164.00	161.10	163.74	164.00	161.10	162.51	-1.23
P11E5	163.70	160.90	163.31	163.70	160.90	162.33	-0.99
P11E6	162.80	160.00	162.66	162.80	160.00	162.23	-0.43
P11F	162.20	159.60	162.15	162.20	159.60	161.34	-0.81
P11F2	161.50	158.90	161.44	161.50	158.90	161.22	-0.22
P11F3	161.10	158.30	161.00	161.10	158.30	160.66	-0.35
P11F4	161.00	157.80	160.98	161.00	157.80	160.65	-0.33
P11G	161.10	156.90	159.54	161.10	157.50	158.87	-0.67

Table C-14. Problem Location 11 XPSWMM Link Data and Results

Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
Existing Conditions										
P_11A	P11A	P11B	Circular	1.25	222	168.2	167.2	0.015	2.9	2.4
P_11B	P11B	P11C	Circular	1.5	132	167.2	166.9	0.015	10.9	6.1
C_11C	P11C	P11D	Rectangular	2	112	166.9	166.3	0.025	29.2	4.6
CH_11D	P11D	P11D2	Trapezoidal	1	130	166.3	166.1	0.015	32.4	2.4
P_11D2	P11D2	P11E	Circular	1	180	166.1	164	0.015	2.7	3.4
P_11E	P11E	P11E2	Circular	1.5	160	164	162.1	0.015	10.1	5.7
P_11E2	P11E2	P11E3	Circular	1.5	35	162.1	161.3	0.024	8.9	5.0
C_11E3	P11E3	P11E4	Trapezoidal	2	33	161.3	161.1	0.035	39.1	2.6
P_11E4	P11E4	P11E5	Rectangular	1.25	33	161.1	160.9	0.015	9.9	3.5
C_11E5	P11E5	P11E6	Trapezoidal	2	93	160.9	160	0.035	39.1	4.1
P_11E6	P11E6	P11F	Circular	1.5	45	160	159.6	0.024	4.9	2.8
C_11F	P11F	P11F2	Trapezoidal	2	72	159.6	158.9	0.04	42.3	4.2
P_11F2	P11F2	P11F3	Circular	1.25	60	158.9	158.3	0.024	2.6	2.1
C_11F3	P11F3	P11F4	Trapezoidal	2	53	158.3	157.8	0.035	42.3	1.7
P_11F4	P11F4	P11G	Circular	1.25	33	157.8	159.6	0.024	-2.4	-3.6
C_11G	P11G	P11G2	Trapezoidal	1.3	274	157.5	155.4	0.035	49.6	2.0
P_11G2	P11G2	P11G3	Circular	1.5	33	155.4	155.4	0.015	10.2	5.7
C_11G3	P11G3	P11G4	Trapezoidal	2.3	33	155.4	155.9	0.04	-10.2	-0.6
P_11G4	P11G4	P11G5	Circular	1.67	33	155.9	155.4	0.015	10.2	4.6
C_11G5	P11G5	P11_Out	Trapezoidal	3.3	185	155.4	152.7	0.04	10.2	0.7
OLR_11A	P11A	P11B	Trapezoidal	0.5	222	171.4	170.5	0.02	17.6	1.6
OLR_11B	P11B	P11C	Trapezoidal	0.5	132	170.8	170.3	0.02	15.8	1.7
OLR_11D2	P11D2	P11E	Trapezoidal	0.7	160	167.5	166.2	0.04	29.7	1.7
OLR_11E	P11E	P11E2	Trapezoidal	0.5	160	166.2	164.4	0.04	29.0	1.8
OLR_11E2	P11E2	P11E3	Trapezoidal	0.5	35	164.6	164.3	0.02	30.2	2.3
OLR_11E4	P11E4	P11E5	Trapezoidal	0.6	33	163.3	163.1	0.02	29.2	2.4
OLR_11E6	P11E6	P11F	Trapezoidal	0.5	45	162.3	161.7	0.02	34.2	2.8
OLR_11F2	P11F2	P11F3	Trapezoidal	0.5	60	161	160.6	0.02	39.7	2.2
OLR_11F4	P11F4	P11G	Trapezoidal	0.5	33	160.5	160	0.02	39.9	3.8
OLR_11G2	P11G2	P11_Out	Trapezoidal	0.5	260	159	158.9	0.02	1.0	0.4
OldAubOLR.	P11G2	P11_Out2	Trapezoidal	0.5	100	159	158.5	0.02	38.4	1.7
Proposed Solution										
P_11A	P11A	P11B	Circular	2.5	222	167	166.7	0.015	17.7	3.6
P_11B_New	P11B	P11B_New	Circular	2.5	425	166.7	164.3	0.015	22.8	4.6

Table C-14. Problem Location 11 XPSWMM Link Data and Results

Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
P_11B_New2	P11B_New	P11E2	Circular	2	463	164.3	159.5	0.015	22.8	7.2
C_11C	P11C	P11D	Rectangular	2	112	166.9	166.3	0.025	6.4	1.8
CH_11D	P11D	P11D2	Trapezoidal	1	130	166.3	166.1	0.015	9.6	1.0
P_11D2	P11D2	P11E	Circular	1	180	166.1	164	0.015	2.7	3.5
P_11E	P11E	P11E2	Circular	1.5	160	164	162.1	0.015	12.6	7.1
P_11E2	P11E2	P11E3	Circular	1.5	35	162.1	161.3	0.024	6.5	4.6
P_Bonita_N	P11E2	P11G2a	Circular	2.5	535	159.5	155.4	0.015	32.6	6.6
C_11E3	P11E3	P11E4	Trapezoidal	2	33	161.3	161.1	0.035	6.5	1.1
P_11E4	P11E4	P11E5	Rectangular	1.25	33	161.1	160.9	0.015	6.5	2.3
C_11E5	P11E5	P11E6	Trapezoidal	2	93	160.9	160	0.035	6.5	1.4
P_11E6	P11E6	P11F	Circular	1.5	45	160	159.6	0.024	6.5	3.7
C_11F	P11F	P11F2	Trapezoidal	2	72	159.6	158.9	0.04	9.7	1.6
P_11F2	P11F2	P11F3	Circular	1.25	60	158.9	158.3	0.024	3.0	2.4
C_11F3	P11F3	P11F4	Trapezoidal	2	53	158.3	157.8	0.035	9.7	0.5
P_11F4	P11F4	P11G	Circular	1.25	33	157.8	157.5	0.024	6.6	5.3
C_11G	P11G	P11G2a	Trapezoidal	1.5	79	157.5	155.9	0.04	17.0	2.1
P_11G2	P11G2a	P11G2	Circular	3.5	195	154.5	153.18	0.015	49.6	5.0
OLR_11A	P11A	P11B	Trapezoidal	0.5	222	171.4	170.5	0.02	2.8	0.8
OLR_11B	P11B	P11C	Trapezoidal	0.5	132	170.8	170.3	0.02	3.9	1.2
OLR_11D2	P11D2	P11E	Trapezoidal	0.7	180	167.5	166.2	0.04	6.9	1.0
OLR_11E	P11E	P11E2	Trapezoidal	0.5	160	166.2	164.4	0.04	3.7	1.0
OLR_11E2	P11E2	P11E3	Trapezoidal	0.5	35	164.6	164.3	0.02	0.0	0.0
OLR_11E4	P11E4	P11E5	Trapezoidal	0.6	33	163.3	163.1	0.02	0.0	0.0
OLR_11E6	P11E6	P11F	Trapezoidal	0.5	45	162.3	161.7	0.02	0.0	0.0
OLR_11F2	P11F2	P11F3	Trapezoidal	0.5	60	161	160.6	0.02	6.7	1.4
OLR_11F4	P11F4	P11G	Trapezoidal	0.5	33	160.5	160	0.02	3.1	2.0
OLR_11G2	P11G2	P11_Out	Trapezoidal	0.5	251	159	158.9	0.02	0.0	0.0
OldAubOLR.	P11G2	P11_Out2	Trapezoidal	0.5	100	159	158.5	0.02	0.0	0.0

Table C-15. Problem Location 12 XPSWMM Node Data and Results

Node Name	Existing Conditions			Proposed Solution (Option 2)			Change in Water Surface Elevation
	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	Modeled Ground Elevation (ft, NAVD)	Modeled Invert Elevation (ft, NAVD)	100-Year Water Surface Elevation (ft, NAVD)	
SD3A1a	194.00	190.40	192.52	194.00	190.40	192.80	0.28
SD3J1a	190.00	188.50	189.49	190.00	188.50	189.35	-0.15
SD3J1b	188.90	186.70	189.24	188.90	186.70	188.64	-0.60
SD3A1b	189.30	186.50	189.24	189.30	185.70	187.79	-1.46
SD3A1c	188.00	184.60	186.13	188.00	183.20	184.92	-1.21
SD3A2	186.30	177.04	186.05	186.30	182.50	184.92	-1.13
SD3A2b	186.30	176.85	184.25	186.30	176.85	183.93	-0.31
SD3A3	180.70	177.70	180.92	180.70	176.00	180.32	-0.60
SD3A3b	180.60	177.50	180.87	180.60	175.50	180.00	-0.86
SD3A3c	180.50	177.00	180.87	180.50	172.65	179.25	-1.62
SD3A4	180.00	176.00	180.84	179.00	172.55	178.85	-2.00
SD3A4b	179.10	172.50	179.30	179.10	172.50	178.66	-0.64
SD3A5	176.50	171.00	177.71	177.50	171.00	177.67	-0.04
J3A5b	177.80	170.30	177.15	177.80	170.30	177.10	-0.06
SD3A5c	173.20	167.00	173.08	173.20	167.00	172.93	-0.14
SD3A6	174.70	166.30	172.89	174.70	166.30	172.85	-0.04

Table C-16. Problem Location 12 XPSWMM Link Data and Results

Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
Existing Conditions										
C_3A1a	SD3A1a	SD3J1a	Circular	1.5	151	190.4	188.5	0.015	12.2	7.1
C_3Ja	SD3J1a	SD3J1b	Trapezoidal	1.5	153	188.5	186.7	0.04	12.1	1.5
C_3J1b	SD3J1b	SD3A1b	Circular	1.5	33	186.7	186.5	0.024	5.3	2.9
C_3A1b	SD3A1b	SD3A1c	Circular	1.67	230	186.5	184.6	0.024	8.9	4.1
C_3A1c	SD3A1c	SD3A2	Trapezoidal	2	160	184.6	182.5	0.04	19.4	1.3
C_3A2	SD3A2	SD3A2b	Circular	1.67	33	182.5	182.4	0.024	14.2	6.5
C_3A2b	SD3A2b	SD3A3	Trapezoidal	2	500	182.4	177.7	0.04	38.4	3.2
C_3A3	SD3A3	SD3A3b	Circular	2	70	177.7	177.5	0.024	12.4	4.0
C_3A3b	SD3A3b	SD3A3c	Circular	2	33	177.5	177	0.015	20.5	6.5
C_3A3c	SD3A3c	SD3A4	Trapezoidal	1.8	148	177	176.5	0.04	66.2	2.7
C_3A4	SD3A4	SD3A4b	Circular	2.25	33	176	172.5	0.024	30.8	9.9
C_3A4b	SD3A4b	SD3A5	Circular	2	167	172.5	171	0.015	20.9	6.6
C_3A5	SD3A5	J3A5b	Circular	2	81	171	170.3	0.015	25.5	8.0
C_3A5b	J3A5b	SD3A5c	Circular	2	410	170.3	167.5	0.015	27.0	8.5
C_3A5c	SD3A5c	SD3A6	Circular	2.5	52	167	166.8	0.015	37.7	7.6
C_3A6	SD3A6	SD3B	Circular	3	293	166.3	166	0.015	39.8	5.6
C_3B	SD3B	SD3D	Circular	3	476	166	164.2	0.015	48.8	6.9
C_3C	SD3C	SD3D	Circular	3	400	166.8	163.3	0.015	40.0	6.3
C_3Da	SD3D	J3E	Circular	3	140	163.3	162.1	0.024	42.7	6.0
C_3Db	SD3D	J3E	Special	3	140	163.3	162.1	0.024	77.8	6.8
C_3E	J3E	SD3Out	Circular	5	94	162.1	161.95	0.015	200.3	9.8
OLR_3A1b	SD3A1b	SD3A1c	Trapezoidal	0.5	230	188.8	187.5	0.04	10.4	0.9
OLR_3A2	SD3A2	SD3A2b	Trapezoidal	0.5	33	185.8	185.7	0.02	25.4	1.1
OLR_3A3	SD3A3	SD3A3b	Trapezoidal	0.5	70	180.2	180.1	0.035	60.2	1.9
OLR_3A3b	SD3A3b	SD3A3c	Trapezoidal	0.5	33	180.1	179.9	0.014	62.2	3.2
OLR_3A5	SD3A5	J3A5b	Trapezoidal	0.5	81	175.5	177.3	0.02	15.9	0.6
OLR_3A5b	J3A5b	SD3A5c	Trapezoidal	0.5	410	176.8	172.7	0.02	12.7	2.4
OLR_3A5c	SD3A5c	SD3A6	Trapezoidal	0.5	52	172.7	172.4	0.02	10.8	1.7
OLR_3A6	SD3A6	SD3B	Rectangular	2	125	172.7	171.8	0.02	1.9	1.8
OLR_3B	SD3B	SD3D	Trapezoidal	0.5	476	171.7	169.7	0.02	30.3	2.1
OLR_3C	SD3C	SD3D	Trapezoidal	1	400	170.5	168.7	0.02	41.2	3.3
OLR_3D	SD3D	J3E	Trapezoidal	0.5	140	168.8	168.3	0.02	82.7	2.2
OLR_3E	J3E	SD3Out	Trapezoidal	0.5	90	169	168.5	0.02	0.0	0.0
OLR_3J1b	SD3J1b	SD3A1b	Trapezoidal	0.5	33	188.4	188.3	0.02	10.9	1.0
Proposed Solution										
C_3A1a	SD3A1a	SD3J1a	Circular	1.5	151	190.4	188.5	0.015	7.2	12.2
C_3Ja	SD3J1a	SD3J1b	Trapezoidal	1.5	153	188.5	186.7	0.04	2.1	12.2

Table C-16. Problem Location 12 XPSWMM Link Data and Results

Link Name	Upstream Node Name	Downstream Node Name	Shape	Diameter (Height) ft	Length ft	Upstream Invert Elevation (ft, NAVD)	Downstream Invert Elevation (ft, NAVD)	Manning's Roughness	Max 100-Year Flow cfs	Max 100-Year Velocity ft/s
C_3J1b	SD3J1b	SD3A1b	Circular	1.5	33	186.7	186.5	0.024	5.5	9.7
C_3A1b	SD3A1b	SD3A1c	Circular	2	230	185.7	183.2	0.015	7.6	22.6
C_3A1c	SD3A1c	SD3A2	Trapezoidal	2	33	183.2	182.5	0.04	3.2	22.3
C_3A2	SD3A2	SD3A2b	Circular	1.67	33	182.5	182.4	0.024	4.5	9.8
C_3A2b	SD3A2b	SD3A3	Trapezoidal	2	500	182.4	177.7	0.04	2.9	25.6
C_3A3	SD3A3	SD3A3b	Circular	3	70	176	175.5	0.015	6.7	49.4
C_3A3b	SD3A3b	SD3A3c	Circular	3	33	175.5	175	0.015	6.8	49.3
C_3A3c	SD3A3c	SD3A4	Circular	3	148	172.65	172.55	0.015	6.2	43.7
C_3A4	SD3A4	SD3A4b	Circular	2.5	33	172.55	172.5	0.015	4.5	21.1
C_3A4b	SD3A4b	SD3A5	Circular	2	167	172.5	171	0.015	6.7	21.1
C_3A5	SD3A5	J3A5b	Circular	2	81	171	170.3	0.015	8.0	25.5
C_3A5b	J3A5b	SD3A5c	Circular	2	410	170.3	167.5	0.015	8.5	27.0
C_3A5c	SD3A5c	SD3A6	Circular	2.5	52	167	166.8	0.015	6.5	32.1
C_3A6	SD3A6	SD3B	Circular	3	293	166.3	166	0.015	4.9	34.5
C_3B	SD3B	SD3D	Circular	3	476	166	164.2	0.015	6.4	45.6
C_3C	SD3C	SD3D	Circular	3	400	166.8	163.3	0.015	6.4	41.2
C_3Da	SD3D	J3E	Circular	3	140	163.3	162.1	0.024	6.0	42.7
C_3Db	SD3D	J3E	Special	3	140	163.3	162.1	0.024	6.8	77.8
C_3E	J3E	SD3Out	Circular	5	94	162.1	161.95	0.015	9.8	199.3
OLR_3A1b	SD3A1b	SD3A1c	Trapezoidal	0.5	230	188.8	187.5	0.04	0.0	0.0
OLR_3A2	SD3A2	SD3A2b	Trapezoidal	0.5	33	185.8	185.7	0.02	0.0	0.0
OLR_3A3	SD3A3	SD3A3b	Trapezoidal	0.5	70	180.2	180.1	0.035	0.4	1.7
OLR_3A3b	SD3A3b	SD3A3c	Trapezoidal	0.5	33	180.1	179.9	0.014	0.0	0.0
OLR_3A5	SD3A5	J3A5b	Trapezoidal	0.5	81	175.5	177.3	0.02	0.5	12.4
OLR_3A5b	J3A5b	SD3A5c	Trapezoidal	0.5	410	176.8	172.7	0.02	2.1	7.9
OLR_3A5c	SD3A5c	SD3A6	Trapezoidal	0.5	52	172.7	172.4	0.02	1.0	2.9
OLR_3A6	SD3A6	SD3B	Rectangular	2	125	172.7	171.8	0.02	1.5	1.3
OLR_3B	SD3B	SD3D	Trapezoidal	0.5	476	171.7	169.7	0.02	2.1	29.3
OLR_3C	SD3C	SD3D	Trapezoidal	1	400	170.5	168.7	0.02	3.3	41.1
OLR_3D	SD3D	J3E	Trapezoidal	0.5	140	168.8	168.3	0.02	2.2	81.6
OLR_3E	J3E	SD3Out	Trapezoidal	0.5	90	169	168.5	0.02	0.0	0.0
OLR_3J1b	SD3J1b	SD3A1b	Trapezoidal	0.5	33	188.4	188.3	0.02	1.1	2.5

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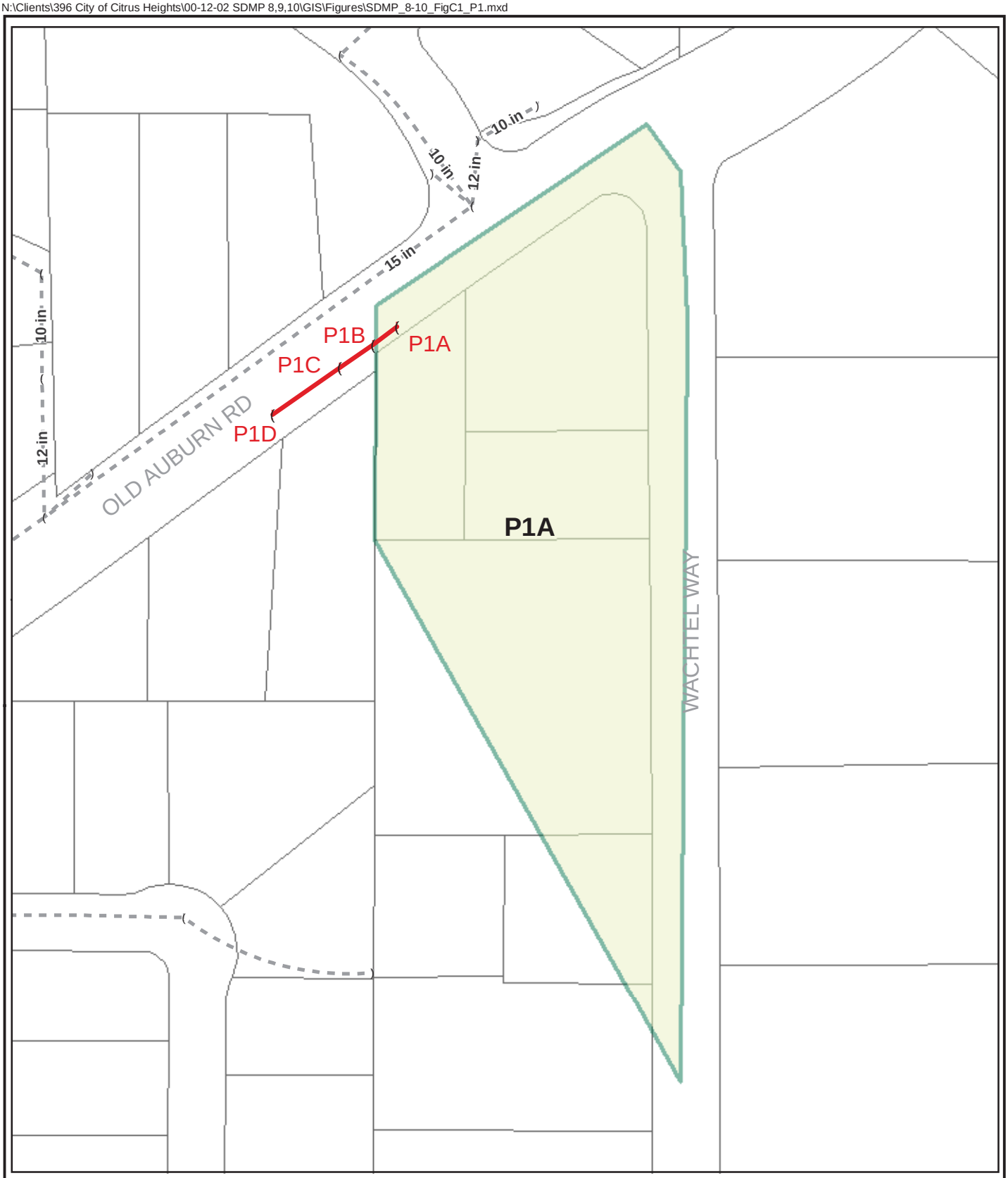

LEGEND

- P1 Shed
- P1 XPSWMM Modeled Links
- P1 XPSWMM Modeled Nodes
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole

N

0 50 100

Scale in Feet

Figure C1

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 1
Subshed and XPSWMM Model Layout

WEST YOST ASSOCIATES
Consulting Engineers

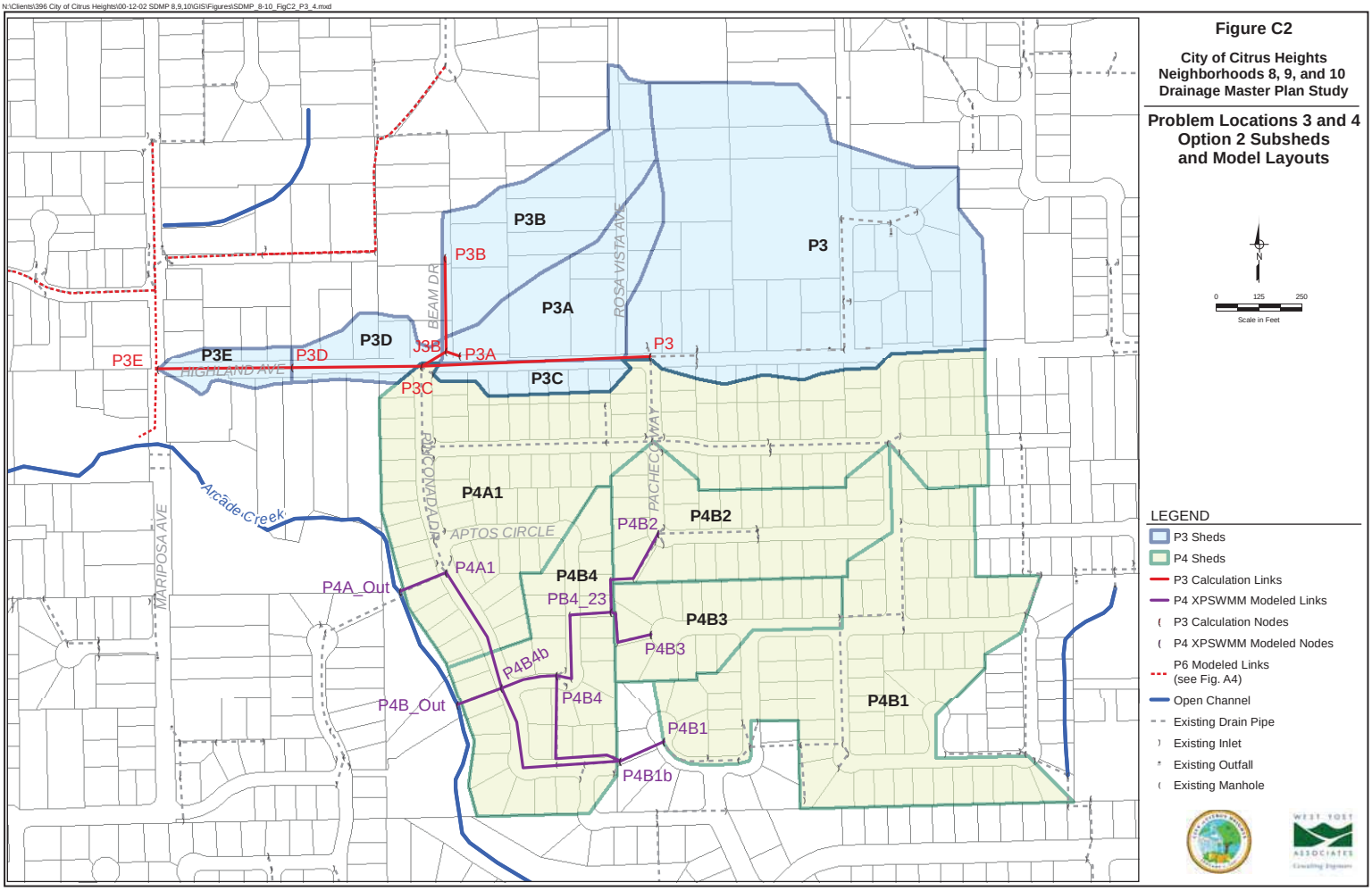
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Figure C2
City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study
Problem Locations 3 and 4
Option 2 Subsheds
and Model Layouts
N
0
125
250
Scale in Feet
P3B
P3
P3A
P3D
P3E
P3C
P4A1
P4B2
P4B4
P4B3
P4B1
P3B
P3D
J3B
P3A
P3
P3E
P3C
HIGHLAND AVE
BEAM DR
ROSA VISTA AVE
PACHECO WAY
COMPLEX
APTOS CIRCLE
MARIPOSA AVE
Arcade Creek
P4A1
P4B2
P4A_Out
PB4_23
P4B3
P4B4b
P4B4
P4B_Out
P4B1
P4B1b
LEGEND
P3 Sheds
P4 Sheds
P3 Calculation Links
P4 XPSWMM Modeled Links
P3 Calculation Nodes
P4 XPSWMM Modeled Nodes
P6 Modeled Links
(see Fig. A4)
Open Channel
Existing Drain Pipe
Existing Inlet
Existing Outfall
Existing Manhole

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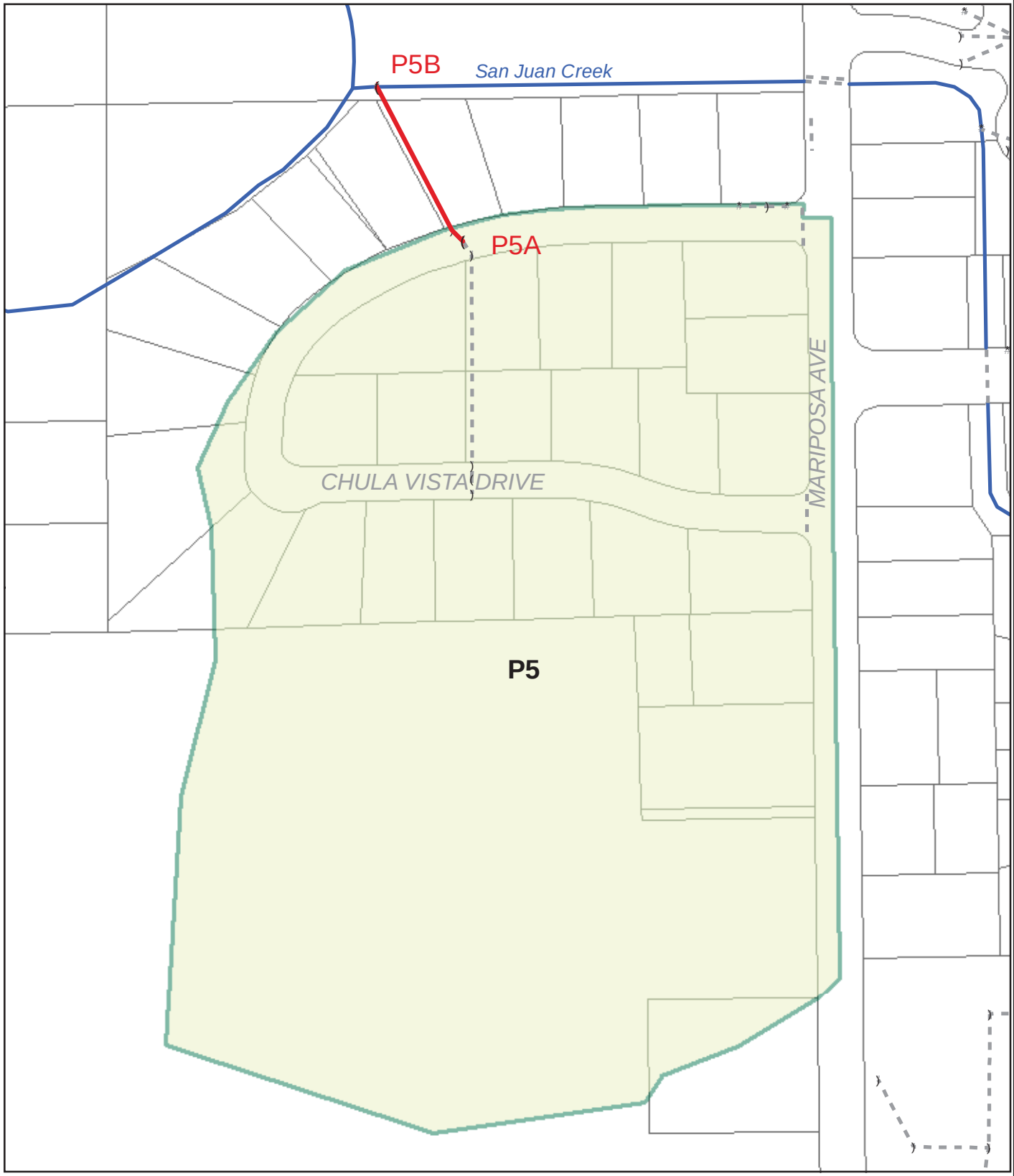

LEGEND

- P5 Shed
- P5 Calculation Links
- P5 Calculation Nodes
- Open Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole

N

0 75 150

Scale in Feet

Figure C3

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 5
Subshed and Hydraulic Calculations Layout

WEST YOST ASSOCIATES
Consulting Engineers

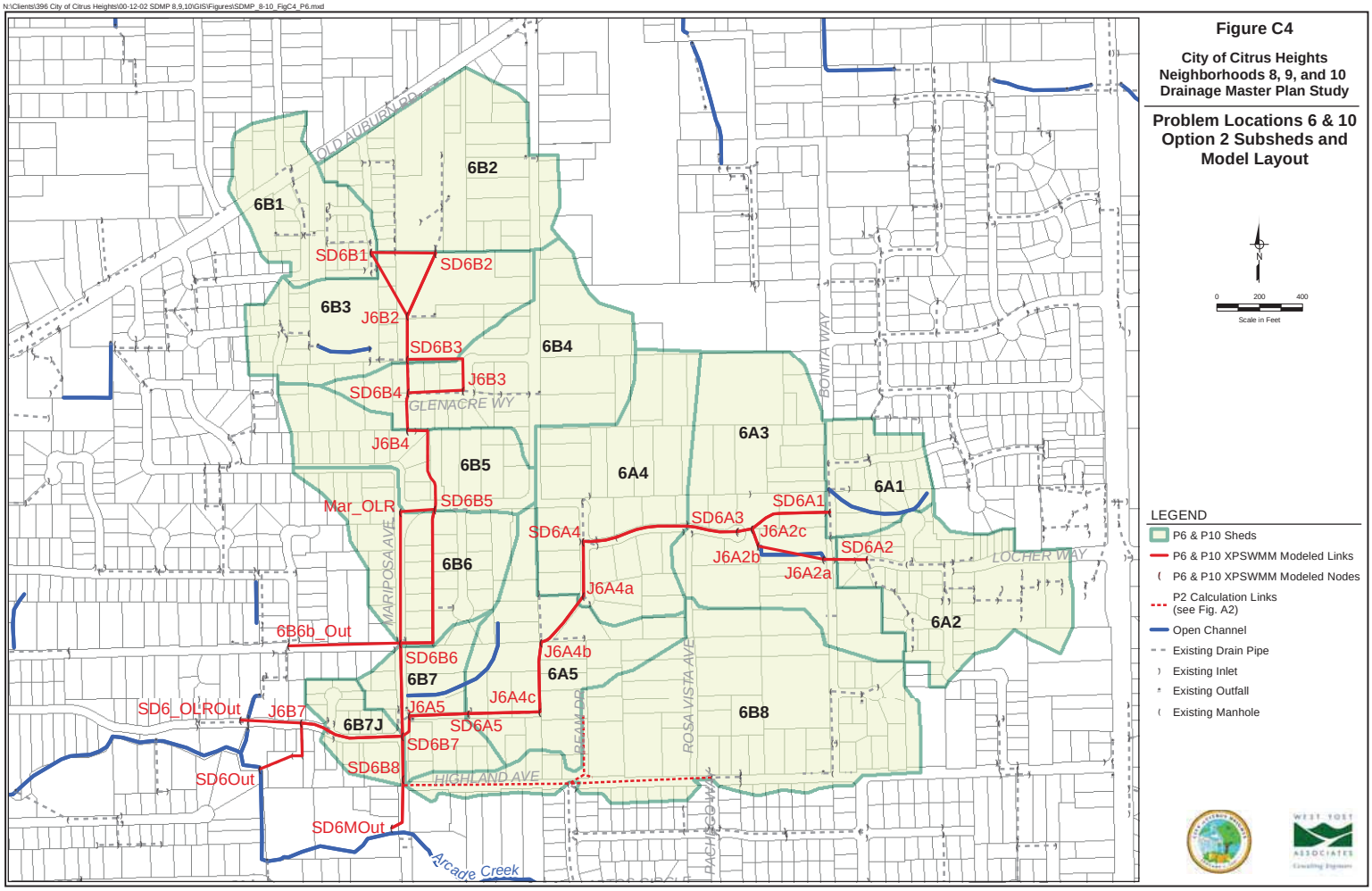
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Figure C4
City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study
Problem Locations 6 & 10 Option 2 Subsheds and Model Layout
N
0 200 400
Scale in Feet
OLD AUBURN RD
6B1
6B2
6B3
6B4
6B5
6B6
6B7
6B7J
6B8
6A1
6A2
6A3
6A4
6A5
SD6B1
SD6B2
J6B2
SD6B3
J6B3
SD6B4
J6B4
SD6B5
Mar_OLR
6B6b_Out
SD6B6
SD6B7
SD6B8
SD6_OLROut
J6B7
SD6Out
SD6MOut
SD6A1
SD6A2
SD6A3
SD6A4
SD6A5
J6A2a
J6A2b
J6A2c
J6A4a
J6A4b
J6A4c
J6A5
GLENACRE WY
MARIPOSA AVE
BONITA WAY
ROSALVISTA AVE
REAM DR
HIGHLAND AVE
PACIFIC AVE
LOCHER WAY
Arcade Creek
LEGEND
P6 & P10 Sheds
P6 & P10 XPSWMM Modeled Links
P6 & P10 XPSWMM Modeled Nodes
P2 Calculation Links (see Fig. A2)
Open Channel
Existing Drain Pipe
Existing Inlet
Existing Outfall
Existing Manhole

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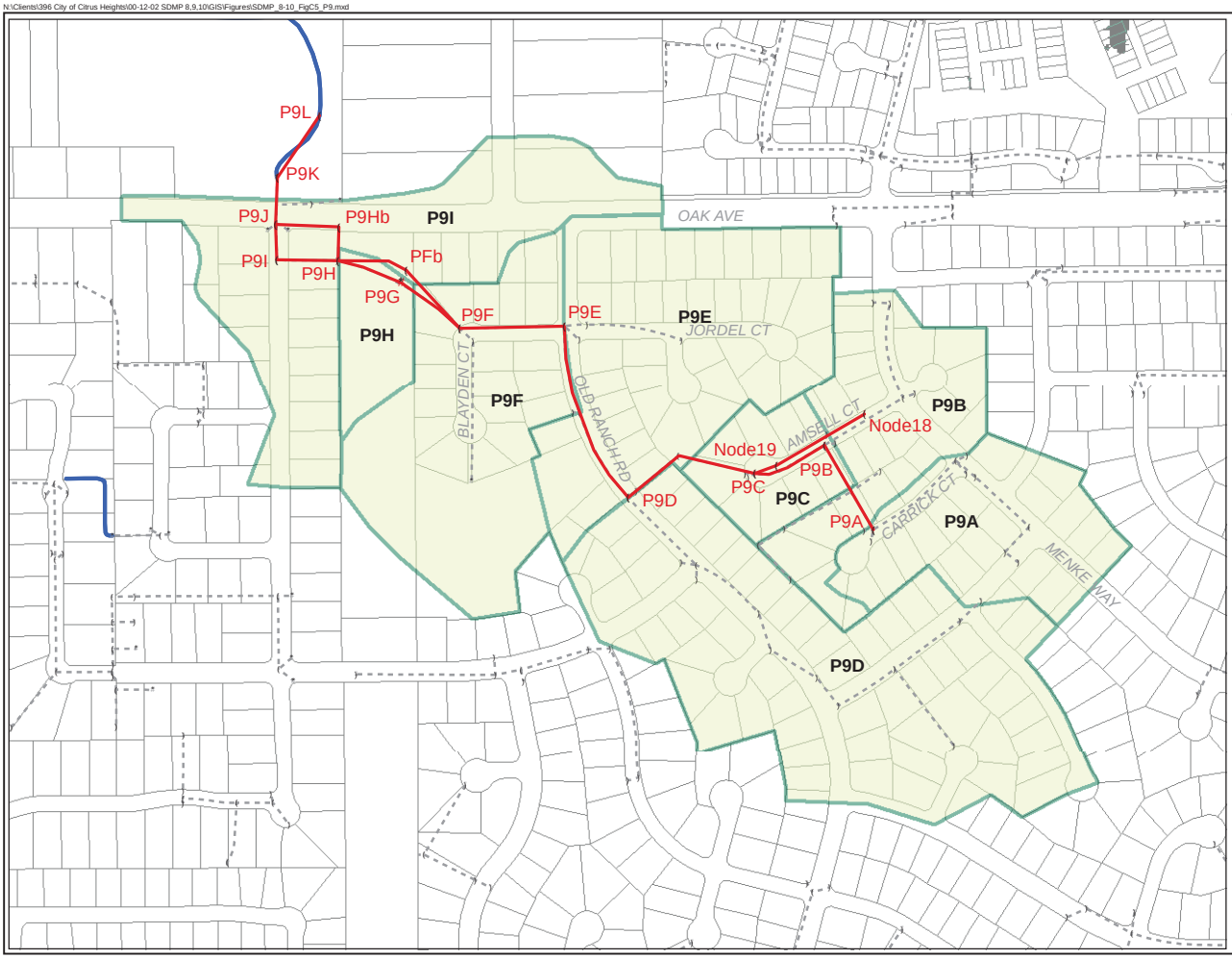


Figure C5

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 9 Option 2 Subsheds and XPSWMM Model Layout

N

0 125 250

Scale in Feet

LEGEND

- P9 Sheds
- P9 XPSWMM Modeled Links
- P9 XPSWMM Modeled Nodes
- P9 XPSWMM Modeled Storage Node
- Open Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole

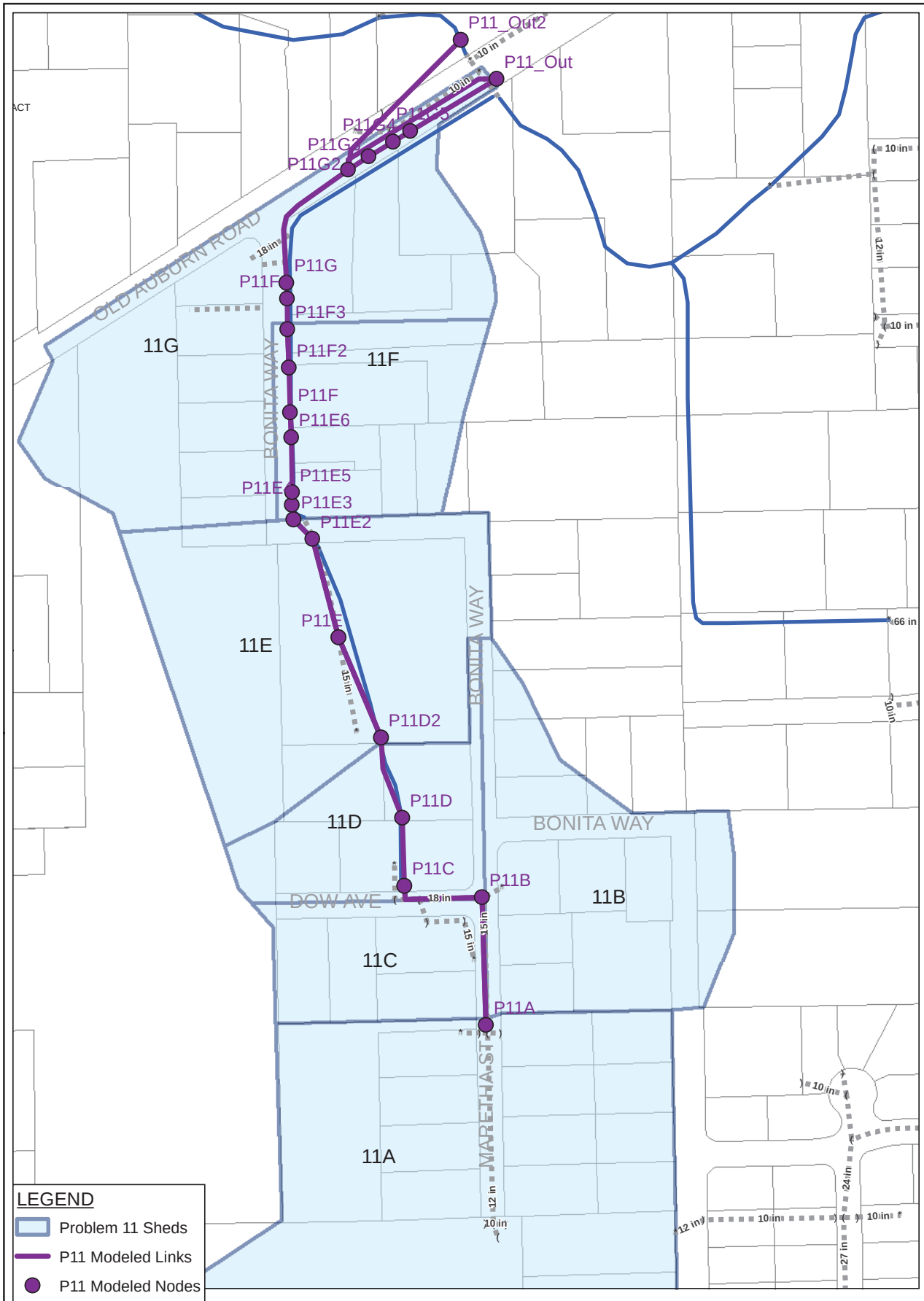


FIGURE C6

City of Citrus Heights
Neighborhoods 8, 9, and 10
Drainage Master Plan Study

Problem Location 11
Subsheds and Model Layout

N:\Clients\396 City of Citrus Heights\00-12-02 SDMP 8,9,10\GIS\Figures\SDMP_8-10_FigC7_P12.mxd

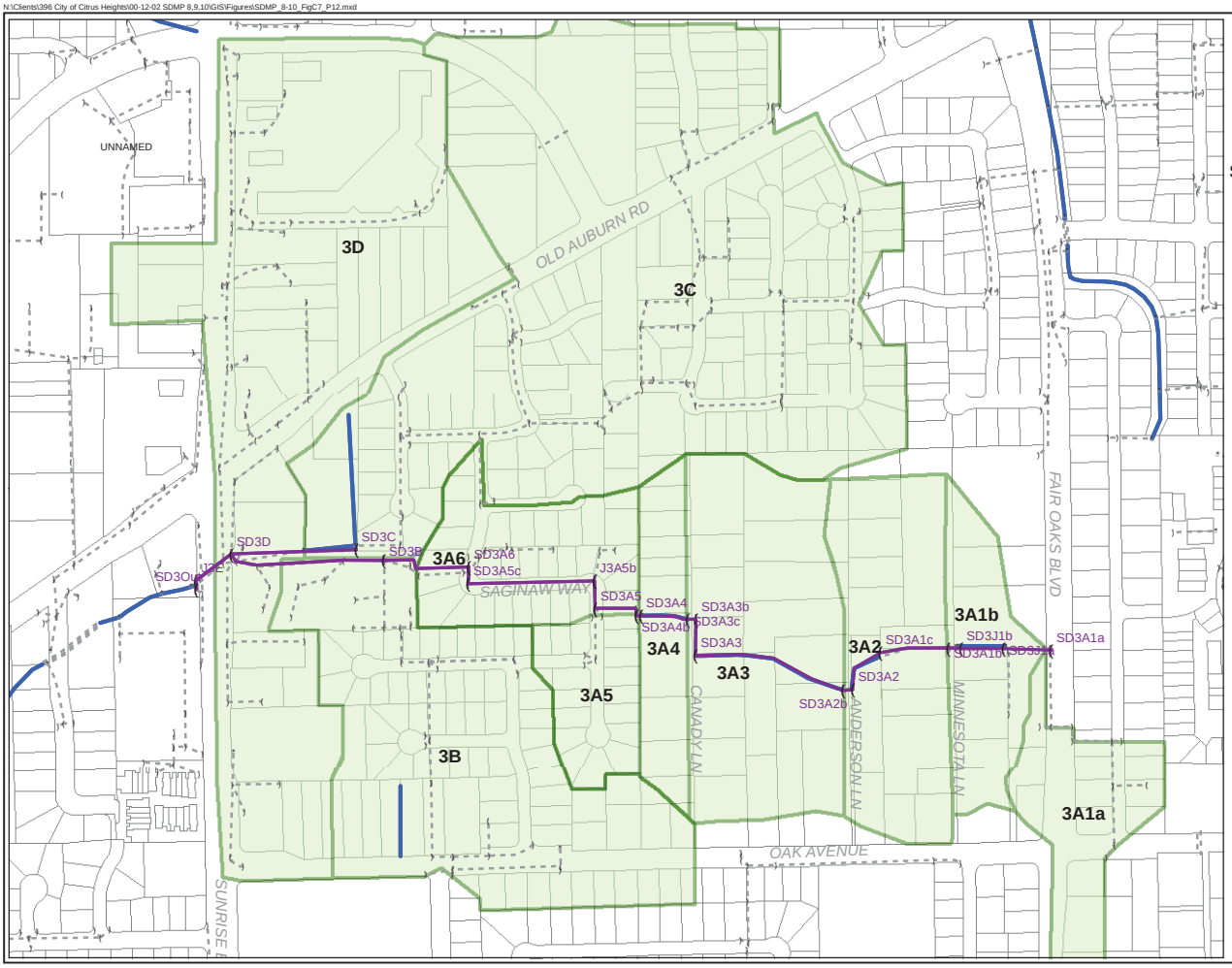


Figure C7

City of Citrus Heights Neighborhoods 8, 9, and 10 Drainage Master Plan Study

Problem Location 12 Subsheds and Model Layout

N

0 175 350

Scale in Feet

LEGEND

- Problem 12 Sheds
- P12 Modeled Links
- P12 Modeled Nodes
- P6 Modeled Links (see Fig. A4)
- Open Channel
- Existing Drain Pipe
- Existing Inlet
- Existing Outfall
- Existing Manhole

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT
MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Rhonda Sherman, Community Services Director
Colleen McDuffee, Planning Manager

SUBJECT: **Appeal of Planning Commission Decision re: Gates at 5555 Mariposa (Northridge Grove Subdivision)**

Summary and Recommendation

The Planning Commission approved a request to install privacy gates along the frontage of a previously approved subdivision at 5555 Mariposa Avenue. Following the public hearing, the Planning Commission, on a 4-3 vote, approved the request that allows for the installation of the privacy gates. William Van Duker filed an appeal.

Staff, on behalf of the Planning Commission, recommends the City Council deny the appeal and uphold the Planning Commission's decision to approve the gates and make the following motions:

Motion 1: Find that the previously adopted Mitigated Negative Declaration for the project is appropriate in that no substantial changes have occurred or no new information requiring additional environmental review has been presented.

Motion 2: Deny the appeal and approve a Design Review Permit Modification allowing privacy gates to be installed at 5555 Mariposa Avenue, subject to the Findings and Conditions of Approval contained in this report.

Fiscal Impact

None.

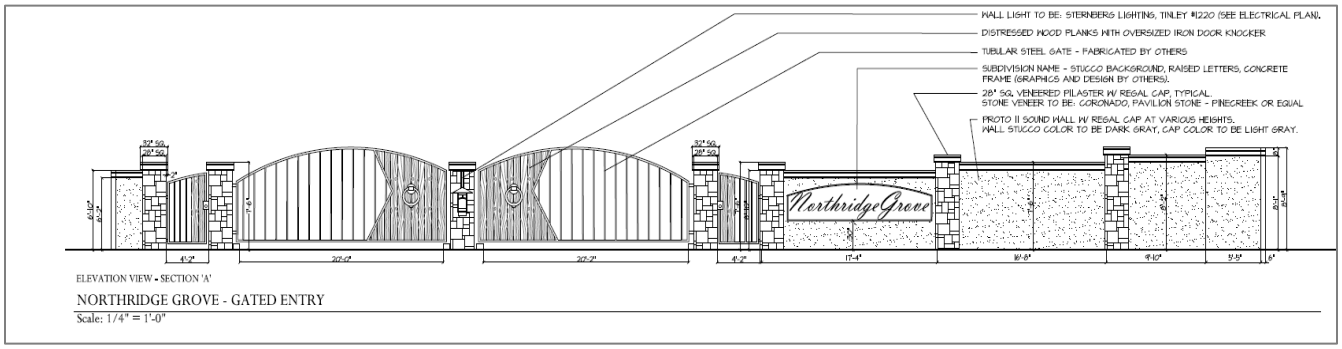
Background

In August 2007, the City Council approved a 46-lot residential subdivision at 5555 Mariposa Avenue (Attachment 1 - Vicinity Map). As shown on the approved site plan, Attachment 2, the project design features cluster homes along a private street, and preservation of open space along

a creek corridor. The project site sat dormant for several years during the Recession. In recent years, the developer completed onsite improvements such as the private street, sidewalk, two bridges, landscaping, perimeter fences and walls.

Project Description

The applicant is proposing to install privacy gates along Mariposa Avenue, the only entrance to the project. The proposed gates would be set back approximately 50' from Mariposa Avenue, providing sufficient stacking area for vehicles entering and exiting the site. The gates have been designed in accordance with Sacramento Metropolitan Fire District's requirements. The perspective below depicts how the gates would appear from Mariposa Avenue.



Residents would have remote controls in their vehicles, providing easy and quick passage through the gates. Guests to the subdivision could either enter an access code on the keypad, or call a resident to enter. There is ample room for a vehicle to turn around if it is unable to gain access.

<u>December 13, 2017 Planning Commission Meeting</u>

The Planning Commission considered this project on December 13, 2017. A video recording of this meeting, as well as the staff report and accompanying exhibits is attached. Three people addressed the Planning Commission during the public hearing:

Steve Cassinelli, owner/developer, answered questions posed by the Planning Commission. He stated he had talked to representatives from San Juan Unified School District, Sacramento Metropolitan Fire District, and the Citrus Heights Police Department and they all determined gating the subdivision to be acceptable. He addressed Policy 4.3 of the General Plan, which states "*Discourage features in residential development that tend to isolate residents from the sense of an integrated community, such as walls and gated single family neighborhoods*". Mr. Cassinelli noted that due to the unique location of the project, adjoining a school and park site and previously established neighborhoods, he has built a significant amount of perimeter walls and fences. Mr. Cassinelli discussed a petition (attached to the Planning Commission staff report) signed by five neighbors adjacent to the project who support the gating of the subdivision.

William Van Duker addressed the Commission, noting his involvement with the Citizens Advisory Committee to the City's first General Plan. Mr. Van Duker noted that Policy 4.3 ("*Discourage features in residential development that tend to isolate residents from the sense of an integrated community, such as walls and gated single family neighborhoods*") was an early provision of the General Plan. He noted the developer's statement that his project could be a "model" was a concern to him, as other developments may seek to include gates. He stated single family neighborhoods should be inclusive. Mr. Van Duker referenced Goal 2 of the General Plan which states "*Preserve the unique character of Citrus Heights, and create a distinctive community identity*". Mr. Van Duker stated residents of gated communities tend to withdraw from the community as a whole, and that is opposite from what happens in Citrus Heights – a city in which people reach out to others. In conclusion, he noted he did not think the Findings contained in the staff report support the basis for overturning General Plan policies.

Anthony Matracia, a nearby resident of the project, stated his support for the gates. Mr. Matracia noted he was opposed to the original project, but is not anymore. He feels the already constructed walls have helped with crime in the area.

Following the public hearing portion of the meeting, the Planning Commission discussed the project. The Planning Commission's comments included the following:

- Acknowledgment Mr. Van Duker made some good points.
- Gates would help deter crime and improve safety.
- Gates provide a sense of community within the neighborhood itself.
- Crime is an issue and things have changed since the policy was placed in the General Plan 20 years ago.
- Policy 4.3 does not provide any wiggle room, and gates should not be allowed.
- Desire for more development, less bureaucracy.
- People retreat behind gates and don't become part of the community.
- Concern with delays for emergency response vehicles.

Following the public hearing and their discussion, the Planning Commission approved the request for gates on a 4-3 vote. Commissioners who voted against the project were primarily concerned about future residents being less involved in their community, and that other projects will now request gates, which conflicts with Policy 4.3 of the General Plan, and general public safety.

Appeal

William Van Duker filed an appeal of the Planning Commission decision on December 26, 2017 (Attachment 7). The appeal comments are summarized below, *in italics*, and are followed by a response to each comment.

1. *Appellant states the Planning Commission decision violates Policy 4.3 of the General Plan which states "Discourage features in residential development that tend to isolate residents*

from the sense of an integrated community, such as walls and gated single family neighborhoods".

Some of the Planning Commissioners who were not in favor of gates cited Policy 4.3 as part of their reason for not voting to approve the request. They felt Mr. Cassinelli's request would not be consistent with the General Plan and could lead to residents not being community oriented. Commissioners voting in favor of the project noted some gated communities do foster a sense of community within themselves, and the presence of gates does not impact whether a subdivision is community oriented. Other Commissioners noted the length of time since this Policy was established and that times have changed since then from a crime/safety perspective.

As an infill project built on the site of a former racquetball club, the site had design constraints from the outset related to neighborhood integration. It was not physically possible to make a direct connection to the neighborhood to the west, and it is bounded on the north and south by the school and park. Mariposa Avenue on the east is the only physical connection to the existing community. The narrowness of the Mariposa frontage allowed for only one access point. Desire to preserve existing trees and the onsite creek channel resulted in a cluster design, with homes grouped together instead of a typical lotting pattern of a single family subdivision. This led to the project having a private street system. Whether gated or not, the layout is such that the residences would be a bit distanced from neighboring homes. The City required the project to include features that will help residents integrate with the community. There were "gaps" in the sidewalk between Skycrest Elementary School and San Juan Park and while these gaps were not along the project frontage, the City required this development to construct these improvements. This gap closure improves pedestrian safety and encourages more residents to walk in the neighborhood. There is also a pedestrian gate for residents to enter San Juan Park. Improving walkability in the area increases opportunities for neighbors to interact with one another.

Policy 4.3 "discourages" gated single family neighborhoods. It does not prohibit them. This language affords the Planning Commission the discretion to evaluate projects individually, in balance with other General Plan goals, in determining whether to approve specific projects.

2. *The findings recommended by the Planning Department and supported by a majority of the Commission do not relate at all to the provision of the General Plan and, therefore, are fatally flawed.*

   While the written Findings adopted by the Planning Commission did not specifically relate to the General Plan, their testimony did relate to the General Plan. Staff has updated the Findings adopted by the Planning Commission to reflect their testimony.

3. *If the Commission's decision is confirmed by the Council, there would be no basis for denying future applications for gated communities.*

   This decision of the Planning Commission was for this project only. Each project is unique and evaluated as such. Unique features of this project include being adjacent to public uses

on two sides, Skycrest Elementary to the north and San Juan Park to the south, and its overall cluster design layout.

The Planning Commission will not be bound to vote a particular way on any future requests as a result of approving the 5555 Mariposa request.

4. *Testimony that the "school" and the CHPD were in favor of the gates was not supported with any documentation.*

During the public comment portion of the meeting, Mr. Cassinelli told the Planning Commission he had met with representatives of the San Juan Unified School District at their district offices as well as at Skycrest Elementary and they were in support of his request. Mr. Cassinelli also told the Planning Commission that he had met with Lieutenant David Gutierrez and he was also in support of his request.

The appellant is correct that the above two statements were not supported by any documentation. Subsequent to the Planning Commission meeting, staff contacted Lieutenant Gutierrez and confirmed the validity of Mr. Cassinelli's statement. Staff did not contact school representatives regarding statements made at the meeting.

Environmental Determination

A Mitigated Negative Declaration was approved for the project in 2007. No additional environmental review is needed.

Conclusion

Staff, on behalf of the Planning Commission, recommends the City Council uphold the decision of the Planning Commission and deny the appeal. Motions No. 1 and 2 reflect this recommendation. The Findings for Motion No. 2 have been updated to reflect Planning Commission testimony.

Should the Council wish to grant the appeal, thereby reversing the decision of the Planning Commission, an Alternative Motion is provided.

Recommended Action

Motion 1: Find that the previously adopted Mitigated Negative Declaration for the project is appropriate in that no substantial changes have occurred or no new information requiring additional environmental review has been presented.

Motion 2: Deny the appeal and approve a Design Review Permit Modification allowing privacy gates to be installed at 5555 Mariposa Avenue, subject to the Findings and Conditions of Approval contained in this report.

FINDINGS FOR DESIGN REVIEW PERMIT MODIFICATION

- *The proposal complies with the applicable provisions of the Zoning Code;*
- *The proposed gates provide architectural design, massing and scale that are appropriate to and compatible with the site surroundings and the community;*
- *The proposed gates provide an attractive and desirable feature of the site layout and design, including appearance and setbacks;*
- *The proposed gates provide safe and efficient access including emergency access which the Fire District has approved and bicycle and pedestrian accommodations where appropriate;*
- *The proposed gates do not encroach on the development project's ability to provide appropriate open space and landscaping, including the use of water efficient landscaping;*
- *The project is consistent with the General Plan, and has features which will contribute to a sense of an integrated community. The site is unique and has provided improvements which will encourage this development to integrate both within itself and with the outward community, even with the installation of gates; and*
- *The proposed gates comply with all applicable design standards.*

CONDITIONS OF APPROVAL FOR DESIGN REVIEW PERMIT MODIFICATION

1. The development approved by this action is described herein as shown in Exhibit A.

2. The applicant shall be responsible for complying with the conditions of approval as specified in the initial Design Review Permit (file no. DPR-05-13) and with all mitigation measures in the Mitigated Negative Declaration.

3. The applicant shall be responsible for paying any required City fees and fees from other associated agencies.

4. The applicant shall comply with all fire and life safety requirements as per the Sacramento Metropolitan Fire District.

5. Any plans submitted to the Building Division for review and approval shall indicate all approved revisions/alterations as approved by the Planning Commission.

6. Minor modifications to the design of the project, including site layout, colors and materials, may be approved by the Director, provided such changes are consistent with the overall design as approved herein. Major modifications will require Planning Commission approval.

7. Prior to the Final of Building Permits, the applicant shall pay all fees due.

8. Prior to issuance of a Building Permit, the applicant shall call for inspection by the Planning Department to verify compliance with the approved plans.

9. This Design Review Permit Modification approval does not include any signs. All sign plans must receive separate review and approval by the Planning staff prior to issuance of a Building Permit.

10. Developer agrees to indemnify, defend, and hold harmless the City, its officials, officers, employees, agents and consultants from any and all administrative, legal or equitable actions or other proceedings instituted by any person not a party to this Permit challenging the validity of the Permit or any Project Approval or any Subsequent Project Approval, or otherwise arising out of or stemming from this Permit. Developer may select its own legal counsel to represent Developer's interests at Developer's sole cost and expense. The parties shall cooperate in defending such action or proceeding. Developer shall pay for City's costs of defense, whether directly or by timely reimbursement on a monthly basis. Such costs shall include, but not be limited to, all court costs and attorneys' fees expended by City in defense of any such action or other proceeding, plus staff and City Attorney time spent in regard to defense of the action or proceeding. The parties shall use best efforts to select mutually agreeable defense counsel but, if the parties cannot reach agreement, City may select its own legal counsel and Developer agrees to pay directly or timely reimburse on a monthly basis City for all such court costs, attorney fees, and time referenced herein.

Alternative Motion (for granting the appeal)

Alt. Motion: Deny the appeal and deny the Design Review Permit Modification allowing privacy gates to be installed at 5555 Mariposa Avenue for the following reasons:

(*City Council should specify reasons*)

Attachments:

Planning Commission staff report, including Attachments and Exhibit
1. Vicinity Map
2. Site Plan
3. Letter from applicant
4. Letter of Support from neighbors and petition for privacy gates

5. Fire District approval
6. Applicant submitted information on automated gates

7. Letter of Appeal from William Van Duker
8. Letter from Birdcage Heights Neighborhood Association
9. Email of support from Frederic Clark
10. Video of meeting (provided under separate cover)

Exhibit A – Architectural Elevation of Gates

CITY OF CITRUS HEIGHTS
PLANNING DIVISON STAFF REPORT
PLANNING COMMISSION ***December 13, 2017***

Prepared by: Nick Lagura, Associate Planner

REQUEST

The applicant requests approval of a modification to a Design Review Permit to allow installation of privacy gates at the entrance to the Northridge Grove Subdivision, an approved residential development consisting of 46 single-family homes.

Applicant: Steve W. Cassinelli
Northridge Grove 46 LLC
1904 Wright Street, No. 210
Sacramento, CA 95825

SUMMARY RECOMMENDATION

The Planning Division recommends that the Planning Commission:

A. Find that the previously adopted Mitigated Negative Declaration for the project is appropriate in that no substantial changes have occurred or no new information requiring a new Mitigated Negative Declaration (MND) has been presented since adopting the prior MND.

B. Approve a Design Review Permit Modification to approve installation of privacy gates at the site entrance of the development project subject to the findings and conditions of approval in this report.

BACKGROUND:

The project site is an approved residential subdivision formerly known as 5555 Mariposa Residential and located on the west side of Mariposa Avenue, approximately ¼ miles north of Madison Avenue – please see vicinity map (Attachment 1).

The project area is an infill site that was formerly occupied by a private racquet club/commercial recreation facility. This site is south of Skycrest Elementary School, north of San Juan Park, east of existing single-family homes and duplexes and west of single-family homes.

On August 9, 2007, the City Council approved the project after an extensive development review process. The approval was for a residential subdivision consisting of 46 single-family homes and installation of associated site improvements including a private street and two vehicle bridges plus preservation of common open space along a creek a creek corridor and existing wooded area.

The developer recently completed onsite and offsite improvements including the private street, sidewalk, two vehicular bridges, drainage improvements, landscaping, street lights, installation of perimeter fencing including wrought iron fences and masonry walls (abutting elementary school to mitigate potential noise concerns), plus new sidewalks along the west side of Mariposa Avenue where they were missing which now provides pedestrian linkages from the site to Skycrest Elementary School to the north and San Juan Park to the south. A copy of the approved site plan is provided as Attachment 2.

Table 1 - Project Summary

Location:	5555 Mariposa Avenue (see vicinity map).
Parcel Size:	Approximately 7.09 acres APN: 233-0560-005 and 233-0560-007
REACH Neighborhood:	The project site is within the boundaries of the Birdcage Heights Neighborhood Association (Area #11). No comments have been received.

ZONING AND LAND USES

Table 2 – Surrounding Land Uses

LOCATION	ZONING	GENERAL PLAN LAND USE	ACTUAL USE OF PROPERTY
On-Site	Special Planning Area (SPA)	Low Density Residential	Active Construction Site for 46 Single-Family Homes
North	RD-5	Public	Skycrest Elementary School
South	Recreation	Open Space	San Juan Park
East	RD-5	Low Density Residential	Single-Family Residences
West	RD-5 and RD-10	Low Density Residential	Single-Family Residences, Duplexes

PROJECT DESCRIPTION

The applicant is requesting approval of a Design Review Permit Modification to allow installation of privacy gates at the entrance to the Northridge Grove Subdivision, an approved residential development consisting of 46 single-family homes.

Vehicle access to the site consists of newly constructed, separated ingress and egress lanes from Mariposa Avenue. Onsite circulation comprises a private street that loops through the subdivision. The private street is accessible only by way of Mariposa Avenue; there are no planned street connections to adjoining properties as they are already developed.

The proposed privacy gates will be set back approximately 50 feet from Mariposa Avenue, providing sufficient stacking area for vehicles entering and exiting the site, and the privacy gates will be designed in accordance with the Fire District's requirements. Attachment 5 indicates the Fire District has approved this request.

Residents will have a remote control in their vehicle, providing for easy and quick passage through the gates. A key pad with a voice communication system or intercom will be provided for visitors. There is ample room for a vehicle to turn around if it is unable to enter through the gates.

An architectural elevation of the privacy gates, a perspective as seen from the street, is provided on the following page as Figure 1, and an enlarged detail of the entrance to the subdivision from Mariposa Avenue is also provided as Figure 2.

Figure 1 – Privacy Gates

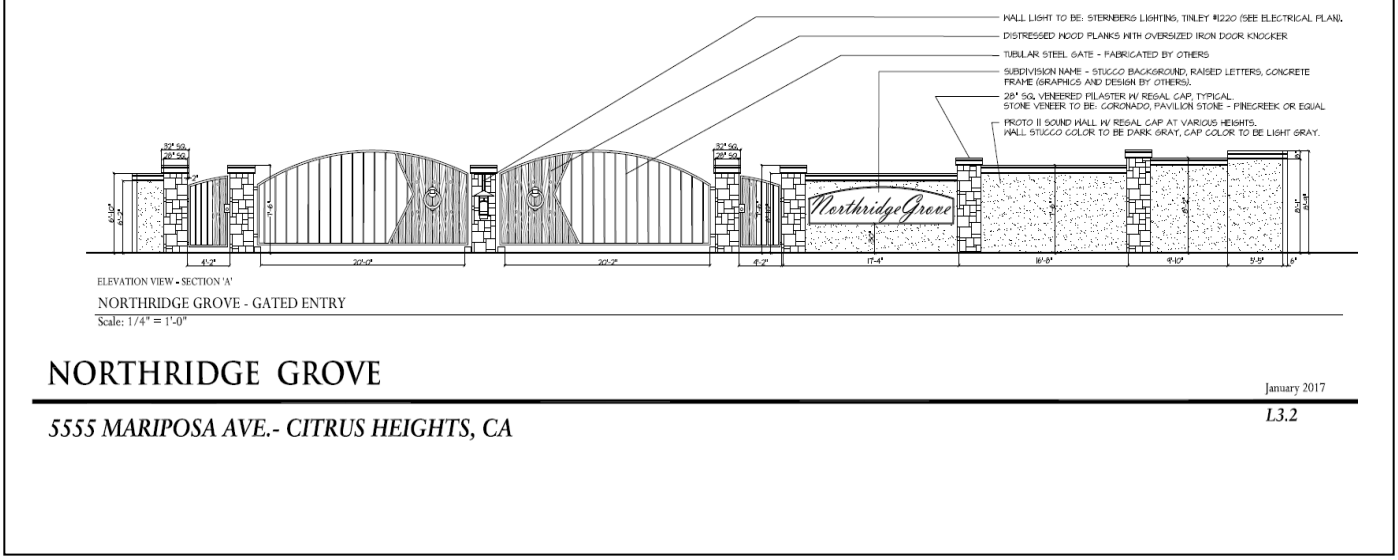
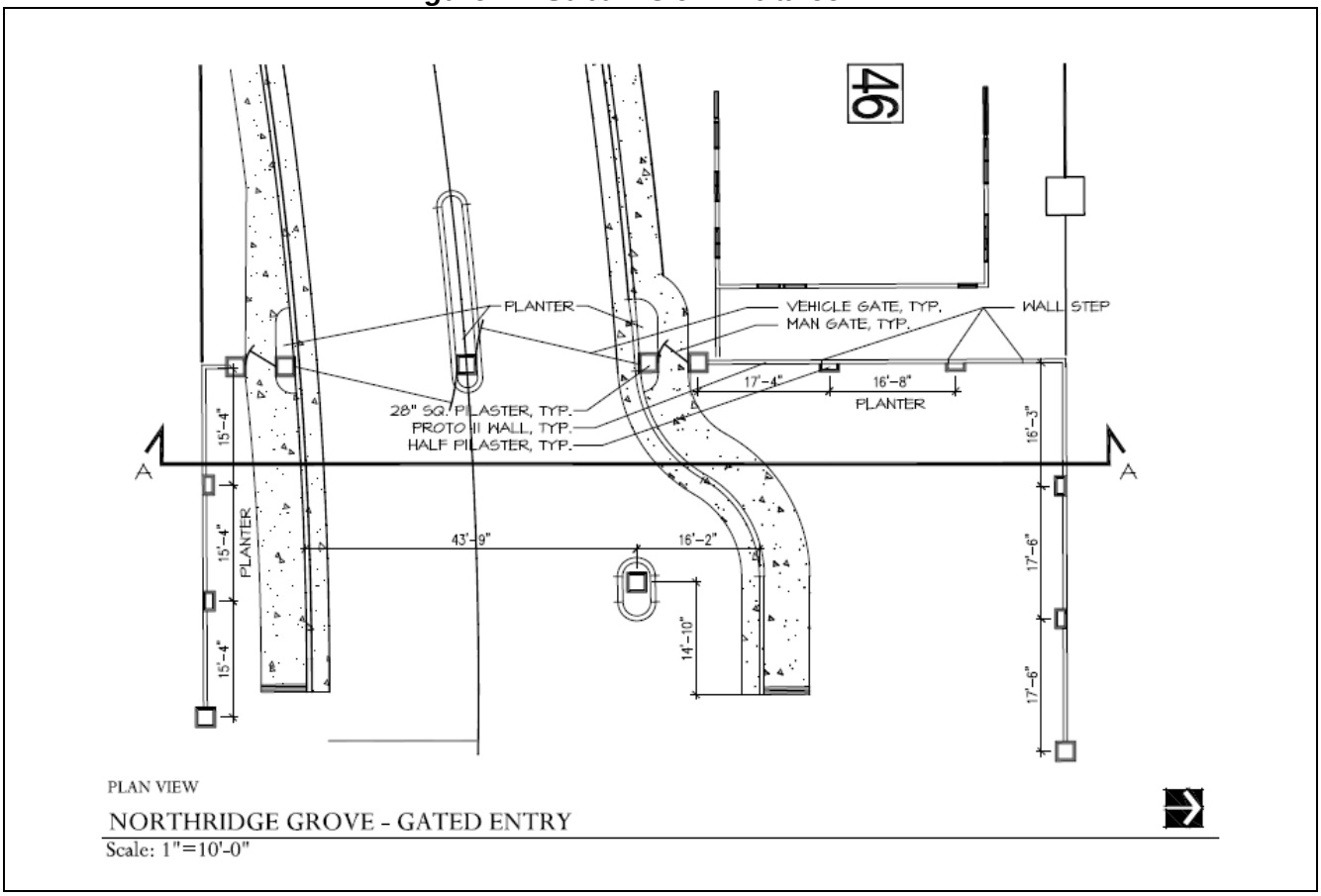


Figure 2 – Subdivision Entrance



Design Review Permit Modification– *Analysis*

Changes to an approved project may be approved by the Director. Section 106.64.080 of the Zoning Code authorizes the Director to make one or more changes to an approved site plan or architectural feature of the project provided the Director first determines the change is minor, and finds that each change:

1. Is consistent with the provisions of this Zoning Code;
2. Does not involve a feature of the project that was a basis for findings in a negative declaration or environmental impact report for the project; and
3. Does not involve a feature of the project that was specifically addressed or was a basis for conditions of approval for the project or that was a specific consideration by the review authority in the project approval.

Additionally, the Director may choose to refer any requested change to the Planning Commission.

The Director has determined that the proposal is a minor change to the project and meets the required findings above. However, because the proposal is potentially inconsistent with a General Plan policy, the Director is referring the request to the Planning Commission for consideration. Policy 4.3 of the General Plan states the following:

> *"Discourage features in residential development that tend to isolate residents from the sense of an integrated community, such as walls and gated-single family neighborhoods."*

The Policy is intended to ensure that new development is compatible within existing neighborhoods. Gated communities can divide existing neighborhoods or impact response times for emergency responders and in some circumstances foster a sense of segregation within neighborhoods. Policy 4.3 addresses these concerns by discouraging features that isolate people.

General Plan Consistency

The project site is unique and located within an existing residential neighborhood. The property abuts Skycrest Elementary School to the north, San Juan Park to the south, single-family homes to the east across Mariposa Avenue and single-family homes and duplexes to the west (see vicinity map).

The adjoining parcels are already developed and do not have any future/planned street connections to the site (see vicinity map) which is a unique aspect of the site as most development projects that have gone before the Planning Commission provide street connections to existing neighborhoods. This is a City adopted strategy to ensure that new developments are compatible with existing neighborhoods.

Privacy gates would not be appropriate for a development project that had an ability to provide street connections to existing neighborhoods. In fact, the Planning Commission, in past decisions, has consistently required that new development projects provide street connections to existing neighborhoods consistent with the City's efforts to ensure that new development projects are appropriately designed and integrated within existing neighborhoods.

While privacy gates would not be appropriate in other development projects that have an ability to provide street connections to existing neighborhoods, the proposed privacy gates are appropriate in this case as the development project is not able to provide a street connection(s)

to the existing neighborhood - Skycrest Elementary School to the north, San Juan Park to the south and the back yards of existing residences to the west.

Providing street connections between the development project and the existing neighborhood was determined not feasible early in the planning process. The development project was ultimately approved knowing that access to the site will only come from Mariposa Avenue. While vehicular access within the community will be limited, the development project has significantly improved pedestrian connectivity in the neighborhood. In addition to installing sidewalks along the project frontage the project has installed missing sidewalk "gaps" on adjoining properties which has greatly improving walkability in the neighborhood.

While the Northridge Grove Subdivision does not have any through street connections to the surrounding neighborhood, the project has been designed to be compatible with the area in terms of land use, overall density, site layout and configuration of improvements, and architecture.

In regards to architectural detailing the proposed privacy gates have been designed to be an attractive feature of the site, complementing the architectural elevations for each home and overall site improvements.

Development Plan Review Modification - *Conclusion*

Based upon the project proposal including the unique aspects of the site and conditions of approval, staff believes that findings can be made to approve the Development Plan Review Permit Modification. Staff recommends approval of the Development Plan Review Permit Modification subject to the findings and conditions of approval contained within this staff report. The proposal is not a substantial change and no new information requiring a new Mitigated Negative Declaration (MND) has been presented since adopting the prior MND in 2007.

ENVIRONMENTAL DETERMINATION

An Initial Study was prepared to evaluate the potential impacts associated with the project when the project was initially approved in 2007. The conclusion of the Initial Study resulted in a Mitigated Negative Declaration (MND) stating that the incorporation of mitigation measures has reduced impacts associated with the project at a level considered less than significant.

Additionally, the proposal is not a substantial change and no new information requiring a new Mitigated Negative Declaration (MND) has been presented since adopting the prior MND.

PUBLIC OUTREACH

Public hearing notices were mailed to property owners when the project was initially approved in 2007. Public hearing notices were not required for the current request; however, staff sent a request for comments to the Birdcage Heights Neighborhood Association – Area 11.

RECOMMENDATION

Staff recommends that the Planning Commission:

A. Find that the previously adopted Mitigated Negative Declaration for the project is appropriate in that no substantial changes have occurred or no new information requiring a new Mitigated Negative Declaration (MND) has been presented since adopting the prior MND.

B. Approve a Design Review Permit Modification to approve the installation of privacy gates at the site entrance of the development project subject to the findings and conditions of approval in this report.

If the Planning Commission does not agree with the recommended motions, alternative motions have been prepared. Please see alternative motions on page 7.

FINDINGS FOR DESIGN REVIEW PERMIT MODIFICATION

- *The proposal complies with the applicable provisions of the Zoning Code;*
- *The proposed gates provide architectural design, massing and scale that are appropriate to and compatible with the site surroundings and the community; and*
- *The proposed gates provide an attractive and desirable feature of the site layout and design, including appearance and setbacks;*
- *The proposed gates provide safe and efficient access including emergency access which the Fire District has approved and bicycle and pedestrian accommodations where appropriate; and*
- *The proposed gates do not encroach on the development project's ability to provide appropriate open space and landscaping, including the use of water efficient landscaping.*

CONDITIONS OF APPROVAL FOR DESIGN REVIEW PERMIT MODIFICATION (DRPMOD 17-12, formerly DPR-05-13)

1. The development approved by this action is described herein as shown in Exhibit A. [Planning]

2. The applicant shall be responsible for complying with the conditions of approval as specified in the initial Design Review Permit (file no. DPR-05-13) and with all mitigation measures in the Mitigated Negative Declaration. [Planning]

3. The applicant shall be responsible for paying any required City fees and fees from other associated agencies. [Planning]

4. The applicant shall comply with all fire and life safety requirements as per the Sacramento Metropolitan Fire District. [Sacramento Metropolitan Fire District]

Prior to Issuance of Building Permits

5. Any plans submitted to the Building Division for review and approval shall indicate all approved revisions/alterations as approved by the Planning Commission. [Planning]

Other Conditions of Approval

6. Minor modifications to the design of the project, including site layout, colors and materials, may be approved by the Director, provided such changes are consistent with the overall design as approved herein. Major modifications will require Planning Commission approval. [Planning]

7. Prior to the Final of Building Permits, the applicant shall pay all fees due. [Planning]

8. Prior to issuance of a Building Permit, the applicant shall call for inspection by the Planning Department to verify compliance with the approved plans. [Planning]

9. This Design Review Permit Modification approval does not include any signs. All sign plans must receive separate review and approval by the Planning staff prior to issuance of a Building Permit. [Planning]

10. Developer agrees to indemnify, defend, and hold harmless the City, its officials, officers, employees, agents and consultants from any and all administrative, legal or equitable actions or other proceedings instituted by any person not a party to this Permit challenging the validity of the Permit or any Project Approval or any Subsequent Project Approval, or otherwise arising out of or stemming from this Permit. Developer may select its own legal counsel to represent Developer's interests at Developer's sole cost and expense. The parties shall cooperate in defending such action or proceeding. Developer shall pay for City's costs of defense, whether directly or by timely reimbursement on a monthly basis. Such costs shall include, but not be limited to, all court costs and attorneys' fees expended by City in defense of any such action or other proceeding, plus staff and City Attorney time spent in regard to defense of the action or proceeding. The parties shall use best efforts to select mutually agreeable defense counsel but, if the parties cannot reach agreement, City may select its own legal counsel and Developer agrees to pay directly or timely reimburse on a monthly basis City for all such court costs, attorney fees, and time referenced herein. [Planning]

ALTERNATIVE MOTIONS

A. Find that the previously adopted Mitigated Negative Declaration for the project is appropriate in that no substantial changes have occurred or no new information requiring a new Mitigated Negative Declaration (MND) has been presented since adopting the prior MND.

B. Deny a Design Review Permit Modification to approve the installation of privacy gates at the site entrance of the development project based the following:
   - Proposal is not consistent with General Plan Policy 4.3.
   - Required findings to approval a Development Plan Review Permit Modification cannot be made.

Attachments:
1. Vicinity Map
2. Site Plan
3. Letter from Applicant
4. Letter of Support from Neighbors and Petition for Privacy Gates
5. Fire District Approval
6. Applicant submitted information on automated gates

Exhibit – A: Architectural Elevation of Privacy Gates

North

CITY OF CITRUS HEIGHTS

5555 Mariposa Avenue

DRPMOD 17-12- Appeal

Northridge Grove Subdivision Privacy Gates

Scale: None

Attachment 1

MARIPOSA RESIDENTIAL

May 2017

5555 MARIPOSA AVENUE, CITRUS HEIGHTS, CA

YAMASAKI
LANDSCAPE ARCHITECTURE
1223 HIGH STREET, AUBURN, CA 95603
FAX (530) 883-0042

NORTH
NTS

Steven W. Cassinelli

November 27, 2017

City of Citrus Heights
Attn: Mr. Nick Lagura
Building & Planning Department
6360 Fountain Square Drive, Citrus Heights, CA 95621

Re: Request for Privacy Gate Approval

Dear Mr. Lagura:

As the developer of the 46 lot ***Northridge Grove*** subdivision (located at 5555 Mariposa Avenue) and for the reasons listed below and in conjunction with the support and backing of my neighbors living nearby or adjacent to our site, I respectfully hereby request your support and assistance in gaining the approval of the Citrus Heights Planning Commission to proceed with the installation of a privacy gate at the entrance of the address referenced above.

- Site & Property Security
- Curb Appeal
- Increased Property Values
- Child Safety
- Privacy & Proactive Deterrent to Crime

The neighbors have seen and approve of the design and think it enhances both our project and the overall neighborhood and also recognize that final approval must come from Metro Fire.

Metro Fire considers this project to be a “private development” with “private streets”. They have reviewed and approved our plans and design, and have “signed-off” on 3 sets of plans that are currently waiting to be submitted for the required Permit Application.

Additionally, since the beginning of the site improvements on the subject property, and once just the temporary fencing was installed, the foot traffic through the site has been cut off, the vagrant encampments and homeless loitering situation has been eliminated, reduced and contained. However, as we approach the winter months and with the lack of construction activity and the presence of workers on-site, the project needs to be secured from any potential vandalism prior to beginning of home construction anticipated in early spring. The improvements are very costly and any damage or defacing of them would be unfortunate to say the least.

As a reminder, several years ago when this project was first introduced, the original application was for higher density and the previous developer was forcing an unwanted project into the established neighborhood. Since that time and with the change of ownership, this development has continually strived to be a good neighbor and has improved the overall neighborhood appearance as well as individual improvements to several of neighboring residences…such as new driveways, fencing, sidewalks, landscaping only to name a few. Subsequently, several homeowners have taken the initiative to make numerous improvements and repairs to their own individual residences which they now realize have substantially increased their property values.

Times have changed; attitudes have changed too… the neighbors like the project and join with me to ask for your support and approval. Furthermore, Northridge Grove could be used as a “template” or a “model” for future in-fill developments within the jurisdiction of the City of Citrus Heights.

Sincerely,

Steven W. Cassinelli
Northridge Grove 46 LLC

Mariposa Neighbors

Attachment 4

September 14, 2017

City of Citrus Heights
Attn: Ms. Ardelyn Flores
Building & Planning Department
6360 Fountain Square Drive
Citrus Heights, CA 95621

Re: Support and Request for Privacy Gate Approval

Dear Ms. Flores:

We the undersigned residents and neighbors living in close proximity to the 46 lot ***Northridge Grove*** subdivision (located at 5555 Mariposa Avenue) for the reasons listed below and attached hereto, hereby request your support and approval for the installation of a privacy gate at the entrance of the address referenced above.

- Security
- Curb Appeal
- Increased Property Values
- Child Safety
- Privacy

We like the design and think it enhances our neighborhood and also recognize that final approval must come from Metro Fire.

Furthermore, since the beginning of the site improvements on the subject property, when the temporary fencing was installed the foot traffic through the site has been cut off, the vagrant encampment and homeless loitering situation has been substantially reduced and contained.

Several years ago when this project was first introduced to us, the density was much greater and the previous developer was forcing an unwanted project into our neighborhood. Since that time and with the change of ownership, this development has continually strived to be a good neighbor and has improved the overall neighborhood appearance as well as individual improvements to several of our personal residences.

Times have changed; our attitudes have changed too… we like the project and ask for your support and approval.

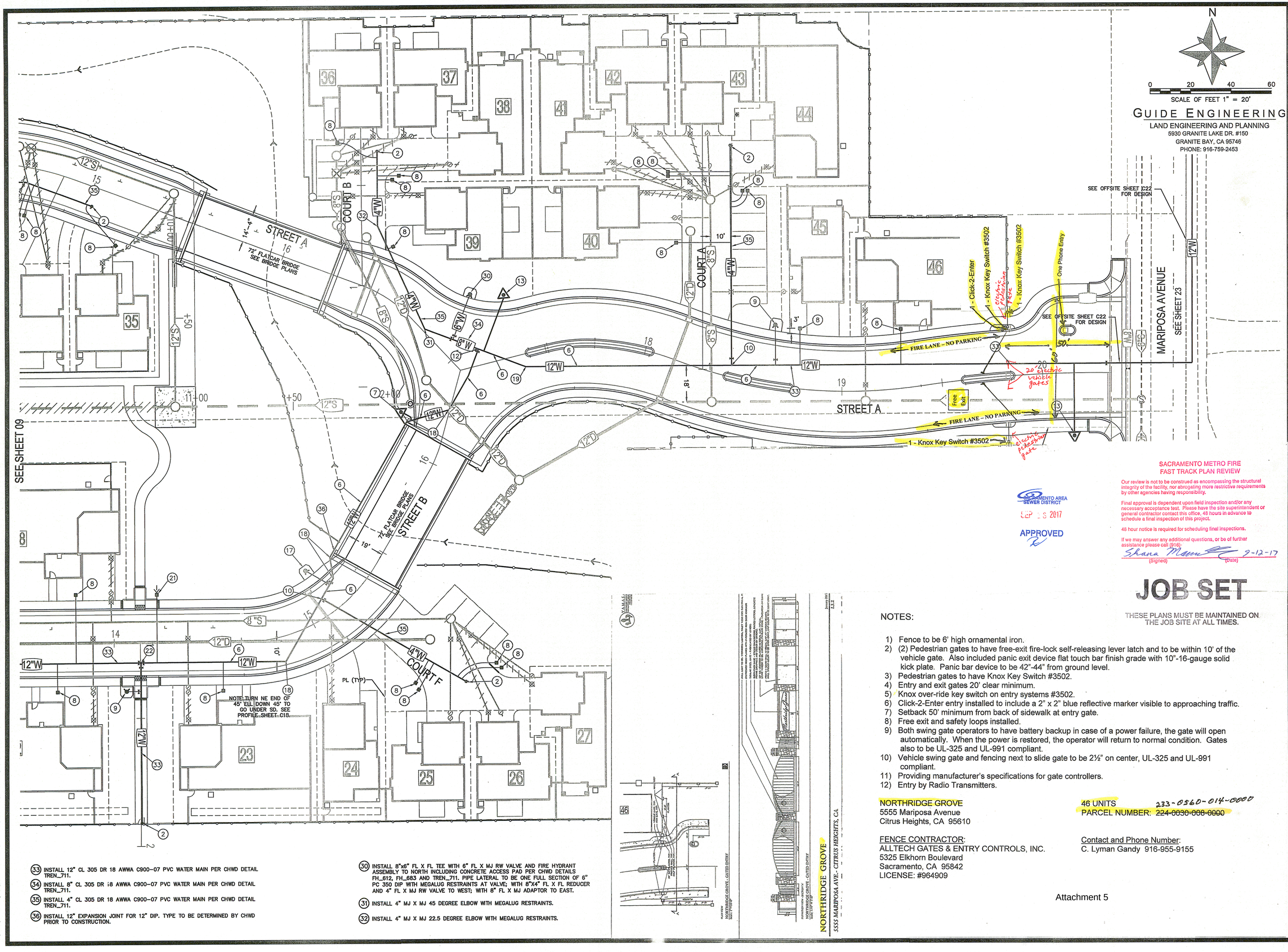
Sincerely,

We the Undersigned Homeowner's

PETITION FOR PRIVACY GATE APPROVAL

5555 MARIPOSA AVENUE, CITRUS HEIGHTS, CA 95610
NORTHRIDGE GROVE SUBDIVISION

NAME	ADDRESS	TELEPHONE	SIGNATURE
Robert L Stark	5541 Mariposa	961-0741	JOHN STARKS
Robert E. Lynch	5601 Mariposa Ave	966-5460	
Shirley + Tony Matracia	5617 Mariposa Ave	872-7773	Shirley + Tony Matracia
Charles & Virginia Boston	5609 Mariposa ave	9253383	Charles R Boston
Debbie Gibson	5533 MARIPOSA AVE	969 7418	



GUIDE ENGINEERING
LAND ENGINEERING AND PLANNING
5930 GRANITE LAKE DR. #150
GRANITE BAY, CA 95746
PHONE: 916-759-2453

SACRAMENTO METRO FIRE
FAST TRACK PLAN REVIEW

Our review is not to be construed as encompassing the structural integrity of the facility, nor abrogating more restrictive requirements by other agencies having responsibility.

Final approval is dependent upon field inspection and/or any necessary acceptance test. Please have the site superintendent or general contractor contact this office, 48 hours in advance to schedule a final inspection of this project.

48 hour notice is required for scheduling final inspections.

If we may answer any additional questions, or be of further assistance please call (916).

Shana Mann 9-12-17
(Signed) (Date)

SACRAMENTO AREA SEWER DISTRICT
SEP 15 2017
APPROVED

JOB SET

THESE PLANS MUST BE MAINTAINED ON THE JOB SITE AT ALL TIMES.

NOTES:

1) Fence to be 6' high ornamental iron.
2) (2) Pedestrian gates to have free-exit fire-lock self-releasing lever latch and to be within 10' of the vehicle gate. Also included panic exit device flat touch bar finish grade with 10"-16-gauge solid kick plate. Panic bar device to be 42"-44" from ground level.
3) Pedestrian gates to have Knox Key Switch #3502.
4) Entry and exit gates 20' clear minimum.
5) Knox over-ride key switch on entry systems #3502.
6) Click-2-Enter entry installed to include a 2" x 2" blue reflective marker visible to approaching traffic.
7) Setback 50' minimum from back of sidewalk at entry gate.
8) Free exit and safety loops installed.
9) Both swing gate operators to have battery backup in case of a power failure, the gate will open automatically. When the power is restored, the operator will return to normal condition. Gates also to be UL-325 and UL-991 compliant.
10) Vehicle swing gate and fencing next to slide gate to be 2½" on center, UL-325 and UL-991 compliant.
11) Providing manufacturer's specifications for gate controllers.
12) Entry by Radio Transmitters.

NORTHRIDGE GROVE
5555 Mariposa Avenue
Citrus Heights, CA 95610

46 UNITS
PARCEL NUMBER: ~~224-0030-008-0000~~ 233-0560-014-0000

FENCE CONTRACTOR:
ALLTECH GATES & ENTRY CONTROLS, INC.
5325 Elkhorn Boulevard
Sacramento, CA 95842
LICENSE: #964909

Contact and Phone Number:
C. Lyman Gandy 916-955-9155

Attachment 5

(33) INSTALL 12" CL 305 DR 18 AWWA C900-07 PVC WATER MAIN PER CHWD DETAIL TREN_711.
(34) INSTALL 8" CL 305 DR 18 AWWA C900-07 PVC WATER MAIN PER CHWD DETAIL TREN_711.
(35) INSTALL 4" CL 305 DR 18 AWWA C900-07 PVC WATER MAIN PER CHWD DETAIL TREN_711.
(36) INSTALL 12" EXPANSION JOINT FOR 12" DIP. TYPE TO BE DETERMINED BY CHWD PRIOR TO CONSTRUCTION.

(30) INSTALL 8"x6" FL X FL TEE WITH 6" FL X MJ RW VALVE AND FIRE HYDRANT ASSEMBLY TO NORTH INCLUDING CONCRETE ACCESS PAD PER CHWD DETAILS FH_612, FH_683 AND TREN_711. PIPE LATERAL TO BE ONE FULL SECTION OF 6" PC 350 DIP WITH MEGALUG RESTRAINTS AT VALVE; WITH 8"X4" FL X FL REDUCER AND 4" FL X MJ RW VALVE TO WEST; WITH 8" FL X MJ ADAPTOR TO EAST.
(31) INSTALL 4" MJ X MJ 45 DEGREE ELBOW WITH MEGALUG RESTRAINTS.
(32) INSTALL 4" MJ X MJ 22.5 DEGREE ELBOW WITH MEGALUG RESTRAINTS.

DATE:	JAN. 28, 2015
SCALE:	1"=20'
DRAWN BY:	F.Z.
DESIGNED BY:	R.S.
CHECKED BY:	J.B.

NO.	REVISION	APPROVED BY	DATE

GUIDE ENGINEERING
LAND ENGINEERING AND PLANNING
5930 GRANITE LAKE DR. #150
GRANITE BAY, CA 95746
PHONE: 916-787-0248

CIVIL IMPROVEMENT PLANS FOR
5555 MARIPOSA AVENUE
NORTHRIDGE GROVE
WATER PLAN

RECEIVED
SEP 12 2017

PREPARED UNDER THE DIRECTION OF:
REGISTERED PROFESSIONAL ENGINEER
JARED T. BROWN
LIC. No. C85430
Exp. 09/30/15
CIVIL
STATE OF CALIFORNIA

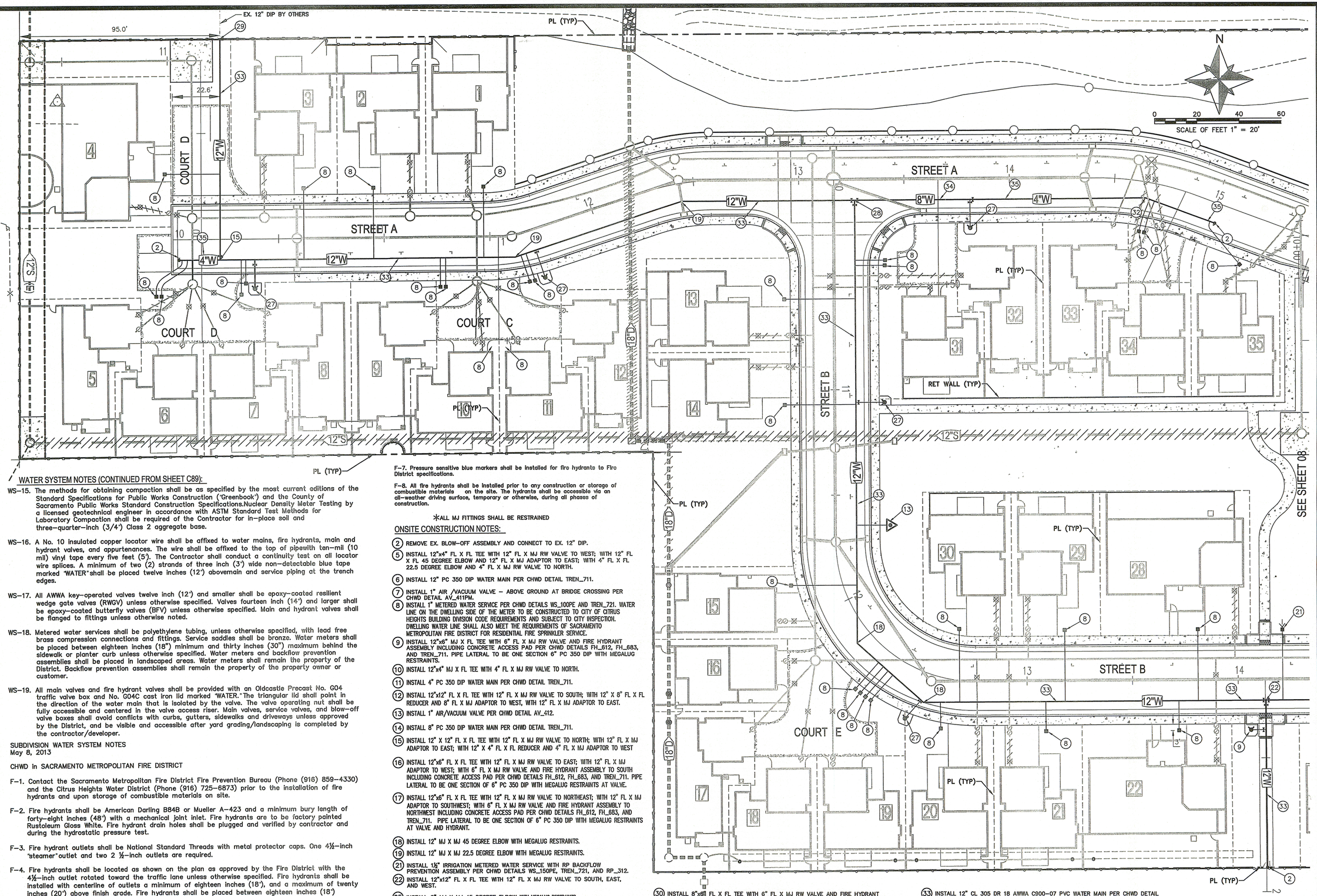
NOT APPROVED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER

PROJECT NUMBER: 2005.013.010

SHEET C8 OF 25

P# 17091z001-001

S:\Jobs\Citrus Heights\Steve Cassinelli\5555 Mariposa Ave\2- Drawings\Improvement Plans\08-WATER.dwg 9/11/15 10:02am Raymond



WATER SYSTEM NOTES (CONTINUED FROM SHEET C89):

WS–15. The methods for obtaining compaction shall be as specified by the most current editions of the Standard Specifications for Public Works Construction ("Greenbook") and the County of Sacramento Public Works Standard Construction Specifications.Nuclear Density Meter Testing by a licensed geotechnical engineer in accordance with ASTM Standard Test Methods for Laboratory Compaction shall be required of the Contractor for in–place soil and three–quarter–inch (3/4") Class 2 aggregate base.

WS–16. A No. 10 insulated copper locator wire shall be affixed to water mains, fire hydrants, main and hydrant valves, and appurtenances. The wire shall be affixed to the top of pipewith ten–mil (10 mil) vinyl tape every five feet (5'). The Contractor shall conduct a continuity test on all locator wire splices. A minimum of two (2) strands of three inch (3") wide non–detectable blue tape marked "WATER"shall be placed twelve inches (12") abovemain and service piping at the trench edges.

WS–17. All AWWA key–operated valves twelve inch (12") and smaller shall be epoxy–coated resilient wedge gate valves (RWGV) unless otherwise specified. Valves fourteen inch (14") and larger shall be epoxy–coated butterfly valves (BFV) unless otherwise specified. Main and hydrant valves shall be flanged to fittings unless otherwise noted.

WS–18. Metered water services shall be polyethylene tubing, unless otherwise specified, with lead free brass compression connections and fittings. Service saddles shall be bronze. Water meters shall be placed between eighteen inches (18") minimum and thirty inches (30") maximum behind the sidewalk or planter curb unless otherwise specified. Water meters and backflow prevention assemblies shall be placed in landscaped areas. Water meters shall remain the property of the District. Backflow prevention assemblies shall remain the property of the property owner or customer.

WS–19. All main valves and fire hydrant valves shall be provided with an Oldcastle Precast No. G04 traffic valve box and No. G04C cast iron lid marked "WATER." The triangular lid shall point in the direction of the water main that is isolated by the valve. The valve operating nut shall be fully accessible and centered in the valve access riser. Main valves, service valves, and blow–off valve boxes shall avoid conflicts with curbs, gutters, sidewalks and driveways unless approved by the District, and be visible and accessible after yard grading/landscaping is completed by the contractor/developer.

SUBDIVISION WATER SYSTEM NOTES
May 8, 2013

CHWD in SACRAMENTO METROPOLITAN FIRE DISTRICT

F–1. Contact the Sacramento Metropolitan Fire District Fire Prevention Bureau (Phone (916) 859–4330) and the Citrus Heights Water District (Phone (916) 725–6873) prior to the installation of fire hydrants and upon storage of combustible materials on site.

F–2. Fire hydrants shall be American Darling B84B or Mueller A–423 and a minimum bury length of forty–eight inches (48") with a mechanical joint inlet. Fire hydrants are to be factory painted Rustoleum Gloss White. Fire hydrant drain holes shall be plugged and verified by contractor and during the hydrostatic pressure test.

F–3. Fire hydrant outlets shall be National Standard Threads with metal protector caps. One 4½–inch "steamer" outlet and two 2 ½–inch outlets are required.

F–4. Fire hydrants shall be located as shown on the plan as approved by the Fire District with the 4½–inch outlet rotated toward the traffic lane unless otherwise specified. Fire hydrants shall be installed with centerline of outlets a minimum of eighteen inches (18"), and a maximum of twenty inches (20") above finish grade. Fire hydrants shall be placed between eighteen inches (18") minimum to twenty–four inches (24") maximum behind the sidewalk to centerline.

F–5. There shall be no obstructions, including plants, within a thirty–six inch (36") radius of any fire hydrant. There shall be a seven foot (7') vertical clearance above the thirty–six inch (36") clear radius around any fire hydrant. Concrete access pads are required to be installed around all fire hydrants unless otherwise specified by the Plans or Detail Drawings.

F–6. Fire hydrants shall be cleaned of all loose debris and painted using a manufacturer's recommended primer coat and finished with a minimum of two (2) coats of Rustoleum Gloss White enamel.

F–7. Pressure sensitive blue markers shall be installed for fire hydrants to Fire District specifications.

F–8. All fire hydrants shall be installed prior to any construction or storage of combustible materials on the site. The hydrants shall be accessible via an all–weather driving surface, temporary or otherwise, during all phases of construction.

*ALL MJ FITTINGS SHALL BE RESTRAINED

ONSITE CONSTRUCTION NOTES:

(2) REMOVE EX. BLOW–OFF ASSEMBLY AND CONNECT TO EX. 12" DIP.

(5) INSTALL 12"x4" FL X FL TEE WITH 12" FL X MJ RW VALVE TO WEST; WITH 12" FL X FL 45 DEGREE ELBOW AND 12" FL X MJ ADAPTOR TO EAST; WITH 4" FL X FL 22.5 DEGREE ELBOW AND 4" FL X MJ RW VALVE TO NORTH.

(6) INSTALL 12" PC 350 DIP WATER MAIN PER CHWD DETAIL TREN_711.

(7) INSTALL 1" AIR /VACUUM VALVE – ABOVE GROUND AT BRIDGE CROSSING PER CHWD DETAIL AV_411PM.

(8) INSTALL 1" METERED WATER SERVICE PER CHWD DETAILS WS_100PE AND TREN_721. WATER LINE ON THE DWELLING SIDE OF THE METER TO BE CONSTRUCTED TO CITY OF CITRUS HEIGHTS BUILDING DIVISION CODE REQUIREMENTS AND SUBJECT TO CITY INSPECTION. DWELLING WATER LINE SHALL ALSO MEET THE REQUIREMENTS OF SACRAMENTO METROPOLITAN FIRE DISTRICT FOR RESIDENTIAL FIRE SPRINKLER SERVICE.

(9) INSTALL 12"x6" MJ X FL TEE WITH 6" FL X MJ RW VALVE AND FIRE HYDRANT ASSEMBLY INCLUDING CONCRETE ACCESS PAD PER CHWD DETAILS FH_612, FH_683, AND TREN_711. PIPE LATERAL TO BE ONE SECTION 6" PC 350 DIP WITH MEGALUG RESTRAINTS.

(10) INSTALL 12"x4" MJ X FL TEE WITH 4" FL X MJ RW VALVE TO NORTH.

(11) INSTALL 4" PC 350 DIP WATER MAIN PER CHWD DETAIL TREN_711.

(12) INSTALL 12"x12" FL X FL TEE WITH 12" FL X MJ RW VALVE TO SOUTH; WITH 12" X 8" FL X FL REDUCER AND 8" FL X MJ ADAPTOR TO WEST, WITH 12" FL X MJ ADAPTOR TO EAST.

(13) INSTALL 1" AIR/VACUUM VALVE PER CHWD DETAIL AV_412.

(14) INSTALL 8" PC 350 DIP WATER MAIN PER CHWD DETAIL TREN_711.

(15) INSTALL 12" X 12" FL X FL TEE WITH 12" FL X MJ RW VALVE TO NORTH; WITH 12" FL X MJ ADAPTOR TO EAST; WITH 12" X 4" FL X FL REDUCER AND 4" FL X MJ ADAPTOR TO WEST

(16) INSTALL 12"x6" FL X FL TEE WITH 12" FL X MJ RW VALVE TO EAST; WITH 12" FL X MJ ADAPTOR TO WEST; WITH 6" FL X MJ RW VALVE AND FIRE HYDRANT ASSEMBLY TO SOUTH INCLUDING CONCRETE ACCESS PAD PER CHWD DETAILS FH_612, FH_683, AND TREN_711. PIPE LATERAL TO BE ONE SECTION OF 6" PC 350 DIP WITH MEGALUG RESTRAINTS AT VALVE.

(17) INSTALL 12"x6" FL X FL TEE WITH 12" FL X MJ RW VALVE TO NORTHEAST; WITH 12" FL X MJ ADAPTOR TO SOUTHWEST; WITH 6" FL X MJ RW VALVE AND FIRE HYDRANT ASSEMBLY TO NORTHWEST INCLUDING CONCRETE ACCESS PAD PER CHWD DETAILS FH_612, FH_683, AND TREN_711. PIPE LATERAL TO BE ONE SECTION OF 6" PC 350 DIP WITH MEGALUG RESTRAINTS AT VALVE AND HYDRANT.

(18) INSTALL 12" MJ X MJ 45 DEGREE ELBOW WITH MEGALUG RESTRAINTS.

(19) INSTALL 12" MJ X MJ 22.5 DEGREE ELBOW WITH MEGALUG RESTRAINTS.

(21) INSTALL 1½" IRRIGATION METERED WATER SERVICE WITH RP BACKFLOW PREVENTION ASSEMBLY PER CHWD DETAILS WS_150PE, TREN_721, AND RP_312.

(22) INSTALL 12"x12" FL X FL TEE WITH 12" FL X MJ RW VALVE TO SOUTH, EAST, AND WEST.

(25) INSTALL 8" MJ X MJ 45 DEGREE ELBOW WITH MEGALUG RESTRAINTS.

(27) INSTALL 12"x6" MJ X FL TEE WITH 6" FL X MJ RW VALVE AND FIRE HYDRANT ASSEMBLY INCLUDING CONCRETE ACCESS PAD PER CHWD DETAILS FH_612, FH_683, AND TREN_711. PIPE LATERAL TO BE ONE FULL SECTION 6" PC 350 DIP WITH MEGALUG RESTRAINTS AT VALVE AND HYDRANT.

(28) INSTALL 12"x12" FL X FL TEE WITH 12" FL X MJ RW VALVE TO SOUTH AND WEST, WITH 12" X 8" FL X FL REDUCER AND 8" FL X MJ RW VALVE TO EAST.

(29) CONNECT TO EXISTING 12" DIP WITH 12" DUCTILE IRON PIPE WITH MEGALUG RESTRAINTS. INSTALL 5 LF 20" STEEL CASING PER CHWD SD BORE_001.

(30) INSTALL 8"x6" FL X FL TEE WITH 6" FL X MJ RW VALVE AND FIRE HYDRANT ASSEMBLY TO NORTH INCLUDING CONCRETE ACCESS PAD PER CHWD DETAILS FH_612, FH_683 AND TREN_711. PIPE LATERAL TO BE ONE FULL SECTION OF 6" PC 350 DIP WITH MEGALUG RESTRAINTS AT VALVE; WITH 8"X4" FL X FL REDUCER AND 4" FL X MJ RW VALVE TO WEST; WITH 8" FL X MJ ADAPTOR TO EAST.

(31) INSTALL 4" MJ X MJ 45 DEGREE ELBOW WITH MEGALUG RESTRAINTS.

(32) INSTALL 4" MJ X MJ 22.5 DEGREE ELBOW WITH MEGALUG RESTRAINTS.

(33) INSTALL 12" CL 305 DR 18 AWWA C900–07 PVC WATER MAIN PER CHWD DETAIL TREN_711.

(34) INSTALL 8" CL 305 DR 18 AWWA C900–07 PVC WATER MAIN PER CHWD DETAIL TREN_711.

(35) INSTALL 4" CL 305 DR 18 AWWA C900–07 PVC WATER MAIN PER CHWD DETAIL TREN_711.

NO.	REVISION	APPROVED BY	DATE

DATE: JAN. 28, 2015
SCALE: 1"=20'
DRAWN BY: F.Z.
DESIGNED BY: R.S.
CHECKED BY: J.B.

GUIDE ENGINEERING
LAND ENGINEERING AND PLANNING
5930 GRANITE LAKE DR. #150
GRANITE BAY, CA 95746
PHONE: 916-787-0248

CIVIL IMPROVEMENT PLANS FOR 5555 MARIPOSA AVENUE

WATER PLAN

NORTHRIDGE GROVE

PREPARED UNDER THE DIRECTION OF:

REGISTERED PROFESSIONAL ENGINEER
JARED T. BROWN
LIC. No. C85430
Exp. 09/30/15
CIVIL
STATE OF CALIFORNIA

NOT APPROVED FOR CONSTRUCTION UNLESS SIGNED BY THE ENGINEER

PROJECT NUMBER: 2005.013.010

SHEET C9 OF 25

S:\Jobs\Citrus Heights\Steve Cassinelli\5555 Mariposa Ave\2- Drawings\Improvement Plans\09-WATER.dwg 1/06/16 9:01am Raymond

Some of the benefits of having an automated gate installed are:

- security;
- improved curb appeal;
- increased property value;
- safety for your children and pets;
- and privacy.

Security

Automated driveway gates are a good first layer of security.

Most thefts are crimes of opportunity. Home invasion is another scenario in which having an automated gate increases your security. If the bad guys can't even get through your gate, they aren't going to be able to get to your front door.

With a voice communication system or intercom at your driveway gate, you can decide by talking to a person if you even want to let them in your gate. With a camera system you can visually verify if they are who they say they are.

Curb Appeal

A driveway gate can drastically improve the curb appeal of your property.

The entryway can be greatly enhanced by the addition of an automatic entry gate.

Property Value

Curb appeal increases property values and often makes it easier to sell homes with the well-maintained driveway gate framed by smart landscaping or stone covered columns.

Insurance

Some insurance carriers will give a break on premiums if you have an automatic security gate installed. This is because insurers know that properties are more secure and that there is less of a chance that you will become a victim of property theft.

Child Safety

Help keep kids safe from traffic or predators.

With an automatic security gate, homeowners gain a greater sense of security while your kids are playing in the yard or common areas and are comfortable in the knowledge that they won't be chasing any balls out into the street or won't have to deal with strangers ambling into the community.

Pet Safety

Along with perimeter fencing, an automated gate helps keep pets within the boundaries of the property--something your neighbors are likely to appreciate. In addition, a gate helps keep potentially dangerous animals out.

Privacy

If your property has an automatic gate standing guard, you control who comes onto your property. Unauthorized individuals will not be able to solicit or knock on your door and interrupt your privacy. Passerby's will be discouraged from trespassing in your neighborhood.

William H. Van Duker

6620 Clear Creek Court

Citrus Heights CA 95610

916-726-3311; 916-726-7022

bill@allstarprinting.com

APPEAL OF ITEM 7-A NORTHRIDGE GROVE SUBDIVISION PRIVACY GATES

DECISION OF THE PLANNING COMMISSION AT THEIR REGULAR MEETING

Wednesday, December 13, 2017

TO: Amy Van, City Clerk – City of Citrus Heights

Please accept this as my appeal to the above referenced item in which the Planning Commission supported the application by a vote of 4-3. My personal check in the amount of $250.00 is attached to cover the appeal fee.

The basis of my appeal is that the decision violates Policy 4.3 of the General Plan which states: “Discourage features in residential development that tend to isolate residents from the sense of an integrated community, such as walls and gated single family neighborhoods.”

The findings recommended by the Planning Department and supported by a majority of the Commission do not relate at all to the provision of the General Plan and, therefore, are fatally flawed.

Further, if this decision is allowed to stand, there is absolutely no basis for denying future applications for gated communities. In fact, the applicant states that “Northridge Grove could be used as a “template” or “model” for future in-fill developments within the jurisdiction of the City of Citrus Heights.”

In summary, the findings say:

*Project complies with the zoning code;

*The gates have appropriate design, massing and scale….

*Proposed gates provide an attractive and desirable feature….

*Proposed gates provide safe and efficient access for emergency services…

*Proposed gates don’t hurt the landscape…

Testimony that the “school” and the CHPD were in favor of the gates was not supported with any documentation. There was a petition of 5 or so neighbors in support.

The Commissioners who voted in favor of the application made general comments about crime and safety, but did not address a specific finding that could overturn the provision of the General Plan.

The findings are fatally flawed. Therefore, I ask you to overturn the decision of the Planning Commission so that this project does not set a precedent for other gated communities throughout Citrus Heights.

William H. Van Duker

December 26, 2017

January 17, 2018

Citrus Heights City Council Members

Dear Council Members:

Most of the Board of Birdcage Heights Neighborhood Association Area 11 had the opportunity to tour the development at 5555 Mariposa Ave. We find ourselves proud of the developer's attention to both safety and aesthetic values. He has taken great care to protect the eventual buyers from unsavory persons who in the past have used the culverts of the adjacent park as shelters for drug activity.

Great effort and expense have gone into preserving oak trees which exist on the property line, and to provide a much safer and more attractive fence between the development and the nearby Skycrest school yard.

The members of the BHNA 11 Board who had the opportunity to tour the development is proud to have such a well-planned, attractive and safe housing development upgrading our home neighborhood. Each of us has signed below in support of the development being a gated community. We feel we would absolutely want the security of the privacy gate if we were to buy a home there.

We urge your approval of the builder's proposed gate.

Sincerely,

Marley Savery, President
BHNA 11
7747 Bloom Way
C. H., CA 95610
(916)967-0114

I agree:

	Name	Address
1.	Marley Savery	7747 Bloom Way C.H. 95610
2.	[illegible]	5830 Woman Creek CH 95610
3.	[illegible]	7747 Bloom Way
4.	Lisa Reighan	7601 Northcrest Circle
5.	Mary M. Slocum	7787 Quenivere Way
6.	John Pederson	5613 Gotta Run Ct
7.	Thurston Shield	7675 Northcrest Cir.
8.	Alice Shantz	5741 Longwood Way
9.	Susan Watson	5415 Ventana Pl., CH 95610
10.	[illegible]	8037 Sawgrass Circle, CH 95610
	Yvonne Sundahl	8037 Sawgrass Cir
	Shirley Matracia	5617 Mariposa Ave CH 95610
	Dustin Perry	5408 wildwood way CH 95610
	Phillip Brown	5615 CELINE DRIVE 95610

From: Planning
To: McDuffee, Colleen
Subject: FW: Northridge Grove Subdivision
Date: Wednesday, January 31, 2018 8:05:20 AM

From: Frederic Clark [mailto:l7031fc@yahoo.com]
Sent: Tuesday, January 30, 2018 9:49 PM
To: Planning
Subject: Northridge Grove Subdivision

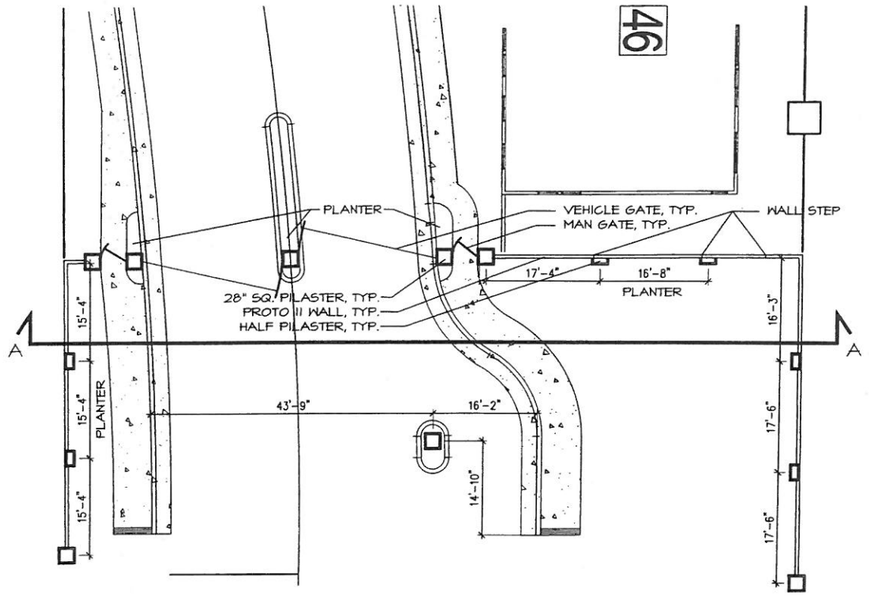
Dear Colleen McDuffee,

I am writing in support of the applicant's request for the installation of privacy gates **provided** the subdivision is required to form a Homeowners Association or other similar funding mechanism for the ongoing maintenance of the roads and other hardscape infrastructure, walls and fences adjacent to public roads, bridges, electroliers, and community landscaping associated with the private, gated subdivision. As the public will not have access to these streets, maintenance should be the responsibility of those living within the gated community, not the general taxpayers. Also it should be a requirement of this approval to form the Homeowners Association or other similar funding mechanism prior to the issuance of the first building permit for a residence within this subdivision.

Thank you for your consideration of this matter.

Frederic Clark
7536 Wells Avenue
Citrus Heights, CA 95610

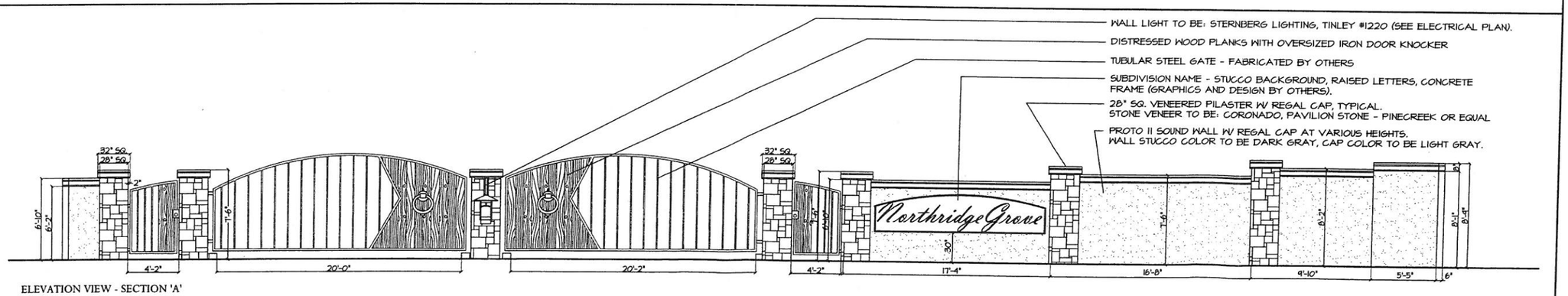
YAMASAKI
LANDSCAPE ARCHITECTURE
1223 HIGH STREET, AUBURN, CA 95603
(530) 885-0040
FAX (530) 885-0042



PLAN VIEW

NORTHRIDGE GROVE - GATED ENTRY

Scale: 1"=10'-0"



ELEVATION VIEW - SECTION 'A'

NORTHRIDGE GROVE - GATED ENTRY

Scale: 1/4" = 1'-0"

NORTHRIDGE GROVE

5555 MARIPOSA AVE.- CITRUS HEIGHTS, CA

January 2017

L3.2

Exhibit A

CITY OF CITRUS HEIGHTS

CITY COUNCIL STAFF REPORT MEMORANDUM

DATE: February 8, 2018

TO: Mayor and City Council Members
Christopher W. Boyd, City Manager

FROM: Rhonda Sherman, Community Services Director
Colleen McDuffee, Planning Manager
Alison Bermudez, Associate Planner

SUBJECT: **Resolution Adopting Master License Agreement Template and Process for Right of Way Installs of Wireless Facilities**

Summary and Recommendation

Over the past year, a number of wireless providers have expressed a desire to deploy new wireless communications facilities within the City's right-of-way (ROW). Wireless providers utilize this method in order to meet consumers increasing demands for data services. To provide a consistent and comprehensive response to these requests, a Wireless Master License Agreement (MLA) template has been drafted that would be executed with individual wireless providers that propose to install communication antennas within ROW.

Staff recommends the Council:

Adopt Resolution No. 2018-____ to Approve a Wireless Master License Agreement and Authorize the City Manager to Execute Wireless Master License Agreements and Issue Pole Licenses for City-owned Poles in the Right-of-Way.

Fiscal Impact

The City will financially benefit by entering into a lease with wireless providers choosing to place small cell antennas on City-owned street lights. Based upon the proposed fee structure of $2,000 per year per pole (with yearly automatic 2% increase), each licensed pole has potential to generate in excess of $33,550 in lease revenue if the pole remains licensed for the full 10-year term. All revenue generated through the lease of space on City-owned infrastructure will be deposited in the General Fund.

It is unknown how many pole licenses the City will issue, but recent discussions with wireless carriers indicate between four and eight locations are targeted for installations within the upcoming three to six months.

Background

Because of increasing demand for data consumption, wireless providers are seeking rapid investment in the necessary infrastructure to meet not only current data demands but to prepare for consumer deployment of fifth generation wireless systems (5G) technology sometime around the year 2021. Additionally, rapid expansion of the use of technology in areas such as real time bus information, traffic management systems, 911 centers, smartphone applications, home security, shipping logistics, and the potential deployment of autonomous vehicles has carriers seeking alternatives.

As new locations for wireless installations on private property have become limited and more difficult to negotiate and permit, providers sought out less expensive and more streamlined deployment methods to meet the increasing demand. A number of wireless providers have approached the City desiring to deploy small cell antenna facilities on existing street lights within the City's ROW. These new facilities, a single small cell antenna placed on existing infrastructure, would occur along heavily used traffic corridors. It's important to note the California Public Utilities Commission ("CPUC") determined that authorized wireless providers are the same as a utility, and therefore have all the rights of use of the public ROW as any other utility.

Senate Bill 649

During the 2017 legislative session, SB 649 (Hueso) was opposed by many jurisdictions throughout California, including Citrus Heights. The passage of SB 649 would have been a major shift in telecommunications policy and law. The bill would not have only required local governments to lease out the public's property, but it would have placed a cap on how much cities could collect for space lease ($250). The bill passed the legislature but was vetoed by Governor Brown. Although this particular bill was not enacted, it is expected a new bill will be presented in the upcoming legislative year. If a new bill should pass, the City would benefit from having executed MLAs in place should the new bill restrict the City's oversight and fee collection for these types of facilities.

Recent Zoning Update

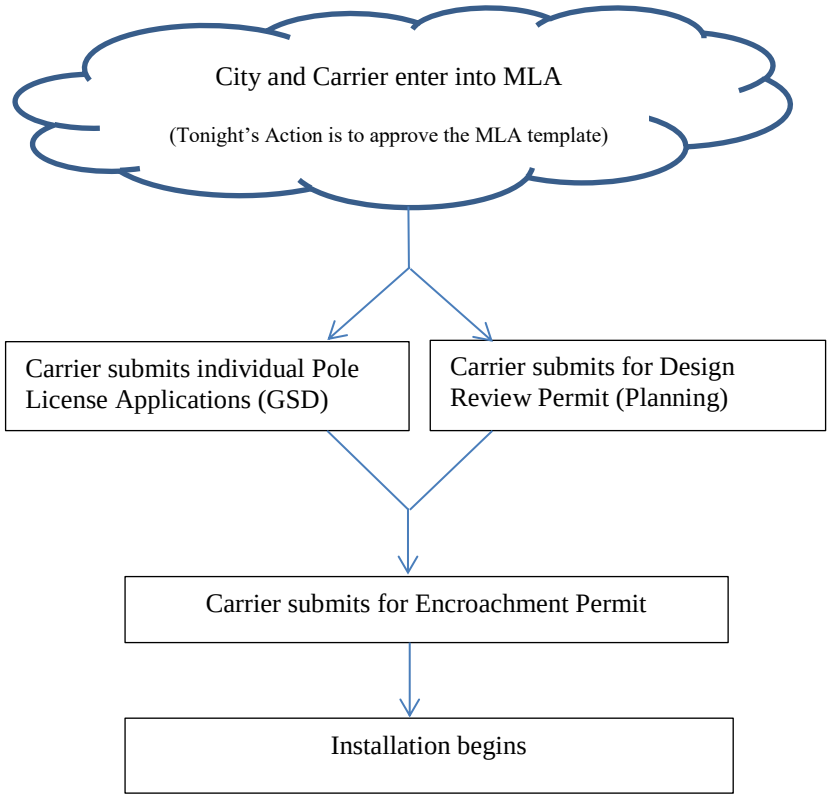
In 2017, due to impending legislation, the City updated the Zoning Code's Telecommunication Section to include design standards for wireless facilities proposed within the City's ROW. Even though SB 649 was not enacted, the updated zoning regulations are still valid.

Benefits of a Standard MLA

Currently, the City does not have a process to manage requests to utilize the ROW. Anticipating the demand for small cell locations, staff has prepared a MLA that will provide a consistent and streamlined approval process for small cell sites. The standardized MLA authorizes the City Manager to enter into an agreement with wireless providers to install new small cell facilities on City-owned streetlight poles. The goal of the MLA is to appropriately utilize the City's available infrastructure assets with respect to wireless providers' demand for access. The MLA will also provide a uniform and predictable process for evaluating individual pole license applications, and establish maintenance requirements and standards for the licensee.

MLA and Pole License Approach

There are several steps in authorizing a carrier to install small cell antennas on the City's streetlight infrastructure. Due to the complexity of the process, the illustration below provides a broad overview of the process that occurs prior to any installation. Many of these steps are already part of the City's work routine (e.g., Design Review Permit, Encroachment Permit) but the execution of a MLA is new. General Services will serve as the lead department for the overall small cell process and will coordinate with others as needed including the City Manager, Planning, Finance, and SMUD. For a more detailed explanation of the permitting process, refer to Attachment 1.



The wireless providers will benefit from licensing existing City-owned infrastructure to install small cell facilities by reducing costs associated with negotiating individual leases and by accelerating the deployment of advanced wireless facilities with a streamlined process. The City will benefit as well by (1) establishing a more robust wireless broadband network available to the City's residents and businesses; (2) maintaining greater control over aesthetics and potential liability from wireless facilities on City-owned poles; and (3) receiving license revenues.

Review and Decision Authority

The decision to enter into an MLA with a particular licensee, or to grant any pole license under an effective MLA, will be handled by staff. The attached resolution delegates authority to the City Manager to sign future MLAs so long as the MLA substantially conforms to the template agreement approved by the City Council. Any material changes to the MLA will require City

Council approval. Given the anticipated number of facilities, this delegation of authority will significantly reduce the burden on City resources to prepare reports and resolutions for each individual licensing decision.

The MLA will not completely replace the City's regulatory review process. Rather, it will delineate clear lines between actions the City takes as the owner and regulator of the pole. Once the City approves the pole license, the licensee will separately seek and obtain the required regulatory approvals from the Planning Division (Design Review Permit) and General Services Department (Encroachment Permit). Only after the licensee obtains all necessary permits and approvals could the carrier begin installation. Attachment 1 provides an overview of the process for small cell deployments within the ROW.

Pole License Fee

The MLA establishes the annual fee paid by the carriers for the use of each individual pole. Staff considered various fees charged for pole installations in other cities. For example, larger cities that already have similar programs in place, such as San Francisco, Los Angeles, and San Diego, currently receive between $2,000 and $4,000 per small cell facility per year per pole. Other cities, such as Anaheim, set their license fee much lower (approximately $100 per year per pole) as an incentive to use their infrastructure. As shown on Attachment 2, many cities charge in the range of $1,200 to $2,500 per year and most with automatic increases. Based upon this research, staff is recommending a fee of $2,000 per pole per year, with an annual 2% escalation clause. The Council has discretion to adjust this as part of the approval process.

The MLA template includes the proposed pole license fee (Schedule A-4 of the MLA) for each pole license issued under that MLA. This obviates the need to renegotiate the license charge if a licensee wants to add more pole licenses midway through the term, because the parties simply refer to the schedule and find the charge applicable in that year.

All revenue generated through the lease of space on City-owned infrastructure is deposited in the General Fund.

In addition to the annual pole license fee, wireless providers will be responsible for paying an initial deposit of $4,000 with the submittal of the MLA and $2,000 for each license application. Staff will track time spent working on the review of the MLA and the pole license application and charges time and materials against the deposit. When the processing is complete, any unused deposit is refunded to the applicant. Below is an overview of the fees/deposits associated with the MLA and Pole Licenses:

Fee Overview		
Amount	**Fee Type**	**When Required**
$4,000	Deposit	Submittal of MLA
$2,000	Deposit	Submittal of each Pole License Application
$50,000	Surety Bond	Issuance of each carrier's first Pole License
$2,000	Revenue	Annually per pole with automatic 2% increase each year

Eligible Infrastructure
The MLA allows poles licenses only for the installation of small cells on standard type "A" steel tapered street light poles. The MLA does not allow installations of wireless facilities on non-standard poles such as the decorative light poles along Auburn Boulevard. It is estimated the City owns nearly 300 eligible street light poles.

Outreach
Over the past several months, staff has worked in conjunction with the City Attorney's office to prepare the MLA. In October, staff released a draft MLA and the City received written comments from Mobilitie and AT&T. Staff reviewed all comments and incorporated recommended changes as appropriate.

To assist the public and the carriers in the understanding of small cell deployments within Citrus Heights, staff has prepared a Frequently Asked Questions flyer (Attachment 3) and after City Council's approval of the MLA process, the flyer will be posted to the City's website.

Environmental Determination
Pursuant to the California Environmental Quality Act ("CEQA"), the adoption of a Master License Agreement is not considered a "project" pursuant to CEQA Guidelines Section 15378 and Public Resources Code Section 21065. The adoption of this type of an agreement is not the sort of activity that may cause a direct or reasonably foreseeable indirect physical change to the environment. The MLA is also exempt pursuant to Section 15061(b)(3) of the CEQA Guidelines in that there is no potential the Agreement may have a significant effect on the environment. Moreover, any site-specific future projects subject to the Master License Agreement would necessitate further environmental review on a case-by-case basis. Accordingly, no further environmental review is required.

Conclusion

To provide a consistent and comprehensive response to requests from wireless carriers to place small cells within the City's ROW, staff recommends the City Council approve the attached Resolution and MLA for installation on facilities on City-owned poles, subject to individual Pole Licenses.

In summary, the following are the benefits and risks of utilizing an MLA:

Benefits:

- Generate yearly revenue from the licensing fees for each of City-owned poles that are utilized by a carrier.
- Provide the processes and work flow management structure required to manage and review the anticipated increase in small cell requests on City-owned poles.
- Aid in the City's ability to manage the anticipated increasing application requests.
- Foster robust wireless broadband services and technologies for the community to

better serve residents and businesses and attract economic development opportunities.

- Provide improved wireless services to government entities and within public spaces including the Police Department, City Hall, Community Center, parks, and schools.
- Create a streamlined permit review process, thereby reducing staff time.
- Maximize overall control over communications infrastructure in the public ROW at a time when there are increasingly strict limitations on local regulatory authority.

Based upon the information and benefits listed within this report, staff recommends the City Council approve the MLA.

Attachments: (1) Application process overview
(2) Survey results of Pole License fees
(3) Frequently Asked Questions Flyer
(4) Resolution with Exhibit A – Master License Agreement

Application Process Flow for Small Cells on Standard City Poles

Step	Process	Fee or Deposit	Amount	Responsible City Department/Division
1.	MLA- Carrier submits for Master License Agreement. Upon execution of agreement, applicant proceeds to Step 2	**Deposit**	$4,000 deposit	City Manager, General Services & coordination w/Finance
2	Pole License- Carrier submits for individual pole license application	**Deposit**	$2,000 deposit per location	General Services & coordination w/Finance
2a	Power Supply- City and SMUD enter into master agreement for power for each non-metered pole. SMUD direct bills carrier for power	_	Staff time to review SMUD agreement deducted from carrier's pole license deposit	General Services
2b	Design Review - Carrier submits for Design Review Permit for each location	**Fee**	Applicant fees $2685 (staff review) OR $5238 (Commission review)	Planning
	Item 2a and 2b may be processed concurrently but both must be completed to move to step 3.			
3	Security Deposit- carrier pays initial security deposit upon issuance of first pole license	**Deposit**	$50,000 security deposit for up to 9 poles and an additional $25,000 for 10th pole license issued	General Services & coordination w/Finance
4	Encroachment Permit- carrier must submit for Encroachment Permit prior to initiating work in the ROW	**Deposit**	$5,000 deposit to cover processing and site inspections. If fees are exhausted, applicant billed monthly for staff time.	General Services & coordination w/Finance
	Only upon approval all steps and the payment of all fees/deposits, the applicant may proceed to start construction.			
5	Fee initiated- 1st annual fee payment due upon commencement of the location. Payments prorated for 1st year and then billed each July thereafter.	**Revenue**	$2,000 year +2% yearly increase for life of term Refer to Schedule A-4 of MLA	General Services/Finance

Notes:

- Master License Agreement is valid for 10-years. Any associated Pole License and Design Review Permit shall expire at the end of same 10-year term.

- The MLA template does not apply to small cells proposed for installation on non-standard city light poles.

- A building permit is not required if install does not include new electrical service

Query About Small Cell Antenna Fees

Survey November 2017

City	Case-by-case	Master License Agreement	MLA Application Fee	Annual Fee Per Pole	Comments
Alameda	X	X		$1,200	
Dublin		X	Cost recovery, $4,000 deposit	$1,000 + 2% annual increase	Cost recovery for Pole License application, $2,000 deposit. All tentative pending City Council approval of MLA template.
Elk Grove					Nothing estabished
Fremont	X				Cost recovery for processing through encroachment permit. Says Cupertino is $1,250 per pole per year.
Lake Forest	X	X		$2,000	
Piedmont				$1,500	
Pleasanton	X			$1,200	$100/month/"smart pole" in Hacienda Business Park.
Rancho Cordova					Nothing estabished
Sacramento City		x	x		The City of Sacramento hiried 5 bars to assist in developing an entire master plan for deployment of small cells. The City worked with the major carriers on the deployment methods and fees in trade of offering communty wide wi-fi services.
Sacramento County					Nothing estabished
San Anselmo					Marin GSA charges Mobilitie $1,200/pole/year and Verizon $1,000/pole/year - see staff reports.
San Francisco				$4,000	
San Leandro	X	X	Cost recovery, $4,000 deposit	Unspecified	Annual License Fee per pole (not specified) + processing fees including security deposit, etc.
Santa Fe Springs		X		$1,000 proposed by one carrier	Each carrier must obtain administrative wireless telecommunications facility permit and an encroachment permit. Both permits will have one-time fees. Will do MLAs. Have heard of fees from $1,000 to $4,000 per pole per year.
Santa Monica		X		$2,500 (2017-21) $2,760 (2022-26) $3,048 (2027-31)	Sent "Complete Wireless Ordinance package" of files as a separate email.
Laguna Hills					Says Orange County rates for small cell antennas run $50-$200/month (i.e. $600-$2,400/year).

NOTE: Unable to determine the fees charged by local jurisdications as most have not yet made that determination

FAQ's

Master License Agreements & Pole Licensees

Small Cell Installations in the City's Rights-of-Way

What are small cells?

Small cells are small antennas placed on light poles or other infrastructure that provide faster data coverage and capacity for mobile phone and device users.

Which poles will be used?

Carriers typically choose to locate along heavily traveled corridors such as Greenback Lane, Sunrise Boulevard, Auburn Boulevard, and Antelope Road. The Master License Agreement will allow carriers to place antennas on City-owned street light poles. The General Services Department estimates there are approximately 378 streetlights along these corridors. Small cells will be allowed on standard street light poles; decorative light poles will not be eligible.

Do these systems generate noise or light?

No. The antennas themselves do not generate noise, light, or vibration. Noise is typically created by cooling fans; however, the proposed equipment enclosures use passive cooling, without cooling fans. There are no lights used by the equipment or antennas.

Do these proposals go through design review?

Yes. The Planning Division has extensive design guidelines for these small cells to ensure they are thoughtfully integrated into our community's streetscapes.

Does the City receive revenue?

Yes. Wireless providers choosing to install on a City light pole, will pay $2,000 per year, per pole. This annual fee will automatically increase each year by 2%.

How long does it take to process an application?

Typically, once an application is complete, 45 days is needed to process the application. Due to the significant amount of staff time needed for this program, especially in the program's infancy, staff time is cost recovered through deposits collected from the carrier.

Would the actual pole be replaced?

Not typically. In some limited instances, a pole that is worn, damaged, or structurally substandard may need to be replaced. In cases of replacement, the carrier will be responsible for the cost of the replacement pole.

What exactly is proposed on the pole?

Generally the installations will include an antenna mounted near the top of the pole (above the light). The antennas will be concealed in a shroud and two equipment boxes will be mounted midway down the pole. In addition, a small radio-frequency information and identification sticker would be placed near the antenna.

Who pays for the increased electrical power?

The carrier. Since the City typically pays SMUD a flat rate for energy use for each street light, SMUD and the City will have to renegotiate for the increase in power usage of each location. SMUD has agreed to direct bill the carrier for the cost increase.

What is the range of these systems?

That depends on a number of factors (e.g. nearby buildings blocking signals or the presence of trees), but on average, these systems have an approximate range of 150 to 500 feet, due to their low mounting height and low power output (either 66, 100, or 174 watts).

Will these small cells replace the use of antennas on rooftops or communication poles?

No. These systems are generally intended to complement the existing network of rooftop and communication pole sites thought the City. While most areas in Citrus Heights have good (mobile) voice coverage, wireless carriers are typically proposing these sites to complement the larger network system and offer improved high-speed data coverage for mobile users with these smaller facilities closer to sidewalk and street level. While each carrier has different goals and technologies, the use of small cells on light poles may lessen the demand for the overall number of larger rooftop or communication poles.

Will these antennas become obsolete as technology changes?

One thing for certain, technology will change. To prevent the City from becoming proliferated with obsolete equipment, the Master License Agreement and associated pole licenses will have a 10-year term. At the end of the term, the carrier will be required to obtain a new Master License Agreement and pole license for those locations still in use. The Master License Agreement also has a clause requiring carriers to remove antennas and associated equipment if at any point they become not in use for more than 60 days.

RESOLUTION NO. 2018-_____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS, CALIFORNIA, APPROVING A WIRELESS MASTER LICENSE AGREEMENT AND AUTHORIZING THE CITY MANAGER TO EXECUTE WIRELESS MASTER LICENSE AGREEMENTS AND ISSUE POLE LICENSES FOR CITY-OWNED POLES IN THE RIGHT OF WAY

WHEREAS, technology developments and demand for high-speed mobile data service and capacity has extended beyond the capabilities of traditional macro-cell wireless communications facilities. To meet this demand, wireless providers have accelerated their small cell antenna system deployments in the public rights-of-way and the City has a clear incentive to develop public-private agreements that manage these accelerated deployments in a way that balances local aesthetics and public health and safety while also deriving the benefits of these new technologies for the City's residents to the greatest extent practicable; and

WHEREAS, wireless providers desire to install, maintain and operate wireless communication facilities on existing vertical infrastructure in the public rights-of-way; and

WHEREAS, the City owns as its personal property approximately 300 existing poles within the public right-of-way that are potentially suitable for installing wireless communications facilities within the City's jurisdiction and has a duty under California law to derive appropriate value from the City's property; and

WHEREAS, wireless providers desire to install, maintain and operate wireless communications facilities on the City's poles in the public rights-of-way and these wireless providers are willing to compensate the City for the right to use the City's poles for wireless communications purposes; and

WHEREAS, the City prepared a form Master License Agreement and associated Pole License form (attached as Exhibit A) to be used by the City and certain wireless providers for the requested installation, maintenance and operations of wireless communication facilities on City poles in the public rights-of-way; and

WHEREAS, consistent with all applicable Laws, the City does not intend the Master License Agreement or any issued Pole License to grant any particular wireless provider the exclusive right to use or occupy the public rights-of-way within the City's jurisdictional boundaries, and the City may enter into similar or identical agreements with other entities, which include without limitation to any business competitors of a wireless provider who has entered into the Master License Agreement; and

WHEREAS, the City desires to authorize certain wireless providers access to individual City-owned poles based on a comprehensive and uniform Master License Agreement and associated Pole License form, attached as Exhibit A, and pursuant to all the applicable permits issued by the City to protect public health and safety; and

WHEREAS, said the approval of a form Master License Agreement and associated Pole License form is not considered a "project" pursuant to the California Environmental Quality Act of 1970, as amended, and implementing state CEQA Guidelines, Title 14, Chapter 3 of the California Code of Regulations (collectively

"CEQA"), Section 15378 and Public Resources Code Section 21065 as the adoption of the form agreement and license is not the sort of activity that may cause a direct or reasonably foreseeable indirect physical change to the environment. In the alternative, the approval of the form Master License Agreement and associated Pole License form is exempt pursuant to Section 15061(b)(3) of the CEQA Guidelines in that there is no potential that the agreement and license approval may have a significant effect on the environment. Moreover, any site specific future projects approved based on the Master License Agreement and associated Pole License form would necessitate further environmental review on a case by case basis; and

WHEREAS, on February 8, 2018, the City Council, after consideration of all pertinent documents and testimony, declared their intent to approve the form of the Master License Agreement and associated Pole License, and delegated the authority to the City Manager to execute future Master License Agreements, to issue Pole Licenses according to the Pole License Charge Schedule contained in the agreement.

NOW, THEREFORE, BE IT RESOLVED that the Citrus Heights City Council hereby accepts the Wireless Master License Agreement and Authorizes the City Manager to Execute Wireless Master License Agreements and Issue Pole Licenses for City-Owned Poles in the Right of Way.

PASSED AND ADOPTED by the City Council of the City of Citrus Heights this 8th day of February, 2018 by the following vote:

AYES: **Council Members:**
NOES: **Council Members:**
ABSENT: **Council Members:**
ABSTAIN: **Council Members:**

_____
Steve Miller, Mayor

ATTEST:

_____
Amy Van, City Clerk

Exhibit A: Master License Agreement

CITY OF CITRUS HEIGHTS

MASTER LICENSE AGREEMENT FOR SMALL CELL POLE ATTACHMENT INSTALLATION

between

THE CITY OF CITRUS HEIGHTS

and

[WIRELESS COMPANY]

For City of Citrus Heights Pole License Program in Citrus Heights, California

Effective as of_____, 20__

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BASIC LICENSE INFORMATION	
City:	City of Citrus Heights, a California municipal corporation
Licensee:	[Wireless Company], a [Ca. corporation, LLC, etc.]
Term (§ 3.1.1):	Ten (10) years, beginning on the Effective Date.
Master License Effective Date (§ 3.1.1):	The first day of the month after the date the parties have fully executed this Master License.
Pole License effective dates (§ 3.1.1):	For each Pole License, the first day of the month after the date the parties have fully executed it.
Master License and Pole License Expiration Date:	The day before the 10th anniversary of the Effective Date.
License Fee Commencement Date (§ 4.1); Acknowledgment Letter (§ 4.1.2):	For each Pole License, the earlier of: (a) the first anniversary of the effective date of the Pole License; and (b) the first day of the month after the date on which Licensee has obtained all Regulatory Approvals. The City will confirm the Commencement Date for each Pole License in the countersigned Acknowledgment Letter.
License Fee rate (§ 4.2.1):	As of the License Fee Commencement Date, Licensee will be obligated to pay City an annual License Fee at a rate based on the number of City Poles licensed under each Pole License. City will provide the License Fee schedule for each Pole License with the signed Acknowledgment Letter, and the schedule will be deemed to be attached to the Pole License as Exhibit A-4.
Integrated Pole License Fee discount (§ 4.2.4):	20% discount to the License Fee rate per City Pole upgraded to an Integrated Pole over the remaining term of each applicable Pole License.
License Fee Adjustment Dates (§ 4.3):	License Fee rates will escalate by two (2%) on July 1 of each year of the Term.
Master License Application Processing Payments (§ 4.6):	$4,000 to be delivered with Licensee's partially executed counterpart of this Master License. The payment, and any additional amounts required, will be used for City's ordinary processing and administrative costs related to the Master License application.

Pole License Administrative Payments (§ 4.7):	$2,000 per Standard City Pole, to be delivered with Licensee's application for each Pole License. This initial payment, and any necessary replenishment(s) thereof, will be used to cover the City's actual and reasonable costs to review and administer the application process upon delivery of each Pole License application. This initial payment, and any necessary replenishment(s) thereof, will be used to cover the City's actual and reasonable costs to review and administer the application process upon delivery of each Pole License application.
Permitted Use (§ 5.1):	Installation, operation, maintenance of, and access to, Equipment on the License Area specified in each Pole License and no other location. Use of the License Area for any other purpose without City's prior consent is prohibited.
Equipment installation (Art. 7):	All Equipment to be installed on the License Area is subject to City's final approval through the applicable Pole License. Licensee shall install Equipment at its sole cost only at the Pole Location specified in each Pole License.
Utilities (§ 12.1):	Licensee shall be solely responsible for obtaining and maintaining electric service for the Equipment, including, but not limited to, making payments to electric utilities and installation of separate electric meters, if necessary.
Emissions Report (§ 13.7):	As a condition to issuance of any Pole License, Licensee must provide City a copy of the Emissions Report submitted for Licensee's Wireless Facility Permit.
Default Fee schedule (17.2.4):	Exhibit A-4 to each Pole License.
Security Deposit (Art. 24):	Cash deposit or letter of credit in the amount of $50,000, to be delivered with Licensee's Acknowledgment Letter for the first Pole License issued under this Master License. Licensee shall provide additional security in the amount of $25,000 upon delivery of its Acknowledgment Letter for its tenth (10th) Pole License.
Notice address of City (§ 28.1):	City of Citrus Heights 6360 Fountain Square Drive Citrus Heights, CA 95621 Attn: City Manager Re: Master License – [Wireless Company] Telephone No.: _____

With a copy to:	Meyers Nave 555 Capitol Mall, Suite 1200 Sacramento, CA 95814 Attn: Ruthann G. Ziegler, City Attorney Re: Master License – [Wireless Company]
Project manager and day-to-day contact for City (§ 7.6):	_____ Telephone No.: _____
Emergency contact for City (§ 9.4):	During Business Hours: City Engineer_____ Telephone No.: _____ Off-Hours Police Dispatch Telephone No.: _____
Instructions for payments due to City:	Checks should be made payable to "City of Citrus Heights" and delivered to: City of Citrus Heights 6360 Fountain Square Drive Citrus Heights, CA 95621 Attn: Finance Director Re: Master License - [Wireless Company] Wire transfers should be directed as follows: _____ Send remittance information to: _____ [email address(es)]
Notice address of Licensee (§ 28.1):	_____
With a copy to:	_____

Project manager for Licensee (§ 7.6):	_____
On-call and emergency contact for Licensee (§§ 9.3, 9.4):	_____

NOTICE TO LICENSE APPLICANTS: The City's acceptance of the application payment(s) will not obligate the City to enter into any Master License if the City in its sole discretion determines that disapproval is warranted. If the City disapproves any Master License, it will notify the applicant by a letter specifying the reasons for disapproval. Disapproval will not disqualify the applicant from re-applying.

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MASTER LICENSE AGREEMENT FOR

SMALL CELL POLE ATTACHMENT INSTALLATION

This **MASTER LICENSE AGREEMENT FOR SMALL CELL POLE ATTACHMENT INSTALLATION** ("**Master License**"), effective as of_____, 20__, is made by and between the **CITY OF CITRUS HEIGHTS, CALIFORNIA,** a California municipal corporation (the "**City**") and [Wireless Company] ("**Licensee**").

BACKGROUND

A. The City owns approximately 378 street light poles and other traffic control and safety poles (each, a "**City Pole**") in Citrus Heights, California, many of which are suitable sites for installing equipment to enhance wireless telecommunications services in the City.

B. Licensee has requested to use City Poles to install, maintain, access, and operate communications facilities as specified in this Master License.

C. The City's Master License Distributed Antenna System Pole Installation Program (the "**Street Light License Program**") is a revenue-generating program to license existing City Poles for installation of outdoor distributed antenna systems to be installed and operated by wireless telecommunications carriers using licensed spectrum and third-party hosts certificated by the California Public Utilities Commission, as described in materials on file with the City Clerk. The Street Light License Program and Master License have been approved by the following City actions, all of which are now final and binding:

1. The City Council concluded that City approval of the proposed Street Light License Program and forms of Master License and Pole License would not commit the City to authorize use of specific City Poles. Therefore, the City actions described in Paragraph B.2 did not fall with the definition of a "project" under the California Environmental Quality Act (CEQA) Guidelines section 15378.

2 The City Council adopted Resolution No. _____ approving the Street Light License Program and authorizing its City Manager or his or her designee to enter into this Master License with and to issue Pole Licenses to wireless telecommunications carriers in a manner consistent with all required approvals on _____, 20___.

3. The City Council adopted Resolution No. _____ approving the Street Light License Program and authorizing the City to enter into Master Licenses and Pole Licenses with Licensee and other wireless telecommunications carriers under the Street Light License Program through its City Manager in substantially the forms on file with the City Clerk on _____, 20___.

D. Licensee has the authority under applicable Laws to install and maintain communications facilities in the public right-of-way to provide wireless telecommunications services.

NOW THEREFORE, IN RECOGNITION OF MUTUAL CONSIDERATION, THE ABOVE PARTIES AGREE TO THE FOLLOWING:

AGREEMENT

1 PURPOSE, DEFINITIONS, AND BASIC LICENSE INFORMATION

1.1 Purpose.

1.1.1 Master License. This Master License: (i) establishes the legal relationship and framework under which Licensee may apply to the City for and obtain a revocable, nonpossessory license to use the License Area identified in Pole Licenses issued under this Master License for the Permitted Use; (ii) governs the fees, charges, procedures, requirements, terms, and conditions by which the City will issue Pole License(s) to Licensee; and (iii) authorizes Licensee to engage in the Permitted Use only after Pole Licenses are issued under this Master License.

1.1.2 Pole Licenses. Pole Licenses that the City issues under this Master License will: (i) authorize Licensee to engage in the Permitted Use; (ii) specify approved Pole Locations, any site constraints, and any additional installation, operation, access, and maintenance requirements specific to those Pole Locations; (iii) grant a license, but not a leasehold interest, to Licensee only as a part of and subject to the terms and conditions of this Master License; and (iv) not amend any term or condition of this Master License.

1.1.3 Non-City Poles. The parties agree that Licensee may seek to install Equipment on poles owned by any other public or private party, or as otherwise permitted by Laws.

1.2 Basic License Information.

The Basic License Information in the preceding pages is intended to provide a summary of certain provisions relating to the licenses that the City will grant to Licensee in accordance with this Master License and is for the parties' reference only. If any information in the Basic License Information conflicts with any more specific provision of this Master License or any Pole License issued under it, the more specific provision will control.

1.3 Definitions.

Capitalized and other defined terms used in this Master License and all exhibits have the meanings given to them in this Section or in the text where indicated below, subject to the rules of interpretation set forth in **Section 28.4** (Interpretation of Licenses).

"**Acknowledgment Letter**" is defined in **Subsection 4.1.2.**

"**Additional Fees**" is defined in **Subsection 4.8.1.**

"**Adjustment Date**" is defined in **Section 4.3.**

"**Administrative Payments**" is defined in **Section 4.7**.

"**Affiliate**" means an entity that directly or indirectly controls, is controlled by, or is under the common control with Licensee.

"**Agents**" when used with respect to either party includes the agents, employees, officers, contractors, subcontractors, and representatives of that party in relation to this Master License and the License Area.

"**Approved Plans**" is defined in **Subsection 7.1.1**.

"**Assignee**" is defined in **Section 16.2**.

"**Assignment**" means any of the following: (a) a merger, acquisition, or other transfer of a controlling interest in Licensee, voluntarily or by operation of Law; (b) Licensee's sale, assignment, encumbrance, pledge, or other transfer of any part of its interest in or rights with

respect to the License Area; and (c) any action by Licensee to permit any portion of the License Area to be occupied by anyone other than itself, including a sublicensee.

"**Assignment Response Period**" is defined in **Subsection 16.3.1**.

"**Basic License Information**" means the summary attached in chart form immediately preceding the text of this Master License.

"**Broker**" is defined in **Section 28.6**.

"**Business Day**" is defined in **Subsection 28.4.4**.

"**CERCLA**" means the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. §§ 9601 et seq.), also commonly known as the "Superfund" law.

"**City**" is defined in the preamble.

"**City Pole**" is defined in **Recital A**.

"**Claim**" is defined in **Section 18.1**.

"**Commencement Date**" is defined in **Subsection 4.1.1**.

"**Common Control**" means two entities that are both Controlled by the same third entity.

"**Control**" means: (a) as to a corporation, the ownership of stock having the right to exercise more than 50% of the total combined voting power of all classes of stock of the controlled corporation, issued and outstanding; and (b) as to partnerships and other forms of business associations, ownership of more than 50% of the beneficial interest and voting control of such association.

"**CPUC**" is defined in **Subsection 13.2.1.**

"**Default Fee**" is defined in **Subsection 17.2.4**.

"**Effective Date**" means the effective date of this Master License as specified in the Basic License Information.

"**EMFs**" is defined in **Section 13.7**.

"**Emissions Report**" is defined in **Section 13.7**.

"**Environmental Laws**" means any Law relating to industrial hygiene, environmental conditions, or Hazardous Materials.

"**Equipment**" means antennas and any associated utility or equipment box, and battery backup, transmitters, receivers, radios, amplifiers, ancillary fiber-optic cables and wiring, and ancillary equipment for the transmission and reception of radio communication signals for voice and other data transmission, including the means and devices used to attach, mount or install other Equipment to a licensed pole in the public right of way, peripherals, and ancillary equipment and installations, including wiring, cabling, power feeds, and any approved signage attached to Equipment.

"**Expiration Date**" means the last day of the Term of this Master License and any Pole Licenses issued under it as specified the Basic License Information.

"**FCC**" is defined in **Section 7.1.2**.

"**Hazardous Material**" means any material that, because of its quantity, concentration, or physical or chemical characteristics, is at any time now or hereafter deemed by any Regulatory Agency to pose a present or potential hazard to human health, welfare, or safety or to the environment. Hazardous Material includes any material or substance defined as a "hazardous substance," or "pollutant" or "contaminant" in CERCLA or section 25316 of the California Health & Safety Code; and any "hazardous waste" listed in section 25140 of the California Health &

Safety Code; and petroleum, including crude oil or any fraction thereof, natural gas, or natural gas liquids.

"**Indemnified Party**" means the City, its Agents, its Invitees, and their respective heirs, legal representatives, successors, and assigns.

"**Indemnify**" means to indemnify, defend (with counsel reasonably acceptable to an Indemnified Party), and hold harmless.

"**Integrated Pole**" means a Pole designed to house street lighting and wireless communications equipment intended to provide efficient lighting and wireless communications signals in an integrated, aesthetically coherent structure. An Integrated Pole shall function as street lighting even if Equipment is not connected or is removed from the Integrated Pole.

"**Investigate and Remediate**" means the undertaking of any activities to determine the nature and extent of Hazardous Material that may be located in, on, under, or about the License Area or that has been, is being, or is in danger of being Released into the environment, and to clean up, remove, contain, treat, stabilize, monitor, or otherwise control such Hazardous Material.

"**Invitees**" when used with respect to either party includes the clients, customers, invitees, guests, tenants, subtenants, licensees, assignees, and sublicensees of that party in relation to the License Area.

"**Laws**" means all present and future statutes, ordinances, codes, orders, regulations, and implementing requirements and restrictions of federal, state, county, and municipal authorities, whether foreseen or unforeseen, ordinary as well as extraordinary, as adopted or as amended at the time in question.

"**License Area**" means, individually and collectively for all licensed City Poles, the portion of the City Poles approved for installation of Equipment, including pole tops, conduits housing the circuits delivering power to the City Poles and street light pull boxes and other City Property necessary for access.

"**License Fee**" is defined in **Subsection 4.2.1**. "**License Year**" is defined in **Subsection 4.1.1**. "**Licensee**" is defined in the preamble.

"**Master License**" is defined in the preamble, and where appropriate in the context, includes all Pole Licenses issued under it.

"**NESC**" is defined in **Section 13.4**.

"**Nonstandard City Pole**" means a City Pole other than a Standard City Pole, including historic, decorative, wood, or concrete City Poles, traffic signal poles, or intersection traffic control and safety poles.

"**Notice of Proposed Assignment**" is defined in **Section 16.2**.

"**Permitted Assignment**" is defined in **Subsection 16.6.1**.

"**Permitted Use**" means Licensee's installation, operation, access to, and maintenance of Equipment for the transmission and reception of wireless, cellular telephone, and data and related communications equipment on License Areas.

"**Pole**" means a street light pole or other utility pole in the City of Citrus Heights, whether owned and operated by the City or another entity.

"**Pole License**" means the document in the form of **Exhibit A** that, when fully executed, incorporates the provisions of this Master License and authorizes Licensee to install, operate, and maintain Equipment for the Permitted Use on City Poles identified in the Pole License.

"**Pole Location**" means the geographic information identifying each City Pole on which Licensee is authorized to install, operate and maintain Equipment under Pole Licenses. Pole Locations will be identified in **Exhibit A-1** to each Pole License.

"**Property**" means any interest in real or personal property, including land, air, and water areas, leasehold interests, possessory interests, easements, franchises, and other appurtenances, public rights-of-way, physical works of improvements such as buildings, structures, poles, infrastructure, utility, and other facilities, and alterations, installations, fixtures, furnishings, and additions to existing real property, personal property, and improvements.

"**Regulatory Agency**" means the local, regional, state, or federal body with jurisdiction and responsibility for issuing Regulatory Approvals in accordance with applicable Laws.

"**Regulatory Approvals**" means licenses, permits, and other approvals necessary for Licensee to install, operate, and maintain Equipment on the License Area, including any applicable permits relating to wireless facilities or encroachments.

"**Release**" when used with respect to Hazardous Material includes any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing on, under, or about the License Area, other City Property, or the environment.

"**RFs**" is defined in **Section 13.7**.

"**Security Deposit**" is defined in **Section 24.1**.

"**SMUD**" means the Sacramento Municipal Utility District.

"**Standard City Pole**" means a standard type "A" steel tapered City street light pole installed in the city right-of-way. Standard City Poles conform to then-applicable City Public Works standards, as may be amended from time to time.

"**Subsidiary**" means an entity controlled by Licensee.

"**Term**" is defined in **Subsection 3.1.1**.

"**Wireless Facility Permit**" is defined in **Section 6.2**.

2 SCOPE OF LICENSE

2.1 License Areas.

2.1.1 Issuance of Pole Licenses. Subject to the terms, covenants, and conditions set forth in this Master License, the City will issue to Licensee one or more Pole Licenses, each of which will be effective as of the first day of the month after the date on which both parties have executed it. Each Pole License will grant Licensee a contractual license to use the License Area specified in the Pole License.

2.1.2 No Competing Licenses. The City will not license to any third party any City Pole that is licensed to Licensee under a Pole License.

2.1.3 Limitation on Scope. This Master License applies only to City Poles identified in final, fully executed Pole Licenses. This Master License does not authorize the Permitted Use on any other City Property except the License Areas specified in the Pole Licenses.

2.1.4 Exclusion of Nonstandard City Poles. Licensee acknowledges that Nonstandard City Poles are excluded from this Agreement; only Standard City Poles will be issued pole licenses.

2.1.5 Exclusions. Licensee acknowledges that the City will not license any of the following to Licensee for any purpose: (i) Nonstandard City Poles; (ii) electrical wires servicing City Poles; and (iii) a City Pole that the City has already licensed to a third party.

2.2 No Property Interest in License Area or City Poles.

2.2.1 Limited Interest. Licensee acknowledges and agrees that neither this Master License nor any Pole License issued under it creates a lease, possessory interest, easement, franchise, or any other real property interest in any part of the License Area. Licensee further acknowledges and agrees that in the absence of a fully executed Pole License, Licensee does not have the right to use any City Pole for any purpose.

2.2.2 Limited Rights. Pole Licenses that the City issues under this Master License grant to Licensee only a nonpossessory, revocable license to enter onto and use the License Area for the Permitted Use, which means that:

(a) the City retains possession and control of all License Areas and City Poles for City operations, which will at all times be superior to Licensee's interest;

(b) the City may terminate a Pole License in whole or in part at any time, but only in accordance with this Master License;

(c) except as specifically provided otherwise in this Master License, this Master License does not limit, restrict, or prohibit the City from entering into agreements with third parties regarding the use of other City facilities, including City Poles or other City Property in the vicinity of any License Area; and

(d) neither this Master License nor any Pole License creates a partnership or joint venture between the City and Licensee.

2.2.3 No Impediment to Municipal Use. Except as limited in this Master License, neither this Master License nor any Pole License limits, alters, or waives the City's right to use any part of the License Area as infrastructure established and maintained for the benefit of the City, and for such purpose, City may require Licensee to relocate its equipment and facilities at Licensee's sole expense pursuant to **Section 27.3.4** (Replacement, Relocation, or Upgrading of City Poles) of this Agreement.

2.3 Signs and Advertising.

Licensee agrees that its rights under Pole Licenses do not authorize Licensee to erect or maintain, or permit to be erected or maintained by anyone under Licensee's control, any signs (except as provided in **Section 7.1.2** (Identification of Licensee's Equipment)), notices, graphics, or advertising of any kind on any part of the License Area.

2.4 Light and Air.

Licensee agrees that no diminution of light, air, or signal transmission by any structure (whether or not erected by the City) will entitle Licensee to any reduction of the License Fees or Additional Fees under any Pole License, result in any liability of the City to Licensee, or in any other way affect this Master License, any Pole License, or Licensee's obligations, except as specifically provided in this Master License.

2.5 As-Is Condition of the License Area.

Licensee's attention is directed to the following:

2.5.1 As-Is Condition. Licensee expressly acknowledges and agrees to enter onto and use each License Area in its "as-is, with all faults" condition. The City makes no representation or warranty of any kind as to the condition or suitability for Licensee's use of any License Area.

2.5.2 Licensee Due Diligence. Licensee represents and warrants to the City that Licensee has conducted a reasonably diligent investigation, either independently or through Agents of Licensee's choosing, of the condition of the License Area and of the suitability of the License Area for Licensee's intended use, and Licensee is relying solely on its independent investigation. Licensee further represents and warrants that its intended use of the License Area is the Permitted Use as defined in **Section 1.3** (Definitions) and as described in the Basic License Information.

2.5.3 No City Representations or Warranties. Except as may be expressly provided herein, Licensee agrees that neither the City nor any of its Agents have made, and the City disclaims, any representations or warranties, express or implied, with respect to the physical, structural, or environmental condition of the License Area, the present or future suitability of the License Area for the Permitted Use, or any other matter relating to the License Area.

2.5.4 Disclosure. Under California Civil Code section 1938, to the extent applicable to this Master License, Licensee is hereby advised that a Certified Access Specialist (as defined in that Law) has not inspected any License Area to determine whether it meets all applicable construction-related accessibility requirements.

3 TERM

3.1 Term of Master License and Pole Licenses.

3.1.1 Term. The term of this Master License shall be ten (10) years commencing on the Effective Date and ending at midnight on the last day of the term, unless earlier terminated by City or Licensee pursuant to the express terms of this Agreement (the "**Term**"). Each Pole License will be effective on the first day of the month after the date the parties have fully executed it and expire ten (10) years thereafter; provided, however, that if the Term of this Master License expires prior to expiration of the term of the Pole License, then the term of the Pole License shall expire upon expiration of the Term of this Master License.

3.1.2 Minimum Term. The minimum Term for the purpose of establishing the License Fee for each Pole License will be one License Year immediately following the "**Commencement Date**" under **Section 4.1** (Commencement Date). This minimum Term provision will prevail over any rights of abatement or termination afforded to Licensee under this Master License except as otherwise expressly stated herein.

4 LICENSE FEES; ADDITIONAL FEES; AND OTHER CHARGES

4.1 Commencement Date.

4.1.1 Definition. Licensee shall pay an annual License Fee under each Pole License beginning on its "**Commencement Date**," which will be the earlier of: (i) the first anniversary of the effective date of the Pole License; and (ii) the first day of the month after the date on which Licensee's equipment in the License Area has become operational and on-air. Each 12-month period beginning on the Commencement Date of each Pole License is a "**License Year**" for that Pole License.

4.1.2 Acknowledgment Letter. Within 60 days after obtaining all Regulatory Approvals for the Permitted Use on any License Area, Licensee shall deliver to the City a letter in the form of **Exhibit A-3** to the Pole License (each, an "**Acknowledgment Letter**"). The purposes of the Acknowledgment Letter are to: (i) confirm the Commencement Date; (ii) tender or confirm payment by wire transfer of the License Fee for the first License Year, and the Security Deposit (by check, wire transfer, surety bond, or letter of credit), all in the amounts specified in the Basic License Information; (iii) provide to the City copies of all Regulatory Approvals; and (iv) provide to the City copies

of required insurance certificates and endorsements related to the requirements under **Article 19** (Insurance).

4.1.3 City Demand for Acknowledgment Letter. If Licensee has not delivered to the City the complete Acknowledgment Letter by the first anniversary of the effective date of any Pole License, the City will have the right to: (i) demand that Licensee deliver the Acknowledgment Letter, together with copies of all Regulatory Approvals, within 10 business days after the date of the City's demand; and (ii) to set the Commencement Date at the first anniversary of the effective date of the Pole License if Licensee does not deliver the complete Acknowledgment Letter within that 10-business day period.

4.1.4 Correct Commencement Date. In all cases, the City will have the right to correct the Commencement Date stated in Licensee's Acknowledgment Letter after examining Regulatory Approvals. The City will notify Licensee of any such correction by notice delivered in accordance with **Section 28.1** (Notices). The City's determination under this subsection or under **Subsection 4.1.3** (City Demand for Acknowledgment Letter) will be final for all purposes under this Master License unless the City's determination is demonstrably arbitrary and capricious.

4.1.5 Countersigned Acknowledgment Letter. The City will use reasonable efforts to deliver to Licensee a countersigned copy of the Acknowledgement Letter or its determination of the Commencement Date under **Subsection 4.1.4** (Correct Commencement Date) within ten (10) business days of the City's receipt of the Acknowledgement Letter from the Licensee. The fully executed Acknowledgement Letter or the City's Commencement Date determination letter, as applicable, will be the City's notice to proceed under **Section 7.2** (Installation).

4.2 License Fees.

4.2.1 License Fee Schedule. Licensee shall pay to the City the License Fee for each License Year at the rates specified in the License Fee schedule attached to each Pole License (the "**License Fee**"). The License Fee schedule will reflect annual calendar-year adjustments as provided in **Section 4.3** (Adjustments in License Fee). The License Fee must be delivered in cash or its equivalent in the manner specified in **Section 4.9** (Manner of Payment).

4.2.2 Amount of License Fee; Proration. Licensee must take into account annual License Fee adjustments under **Section 4.3** (Adjustments in License Fee) when calculating the amount of each annual License Fee. Each annual License Fee is payable in advance without prior demand or any deduction, setoff, or counterclaim, except to account for a partial year at the beginning of a Pole License, at the end of the Term or earlier termination of this Master License or a right of abatement or refund expressly granted under this Master License. Any amounts calculated for less than a full year or a full month will be calculated based on the actual number of days in the year or month, as applicable.

4.2.3 Due Dates.

(a) Licensee shall submit the first License Year's License Fee with the Acknowledgment Letter without deduction for any reason.

(b) The annual License Fee for each subsequent License Year of the Term of each Pole License will be due and payable to the City on each anniversary of the Commencement Date and will be late if the City has not received payment by the due date.

4.2.4 Discount for Integrated Poles. If the use of Integrated Poles becomes feasible at any time during the Term, Licensee may request that the City amend any Pole

License to authorize Licensee to replace one or more licensed City Poles with Integrated Poles, subject to the City's prior approval of plans, specifications, cost estimates, materials, and completed improvements in accordance with **Section 8.1** (Licensee's Alterations). As an incentive for Licensee to upgrade City Poles to Integrated Poles, beginning in the License Year following the License Year in which the City accepts the Integrated Pole and continuing for the remainder of the Term of each affected Pole License, the City will discount by 20% the annual License Fee for each Integrated Pole that the City has accepted.

4.3 Adjustments in License Fee.

On July 1 of each year of this Master License (each, an "**Adjustment Date**"), the License Fee will be increased by two percent (2%).

4.4 Late Charge.

If Licensee fails to pay any License Fee, Additional Fee, or other amount payable to the City under this Master License within 30 days after the City's delivery of notice that the same is due and unpaid, such unpaid amounts will be subject to a late charge equal to 6% of the unpaid amounts. For example, if a License Fee in the amount of $40,000 is not paid on its due date and remains unpaid after the 10-day cure period has expired, the late charge would be $2,400.

4.5 Default Interest.

Any License Fee, Additional Fee, and other amount payable to the City (except late charges), if not paid within 10 days after the due date, will bear interest from the due date until paid at the default rate of 10% per year. Payment of default interest and the applicable late charge alone will not excuse or cure any default by Licensee.

4.6 Master License Application Processing Payments.

Licensee shall pay to the City funds to cover the City's ordinary processing and other administrative costs related to the Master License application ("**Master License Costs**"). Such payments shall compensate the City for all of the reasonable and actual costs of processing the Master License application, including, but not limited to, all time and materials costs of City employees, agents, consultants, and the City Attorney's office.

4.6.1 Initial Deposit. Licensee shall make an initial deposit with City, in the amount of $4,000, upon delivery of a partially executed counterpart of this Master License to the City. The City will not be obligated to process any Master License until the initial deposit is submitted. The initial deposit, and any subsequent payments, as provided below, shall be held by City in an account for the reimbursement of City's reasonable and actual costs incurred in processing the Master License application. Upon Licensee's request, City shall provide to Licensee a monthly accounting of the account with a description of City's costs and expenses withdrawn from the account.

4.6.2 Replenishment Payments. If there is a reasonable need for additional funds to facilitate review and processing of the Master License application, the City may request, and Licensee shall replenish the initial deposit for the City's anticipated cost of such extra work. If Licensee refuses or fails to submit the replenishment for the extra work upon City's written request, City shall have the right to cease all processing of Licensee's application until the requested funds have been received.

4.6.3 Early Termination. Licensee shall have the right to terminate processing of its Master License application by providing written notice to the City. Upon receipt of such notice by City (for purposes of this section, "**Termination Date**"), City shall cease all processing of Licensee's application as of the Termination Date.

4.6.4 Refunding of Excess Amounts; Transfer to Administrative Processing Account. Any funds remaining in the account will be refunded to Licensee after the Termination Date. At the completion of the processing of the Master License Agreement application, the City will transfer any funds remaining to a fund to be used for reimbursement of Administrative Costs pursuant to Section 4.7.

4.7 Pole License Administrative Processing Payments.

Licensee shall pay to the City funds to cover the City's costs to review and administer the Pole License application process (the "**Administrative Payments**"). Such payment(s) shall compensate the City for all of the reasonable and actual costs of processing each Pole License application, including, but not limited to, all time and materials costs of City employees, agents, consultants, and the City Attorney's office.

4.7.1 Initial Deposit; Replenishment. Unless the account described in Section 4.7.2 then contains in excess of $2,000, Licensee shall deposit with City an initial deposit in the amount of $2,000 upon delivery of each Pole License application to the City. City will not be obligated to begin its review of any Pole License application until the initial deposit is made. If there is a reasonable need for additional funds to facilitate review and processing of the Pole License application, the City may request, and Licensee shall replenish the deposit for anticipated cost of such extra work. If Licensee refuses or fails to submit the replenishment for the extra work upon City's written request, City shall have the right to cease all processing of Licensee's application until such time as the funds are received.

4.7.1 Account. All deposits, and any subsequent replenishments, as provided below, shall be held by City in an account for the reimbursement of City's reasonable and actual Administrative Costs. Upon Licensee's request, City shall provide to Licensee a monthly accounting of the account with a description of City's costs and expenses withdrawn from the account. Unless requested otherwise, the City will maintain the account following issuance of each Pole License for the purpose of reimbursing the Administrative Costs of future Pole License applications.

4.7.2 Early Termination. Licensee shall have the right to terminate processing of the application by providing written notice to the City. Upon receipt of such notice by City (for purposes of this section, "**Termination Date**"), City shall cease all processing on Licensee's application as of the Termination Date and City shall be compensated for all costs reasonably and actually incurred by City, up and until notice was received by City, to the extent that such funds are not available in the account.

4.7.3 Closure of Account. Licensee may elect to close the account at any time, subject to the City's right to discontinue processing. Upon closure, any funds remaining in the account will promptly be refunded to Licensee.

4.7.4 Refunding of Excess Amounts. Any unused funds remaining with City upon completion of the Pole License application processing, shall be refunded to Licensee within 30 days.

4.8 Additional Fees.

4.8.1 Defined. Sums payable to the City by Licensee, including any late charges, default interest, costs related to a request for the City's consent to an Assignment under **Section 16.2** (Notice of Proposed Assignment), and Default Fees under **Subsection 17.2.4** (Default Fees), are referred to collectively as "**Additional Fees**." Additional Fees are not regulatory fees.

(i) Exclusions. Licensee's payment of any of the following will not be considered Additional Fees under this Master License: (i) Master License application

processing payments (**§ 4.6**); (ii) Pole License administrative processing payments (**§ 4.7**); (iii) any other amount paid to the City in compensation for reviewing Licensee's applications and coordinating and inspecting its installation of Equipment on the License Area under Pole Licenses; (iv) License Fees; and (v) any other payments to the City.

4.9 Manner of Payment.

Licensee shall pay License Fees, Administrative Payments, Additional Fees, and all other amounts payable to the City under this Master License in cash or other immediately available funds by: (i) check payable to the "*City of* Citrus Heights*"* and delivered to the City in care of the Finance Director of the City of Citrus Heights at the address for payment specified in the Basic License Information; or (ii) wire transfer in accordance with the instructions in the Basic License Information, unless the City directs otherwise by notice given in accordance with **Section 28.1** (Notices). A check that is dishonored will be deemed unpaid.

4.10 Reasonableness of Liquidated Charges and Fees.

The parties agree that the Additional Fees payable under this Master License represent a fair and reasonable estimate of the administrative costs that the City will incur in connection with the matters for which they are imposed and that the City's right to impose the Additional Fees is in addition to and not in lieu of its other rights under this Master License. More specifically:

THE PARTIES ACKNOWLEDGE AND AGREE THAT THE CITY'S ACTUAL ADMINISTRATIVE COSTS AND OTHER DETRIMENT ARISING FROM LICENSEE DEFAULTS AND OTHER ADMINISTRATIVE MATTERS UNDER THIS MASTER LICENSE WOULD BE EXTREMELY DIFFICULT OR IMPRACTICABLE TO DETERMINE. BY PLACING HIS OR HER INITIALS BELOW, AN AUTHORIZED REPRESENTATIVE OF EACH PARTY ACKNOWLEDGES THAT THE PARTIES HAVE AGREED, AFTER NEGOTIATION, ON THE AMOUNT OF THE ADDITIONAL FEES AS REASONABLE ESTIMATES OF THE CITY'S ADDITIONAL ADMINISTRATIVE COSTS AND OTHER DETRIMENT.

Initials: Licensee _____ City _____

5 USE RESTRICTIONS

5.1 Permitted Use.

Licensee shall use the License Area solely for the Permitted Use and for no other use, subject to all applicable Laws and conditions of Regulatory Approvals. Licensee shall not interfere with the City's use and operation of any portion of the License Area or any other City Property for any purpose. Each Pole License will be subject to and conditioned upon Licensee obtaining and maintaining throughout the Term all Regulatory Approvals to use the License Area for the Permitted Use. Licensee acknowledges that City Laws and Regulatory Approvals include design review, engineering, radio interference, and zoning or telecommunications ordinances.

5.2 No Illegal Uses or Nuisances.

Licensee shall not use or occupy any of the License Area in any unlawful manner or for any illegal purpose or in any manner that constitutes a nuisance as determined by the City in its reasonable judgment. Licensee shall take all precautions to eliminate any nuisances or hazards in connection with its use of the License Area.

6 POLE LICENSE APPROVALS

6.1 City Approval Required.

6.1.1 City Rights Superior. Licensee's use of any part of the License Area for the Permitted Use is subject to the City's prior approval in connection with a Pole License application. Subject to any limitations expressly provided in this Master License, the City

is not obligated to subordinate its municipal functions or proprietary interests in any way to Licensee's interest under any Pole License. In determining whether to approve Licensee's application for any City Pole, including the attached plans and specifications, the City may consider any matter affecting its municipal obligations and proprietary interests. Examples of municipal and proprietary concerns include:

(a) the resulting total load on the City Pole if the Equipment is installed;

(b) the impact of the installation on the City's street light operations, including whether the Equipment would compromise the City's street light circuits serving City Poles;

(c) whether the installation complies with electrical codes;

(d) whether the Equipment would create a hazardous or unsafe condition;

(e) any impacts the Equipment would have in the vicinity of the City Pole, including size, materials, and visual clutter;

(f) aesthetic concerns; and

(g) municipal plans for the City Pole.

6.1.2 Changes in Application. If the City determines for any reason that the Permitted Use at any particular Pole Location would impede its municipal functions or otherwise affect its proprietary interests negatively, it will provide notice to Licensee of the City's concerns as soon as reasonably practicable in the application review process. Licensee will have the opportunity to change the Pole License application to address the City's concerns for a period ending 14 days after delivery of the City's notice without affecting the priority of Licensee's application in relation to other potential licensees. Any other changes that Licensee makes in the Pole License application will cause the date that the application is deemed submitted to be changed to the date that Licensee delivers the proposed changes to the City.

6.1.3 Consultation with Community Development. In reviewing a Pole License application, the City's General Services Department may consult with the City's Community Development Department to assess whether Licensee's proposed Equipment is appropriate for a given location or whether the proposed Equipment poses particular aesthetic concerns. Licensee acknowledges and agrees that any consultation between General Services Department and the Community Development Department in accordance with the preceding sentence and any resulting actions by the City would be in its proprietary capacity as the owner of the City Poles and would not be an exercise of regulatory authority.

6.2 Regulatory Approval Required.

Licensee's installation of Equipment is also subject to the prior approval of the Community Services Director, or his or her designee, and Licensee's compliance with all conditions of, any applicable wireless facility permit, encroachment permit, or other planning, design, or aesthetic approval as required by the Citrus Heights Municipal Code (generally, a "**Wireless Facility Permit**"), other applicable City requirements, and implementing regulations and orders, if any.

6.3 Initial and Annual Master Plans Required.

At the time of Licensee's submission of the Master License application, Licensee shall submit to the City a master plan showing the number and approximate location(s) (within one-eighth of a mile (660 feet)) of each City Pole for which Licensee intends to submit a Pole License application ("**Master Plan**") during the current calendar year. No later than each December 31st

thereafter during the term of this Master License, Licensee shall submit to the City a Master Plan for the upcoming calendar year. Licensee may submit updated Master Plans at any time. Licensee shall only submit Pole License applications for locations identified in a Master Plan received by the City at least thirty (30) days before such application.

6.4 Pole License Application.

Licensee shall submit Pole License applications to the City, which will review, approve, or deny each application in its reasonable discretion. Each application will consist of: (a) partially executed duplicate counterparts of a Pole License application in the form attached as **Exhibit A**; (b) **Exhibit A-1** filled in with the location and other identifying information about each City Pole covered by the Application; (c) **Exhibit A-2**, consisting of all plans and specifications required under **Subsection 7.1.1** (Strict Compliance Required); (d) the initial Administrative Payment as specified in **Section 4.7** (Pole License Administrative Payments); and (e) if not previously provided, a copy of the Emissions Report submitted for the Wireless Facility Permit. For Pole License applications relating to the use of a License Area that is not solely owned by the City, including, but not limited to, City easements located on private property, Licensee shall also provide evidence demonstrating, to the satisfaction of the City Attorney, Licensee's entitlement to use the proposed License Area for the Permitted Use.

6.5 Pole License Application Review Process.

The City will review and process Pole License applications in a reasonably prompt manner in the chronological order (date and time) in which complete applications are submitted or deemed submitted. Except as stated in the preceding sentence or as otherwise specified in this Master License, the City will not give priority to any application or licensee over another application or licensee. Licensee acknowledges that staff and budget considerations will limit the City's ability to review and process Pole License applications. During its review process, the City will provide to Licensee the applicable License Fee and Default Fee Schedule (**Exhibit A-4** to Pole License) and City Installation Guidelines (**Exhibit A-5** to Pole License), each of which will be deemed to be attached to the Pole License upon execution by the City.

6.6 Administrative Payments.

The City is not obligated to begin its review of any Pole License application if Licensee has failed to pay the applicable initial Administrative Payment under **Section 4.7** (Pole License Administrative Payments) when due. If Licensee does not timely deliver the required initial Administrative Payment or any additional Administrative Payment required for the City to complete its review, the City may suspend its review of any of Licensee's Pole License applications then under review by the City. The date and time of submission of any suspended Pole License application will be deemed to be the date and time that Licensee submits the required payment.

6.7 Pole License Approval.

The City will notify Licensee that the City has approved each Pole License by returning one fully executed counterpart of the Pole License to Licensee, and City will endeavor to do so within forty five (45) days after receiving a complete Pole License application. The City requires as a condition to approval of any Pole License that Licensee provide proof that contractors installing Equipment have bonds and insurance coverage as required by **Section 19.5** (Contractors' Bonds and Insurance). A City decision to grant or deny a Pole License application is not a regulatory determination subject to appeal, but is an exercise of the City's proprietary authority over its facilities.

6.8 Right to Disapprove.

Licensee acknowledges that the City has the absolute right consistent with Laws to disapprove any Pole License to the extent that Licensee requests a Pole Location where the

placement of Licensee's Equipment would interfere with the City's use of any City Pole, any municipal or proprietary concern, or create a hazardous or unsafe condition.

7 INSTALLATION OF EQUIPMENT

7.1 Approved Plans and Specifications.

7.1.1 Strict Compliance Required. Licensee must submit its plans and specifications for the City's review as **Exhibit A-2** to its Pole License application. Plans and specifications must cover all Equipment, including signage required or permitted under **Subsection 7.1.2** (Identification and Other Signage). Licensee's plans and specifications and any Equipment installed, if authorized, shall comply with the minimum requirements provided in **Exhibit B** to this Master License, attached to and incorporated herein. Licensee expressly agrees that these minimum requirements are an exercise of the City's proprietary interests as the owner of the City Poles and are not an exercise of the City's regulatory authority. Licensee is authorized to install Equipment at the License Area covered by the Pole License only in strict compliance with the plans and specifications approved by the City and, if applicable, in Regulatory Approvals ("**Approved Plans**").

7.1.2 Identification and Other Signage. Licensee shall place one identification plate in size, material, form, and substance strictly complying with the Approved Plans on its Equipment at each Pole Location, and one identification plate with the same information on the ground near the Pole. The plates shall include Licensee's corporate name and the telephone number at which Licensee's on-call representative listed in the Basic License Information can be reached. If Licensee's on-call representative changes, Licensee must provide notice to the City of the new contact information and replace all identification plates. Licensee may also place signage on Licensee's Equipment that contains information and disclosures required by the Federal Communications Commission (the "**FCC**"). Replacement of Licensee's signage will be considered maintenance subject to **Section 10.5** (Licensee's Equipment). If required by the City and allowed by SMUD, one additional identification plate shall be placed on Licensee's electrical meter box.

7.1.3 Required Changes. Licensee may amend previously Approved Plans if required to obtain or comply with other Regulatory Approvals necessary for installation of Equipment, including construction or installation-related temporary street occupancy permits, traffic control permits, and building permits, as may be required by City codes. Amendment of Approved Plans will require the City's approval. Licensee acknowledges that as of the Effective Date of this Master License, the City has not approved or promised to approve any plans, specifications, or permits necessary for Licensee to install Equipment on any City Poles. The City will provide notice of its decision in accordance with **Section 28.1** (Notices).

7.1.4 Corrections. The City's approval of plans, specifications, and amendments to Approved Plans, and the issuance of related Regulatory Approvals will not release Licensee from the responsibility for and obligation to correct any errors or omissions that may be contained in the Approved Plans and related Regulatory Approvals. Licensee shall notify the General Services Department and the Community Development Director, if applicable, immediately upon discovery of any omissions or errors, and Licensee shall obtain required approvals of any amendments to previously Approved Plans.

7.2 Installation.

Licensee shall not commence installation of Equipment on the License Area until the City has given Licensee notice to proceed by delivery of the countersigned copy of the Acknowledgment Letter or letter confirming the Commencement Date under **Section 4.1.2**

(Commencement Date). No installation shall take place unless Licensee has executed an "Consent and Agreement Form" with SMUD. When installing Equipment, Licensee must strictly comply with Approved Plans as originally approved, or, if applicable, as amended or corrected. Licensee shall paint and properly maintain any cabling, support brackets, and other supporting elements to match adjacent surfaces. If required by the General Services Director, and consistent with the Approved Plans, Licensee shall paint the entirety of existing City Poles and any new Poles. If necessary, Licensee must use custom matching paint to ensure a high quality of consistency in paint texture and appearance.

7.3 Notice Required Prior to Installation.

Upon submittal of the Pole License application, Licensee shall provide the City with a draft of a written construction notice, a draft address list and address map indicating the parcels that will receive the construction notice, and a copy of an executed "Consent and Agreement From" with SMUD. Licensee shall not commence installation of Equipment on the License Area until Licensee has provided at least 10 days' prior written notice of the installation, by first class U.S. mail, to the owner(s) of each parcel within 150 foot radius of the License Area.

7.4 Cost of Labor and Materials.

Licensee is responsible for all direct and indirect costs (labor, materials, and overhead) for designing, purchasing, and installing Equipment in accordance with the Approved Plans and all applicable Laws. Licensee also shall bear all costs of obtaining all Regulatory Approvals required in connection with the installation, and Licensee shall satisfy any conditions or mitigation measures arising from Licensee's proposed installation. Licensee shall timely pay for all labor, materials, and Equipment and all professional services related to the Permitted Use.

7.5 No Alteration of City's Existing Equipment or Infrastructure.

Licensee shall not remove, damage, or alter in any way any City Property, including City Poles and supporting infrastructure, pull boxes, electrical equipment, wiring, and electrical vaults, without the express permission of the General Services Director.

7.6 Standard of Work.

Licensee must install and perform all other work on Equipment in strict compliance with Approved Plans diligently and in a skillful and workmanlike manner. Licensee must use qualified and properly trained persons and appropriately licensed contractors in conformance with **Section 13.2** (Personnel Safety Training) for all work on the License Area. No later than 30 days before commencing installation or any other work on any License Area, Licensee shall provide the City with: (a) a schedule of all activities; and (b) a list of the names, places of business, and license numbers of all contractors who will perform the work. After performing any work on the License Area, Licensee shall leave it and other City Property in a condition as good as it was before the work.

7.7 Project Manager.

The City and Licensee each has designated the person listed in the Basic License Information as its project manager to coordinate the design and installation of Licensee's Equipment and serve as the respective primary point of contact between the City and Licensee for all engineering, construction, and installation issues. Licensee acknowledges that the City project manager is not exclusively assigned to this Master License, and the authority delegated to the project manager is limited to the administration of this Master License, Pole License applications, and approved Pole Licenses. Licensee shall be fully responsible for obtaining and satisfying the requirements of all required Regulatory Approvals necessary for installation of Equipment on the License Area, and Licensee shall not rely upon the City or the City's project manager to do so. Either party may change the name and contact information of its project manager by providing written notice thereof in the manner provided in this Master License.

7.8 Coordination of Work.

Licensee shall be responsible for coordination of its installation work to avoid any interference with existing utilities, substructures, facilities, or street light operations. Licensee shall be the City's point of contact for all Equipment installation and except in case of emergency, all communications concerning all engineering, construction, and installation issues relating to the Equipment.

7.9 Installation; Parking Regulations.

During installation, alteration, repair, and maintenance of Equipment, Licensee must abide by all City construction regulations, including, but not limited to construction hours, waste management, noise abatement, and traffic management ordinances and regulations. Licensee must pay all parking fees and citation fines incurred by Licensee and its contractors for vehicle parking. The City will not pay or void any citations or reimburse Licensee for traffic citations or fines.

7.10 Fiber-Optic Cables, Conduits, and Pull Boxes.

The City understands that Licensee's Equipment on the License Area may include fiber-optic cables and associated conduits. By entering into this Master License, Licensee agrees that if it proposes the installation of conduits in a License Area, then Licensee shall have an obligation to engage in good faith negotiations that would result in the installation of conduit for the exclusive use of the City for municipal use. Nothing in this agreement would require Licensee or the City to reach agreement on the terms of such installation.

8 ALTERATIONS

8.1 Licensee's Alterations.

Other than installation in accordance with Approved Plans, Licensee shall not make or permit any alterations to the License Area or anything that is part of, installed on, or appurtenant to the License Area, except with the City's prior consent in each instance, which the City may not unreasonably withhold, condition or delay. The City may condition its consent reasonably in each instance based on the scope and nature of the alterations to be made. All alterations must be at Licensee's sole expense in accordance with plans and specifications approved by the City and be performed only by duly licensed and bonded contractors or mechanics.

8.2 Title to Improvements and Removal of Licensee's Equipment.

Except as otherwise provided in this Master License, the City has no claim of ownership of Licensee's Equipment installed on the License Area, but any structural improvements by Licensee to a City Pole, replacement of a City Pole, or installation of an Integrated Pole, will become City Property and remain on the Pole Location should Licensee vacate or abandon use of the City Pole. Licensee may remove all of its Equipment (which excludes structural improvements to or replacement of any City Pole) from the License Area after 30 days' prior notice to the City, subject to **Section 7.10** (Fiber-Optic Cables), **Article 25** (Surrender of License Area), and **Article 27** (Special Provisions), unless the City has previously elected to require Licensee to remove at Licensee's sole expense all or part of any structural improvements to the License Area or City Pole, whether made by the City or Licensee.

9 CITY WORK ON POLES OR LICENSE AREA

9.1 Repairs, Maintenance, and Alterations.

City will: (a) maintain and repair the City Poles as needed, in its sole judgment, for its street light, utility, or municipal operations; and (b) correct any immediately life-threatening or hazardous condition. Except as specified in **Article 27** (Special Provisions), neither City work on the City Poles, nor the condition of the City Poles, will entitle Licensee to any damages, relieve Licensee of the obligation to pay the License Fees and Additional Fees or perform each of its

other covenants under this Master License, or constitute or be construed as a constructive termination of this Master License.

9.2 Notice to Licensee.

The City reserves the right at any time to make alterations, additions, repairs, removals, and improvements to all or any part of the License Area for any operational purpose, including maintenance and improvement of street lighting services, City compliance with mandatory regulations or voluntary controls or guidelines, subject to: (i) making good faith efforts to give Licensee 72-hour prior notice of any City work in accordance with **Section 9.3** (Licensee's On-Call Representative); (ii) allowing a representative of Licensee to observe the City's work; and (iii) taking reasonable steps not to disrupt Licensee's normal use of Equipment on the License Area. But Licensee's use of the License Area may not impede or delay in any way the City's authority and ability to make necessary changes, as determined by the City Engineer, to any License Area to maintain its street lights, utility services, or other municipal services.

9.3 Licensee's On-Call Representative.

Licensee shall at all times have a representative assigned to be on call and available to the City regarding the operation of Licensee's Equipment. Licensee's representative shall be qualified and experienced in the operation of Licensee's Equipment, and shall be authorized to act on behalf of Licensee in any emergency and in day-to-day operations of the Equipment. The contact information for Licensee's on-call representative is listed in the Basic License Information and will be listed on identification plates as required by **Subsection 7.1.2** (Identification and Other Signage). Before the City performs non-emergency maintenance, repair, or other activities on the License Area in the regular course of its business that may impair the operation of Licensee's Equipment on the License Area, the City will attempt to provide at least 48 hour's telephonic notice to Licensee's on-call representative. The City will not be required to delay non-emergency repair or maintenance activities more than 48 hours after attempting to contact Licensee's on-call representative.

9.4 Emergencies.

The parties agree to notify each other of any emergency situation related to any City Poles at the emergency phone numbers listed in the Basic License Information at the earliest opportunity. In an emergency, however, the City's work and needs will take precedence over the operations of any of Licensee's Equipment on the License Area, and the City may access any portion of the License Area that it determines is necessary in its sole discretion in accordance with **Section 21.2** (Emergency Access), whether or not the City has notified Licensee of the emergency. Licensee acknowledges that City personnel will be entitled to exercise their judgment in an emergency caused by any person, and in the exercise of judgment may determine that the operation of Licensee's Equipment must be interrupted, or that the circumstances require the removal of any part of Licensee's Equipment. Licensee agrees that the City will bear no liability to Licensee for the City's interruption of Licensee's Equipment operations, removal of Equipment, or other actions with respect to Licensee's Equipment in an emergency except to the extent caused by the gross negligence or willful misconduct of the City, and that Licensee shall be solely responsible for the costs required to resume operations or repair or replace Equipment following the emergency.

10 LICENSEE'S MAINTENANCE AND REPAIR OBLIGATIONS

10.1 Damage to City Property.

If the acts, omissions, or negligence of Licensee or its Agents or Invitees when installing or removing Equipment damages any City Pole, License Area, or other City Property, the City will provide notice describing the damage and 30 days' opportunity to cure. If Licensee fails to repair or replace the damaged City Pole in accordance with the requirements of **Section 8.1** (Licensee's Alterations) within the 30-day cure period, or any longer period to which the City

agrees in its reasonable discretion, the City may do so at Licensee's expense. Licensee shall reimburse the City for its actual and reasonable costs of repair or replacement within 20 days after receipt of the City's demand for payment, together with copies of invoices or other evidence of its costs.

10.2 Alterations to City Property

If Licensee or any of its Agents or Invitees alters or removes any City Property without the City's express prior approval, Licensee shall restore the City Property to the condition existing before the damage or alteration, unless the City directs otherwise. The City may condition its approval of any alteration to City Property on restoration in accordance with this Section.

10.3 No Right to Repair City Property.

Absent notice from the City providing an opportunity to repair damage to City Property, Licensee is not authorized to make any repairs to City Property. In all cases, Licensee waives any right it may have to make repairs at the City's expense under any applicable Law.

10.4 Notice of Damage to City Property.

Licensee agrees to give the City notice of the need for any repair to any City Pole, License Area, or other City Property promptly after Licensee's discovery of damage from any cause. Licensee's agreement to provide notice is not an assumption of liability for any life-threatening or hazardous conditions unless caused by the negligent or reckless acts or omissions or willful misconduct of Licensee or its Agents or Invitees.

10.5 Licensee's Equipment.

10.5.1 Maintenance and Repair. Licensee shall at its sole expense install, maintain, and promptly repair any damage to Equipment installed on the License Area whenever repair or maintenance is required, subject to the City's prior approval if required under **Article 8** (Alterations).

10.5.2 City Approval. Licensee is not required to seek the City's approval for any repair, maintenance, replacement, modification or other installation of Equipment or signage in a License Area if: (i) the Equipment or signage in question was in the Approved Plans; (ii) the repair, replacement, modification, or installation involves only the substitution of internal components, and does not result in any change to the external appearance, dimensions, or weight of the Equipment in the Approved Plans; or (iii) the City in its reasonable judgment concurs with Licensee that the repair, maintenance, replacement, modification, or other installation of Equipment is reasonably consistent with the Approved Plans, taking into consideration availability of the specific Equipment and advancements in technology. In no event, however, will Licensee be authorized to install larger, different, or additional Equipment on a City Pole without the City's express prior consent. In this regard, Licensee acknowledges that section 6409(a) of the Middle Class Tax Relief and Job Creation Act of 2012 (codified at 47 U.S.C. § 1455) does not apply to this Master License or any Pole License approval or disapproval under this Agreement because the City is granting them in its proprietary capacity as the owner of the City Poles. Any work on Licensee's Equipment installed on City Poles that is authorized or permitted under this Subsection is subject to Licensee obtaining any required Regulatory Approvals.

10.5.3 Graffiti. Licensee's repair and maintenance obligation includes the removal of any graffiti from the Licensee's Equipment.

10.6 Standard of Work.

All work by or on behalf of Licensee under this Article must: (a) be at Licensee's sole expense; (b) be performed by duly licensed and bonded contractors or mechanics;

(c) be performed in a manner and using equipment and materials that will not interfere with or impair the City's operations; and (d) comply with all applicable Laws relating to the License Area or Licensee's activities.

11 LIENS

Licensee shall keep the License Area free from any liens arising out of any work performed, material furnished, or obligations incurred by or for Licensee. Licensee shall inform each and every contractor and material supplier that provides any work, service, equipment, or material to Licensee in any way connected with Licensee's use of the License Area that the License Area is public property and is not subject to mechanics' liens or stop notices for Equipment, other materials, or services provided for Licensee's Equipment. If Licensee does not cause the release of lien of a mechanic's lien or stop notice by any contractor, service provider, or equipment or material supplier purporting to attach to the License Area or other City Property as a result of work performed, material furnished, or obligations incurred on behalf of Licensee within 60 days after notice or discovery of the lien, the City will have the right, but not the obligation, to cause the same to be released by any means it deems proper, including payment of the Claim giving rise to such lien. Licensee must reimburse the City for all expenses it incurs in connection with any such lien (including reasonable attorneys' fees) within 20 days following receipt of the City's demand, together with evidence of the City's expenses. Licensee shall give the City at least 10 days' prior notice of commencement of any construction or installation on any part of the License Area except for minor and routine repair and maintenance of Licensee's Equipment. Licensee shall not create, permit, or suffer any other encumbrances affecting any portion of the License Area.

12 UTILITIES; TAXES AND ASSESSMENTS

12.1 Utilities.

Unless the City authorizes connection to its street light electric facilities in accordance with the rules, regulations, and policies of the Sacramento Municipal Utilities District, Licensee shall be solely responsible for obtaining and maintaining the provision of electricity to Licensee's Equipment. In all cases, Licensee shall be responsible for making payments to the electric utility for the service attributable to its facilities. Licensee shall comply with all Laws and rules and regulations of the electric utility relating to installation and connection of Licensee's Equipment to electricity.

12.2 Taxes and Assessments.

12.2.1 Possessory Interest Taxes. Licensee recognizes and understands that this Master License may create a possessory interest subject to property taxation and that Licensee may be required to pay possessory interest taxes. (See Rev. & Tax. Code, sections 107–107.9.) Licensee further recognizes and understands that any sublicense or assignment permitted under this Master License and any exercise of any option to renew or extend this Master License may constitute a change in ownership for purposes of property taxation and therefore may result in a revaluation of any possessory interest created under this Master License.

12.2.2 Licensee's Obligation if Assessed. Licensee agrees to pay taxes of any kind, including possessory interest taxes, excises, licenses, permit charges, and assessments based on Licensee's usage of the License Area that may be imposed upon Licensee by Law, when the same become due and payable and before delinquency. Licensee agrees not to allow or suffer a lien for any taxes to be imposed upon the License Area without promptly discharging the same, provided that Licensee, if so desiring, will have a reasonable opportunity to contest the validity of the same. The City will provide Licensee with copies of all tax and assessment notices on or including the License Area promptly, along with sufficient written documentation detailing any

assessment increases attributable to Licensee's Equipment, but in no event later than 30 days after receipt by the City.

12.2.3 Taxes on Equipment. Licensee shall be responsible for all taxes and assessments levied upon Licensee's Equipment. Licensee agrees not to allow or suffer a lien for any such taxes to be imposed upon the Equipment without promptly discharging the same, provided that Licensee, if so desiring, will have a reasonable opportunity to contest the validity of the same.

13 COMPLIANCE WITH LAWS

Current and Future Laws. Licensee shall install, use, and maintain the Equipment in strict compliance with Laws and conditions to Regulatory Approvals relating to the use or occupancy of the License Area, including all Laws relating to health and safety and radio signal transmission. Any work or installations made or performed by or on behalf of Licensee or any person or entity claiming through or under Licensee is subject to applicable Laws. The parties agree that Licensee's obligation to comply with all Laws is a material part of the bargained-for consideration under this Master License, irrespective of the degree to which such compliance may interfere with Licensee's use or enjoyment of the License Area, the likelihood that the parties contemplated the particular Law involved and whether the Law involved is related to Licensee's particular use of the License Area. No occurrence or situation arising during the Term arising under any current or future Law, whether foreseen or unforeseen and however extraordinary, will relieve Licensee from its obligations under this Master License or give Licensee any right to terminate this Master License or to otherwise seek redress against the City except that Licensee may terminate a Pole License by removing its Equipment and surrendering rights to the License Area if Licensee determines in its judgment that compliance with a future law makes continued use of the Equipment in the License Area undesirable. After termination of any Pole License under this Section, the City will refund the portion of the previously-paid License Fee attributable to the terminated portion of the License Year, subject to Section 3.1.2 (Minimum Term).

13.1 Personnel Safety Training.

13.1.1 CPUC Certification. Licensee shall ensure that all persons installing, operating, or maintaining its Equipment are properly trained and licensed to the extent required by the California State Contractors Licensing Board and as required by applicable regulations and rules of the California Public Utilities Commission (the "**CPUC**"). Licensee shall ensure that these persons are trained in and observe all safety requirements established by the City, the CPUC, and the California Division of Occupational Safety & Health, Department of Industrial Relations, including site orientation, tag-out lock-out de- energization rules, ladder and lift restrictions, and track and street right-of-way safety requirements.

13.1.2 Licensee's Indemnity. During any period when Licensee or any Agent of Licensee is installing, operating, or maintaining its Equipment, Licensee acknowledges and agrees that the City has delegated control of the License Area to Licensee, which will be solely responsible for any resulting injury or damage to property or persons, except for injury or damage resulting from the City's negligence, recklessness, or willful misconduct. The City is not a co-employer of any employee of Licensee or any employee of Licensee's Agents, and the City will not be liable for any Claim of any employee of Licensee or any employee of Licensee's Agents, except for Claims arising from the City's negligence, recklessness, or willful misconduct. Licensee agrees to Indemnify the City fully (as provided in **Article 18** (Indemnification)) against any Claim brought by any employee of Licensee, any employee of Licensee's Agents, or any third party arising from or related to Licensee's access to and use of the License Area and other activities of Licensee or its Agents in or around the License Area, except to the extent the Claims result from the City's negligence, recklessness, or willful misconduct.

13.1.3 City's Indemnity. During any period when the City or any Agent of the City is installing, operating, or maintaining its Equipment, the City acknowledges and agrees that the City has control of the License Area and will be solely responsible for any resulting injury or damage to property or persons, except for injury or damage resulting from Licensee's negligence, recklessness, or willful misconduct. Licensee is not a co-employer of any employee of the City or any employee of the City's Agents, and Licensee will not be liable for any Claim of any employee of the City or any employee of Licensor's Agents, except for Claims arising from Licensee's negligence, recklessness, or willful misconduct. The City agrees to Indemnify Licensee fully against any Claim brought by any employee of the City or any employee of the City's Agents or any third party arising from or related to the City's access to and use of the License Area and other activities of the City or its Agents in or around the License Area, except for injury or damage to the extent resulting from Licensee's negligence, recklessness, or willful misconduct.

13.2 Compliance with CPUC General Order 95.

Licensee shall conduct all activities on the License Area in accordance with CPUC General Order 95 and the rules and other requirements enacted by the CPUC under that General Order, as applicable and as amended.

13.3 Compliance with Electric Codes.

Licensee shall conduct all activities on the License Area in accordance with the requirements of California Electric Code, National Electric Safety Code IEEE C2 ("**NESC**"), and any applicable local electrical code, as any of those codes may be applicable or amended. To the extent that CPUC General Order 95 does not address installation of cellular telephone antennas on Poles carrying electrical lines, Licensee shall apply any applicable provisions of the NESC, with particular attention to paragraphs 224, 235C, 235F, 238, 239, and 239H and sections 22, 41, and 44. Where any conflict exists between the NESC, the California Electric Code, any local code, and CPUC General Order 128, the more stringent requirements will apply, as determined by the City.

13.4 City's Exercise of its Proprietary Interests.

Licensee acknowledges and agrees that the City is entering into this Master License in its capacity as a property owner with a proprietary interest in the License Area and not as a Regulatory Agency with police powers. Nothing in this Master License limits in any way Licensee's obligation to obtain required Regulatory Approvals from applicable Regulatory Agencies. By entering into this Master License, the City is in no way modifying or limiting Licensee's obligation to cause the License Area to be used and occupied in accordance with all applicable Laws.

13.5 Regulatory Approvals.

Licensee represents and warrants that prior to, and as a condition of, conducting its activities on the License Area, Licensee will acquire all Regulatory Approvals required for Licensee's use of the License Area. Licensee shall maintain all Regulatory Approvals for Licensee's Permitted Use on the License Area throughout the Term of this Master License and for as long as any Equipment is installed on any portion of the License Area. Following submission of a Pole License application by Licensee, such Regulatory Approvals (or written denials explaining with specificity all reasons for such denials) shall be issued by the City within the timeframe allowed by the FCC and 47 U.S.C. § 332(c)(7)(B)(i)(II) and any other applicable laws.

13.6 Radiofrequency Radiation and Electromagnetic Fields.

Licensee's obligation to comply with all Laws includes all Laws relating to allowable presence of or human exposure to Radiofrequency Radiation ("**RFs**") or Electromagnetic Fields

("**EMFs**") on or off the License Area, including all applicable FCC standards, whether such RF or EMF presence or exposure results from Licensee's Equipment alone or from the cumulative effect of Licensee's Equipment added to all other sources on or near the License Area. Licensee must provide to the City a copy of the report required for Licensee's Wireless Facility Permit, of an independent engineering consultant analyzing whether RF and EMF emissions at the proposed Pole Locations would comply with FCC standards, taking into consideration the Equipment installation specifications and distance to residential windows (each, an "**Emissions Report**"). If not provided earlier, Licensee must submit the Emissions Report to the City with the applicable Pole License application. If the Emissions Report does not identify the type(s) of frequencies or bandwidth used by the Equipment, Licensee shall include such information in its Pole License application.

13.7 Compliance with City's Risk Management Requirements

Licensee shall not do anything, or permit anything to be done by anyone under Licensee's control, in, on, or about the License Area that would create any unusual fire risk, and shall take commercially reasonable steps to protect the City from any potential liability by reason of Licensee's use of the License Area. Licensee, at Licensee's expense, shall comply with all reasonable rules, orders, regulations, and requirements of the City Manager and City's Risk Manager.

14 DAMAGE OR DESTRUCTION

14.1 City Election.

The City has no obligation to replace or repair any part of the License Area following damage by any cause. Following damage or destruction of a City Pole or License Area by Licensee or its Agents, the City may elect any of the following actions, in the City's sole and absolute discretion.

14.1.1 Election to Repair or Replace Damage. Within 30 days after the date on which the City discovers damage or destruction of a City Pole licensed to Licensee, the City will give Licensee notice of the City's decision whether to repair or replace the damaged City Pole and its good faith estimate of the amount of time the City will need to complete the work. If the City cannot complete the work within 30 days after the date that the City specifies in its notice, or if the City elects not to do the work, then Licensee will have the right to terminate the affected Pole License on 30 days' notice to the City. However, if City elects not to perform such work, Licensee may perform such work at its sole cost and expense, subject to City approval of Licensee's plans and specifications, and Licensee's compliance with all state and federal contracting laws and City permit requirements. In such case, the affected Pole License will remain in full force and effect.

14.1.2 Election to Remove Damaged City Pole. If the City decides to remove, rather than repair or replace, a damaged City Pole licensed to Licensee, the applicable Pole License will terminate automatically as of the last day of the month the City Pole is removed.

14.1.3 Election to Remove Equipment from Damaged License Area. If the acts of third parties or an act of nature or other force majeure circumstance outside the control of Licensee or its Agents or Invitees destroys or damages any City Pole to such an extent that, in the City's reasonable determination, the Equipment on the City Pole cannot be operated, the City may decide to terminate affected Pole License on 30 days' notice to Licensee and require Licensee to remove the Equipment from the damaged City Pole before the termination date specified in the City's notice.

14.1.4 Licensee's Rights after Termination. After termination of any Pole License under this Section, the City will: (i) refund the portion of the previously-paid License Fee attributable to the terminated portion of the License Year**,** subject to **Section 3.1.2**

(Minimum Term); and (ii) give priority to Licensee's Pole License application for a replacement City Pole, which Pole License application City will review on an priority basis.

14.2 No Statutory Rights for Damaged City Pole.

The parties understand and agree that this Master License governs fully their rights and obligations in the event of damage or destruction of City Poles, and, to the extent applicable, Licensee and the City each hereby waives and releases the provisions of section 1932, subdivision 2, and section 1933, subdivision 4, of the Civil Code of California (when hirer may terminate the hiring) or under any similar Laws.

15 EMINENT DOMAIN

15.1 Eminent Domain.

If all or any part of the License Area is permanently taken in the exercise of the power of eminent domain or any transfer in lieu thereof, the following will apply:

15.1.1 Termination. As of the date of taking, the affected Pole Licenses will terminate as to the part so taken, and the License Fee under the affected Pole Licenses will be ratably reduced to account for the portion of the License Area taken.

15.1.2 Award. The City will be entitled to any award paid or made in connection with the taking. Licensee will have no Claim against the City for the value of any unexpired Term of any Pole License or otherwise except that Licensee may claim any portion of the award that is specifically allocable to Licensee's relocation expenses or loss or damage to Licensee's Equipment.

15.1.3 No Statutory Right to Terminate. The parties understand and agree that this Section is intended to govern fully the rights and obligations of the parties in the event of a permanent taking. Licensee and the City each hereby waives and releases any right to terminate this Master License in whole or in part under sections 1265.120 and 1265.130 of the California Code of Civil Procedure (partial termination of lease and court order terminating lease, respectively) and under any similar Laws to the extent applicable to this Master License.

15.2 Temporary Takings.

A taking that affects any portion of the License Area for less than 90 days will have no effect on the affected Pole License, except that Licensee will be entitled to an abatement in the License Fee to the extent that its use of the License Area is materially impaired. In the event of any such temporary taking, Licensee will receive that portion of any award, if any, that represents compensation for the use or occupancy of the License Area during the Term up to sum of the License Fees and Additional Fees payable by Licensee for the period of the taking, and the City will receive the balance of the award.

16 ASSIGNMENT

16.1 Restriction on Assignment.

Except as specifically provided in **Section 16.6** (Permitted Assignment), Licensee shall not directly or indirectly Assign any part of its interest in or rights with respect to the License Area without the City's prior consent. The City will not unreasonably withhold, condition, or delay its consent to an Assignment other than an Assignment covered by **Article 11** (Liens).

16.2 Notice of Proposed Assignment.

This Section 16.2 shall apply to all Assignments other than Permitted Assignments under **Section 16.6** (Permitted Assignment). If Licensee desires to enter into an Assignment of this Master License or any Pole License issued under this Master License, Licensee shall give notice (a "**Notice of Proposed Assignment**") to the City, stating in detail the terms and conditions for such proposed Assignment and complete information, including financial statements or information, business history, and references and other information about the proposed assignee (the "**Assignee**") that the City needs to make a fully informed decision about Licensee's request. If Licensee does not deliver all information that the City reasonably requires simultaneously with the Notice of Proposed Assignment, the date of Licensee's delivery of notice will be deemed to have occurred only when it has delivered any additional information the City requests.

16.3 City Response.

16.3.1 Timing. The City will grant or deny any request for consent to an Assignment within 30 days after the City's receipt or deemed receipt, if delayed under **Section 16.2** (Notice of Proposed Assignment), of the Notice of Proposed Assignment (the "**Assignment Response Period**"). If the City consents to the proposed Assignment, then Licensee will have 180 days following the date the City delivers its consent notice to Licensee to complete the Assignment. As a condition of the City's consent, the City shall be entitled to seventy-five percent (75%) of the amount payable by the assignee to the assignor as additional rent for the assigned License Area created by this Master Agreement and related Pole License ("**Bonus Rent**") under any Assignment. The City shall be entitled to review Licensee's books and records relating to Bonus Rent, provided that the City agrees in writing to keep the information in such books and records confidential, to the extent permitted by law, with the agreement to be in a form of commercially reasonable confidentiality agreement.

16.3.2 Effect of Default. Licensee acknowledges that it would be reasonable for the City to refuse to consent to an Assignment during any period during which any monetary or other material event of default by Licensee is outstanding (or any event has occurred that with notice or the passage of time or both would constitute a default) under this Master License.

16.4 Effect of Assignment.

Any Assignment that is not in compliance with this Article will be void and be a material default by Licensee under this Master License without a requirement for notice and a right to cure. The City's acceptance of any License Fee, Additional Fee, or other payments from a proposed Assignee will not be deemed to be the City's consent to such Assignment, recognition of any Assignee, or waiver of any failure of Licensee or other transferor to comply with this Article.

16.5 Assumption by Transferee.

Each Assignee shall assume all obligations of Licensee under this Master License and each assigned Pole License . No Assignment will be binding on the City unless Licensee or the Assignee delivers to the City evidence satisfactory to the City that the Assignee has obtained all Regulatory Approvals required to operate as a wireless telecommunications service provider on the assigned License Area, a copy of the assignment agreement (or other document reasonably satisfactory to the City in the event of a Permitted Assignment under **Section 16.6** (Permitted Assignment)), and an instrument in recordable form that contains a covenant of assumption by such Assignee satisfactory in substance and form to the City, consistent with the requirements of this Article. However, the failure or refusal of an Assignee to execute such instrument of assumption will not release such Assignee from its liability as set forth in this Section. Except for a Permitted Assignment as provided in **Section 16.6** (Permitted Assignment), Licensee shall reimburse the City on demand for any reasonable costs that the City incurs in connection with any proposed Assignment, including the costs of investigating the acceptability of the proposed

Assignee and legal costs incurred in connection with considering any requested consent. The City agrees that its right to reimbursement under this Section during the Term will be limited to $2,000 for each request.

16.6 Permitted Assignment.

16.6.1 Defined. The City agrees that Licensee will be permitted to enter into an Assignment of this Master License and Pole Licenses issued under it (a "**Permitted Assignment**"), without the City's prior consent but with notice to the City as provided below, to: (i) an Affiliate; (ii) a Subsidiary; (iii) an entity that acquires all or substantially all of Licensee's assets in the market in which the License Area is located (as the market is defined by the FCC under an order or directive of the FCC); (iv) an entity that acquires Licensee by a change of stock ownership or partnership interest; or (v) an entity Controlled by Licensee or that, with Licensee, is under the Common Control of a third party.

16.6.2 Conditions. A Permitted Assignment is subject to the following conditions:

(a) The Assignee uses the License Area only for the Permitted Use and holds all Regulatory Approvals necessary to lawfully install, operate, and maintain Equipment on the License Area.

(b) Licensee provides the City with notice 30 days before the effective date of the Permitted Assignment, stating the contact information for the proposed Assignee and providing financial information establishing that the proposed Assignee meets the capital and fiscal qualifications stated in this Section.

(c) Licensee is in good standing under this Master License.

16.7 Licensee Carrier Customers

The Parties acknowledge that Equipment deployed by Licensee in the License Areas pursuant to this Agreement may be owned and/or remotely operated by third-party wireless carrier customer ("Carriers") and installed and maintained by Licensee pursuant to existing agreements between Licensee and a Carrier. Such Equipment shall be treated as Licensee's Equipment for all purposes under this Master License and any applicable Pole License. A Carrier's ownership and/or operation of such Equipment shall not constitute an Assignment under this Master License, provided that Licensee shall not actually or purport to sell, assign, encumber, pledge, or otherwise transfer any part of its interest in the License Area to a Carrier, or otherwise permit any portion of the License Area to be occupied by anyone other than itself. Licensee shall remain solely responsible and liable for the performance of all obligations under this Master License and applicable Pole Licenses with respect to any Equipment owned and/or remotely operated by a Carrier.

17 DEFAULT

17.1 Events of Default by Licensee.

Any of the following will constitute an event of default by Licensee under this Master License and any Pole Licenses issued under it:

17.1.1 Nonpayment of Fees. Licensee fails to pay any License Fee or Additional Fees as and when due, if the failure continues for 10 days after receipt of written notice from City to Licensee of such failure.

17.1.2 Lapsed Regulatory Approvals. Licensee fails to maintain all Regulatory Approvals required for the Permitted Use, if the failure continues for 10 days after receipt of written notice from City to Licensee of such failure.

17.1.3 Prohibited Assignment. Licensee enters into an Assignment in violation of **Article 16** (Assignment) if the failure continues for 30 days after written notice from City to Licensee of such failure.

17.1.4 Interference with City. Licensee interferes with the City's operations in violation of **Section 27.5.1** (Licensee's Obligation Not to Cause Interference) if the failure continues for 30 days after written notice from City to Licensee of such failure.

17.1.5 Failure to Maintain Insurance. Licensee fails to maintain insurance as required by **Article 19** (Insurance) if the failure continues for 30 days after written notice from City to Licensee of such failure.

17.1.6 Failure to Cure. Licensee fails to cure noncompliance with the specified requirements of this Master License after initial and follow-up notices or to pay the Default Fees as set forth in **Subsection 17.2.4** (Default Fees).

17.1.7 Other Terms. Licensee fails to perform or comply with any other obligation or representation made under this Master License, if the failure continues for 30 days after the date of notice from the City, or, if such default is not capable of cure within the 30-day period, Licensee fails to promptly undertake action to cure such default within such 30-day period and thereafter fails to use its best efforts to complete such cure within 60 days after the City's notice.

17.1.8 Abandonment. Licensee removes its Equipment or abandons the License Area for a continuous period of more than 60 days, such that the License Area is longer being used for the Permitted Use. The City shall not deem a License Area abandoned if the Licensee is diligently pursuing completion of the work necessary to make the facility operational, which the City acknowledges may include separate fiber optic network connections.

17.1.9 Insolvency. Any of the following occurs: (i) the appointment of a receiver due to Licensee's insolvency to take possession of all or substantially all of the assets of Licensee; (ii) an assignment by Licensee for the benefit of creditors; or (iii) any action taken by or against Licensee under any insolvency, bankruptcy, reorganization, moratorium, or other debtor relief Law, if any such receiver, assignment, or action is not released, discharged, dismissed, or vacated within 60 days.

17.2 City's Remedies.

In addition to all other rights and remedies available to the City at law or in equity, the City will have the following remedies following the occurrence of an event of default by Licensee.

17.2.1 Continuation of License. Without prejudice to its right to other remedies, the City may continue this Master License and applicable Pole Licenses in effect, with the right to enforce all of its rights and remedies, including the right to payment of License Fees, Additional Fees, and other charges as they become due.

17.2.2 Termination of Pole License. If a default specific to one or more Pole Licenses is not cured by Licensee within the applicable cure period, if any, specified in **Section 17.1** (Events of Default by Licensee), the City may terminate each Pole License in default.

17.2.3 Termination of Master License. If Licensee's default is of such a serious nature in the City's sole judgment that the default materially affects the purposes of this Master License, the City may terminate this Master License in whole or in part. Termination of this Master License in whole will affect the termination of all Pole Licenses issued under it automatically and without the need for any further action by the City. In either case, the City will deliver notice to Licensee providing 30-days' notice of termination and specifying whether the termination affects the entire Master License or

only certain Pole Licenses as specified in the notice. The City will specify the amount of time Licensee will have to remove its Equipment from any affected City Pole, which will be at least 30 days after the date of the City's notice for up to 50 City Poles and an additional 30 days for more than 50 City Poles. If Licensee does not remove its Equipment within the specified period, the City will be entitled to remove Licensee's Equipment from the License Areas.

17.2.4 Default Fees. Without limiting the City's other rights and remedies under this Master License, the City may require Licensee to pay Additional Fees for the City's administrative costs in providing notice or performing inspections for the events described below (each, a "**Default Fee**"), by giving notice of the City's demand that Licensee cure the default and specifying the cure period. The Default Fee for the initial notice from the City will be due and payable to the City 10 days after delivery of notice to Licensee. In addition, if Licensee fails to cure the condition within the cure period set forth in the initial notice, and the City then delivers to Licensee a follow-up notice requesting compliance, then the Default Fee for the follow-up notice will be due and payable to the City 10 days after delivery of the follow-up notice to Licensee. Once the City has accepted a Default Fee for a particular violation, which it is not in any way obligated to do, the City shall be prohibited from pursuing any other remedies for such violation. Default Fees will apply to any of the following events:

(a) Licensee constructs or installs any alteration or improvement without the City's prior approval as required by **Article 6** (Pole License Approvals), **Article 7** (Installation of Equipment), or **Article 8** (Alterations) of this Master License.

(b) Licensee fails to make a repair required by **Article 10** (Licensee's Maintenance and Repair Obligations) on a timely basis.

(c) Licensee fails to notify the City, through its project manager, before accessing the License Area for the initial installation of the Equipment or to follow the plan approval procedures as set forth in **Article 7** (Installation of Equipment).

(d) Licensee fails to provide evidence of the required bonds and insurance coverage described in **Article 19** (Insurance) on a timely basis.

17.3 Licensee's Remedy for City Defaults.

Licensee's sole remedy for the City's breach or threatened breach of this Master License or any Pole License issued under it will be termination of this Master License or Pole License issued under it and/or an action for damages, subject to **Article 20** (Limitation of City's Liability).

17.4 Cumulative Rights and Remedies.

All rights and remedies under this Master License are cumulative, except as otherwise provided.

18 LICENSEE'S INDEMNITY

18.1 Scope of Indemnity.

Licensee, on behalf of itself and its successors and assigns, shall Indemnify the City Indemnified Parties from and against any and all liabilities, losses, costs, claims, judgments, settlements, damages, liens, fines, penalties, and expenses, including direct and vicarious liability of every kind (each, a "**Claim**"), incurred in connection with orto the extent arising in whole or in part from: (a) injury to or death of a person, including employees of Licensee, or loss of or damage to property, occurring on or about the License Area or arising in connection with Licensee's or its Agents' or Invitees' authorized or unauthorized use of the License Area; (b) any default by Licensee in the observation or performance of any of the terms, covenants, or

conditions of this Master License to be observed or performed on Licensee's part; (c) the use or occupancy or manner of use or occupancy of the License Area by Licensee, its Agents, or Invitees, or any person or entity claiming through or under any of them; (d) the condition of the License Area or any occurrence on the License Area from any cause attributable to the events described in **clauses (a)**, **(b)**, or **(c)** of this Section; or (e) any acts, omissions, or negligence of Licensee, its Agents, or Invitees, in, on, or about the License Area; except to the extent that such Indemnity is void or otherwise unenforceable under applicable Law in effect on or validly retroactive to the date of this Master License and further except to the extent such Claim is caused by the willful misconduct or gross negligence of the Indemnified Parties.

18.2 Indemnification Obligations.

Licensee's Indemnification obligation includes reasonable fees of attorneys, consultants, and experts and related costs, including the City's costs of investigating any Claim. Licensee specifically acknowledges and agrees that it has an immediate and independent obligation to defend the City and the other Indemnified Parties from any Claim that actually or potentially falls within the scope of **Section 18.1** (Scope of Indemnity) even if allegations supporting the Claim are groundless, fraudulent, or false, which obligation arises at the time such Claim is tendered to Licensee by the Indemnified Party and continues at all times until finally resolved. Licensee's obligations under this Article will survive the termination of the Master License.

19 INSURANCE

19.1 Licensee's Insurance.

As a condition to issuance of any Pole License, Licensee must provide proof of compliance with the insurance requirements in this Article except to the extent the City's Risk Manager agrees otherwise in writing.

19.1.1 Coverage Amounts. Licensee shall procure and keep in effect at all times during the Term, at Licensee's cost, insurance in the following amounts and coverages:

(a) Commercial General Liability insurance (including premises operations; explosion, collapse and underground hazard; broad form property damage; products/completed operations; contractual liability; independent contractors; personal injury) with limits of at least $2 million per occurrence for bodily injury and property damage and $4 million general aggregate.

(b) Worker's Compensation Insurance in compliance with applicable state law with Employer's Liability Limits not less than $1 million per each accident/disease/policy.

(c) Commercial Automobile Liability Insurance with limit not less than $2 million each occurrence combined single limit for bodily injury and property damage, covering all owned and non-owned and hired vehicles.

19.1.2 Required Endorsements. Commercial General Liability and Commercial Automobile Liability Insurance policies shall provide, or be endorsed to provide, the following:

(a) That the "*City of Citrus Heights, and its officers, officials, and employees*" are named as additional insureds; and

(b) That such policies are primary insurance to any other insurance available to the additional insureds, with respect to any Claims arising out of this Master License, and that insurance applies separately to each insured against whom Claim is made or suit is brought. Such policies shall also provide for severability of interests and that an act or omission of one of the named insureds that would void or otherwise reduce coverage shall not reduce or void the

coverage as to any insured, and shall afford coverage for all Claims based on acts, omissions, injury, or damage that occurred or arose (or the onset of which occurred or arose) in whole or in part during the policy period.

19.1.3 Notice of Cancellation. All insurance policies required to be maintained by Licensee under this Master License shall be endorsed to provide written notice of cancellation for any reason, including intent not to renew or to reduce coverage to both Licensee and the City. Licensee must provide a copy of any notice of intent to cancel or cancellation of its required coverage to the City within one business day of Licensee's receipt and take prompt action to prevent cancellation, reinstate the cancelled coverage, or obtain it from a different insurer meeting the qualifications of **Subsection 19.1.9** (Ratings).

19.1.4 Claims-Made Policies. Should any of the required insurance be provided under a claims-made form, Licensee shall maintain such coverage continuously throughout the Term and, without lapse, for a period of three (3) years after the expiration or termination of this Master License, to the effect that, should occurrences during the Term give rise to Claims made after expiration or termination of this Master License, such Claims shall be covered by such claims-made policies.

19.1.5 General Aggregate Limit. Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that Claims investigation or legal defense costs will be included in such general annual aggregate limit, such general aggregate limit shall be double the occurrence or Claims limits specified above.

19.1.6 Certificates. Licensee shall deliver to the City certificates of insurance and additional insured policy endorsements from insurers in a form satisfactory to the City, evidencing the coverages required under this Master License, on or before the Effective Date, together with complete copies of the policies promptly upon the City's request, and Licensee shall provide the City with certificates or policies thereafter promptly upon the City's request.

19.1.7 Insurance Does Not Limit Indemnity. Licensee's compliance with the provisions of this Section in no way relieve or decrease Licensee's liability under **Article 18** (Licensee's Indemnity) or any other provision of this Master License.

19.1.8 Right to Terminate. The City may elect, in the City's sole and absolute discretion, to terminate this Master License if Licensee allows any required insurance coverage to lapse by: (i) providing Licensee notice of the event of default; and (ii) including in the notice of default or a notice of termination if Licensee fails to reinstate the lapsed coverage within three business days after the City delivers notice.

19.1.9 Ratings. Licensee's insurance companies must be licensed or authorized to do business in California and must meet or exceed an A.M. Best rating of A-VII or its equivalent.

19.1.10 Effective Dates. All insurance must be in effect before the City will authorize Licensee to install Equipment on any City Pole and remain in force until all Equipment has been removed from the License Area. Licensee is responsible for determining whether the above minimum insurance coverages are adequate to protect its interests. The above minimum coverages are not limitations upon Licensee's liability.

19.1.11 Self-Insurance Alternative. Licensee may propose and the City may accept an alternative insurance program, if that program provides equivalent protections to the City as the insurance requirements in this Section, which the City will determine in its sole discretion, in consultation with the City's Risk Manager. The City's acceptance of an alternative insurance program will not effect an implied waiver or amendment of any

other requirement of this Master License. Any amendment of these insurance requirements must be in a written amendment to this Master License, executed in the same manner as this Master License.

19.1.12 Excess/Umbrella Insurance. The coverage amounts set forth for Commercial General Liability and Commercial Auto Liability may be met by a combination of primary and excess/umbrella policies as long as in combination, the policies' limits equal or exceed the requirements stated herein.

19.2 Insurance of Licensee's Property.

City shall have no responsibility for insuring Licensee's property. Licensee shall be responsible, at its expense, and in its sole discretion, for separately insuring Licensee's property.

19.3 City's Insurance.

Licensee acknowledges that the City maintains insurance, self-insurance, or equivalent risk management coverage against casualty, property damage, and public liability risks. The City agrees to maintain adequate coverage for public liability risks during the Term and is not required to carry any additional insurance with respect to the License Area or otherwise.

19.4 Waiver of Subrogation.

The City and Licensee each hereby waives any right of recovery against the other party for any loss or damage sustained by such other party with respect to the License Area or any portion thereof or the contents of the same or any operation therein, whether or not such loss is caused by the fault or negligence of such other party, to the extent such loss or damage is covered by insurance obtained by the waiving party under this Master License or is actually covered by insurance obtained by the waiving party. Each waiving party agrees to cause its insurers to issue appropriate waiver of subrogation rights endorsements to all policies relating to the License Area, but the failure to obtain any such endorsement will not affect the waivers in this Section.

19.5 Contractors' Bonds and Insurance.

Licensee shall require its contractors that install, maintain, repair, replace, or otherwise perform work on the License Area: (a) to provide bonds to guarantee the performance of the work and the payment of subcontractors and suppliers for any installation of Equipment; and (b) to have and maintain insurance of the same coverage and amounts as required of Licensee.

20 LIMITATION OF CITY'S LIABILITY

20.1 General Limitation on City's Liability.

Except as otherwise expressly provided in this Master License, the City is not responsible or liable to Licensee for, and Licensee hereby waives all Claims against the City and its Agents and releases the City and its Agents from, all Claims from any cause (except to the extent caused by the gross negligence or willful misconduct of the City and its Agents), including acts or omissions of persons using the sidewalk or street adjoining or adjacent to or connected with the License Area; utility interruption; theft; burst, stopped, or leaking water, gas, sewer, or steam pipes; or gas, fire, oil, or electricity in, flood, vehicle collision, or other accidental "knock downs" or similar occurrences on or about the License Area or other City Property.

20.2 Consequential Damages.

Notwithstanding any provision of this Agreement to the contrary, in no event shall either party be liable to the other in contract, tort, under any statute, warranty, provision of indemnity or otherwise, for any special, indirect, incidental, or consequential, punitive, or exemplary damages suffered by the other party or any customer or third party or any other person for lost profits or

other business interruption damages of that party's customers, advertisers, users, clients, licensees, or any other person, firm, or entity, and the parties agree to indemnify, defend and hold each other harmless in such regard.

20.3 No Relocation Assistance.

This Master License creates no right in Licensee to receive any relocation assistance or payment for any reason under the California Relocation Assistance Law (Cal. Gov. Code §§ 7260 *et seq.*), the Uniform Relocation Assistance and Real Property Acquisition Policies Act (42 U.S.C. §§ 4601 *et seq.*), or similar Law upon any termination of occupancy except as provided in **Article 15** (Eminent Domain). To the extent that any relocation law may apply, Licensee waives, releases, and relinquishes forever any and all Claims that it may have against the City for any compensation from the City except as specifically provided in this Master License upon termination of its occupancy of all or any part of the License Area.

20.4 Non-Liability of City Officials, Employees, and Agents.

No elective or appointive board, commission, member, officer, employee, or other Agent of the City will be personally liable to Licensee, its successors, or its assigns, in the event of any default or breach by the City or for any amount which may become due to Licensee, its successors, or its assigns, or for any obligation of the City under this Master License.

21 CITY ACCESS TO LICENSE AREA

21.1 City's Right of Access.

Except as specifically provided otherwise, the City and its designated Agents have the right of access to any part of the License Area at any time without notice for any purpose.

21.2 Emergency Access.

If safe and practicable, the City will notify Licensee of any emergency that requires the City to remove and replace a City Pole and allow Licensee to remove its Equipment before the City removes or replaces a City Pole in an emergency situation or other exigent circumstances. But if in the City's sole judgment it is not safe or practicable to wait for Licensee to perform the work or where such delay would cause significant delay to or otherwise compromise public safety or services, the City will remove the Equipment from the City Pole, exercising reasonable care to avoid damage. The City will hold the Equipment for retrieval by Licensee, and Licensee will have the right to reinstall the Equipment or equivalent Equipment at Licensee's expense on the repaired or replaced City Pole in accordance with **Article 7** (Installation of Equipment). As provided in **Section 9.4** (Emergencies), the City's removal of Licensee's Equipment in emergency or exigent circumstances may not be deemed to be a forcible or unlawful entry into or interference with Licensee's rights to the License Area.

21.3 No Liability for Emergency Access.

The City will not be liable in any manner, and Licensee hereby waives any Claims, for any inconvenience, disturbance, loss of business, nuisance, or other damage arising out of the City's entry onto the License Area, including the removal of Licensee's Equipment from a City Pole in an emergency as described in **Subsection 21.2** (Emergency Access), except damage resulting directly and exclusively from the gross negligence or willful misconduct of the City or its Agents and not contributed to by the acts, omissions, or negligence of Licensee, its Agents, or Invitees.

22 REQUIRED RECORDS

22.1 Records of Account.

Licensee shall maintain during the Term and for a period ending 3 years after the Expiration Date or earlier termination of this Master License the following records at a place of

business within the State of California or in an electronic format: (a) identification and location of all City Poles under active Pole Licenses; (b) amounts and dates of License Fees paid to the City; (c) Regulatory Approvals issued for the installation, operation, and maintenance of Equipment on City Poles; and (d) correspondence with the City concerning any matter covered by this Master License. The City, or a consultant acting on its behalf, will have the right to inspect and audit Licensee's records at Licensee's place of business during regular business hours on 10 business days' notice to Licensee.

22.2 Estoppel Certificates.

Licensee, at any time and from time to time on not less than 30 days' notice from the City, shall execute, acknowledge, and deliver to the City or to any party designated by the City, a certificate of Licensee stating: (a) that Licensee has accepted the License Area (or, if Licensee has not done so, that Licensee has not accepted all or any part of the License Area and specifying the applicable portions of the License Area and reasons for non-acceptance); (b) the Commencement Dates of any Pole Licenses then in effect; (c) the Effective Date and Expiration Date of this Master License; (d) that this Master License and Pole Licenses are unmodified and in full force and effect or, if modified, the manner in which they are modified; (e) to Licensee's knowledge, whether any defenses then exist against the enforcement of any of Licensee's obligations under this Master License (and if so, specifying the same); (f) to Licensee's knowledge, whether any of the City's obligations under this Master License are outstanding (and if so, identifying any City obligations that Licensee believes that the City has failed to meet); (g) the dates, if any, to which the License Fees and Additional Fees have been paid; and (h) any other information that may be reasonably required by any such persons.

22.3 Regulatory and Bankruptcy Records.

22.3.1 Copies for City Records. Licensee shall provide to the City without request copies of: (a) any pending applications, communications, or other documents related to any filing by or against Licensee of an action for bankruptcy, receivership, or trusteeship; and (b) all relevant non-privileged petitions, applications, communications, and reports submitted by Licensee to the FCC or any other Regulatory Agency having jurisdiction directly related to Licensee's installation or operation of Equipment on City Poles or other property.

22.3.2 Production of Documents. The City will attempt to notify Licensee promptly after delivery of any request for copies of these records made under any public records Law or in any court proceeding and of the date on which the records are to be made available. If Licensee believes that any of the requested records are confidential or contain proprietary information, Licensee must identify those records to the City before the date of required production. If the request is made through any court or administrative proceeding, or the requesting party otherwise makes a formal complaint regarding nondisclosure, Licensee will have the burden to obtain any protective order needed to withhold production at its sole cost and expense. Licensee acknowledges that the City's compliance with any court order, including a subpoena duces tecum, will not violate this Subsection. The City's failure to notify Licensee will not affect the City's legal obligation to produce records or give rise to any Claim by Licensee against the City.

23 RULES AND REGULATIONS

Licensee shall faithfully comply during the Term with any and all reasonable rules, regulations, and instructions that the City establishes, as amended from time to time, with respect to use of any part of the License Area, to the extent that the rules, regulations, and instructions do not materially conflict with any express, material terms and conditions of this Master License.

24 SECURITY DEPOSIT

24.1 Application of Security Deposit.

Licensee must tender to the City for deposit the sum(s) specified as the security deposit in the Basic License Information as either, at its option, cash, or a letter of credit if approved in writing by the City Manager and City Attorney(the "**Security Deposit**"), to secure Licensee's faithful performance of all terms, covenants, and conditions of this Master License and the requested Pole License. The Security Deposit shall be due at the time(s) specified in the Basic License Information. Any letter of credit shall be in a form approved in writing by the City Attorney and City Manager, and issued by a financial institution that is subject to regulation by the state or federal government guaranteeing that all or any portion of the funds available pursuant to the letter of credit will be paid upon written demand of the City and that such written demand need not present documentation of any kind as a condition of payment, including proof of loss. Licensee agrees that the City may apply the Security Deposit in whole or in part to remedy any damage to the License Area caused by Licensee, its Agents, or Invitees, or any failure of Licensee to perform any other terms, covenants, or conditions contained herein (including the payment of License Fees or other sums due under this Master License or any Pole License either before or after a default), without waiving any of the City's other rights and remedies under this Master License or at law or in equity. Licensee waives any rights it may have under section 1950.7 of the California Civil Code or any similar Law and agrees that the City may retain all or any portion of Security Deposit reasonably necessary to compensate the City for any other foreseeable or unforeseeable loss or damage caused by the acts or omissions of Licensee, its Agents, or Invitees. Licensee understands and agrees that the City may apply some or all of the Security Deposit to the payment of future License Fees, Additional Fees, and other amounts payable to the City under this Master License and any Pole License following a Licensee event of default. The City's obligations with respect to the Security Deposit are solely that of a debtor and not of a trustee. The City is not required to keep the Security Deposit separate from its general funds, and Licensee is not entitled to interest on the Security Deposit. The amount of the Security Deposit in no way limits the liabilities of Licensee under any provision of this Master License or any Pole License.

24.2 Further Deposits.

Should the City use any portion of the Security Deposit to cure any default by Licensee under this Master License, Licensee will be required to replenish the Security Deposit in the amount and by the date that the City specifies by notice to Licensee.

25 SURRENDER OF LICENSE AREA

25.1 Surrender.

25.1.1 Obligations Upon Surrender. No later than 60 days after the Expiration Date or other termination of this Master License or any Pole License, Licensee shall peaceably remove its Equipment from applicable portions of the License Area, repair any damage resulting from the removal, and surrender it to the City in good order and condition, normal wear and tear excepted, free of debris and hazards, and free and clear of all liens and encumbrances. Licensee shall not remove any fiber-optic cable to which the City will obtain title under **Section 7.9 (Fiber-Optic Cables)**. Licensee's obligations under this Article will survive the Expiration Date or other termination of this Master License.

25.1.2 Equipment Abandoned After Termination. At its option, the City may deem any items of Licensee's Equipment that remain in a License Area or other City Property more than 60 days after the termination of any Pole License to be abandoned and in such case the City may dispose of the abandoned Equipment in any lawful manner after expiration of a 60-day period initiated by the City notice to Licensee to remove the Equipment. Licensee agrees that California Civil Code sections 1980 *et seq.* and similar

provisions of the Civil Code addressing abandoned property by residential or commercial tenants do not apply to any abandoned Equipment.

25.2 Holding Over.

25.2.1 With Consent. Any holding over after the termination of any Pole License with the express consent of the City will be construed to automatically extend the Term of this Master License for a period of one License Year at a License Fee equal to 150% of the License Fee in effect immediately before the Expiration date and the Master License otherwise will be on its express terms and conditions.

25.2.2 Without Consent. Any holding over without the City's consent will be a default by Licensee and entitle the City to exercise any or all of its remedies, even if the City elects to accept one or more payments of License Fees, Additional Fees, or other amounts payable to the City from Licensee after the termination of any Pole License.

26 HAZARDOUS MATERIALS

26.1 Hazardous Materials in License Area.

Licensee covenants and agrees that neither Licensee nor any of its Agents or Invitees shall cause or permit any Hazardous Material to be brought upon, kept, used, stored, generated, disposed of, or Released in, on, under, or about the License Area or any other part of City Property, or transported to or from any City Property in violation of Environmental Laws, except that Licensee may use small quantities of Hazardous Materials as needed for routine operation, cleaning, and maintenance of Licensee's Equipment that are customarily used for routine operation, cleaning, and maintenance of such equipment and so long as all such Hazardous Materials are contained, handled, and used in compliance with Environmental Laws. Licensee shall immediately notify the City if and when Licensee learns or has reason to believe any Release of Hazardous Material has occurred in, on, under, or about the License Area or other City Property.

26.2 Licensee's Environmental Indemnity.

If Licensee breaches any of its obligations contained in this Article, or if any act, omission, or negligence of Licensee or any of its Agents or Invitees results in any contamination of the License Area or other City Property, or in a Release of Hazardous Material from, on, about, in, or beneath any part of the License Area or other City Property, or the violation of any Environmental Law, then Licensee, on behalf of itself and its successors and assigns, shall Indemnify the City, its Agents, and their respective successors and assigns from and against any and all Claims (including damages for decrease in value of the License Area or other City Property, the loss or restriction of the use of usable space in the License Area or other City Property and sums paid in settlement of Claims, attorneys' fees, consultants' fees, and experts' fees and related costs) arising during or after the Term of this Master License relating to such Release or violation of Environmental Laws; provided, however, Licensee shall not be liable for any Claims to the extent such Release was caused by the gross negligence or willful misconduct of the City or its Agents. Licensee's Indemnification obligation includes costs incurred in connection with any activities required to Investigate and Remediate any Hazardous Material brought onto the License Area or other City Property by Licensee or any of its Agents or Invitees and to restore the License Area or other City Property to its condition prior to Licensee's introduction of such Hazardous Material or to correct any violation of Environmental Laws. Licensee specifically acknowledges and agrees that it has an immediate and independent obligation to defend the City and the other Indemnified Parties from any Claim that actually or potentially falls within this Indemnity provision even if the allegations supporting the Claim are or may be groundless, fraudulent, or false, which obligation arises at the time such Claim is tendered to Licensee by the Indemnified Party and continues until the Claim is finally resolved. Without limiting the foregoing, if Licensee or any of its Agents or Invitees causes the Release of any Hazardous Material on, about, in, or beneath

the License Area or other City Property, then in any such event Licensee shall, immediately, at no expense to any Indemnified Party, take any and all necessary actions to return the License Area or other City Property, as applicable, to the condition existing prior to the Licensee's Release of any such Hazardous Materials on the License Area or other City Property or otherwise abate the Release in accordance with all Environmental Laws, except to the extent such Release was caused by the gross negligence or willful misconduct of the City or its Agents. Licensee shall afford the City a full opportunity to participate in any discussions with Regulatory Agencies regarding any settlement agreement, cleanup or abatement agreement, consent decree, or other compromise or proceeding involving Hazardous Material.

27 SPECIAL PROVISIONS

27.1 Early Termination by Either Party.

If Licensee does not obtain all Regulatory Approvals for any Pole License by the first anniversary of its effective date, either party will have the right to terminate that Pole License on 60 days' notice ("Notice Period"), which the terminating party must deliver to the other party within 10 business days after the first anniversary of the effective date of the Pole License to be terminated. If a Pole License is terminated under this provision, the Commencement Date will be deemed not to occur, and Licensee will have no obligation to pay the License Fee. If Licensee obtains all Regulatory Approvals within the Notice Period, City's termination notice shall be deemed revoked, and the Pole License shall remain in full force and effect.

27.2 Licensee's Termination Rights.

27.2.1 No-Fault Termination of Master License. This Subsection will apply after the Commencement Date of any Pole Licenses. If Licensee fails to obtain or loses Regulatory Approvals for the Permitted Use with respect to a majority of the City Poles subject to Pole Licenses for reasons other than its failure to comply with the conditions of this Master License or Regulatory Approvals and in spite of reasonable efforts by Licensee to obtain or maintain its Regulatory Approvals, Licensee may terminate this Master License at any time on 90 days' prior notice to the City.

27.2.2 Pole License Termination. Absent the circumstances described in **Subsection 27.2.1** (No-Fault Termination of Master License), Licensee may terminate a Pole License on 90 days' notice at any time following the first anniversary of the Commencement Date of the Pole License. Licensee may remove its Equipment from the applicable License Area at any time after giving the required notice.

27.2.3 Master License Termination. Licensee may terminate this Master License at any time on one year's notice.

27.2.4 Interference Caused by City Work. If any City work described in **Section 9.1** (Repairs, Maintenance, and Alterations) prevents Licensee from using a City Pole or other License Area for more than 30 days, Licensee will be entitled to: (i) a pro rata abatement of the License Fee for the period Licensee is unable to use the City Pole; (ii) terminate the Pole License on 30 days' notice; or (iii) both abatement of the License Fee under clause (i) and termination under clause (ii).

27.3 City's Termination Rights .

27.3.1 Absolute Right to Terminate Pole Licenses.

(a) The City has the absolute right in its sole discretion to terminate any or all Pole Licenses if the City Manager (or his or her designee) determines in accordance with Laws that Licensee's continued use of the License Area adversely affects or poses a threat to public health and safety, constitutes a verified and material public nuisance, interferes with the City's street lights, utilities, or other municipal operations, or requires the City to maintain a City Pole

that is no longer required for City purposes; provided, however, Licensee shall have the option to acquire the Pole from City at no cost to Licensee if City intends to terminate the Pole License for a Pole that is no longer required for City purposes and the City elects not to remove.

(b) If the condition is susceptible to cure, the City will provide notice to Licensee of the City's determination, the underlying reasons for the determination, and provide a 30-day cure period following which the affected Pole Licenses will terminate if Licensee has not effected a cure.

(c) If the condition is not susceptible to cure in the City's sole judgment, the City will have the right to terminate the affected Pole Licenses on 30 days' notice to Licensee of the City's determination.

(d) The City will endeavor to accommodate a request by Licensee to relocate the Pole License and related Equipment, at Licensee's sole cost and expense, to another City Pole mutually acceptable to Licensee and City.

27.3.2 Removal of Equipment. The City in its sole discretion may determine that exigent circumstances require, for reasons of public, health, safety, or needs of the City to provide street lighting, utilities, or other municipal services, that Licensee remove the Equipment from a particular City Pole on 48 hours' notice. Licensee shall remove the Equipment from the identified City Pole within the 48-hour period or any longer time to which the City agrees. The applicable Pole License will terminate as to the identified City Pole upon expiration of the 48-hour period.

27.3.3 City Pole Removal. The City has the right to remove any City Pole that it determines in its sole judgment is unnecessary for its street light operations. If the City decides to remove a City Pole, it will make reasonable efforts to provide at least 60 days' notice to Licensee, but the City's rights under this Subparagraph will not be affected by its failure to provide less than 60 days' notice. Upon removal of a City Pole, either party will have the right to terminate the Pole License as to the affected City Pole as of the last day of the month of removal. The City will endeavor to accommodate a request by Licensee to relocate the Pole License and related Equipment, at Licensee's sole cost and expense, to another City Pole mutually acceptable to Licensee and City.

27.3.4 Replacement, Relocation, or Upgrading of City Poles. The City has the right to replace, relocate, or add City equipment to, and remove Licensee's Equipment from, any City Pole or License Area that the City determines in its sole judgment, is necessary for its municipal operations, including, but not limited to, LED conversion or installation of solar capabilities. If the City decides to replace or relocate a City Pole or add equipment requiring the removal of Licensee's Equipment, the City will make reasonable efforts to provide at least 60 days' notice to Licensee, but the City's rights under this Subparagraph will not be affected by its failure to provide less than 60 days' notice. Licensee may choose either to terminate the applicable Pole License as to the replacement, relocated, or upgraded City Pole or, only if feasible in the discretion of the City's General Services Department, install Licensee's Equipment on the replacement, relocated, or upgraded City Pole at Licensee's sole cost. The City will endeavor to accommodate a request by Licensee to relocate the Pole License and related Equipment, at Licensee's sole cost and expense, to another City Pole mutually acceptable to Licensee and City.

27.3.5 Future Use of Existing City Conduit.

(a) If City conduit space is part of a License Area, and the City needs to use such City conduit space for future upgrade and expansion of its street light system, the City may require Licensee's wiring to be removed from the City's conduit. The City will use reasonable efforts to give Licensee at least 180 days'

notice that the wiring will be removed, but the City's failure to give notice or delivery of less than 180 days' notice will not affect the City's rights under this Subsection. In either case, the City will provide Licensee with a date by which its wiring must be removed.

(b) Unless Licensee notifies the City within the time specified in the City's notice under Subsection (a) above that Licensee has identified an alternative to using City conduit to enable use its Equipment without using the City conduit, the Pole License as to the affected City Pole will terminate automatically as of the last day of the month specified in the notice, but City shall grant Licensee an alternate Pole License without demanding reimbursement of its Administrative Costs as consideration for loss of the affected Pole License.

27.4 Licensee's Rights after Termination.

Promptly after the effective date of any termination of any Pole License under **Subsection 27.2.4** (Interference caused by City Work) or **Section 27.3** (City's Termination Rights), the City will refund the portion of any previously-paid License Fee attributable to the terminated portion of the License Year, subject to **Section 3.1.2** (Minimum Term). In addition, if Licensee wishes to replace the City Pole with a different Pole Location, the City will give priority to Licensee's Pole License applications for an equal portion of replacement City Poles, but the grant of priority will not affect Licensee's obligations under this Master License, including the requirement to obtain all Regulatory Approvals for the replacement City Poles.

27.5 Special Remedies for Interference with Operations.

27.5.1 Licensee's Obligation Not to Cause Interference.

(a) Licensee will not operate or maintain its Equipment in a manner that interferes with or impairs other communication (radio, telephone, and other transmission or reception) or computer equipment lawfully and correctly used by any person, including the City or any of its Agents. In the event such interference occurs and is not cured within ten (10) days of notice from City, such interference will be an event of default under this Master License by Licensee, and upon notice from the City, Licensee shall be responsible for eliminating such interference promptly and at no cost to the City. Licensee will be required to use its best efforts to remedy and cure such interference with or impairment of City operations. Prior to installation of any equipment, Licensee shall conduct an in-field test at the License Area to determine what existing communications are transmitted from or received in the License Area. A report of the in-field test shall be submitted with each application for a Pole License.

(b) If Licensee does not cure the default promptly, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, the City will have the right to bring an action against Licensee to enjoin such interference or to terminate all Pole Licenses where the Equipment is causing interference or impairment, at the City's election.

27.5.2 Impairment Caused by Change in City Use.

(a) If any change in the nature of the City's use of the License Area during the Term results in measurable material adverse impairment to Licensee's normal operation of its Equipment making it necessary to alter the Equipment to mitigate the adverse effect, Licensee shall notify the City and provide evidence of the claimed impairment. Upon receipt of such notice, the City will have the right to make its own reasonable determination and, if it agrees with Licensee, investigate whether it can reasonably and economically mitigate that interference. The City

will provide notice to Licensee of the City's determination within thirty (30) days of its receipt of notice from Licensee.

(b) If the City determines in its sole discretion that mitigation is feasible and can be achieved for a reasonable cost in the City's reasonable judgment, the City's notice will specify when the City will mitigate the adverse effect. The City's mitigation will effect a cure, and the City will not be liable to Licensee in any other way or be required to take any other measures with respect to the Equipment.

(c) If the City determines in its sole discretion that mitigation is not feasible or cannot be achieved for a reasonable cost in the City's reasonable judgment, Licensee may elect either to: (i) terminate the Pole License as to the affected City Pole and receive a ratable reduction in the License Fee; (ii) request to relocate the Pole License and related Equipment, at Licensee's sole cost and expense, to another City Pole, subject to City's approval in its sole discretion; or (iii) take steps itself at its own cost to mitigate the adverse effect and continue to operate the Equipment on the City Pole, and receive from the City a waiver of the License Fee for the first 6 months of the following License Year under the affected Pole License to offset the cost of mitigation.

(d) Licensee agrees that the City's temporary and partial abatement or waiver of the License Fee under this Subsection will be the only compensation due to Licensee for costs incurred or otherwise arising from the adverse effect as liquidated damages fully compensating Licensee for all Claims that may arise or be related to the adverse effects. Under no circumstances may the City be required to alter its operations at the identified City Pole or provide a replacement City Pole to Licensee.

27.5.3 Impairment Caused by City Access. Licensee agrees that it will not be entitled to any abatement of License Fees if the City exercises its rights of access under **Article 21** (City Access to License Area) unless the City's activities cause Licensee to be unable to operate Equipment on the License Area for its permitted use for a period of more than 10 days, in which case, subject to proof, License Fees will be abated ratably for the entire period that Licensee is unable to operate any Equipment on any affected City Pole.

28 GENERAL PROVISIONS

28.1 Notices.

This Section applies to all notices, requests, responses to requests, and demands made under this Master License.

28.1.1 Writings Required. All notices will be effective only if given in writing and delivered in accordance with this Section.

28.1.2 Manner of Delivery. Except as provided in **Subsection 28.1.4** (Special Requirements), notices may be delivered by: (i) personal delivery; (ii) certified mail, postage prepaid, return receipt requested; or (iii) prepaid overnight delivery, return receipt requested. Notices must be delivered to: (1) Licensee at Licensee's address set forth in the Basic License Information, or at any place where Licensee or any Agent of Licensee may be personally served if sent after Licensee has vacated, abandoned, or surrendered the address set forth in the Basic License Information; (2) the City at the City's address set forth in the Basic License Information; or (3) any new notice address that either the City or Licensee specifies by no less than 10 days' notice given to the other in accordance with this Section.

28.1.3 Effective Date of Notices. All notices under this Master License will be deemed to have been delivered: (i) two (2) days after deposit if delivered by certified mail; (ii) the date delivery is made by personal delivery or overnight delivery; or (iii) the date an attempt to make delivery fails because a party has failed to provide notice of a change of address or refuses to accept delivery. The parties will transmit copies of notices by email to the email addresses listed in the Basic License Information, but failure to do so will not affect the delivery date or validity of any notice properly delivered in accordance with this Section.

28.2 No Implied Waiver.

No failure by either party to insist upon the strict performance of any obligation of the other under this Master License or to exercise any right, power, or remedy arising out of a breach thereof, irrespective of the length of time for which such failure continues, will constitute a waiver of such breach. No acceptance by the City or any of its Agent of full or partial payment of License Fees or Additional Fees during the continuance of any such breach will constitute a waiver of such breach or of the City's right to demand strict compliance with such term, covenant, or condition or operate as a waiver of any requirement of this Master License. No express waiver by either party of any default or the performance of any provision hereof will affect any other default or performance, or cover any other period of time, other than the default, performance or period of time specified in such express waiver. One or more waivers of a default or the performance of any provision hereof by either party will not be deemed to be a waiver of a subsequent default or performance. The City's consent given in any instance under the terms of this Master License will not relieve Licensee of any obligation to secure the City's consent in any other or future instance under the terms of this Master License.

28.3 Amendments.

No part of this Master License (including all Pole Licenses) may be changed, waived, discharged, or terminated orally, nor may any breach thereof be waived, altered, or modified, except by a written instrument signed by both parties.

28.4 Interpretation of Licenses.

The following rules of interpretation apply to this Master License.

28.4.1 General. Whenever required by the context, the singular includes the plural and vice versa; the masculine gender includes the feminine or neuter genders and vice versa; and defined terms encompass all correlating forms of the terms (e.g., the definition of "indemnify" applies to "indemnity," "indemnification," etc.).

28.4.2 Multi-party Licensee. If there is more than one Licensee, the obligations and liabilities under this Master License imposed on Licensee will be joint and several among them.

28.4.3 Captions. The captions preceding the articles and sections of this Master License and in the table of contents have been inserted for convenience of reference and such captions in no way define or limit the scope or intent of any provision of this Master License.

28.4.4 Time for Performance. Provisions in this Master License relating to number of days mean calendar days, unless otherwise specified. "**Business day**" means a day other than a Saturday, Sunday, or a bank or City holiday. If the last day of any period to give notice, reply to a notice, or to undertake any other action occurs on a day that is not a business day, then the last day for undertaking the action or giving or replying to the notice will be the next succeeding business day.

28.4.5 City Actions. All approvals, consents, or other determinations permitted or required by the City under this Master License will be made by or through the City Manager of the City or his or her designee, unless otherwise provided in this Master License or by any City ordinance.

28.4.6 Words of Inclusion. The use of the term "including," "such as," or words of similar import when following any general or specific term, statement, or matter may not be construed to limit the term, statement, or matter to the stated terms, statements, or matters, whether or not language of non-limitation, such as "including, but not limited to" and "including without limitation" are used. Rather, the stated term, statement, or matter will be interpreted to refer to all other items or matters that could reasonably fall within the broadest possible scope of the term, statement, or matter.

28.4.7 Laws. References to all Laws, including specific statutes, relating to the rights and obligations of either party mean the Laws in effect on the Effective Date specified in the Basic License Information and as they are amended, replaced, supplemented, clarified, corrected, or superseded at any time while any obligations under this Master License or any Pole License are outstanding, whether or not foreseen or contemplated by the parties.

28.5 Successors and Assigns.

The terms, covenants, and conditions contained in this Master License bind and inure to the benefit of the City and Licensee and, except as otherwise provided herein, their successors and assigns.

28.6 Brokers.

Neither party has had any contact or dealings regarding the license of the License Area, or any communication in connection therewith, through any licensed real estate broker or other person who could claim a right to a commission or finder's fee in connection with the license contemplated herein ("**Broker**"), whose commission, if any is due, is to be paid pursuant to a separate written agreement between such Broker and the party through which such Broker contracted. In the event that any Broker perfects a claim for a commission or finder's fee based upon any such contact, dealings, or communication, Licensee shall indemnify the City from all Claims brought by the Broker. This Section will survive expiration or earlier termination of this Master License.

28.7 Severability.

If any provision of this Master License or the application thereof to any person, entity, or circumstance is invalid or unenforceable, the remainder of this Master License, or the application of such provision to persons, entities, or circumstances other than those as to which it is invalid or unenforceable, will not be affected thereby, and each provision of this Master License will be valid and be enforced to the full extent permitted by Law, except to the extent that enforcement of this Master License without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Master License.

28.8 Governing Law and Venue**.**

This Master License must be construed and enforced in accordance with the laws of the State of California without regard to the principles of conflicts of law. This Master License is made, entered, and will be performed in the City of Citrus Heights, California. Any action concerning this Master License must be brought and heard in the state or federal courts encompassing the City of Citrus Heights.

28.9 Dispute Resolution

28.9.1 Good faith Participation. Prior to the initiation of any litigation, the parties shall in good faith attempt to settle any dispute arising out of or relating to this Agreement, through the upper management escalation and non-binding mediation processes set forth herein. Good faith participation in these processes shall be a condition precedent to any litigation. All negotiations pursuant to this Article shall be confidential and shall be treated as compromise and settlement negotiations for purposes of the Federal Rules of Evidence and any state's rules of evidence.

28.9.2 Upper Management Escalation and Mediation. Either Party may give the other Party written notice of any dispute not resolved in the normal course of business. The dispute shall be escalated to upper management and, thereafter, representatives of both Parties with authority to settle the dispute shall meet at a mutually acceptable time and place within fourteen (14) business days after receipt of such notice, and thereafter as often as reasonably deemed necessary, to exchange relevant information and attempt to resolve the dispute. If the matter has not been resolved within thirty (30) business days of receipt of the disputing Party's notice, or if the Parties fail to meet within fourteen (14) business days, either Party may initiate mediation. Such mediation shall take place at a mutually agreeable location. In the event that such dispute is not resolved within ninety (90) calendar days following the first day of mediation, either Party may initiate litigation.

28.9.3 Enforcement. The parties regard the aforesaid obligation to escalate to upper management and mediate as an essential and material provision of this Agreement and one that is legally binding upon them. In case of a violation of such obligation by either Party, the other may seek specific enforcement of such obligation in the courts having jurisdiction hereunder.

28.10 Entire Agreement.

This Master License, including all exhibits and schedules, contains the entire agreement between the parties, and all prior written or oral agreements regarding the same subject matter are merged into this document. The parties further intend that this Master License, all Pole Licenses, and all exhibits and schedules will constitute one agreement that contains the complete and exclusive statement of its terms and that no extrinsic evidence (including prior drafts and revisions) may be introduced in any judicial, administrative, or other legal proceeding involving this Master License. Licensee hereby acknowledges that neither the City nor the City's Agents have made any representations or warranties with respect to the City Poles or this Master License except as expressly set forth herein, and no rights, easements, or additional licenses are or will be acquired by Licensee by implication or otherwise unless expressly set forth herein.

28.11 Time of Essence.

Time is of the essence with respect to all provisions of this Master License in which a definite time for performance is specified.

28.12 Survival.

Expiration or earlier termination of this Master License will not affect the right of either party to enforce any and all Indemnities and representations and warranties given or made to the other party under this Master License, or any provision of this Master License that expressly survives termination.

28.13 Recording.

Licensee agrees not to record this Master License, any Pole License, or any memorandum or short form of any of them in the Official Records of the County of Sacramento.

28.14 Counterparts.

This Master License may be executed in two or more counterparts, each of which will be deemed an original, but all of which taken together will be one and the same instrument.

28.15 Cooperative Drafting.

This Master License has been negotiated at arm's length between persons sophisticated and knowledgeable in the matters it addresses and was drafted through a cooperative effort of both parties, each of which has had an opportunity to have this Master License reviewed and revised by legal counsel. No party will be considered the drafter of this Master License, and no presumption or rule (including that in Cal. Civil Code § 1654) that an ambiguity will be construed against the party drafting the clause will apply to the interpretation or enforcement of this Master License.

28.16 Authority to Approve Agreement.

Each person signing this Master License and any Pole License on behalf of Licensee warrants and represents that: (i) he or she has the full right, power, and capacity to act on behalf of Licensee and has the authority to bind Licensee to the performance of its obligations under those agreements without the subsequent approval or consent of any other person or entity; (ii) Licensee is a duly authorized and existing entity; (iii) Licensee is qualified to do business in California; and (iv) Licensee has full right and authority to enter into this Master License and Pole Licenses. Upon the City's request, Licensee shall provide the City with evidence reasonably satisfactory to the City confirming the representations and warranties above.

28.17 Conflicts of Interest.

Through its execution of the Master License, Licensee acknowledges that it is familiar with Sections 87100 *et seq.* and Sections *1090 et seq.* of the Government Code of the State of California, and certifies that it does not know of any facts which would constitute a violation of said provisions, and agrees that if Licensee becomes aware of any such fact during the term of the Master License, Licensee shall immediately notify the City.

28.18 Included Exhibits and Schedules.

The following exhibits and schedules are attached to and are incorporated by reference into this Master License.

EXHIBIT A – Form of Pole License

Exhibit A-1 – Pole Locations/License Area

Exhibit A-2 – Licensee's Plans and Specifications

Exhibit A-3 – Form of Acknowledgment Letter

Exhibit A-4 – Sample License Fee and Default Fee Schedule

Exhibit A-5 – Sample City Installation Guidelines

EXHIBIT B – Minimum Requirements for Licensee Equipment

[SIGNATURES ON FOLLOWING PAGE]

The City and Licensee have executed this Master License as of the date last written below.

CITY:
CITY OF CITRUS HEIGHTS, a California municipal corporation

By: _____
Christopher W. Boyd, City Manager

Date: _____

LICENSEE:
[Wireless Company], a [California corporation, Nevada LLC, etc.]

By: _____

Name: _____

Its: _____

Date: _____

Attest:

By: _____
Amy Van, City Clerk

Approved as to form:

By: _____
Ruthann G. Ziegler, City Attorney

[Remainder of page intentionally left blank.]

EXHIBIT A

FORM OF POLE LICENSE

Master License between [Wireless Company] and City of Citrus Heights Pole License No. [*Start with 1 and number each subsequent application consecutively*.]

In accordance with **Section 6.4** of the Master License, Licensee submits to the City two partially executed counterparts of this form of Pole License and each of the following as its Pole License application:

1. Exhibit A-1, designating all Pole Locations that Licensee seeks to be included in the License Area under this Pole License;
2. Exhibit A-2, complete and final plans and specifications for Equipment to be installed in the License Area subject to Regulatory Approvals;
3. The sum of $_____ for the initial Administrative Payment in amounts based on the number of City Poles identified in Exhibit A-1, subject to **Section 6.6** of the Master License; and
4. If not previously provided, the Emissions Report.

Licensee acknowledges that: (a) this Pole License will not be effective until the City returns a fully executed copy to Licensee; (b) the City may require Licensee to supplement the Administrative Payment on conditions specified in **Section 6.6** of the Master License; (c) Licensee will not have the right to access or install Equipment on the License Area until after Licensee has: (i) submitted a complete Acknowledgment Letter to the City with all information and funds required; (ii) submitted insurance information to City as specified in Exhibit A-3; and (iii) the City has provided notice to proceed by returning to Licensee a countersigned copy of the Acknowledgment Letter.

This Pole License is executed and effective as of the last date written below and, upon execution will be the City's authorization for the City's Community Development Department to begin its review of the Pole Locations and plans and specifications proposed in this Pole License application.

CITY:
CITY OF CITRUS HEIGHTS, a California municipal corporation

By: _____
Christopher W. Boyd, City Manager

Date: _____

LICENSEE:
[Wireless Company], a [California corporation, Nevada LLC, etc.]

By: _____
Name: _____
Its: _____

Date: _____

EXHIBIT A-1

POLE LOCATIONS/LICENSE AREA

Pole License No.

[Licensee to complete and submit with Pole License application.]

Pole Locations	Standard City Pole (Yes/No)

EXHIBIT A-2

LICENSEE'S PLANS AND SPECIFICATIONS

Pole License No. ___

[*Licensee to attach plans and specifications for all Equipment, including required and permitted signage, to this cover sheet and submit with Pole License application*.]

EXHIBIT A-3

Form of Acknowledgment Letter [Licensee to complete and submit.]

[**Alternative to be used if Licensee obtains all Regulatory Approvals within 365 (366 in any leap year) days after Pole License is issued**.]

[Date]

City of Citrus Heights
6360 Fountain Square Dr
Citrus Heights, CA 95621

Attention: Community Services Director Re: Pole License No. ____

Dear _____:

This letter will confirm the following: (1) that Licensee has obtained the Wireless Facility Permit and all other Regulatory Approvals required for the Permitted Use under this Pole License, copies of which are attached to this letter, as specified below; and (2) the Commencement Date of this Pole License is_____, 20 , which is the first day of the month after Licensee obtained all Regulatory Approvals.

This letter also confirms that Licensee has submitted all required insurance information to the City. A check, surety bond, or letter of credit for the Security Deposit (if not already provided) and the License Fee for the first License Year of this Pole License is attached [or funds for the Security Deposit and the License Fee for the first License Year of this Pole License have been wired to the City].

Please acknowledge the City's receipt of this letter and the items listed below, and issue the City's approval for Licensee to begin installation of Equipment on the License Are by signing and returning a copy of this letter.

Very truly yours,

_____

By: _____
Title: _____

Enc.

[ ] Wireless Facility Permit

[ ] [List other Regulatory Approvals.]
[ ] [List other Regulatory Approvals.]
[ ] [List other Regulatory Approvals.]
[ ] Insurance certificates and endorsements
[ ] Contractor's bonds, insurance certificates, and endorsements
[ ] Security Deposit by check, wire transfer, surety bond, or letter of credit (if applicable)
[ ] First License Year's License Fee

[**Alternative to be used if Licensee does not obtain all Regulatory Approvals within 365 (366 in any leap year) days after Pole License is issued**.]

[Date]

City of Citrus Heights
6360 Fountain Square Dr
Citrus Heights, CA 95621

Attention: Community Services Director Re: Pole License No. ____

Dear _____:

This letter will confirm the following:

(1) that Licensee has not obtained the following Regulatory Approvals required for the Permitted Use under this Pole License: _____

_____; and

(2) the Commencement Date of this Pole License is _____, 20 , which is the first anniversary of the effective date of this Pole License.

A check, surety bond, or letter of credit for the Security Deposit (if not already provided) and the License Fee for the first License Year of this Pole License is attached [or funds for the Security Deposit and the License Fee for the first License Year of this Pole License have been wired to the City].

When Licensee has obtained all Regulatory Approvals, it will provide copies to the City, submit all required insurance documents and information, and request that the City issue its approval for Licensee to begin installation of Equipment on the License Area.

Very truly yours,

_____

By: _____
Title: _____

Enc.

[ ] [List Regulatory Approvals acquired.]
[ ] [List other Regulatory Approvals acquired.]
[ ] [List other Regulatory Approvals acquired.]
[ ] Security Deposit by check, wire transfer, surety bond or letter of credit (if applicable)
[ ] First License Year's License Fee

[**Alternative to be used if Licensee obtains all Regulatory Approvals within 365 (366 in any leap year) days after Pole License is issued**.]

Dear [Licensee]:

This countersigned copy of your Acknowledgment Letter serves as the City's notice to Licensee that the City has: (1) received the Security Deposit and First Year's License Fee for this Pole License; (2) approved the requested Pole Locations and the plans and specifications for installation of Equipment on the License Area; (3) received satisfactory evidence of insurance, including contractors' insurance and bonds; and (4) received copies of the Regulatory Approvals listed above, as well as a copy of the Emissions Report Licensee submitted to the Community Development Department.

The City concurs with the Commencement Date for this Pole License as specified above. [After reviewing the Regulatory Approvals, the City has determined that the correct Commencement Date for this Pole License is:_____, 20 .] The Licensee Fee and Default Fee Schedule and City Installation Guidelines for the Pole License are attached. Upon receipt, they will be deemed to be attached to the Pole License as Exhibits A-4 and A-5, respectively.

Licensee is authorized proceed with the installation of Equipment on the License Area identified in Exhibit A-1 to the Pole License in accordance with the Approved Plans and other requirements of the Master License.

CITY OF CITRUS HEIGHTS, a California municipal corporation

By: _____

_____ (or designee)

City Manager

Date: _____

Enc.

[ ] Licensee Fee and Default Fee Schedule [ ] City Installation Guidelines

[**Alternative to be used if Licensee does not obtain all Regulatory Approvals within 365 (366 in any leap year) days after Pole License is issued**.]

Dear [Licensee]:

This countersigned copy of your Acknowledgment Letter serves as the City's notice to Licensee that the City has: (1) received the Security Deposit and First Year's License Fee for this Pole License; (2) reserved the requested Pole Locations and approved the plans and specifications for installation of Equipment on the License Area, subject to Regulatory Approvals.

The City concurs with the Commencement Date for this Pole License as specified above. The Licensee Fee and Default Fee Schedule and City Installation Guidelines for the Pole License are attached. Upon receipt, they will be deemed to be attached to the Pole License as Exhibits A-4 and A-5, respectively.

The City will provide notice to proceed with installation of Equipment on the License Area in accordance with Approved Plans and other requirements of the Master License after Licensee has submitted to the City copies of the Regulatory Approvals listed above, along with a copy of the Emissions Report Licensee submitted to the Community Development Department, and provided satisfactory evidence of insurance, including contractors' insurance and bonds.

By: _____

_____ (or designee)
City Manager

Date: _____

Enc.

[ ] Licensee Fee and Default Fee Schedule
[ ] City Installation Guidelines

SCHEDULE A-4

LICENSEE FEE AND DEFAULT FEE SCHEDULE

Pole License _____

[EXAMPLE ONLY - To be updated for each new Pole License]

LICENSE FEE SCHEDULE	
Annual License Fee per City Pole for 2018	$2,000
2019	$2,040
2020	$2,244
2021	$2,468
2022	$2,715
2023	$2.987
2024	$3,285
2025	$3,614
2026	$3,686
2027	$4,055
2028	$4,460

DEFAULT FEE SCHEDULE			
Violation	**Master License location**	**Initial notice**	**Follow up notice**
Installation of equipment or alterations that are not approved by the City.	Arts. 6, 7, 8	$350	$400
Failure to make required repairs.	Art. 10	$300	$350
Violation of requirements regarding access to License Area.	Art. 7	$300	$350
Failure to provide evidence of insurance and bonds or maintain insurance	Art. 19	$300	$350

EXHIBIT A-5

CITY INSTALLATION GUIDELINES

[To be updated with each Pole License.]

Licensee shall install a dedicated conduit for its use; however, Licensee may use the City's existing non-traffic signal conduits, subject to the allowable conduit fill percentage under the NESC and the review and approval of the City's General Services Department. Licensee is not permitted to install or arrange for installment of external conduits on any City Poles.

Licensee shall pull a dedicated electrical wire through the new conduit or City street light conduit from the SMUD point of service connection to a new Licensee pull box, and shall not share the City pull box, on each licensed City Pole. If there is no City pull box, Licensee shall install a new pull box and conduit for the City's future use.

Licensee shall apply for and install an electric meter, if required by the City and the applicable electric utility, and obtain any necessary building permits from the City for the installation and connection.

Licensee shall be responsible for repairing any City conduits that Licensee or its Agents damage during installation of electrical facilities, including pulling of wires into street light conduits. If following Licensee's failure to make such repairs within thirty (30) days of notice from City, the City's crew makes repairs to remedy damage caused by Licensee or its Agents, the City will charge Licensee the full cost of those repairs by notice with evidence of the City's costs.

The City will inspect Licensee's service installations to ensure compliance with Approved Plans and Specifications. Licensee agrees to make any repairs or modifications to its service installations that are necessary to ensure compliance with the Approved Plans and Specifications.

Licensee shall provide the City's General Services Department with as-built drawings showing all circuits installed by Licensee in existing street light conduits promptly after installation is complete. Licensee shall provide a laminated copy of the as-built drawings to the City and, if space is reasonably available, place a copy within any new or existing cabinet at each Pole Location, if applicable.

Licensee shall provide the City's General Services Department with the final coordinates and/or digital GIS shape file for inclusion in the City's GIS inventory.

Licensee shall not open any City pull boxes unless a member of the City's street light maintenance crew is present or City's General Services Department representative approves opening the pull boxes unattended by such maintenance crew. Licensee shall contact the City's General Services Department to complete the service connection.

For every new conduit installed within the City's public streets. Licensee shall install a four inch (4") diameter conduit for the City's future use. The conduit shall terminate in a new or existing City pull box with pull rope clearly labeled.

EXHIBIT B

MINIMUM REQUIREMENTS FOR LICENSEE EQUIPMENT

Licensee's plans and specifications submitted with each Pole License application, and any Pole License application approved by the City shall comply with the following minimum requirements:

1. Licensee's Equipment shall be concealed or enclosed as much as possible in an equipment box, cabinet, or other unit that may include ventilation openings.

2. Equipment shelters, cabinets, or electrical distribution panels shall not be installed at ground level, except after all reasonable alternative pole locations have been explored and found unavailable or lacking in some substantial way and only with prior City approval upon a good faith showing of necessity, in City's sole discretion. Ground-mounted equipment, if any, shall incorporate appropriate techniques to camouflage, disguise and/or blend the equipment into the surrounding environment. Any ground-mounted equipment shall not inhibit or block pedestrian path of travel and shall comply with the Americans with Disabilities Act (ADA) standards. Any ground-mounted equipment shall not obstruct or interfere with storm drainage facilities, drainage channels, or change the existing drainage pattern. City shall have sole discretion to approve or disapprove the installation of a battery backup unit, whether pole-mounted or ground-mounted.

3. Licensee shall verify each Pole's condition, size and foundation, and provide structural calculations and drawings for any pole-mounted equipment.

4. Any pole-mounted equipment shall be placed at least eight (8) feet above sidewalks or sixteen (16) feet above streets on the street side of the pole, and shall not obstruct line of sight to any intersection, signage, traffic control devices or other directional markings.

5. Any pole-mounted equipment shall be incorporated into the design of the pole with the use of a shroud or other stealthing techniques.

6. Any pole-mounted equipment (excluding antenna) shall be no larger than 24 inches square and shall not extend from the pole by more than 24 inches in any direction. All conduits, conduit attachments, cables, wires and other connectors shall be placed within the pole when feasible, or otherwise concealed from public view.

7. All antennas and associated cables, connectors, and hardware shall be placed within a shroud or equivalent. A maximum of one (1) antenna shroud per pole is allowed (excluding any radio relay unit shroud).

8. The antennas and related equipment shall be constructed out of non-reflective materials, painted and/or textured to match the existing support structure and painted to blend with their surroundings. Paint shall be reviewed and shown on the Approved Plans and Specifications.

9. Any fiber optic cable or wiring connecting the antenna to the equipment cabinet or pedestal shall be located inside the City Pole and shall be located underground to the equipment cabinet.

10. All other conduit, cable and wiring shall be located underground.

11. The height of a pole that includes pole-mounted equipment shall not exceed more than five (5) feet above the height of the average City Pole in the area, as determined by the City Engineer.

12. Licensee's Equipment must be high quality, safe, fire-resistant, modern in design, and attractive in appearance, all as approved by the City.