

REPORT TO CITY COUNCIL

Approved by:



Keith Helmuth, City Engineer



Arnaldo Rodriguez, City Manager

Council Meeting of: June 19, 2024

Agenda Number: D-5

SUBJECT:

Contract Award for R-10 Phase III, Olive and Knox Street Widening and Intersection Improvements from Olive Avenue to Neplus Way

RECOMMENDATION:

Adopt a Resolution approving the contract award for Olive and Knox Street Widening and Intersection Improvements from Olive Avenue to Neplus Way, City Project R-000010 Phase III, in the amount of \$849,331.00 to Terra West Construction, Inc and a contingency of 10 percent of the contract amount.

SUMMARY:

This project is the third phase of the larger Olive Avenue widening project from Gateway Drive to Knox Street, City Project R-000010. Phase III supports the public right of way improvements adjacent to the future James Taubert Park (Park). On May 29, 2024, the City received two bids for the Olive and Knox Street Widening and Intersection Improvements Project from Olive Avenue to Neplus Way (Project). Terra West Construction, Inc, submitted the lowest, responsive bid. Funding for the project is included in the Fiscal Year (FY) 2023/24 Capital Projects Budget.

DISCUSSION:

With the Phase III project, Olive Avenue and Knox Street will be widened to their ultimate width and a traffic signal will be installed at the intersection. The Project includes the installation of sidewalk along the Olive Street and Knox Street frontages of the Park.

Previous phases of the Olive Avenue widening project included:

- Phase I - cleared the properties purchased by the City for the Project of pre-existing improvements.

- Phase II – ongoing - is a Rule 20B utility undergrounding project to clear the roadway of utility power poles and overhead wires in advance of the widening project. This portion of the Project is pending completion of the conversion of the electrical service to the UPRR signal cabinet.

The remaining portion of the Project, which is the widening of Olive Avenue from two to four lanes from Gateway Drive to Knox Street, a traffic signal at Roosevelt Avenue and a new UPRR road crossing and signals, has suffered the loss of two City project managers thus delaying necessary coordination with UPRR for the crossing improvements.

The “Advertisement For Bids” for the Phase III Project was noticed in the Madera Tribune Newspaper on April 24, 2024. The construction and bidding documents (specifications) were uploaded to Planetbids.com as well as advertised on the City of Madera (City) website. Planetbids is an online listing service for contractors accessible from the City’s website.

To determine the low bidder, bids were compared based on the Total Base Bid. The bids received are summarized by Total Base Bid in Table 1.

<i>Table 1: Bid Overview</i>	
<i>Bidder</i>	<i>Total Base Bid</i>
1. Terra West Construction, Inc	\$849,331.00
2. Witbro Inc. dba Seal Rite Paving & Grading	\$1,214,066.00
<i>Engineer’s Opinion of Cost</i>	<i>\$782,815.00</i>

Terra West Construction, Inc submitted the lowest, responsive, and responsible bid that meets the contract requirements.

FINANCIAL IMPACT:

There is no fiscal impact on the City’s General Fund. This Phase III project is included in the FY 2023/24 CIP and is primarily funded with RSTP Exchange Funds.

ALTERNATIVES:

The alternative to awarding the project is to reject all bids. Rebidding the project could result in higher bids and would result in delays in the widening of Olive Avenue and subsequently the James Taubert Park as well.

ATTACHMENTS:

- Resolution approving Contract
 - Exhibit A - Contract
- Project Map

Attachment 1

Resolution

RESOLUTION NO. 24-_____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA,
CALIFORNIA APPROVING THE CONTRACT AWARD FOR THE OLIVE AND
KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS, CITY
PROJECT R-000010 PHASE III, AND AUTHORIZING CONSTRUCTION
CONTINGENCIES RELATING TO THE CONTRACT**

WHEREAS, on April 24, 2024, the City of Madera (City) Engineering Department advertised a solicitation for construction bids for the Olive and Knox Street Widening and Intersection Improvements, Olive Avenue to Neplus Way, City Project No. R-000010 Phase III, hereinafter referred to as “the Project”; and

WHEREAS, two sealed bids were received on May 29, 2024, and opened by the City Engineer; and

WHEREAS, Terra West Construction, Inc was selected as the lowest responsive and responsible bidder; and

WHEREAS, funding for the Project is programmed in the Capital Improvement Projects (CIP) Budget for Fiscal Year 2023/24 under CIP Project R-000010; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. The City Council (Council) has reviewed and considered all the information presented including the report to Council from the Engineering Department.
3. The City Council finds that Terra West Construction, Inc., is the lowest qualified, responsible, and responsive bidder and does hereby accept the base bid of Terra West Construction, Inc.
4. The City Council awards the base bid to Terra West Construction, Inc., with the finding it is in the best interests of the City. The City Council approves an Agreement for contract for the Project, attached as Exhibit “A”, in the amount of \$ 849,331.00 with Terra West Construction, Inc., and authorizes the City Manager to execute the same on behalf of the City. The City Manager is further authorized to make any non-material, technical, and clerical edits and corrections to the Agreement, including performance and payment bonds completed after the award, subject to approval as to form by City Attorney.

5. Council authorizes Construction Contingencies of up to 10 percent as approved by the City Engineer.
6. This Resolution is effective immediately upon adoption.

Exhibit A

Contract Agreement

Attachment A

Advertisement for Bids

ADVERTISEMENT FOR BIDS

Sealed bids will be received at the office of the City Engineer of the City of Madera for the following:

**“OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS
OLIVE AVENUE TO NEPLUS WAY, CITY PROJECT NO. R-000010 Phase III”**

at **428 E. Yosemite Avenue, Madera, CA 93638**, until **2:00 pm**, on **May 30, 2024** and then at said office publicly opened and read aloud.

There will be a non-mandatory pre-bid meeting on **May 14, 2024** at City of Madera, Engineering Building Conference Room, 428 E. Yosemite Avenue at **2:00 p.m.** Any prospective bidder may also attend the meeting by Zoom at <https://cityofmadera.zoom.us/j/83850577756?pwd=blG7bEN49tLFSM7sFsYXhWQuFiASbM.1> Meeting ID: 838 5057 7756, Passcode: 925791
On the same day and time. All bidders are invited to attend in person or by Zoom.

The work in general consists of widening and intersection improvements of Olive Avenue and Knox Street, to Arterial Street standards including: concrete curbs, gutters, sidewalk and ADA ramps. Street construction includes removal of existing pavements, grading of roadway subgrade, placing aggregate base, and asphalt concrete paving. Also included is the installation of a new traffic signal system including new electrical service pedestal and meter.

In accordance with the provisions of Section 3300 of the Public Contract, the general contractor for this project shall have a **Class A license**, a California State Contractor's License issued in accordance with the provisions of the Contractor's State License Law, California Business and Professions Code, Division 5, Chapter 9, as amended.

All contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the bidder and its subcontractor(s), of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the project.

Bid security in the amount of ten (10) percent of the amount of the bid, and in the form of a bid bond issued by an admitted surety insurer licensed by the California Department of Insurance, cash, cashier's check or certified check shall accompany the bids. Bid securities shall be made in favor of the City of Madera.

Plans and Specifications will be posted and can be downloaded from the City's website at <https://www.madera.gov/home/departments/engineering/cip/> by clicking on the link 'City of Madera's PlanetBids Vendor Portal'. Any printed hard copies of the plans, specifications, and all addenda shall be at the contractor's expense. Bidders must be registered with planetbids.com in order to receive all bid documents, and addenda.

In accordance with the provisions of Division 2, Part 5, Section 22300 of the Public Contract Code of the State of California, securities may be substituted for non-federal monies withheld on this Project.

In accordance with the provisions of Section 1770 of the Labor Code, the Director of the Department of Industrial Relations of the State of California has determined the general prevailing rates of wages and employer payments for health and welfare, pension, vacation, travel time and subsistence pay as provided by Section 1773.8 apprenticeship or other training programs authorized by Section 3093, and similar purposes applicable to the work to be done. These wage rates are on file with the City Engineer, City of Madera, and are incorporated herein by reference.

The City Council of the City of Madera reserves the right to reject any and all bids, and to waive any and all irregularities in any bid. The City shall not assume any liability or costs incurred by Bidders should the award of contract be canceled due to lack of financing.

BY ORDER OF THE CITY COUNCIL OF THE CITY OF MADERA.

ATTEST: /s/ Alicia Gonzales
City Clerk
City of Madera

DATE: April 24, 2024

Attachment B

Information for Bidders

INFORMATION FOR BIDDERS

BIDS will be received by the City of Madera (herein called the "OWNER") at the office of the City Engineer until 2:00 p.m., on **May 30, 2024** and then at said office publicly opened and read aloud. The official bid stamp clock will be located at the Engineering Building at the above referenced address. The back-up clock is located above the front counter in the Engineering Building, should the official bid stamp clock not work.

The work in general consists of widening and intersection improvements of Olive Avenue and Knox Street, to Arterial Street standards including: concrete curbs, gutters, sidewalk and ADA ramps. Street construction includes removal of existing pavements, grading of roadway subgrade, placing aggregate base, and asphalt concrete paving. Also included is the installation of a new traffic signal system including new electrical service pedestal and meter.

Each BID must be submitted with all documents listed on the Bidder's Checklist in a sealed envelope, addressed to the OWNER at Engineering Building, located at, 428 East Yosemite Avenue, Madera, CA 93638. Each sealed envelope containing a BID must be plainly marked on the outside as bid for "**OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS, CITY PROJECT NO. R-000010 Phase III**", and the envelope should bear on the outside, the name of the BIDDER, his address, his Contractor's license number, Registration number with Department of Industrial Relations and a statement "DO NOT OPEN UNTIL THE TIME OF BID OPENING". If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at Engineering Building, 428 E. Yosemite Ave., Madera, CA 93638 and shall be clearly labeled as instructed for the enclosed BID.

All BIDS must be made on the required BID PROPOSAL forms. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID PROPOSAL forms must be fully completed and executed when submitted. Only one copy of the BID PROPOSAL form is required.

Contractor who has employees who will work on a City of Madera project is required to comply with all of the provisions of the Federal Immigration Reform and Control Act of 1986 (S.B. 1200; H.REP 99-1000). This requirement includes compliance with all of the employee documentation provisions. Furthermore, the Contractor will make any employee documentation required to comply with the Act immediately available to the City upon its request for each individual employee working on a City of Madera project.

A pre-bid meeting is scheduled for **May 14, 2024 at 2:00 pm** at City of Madera Engineering Building Conference Room, 428 E. Yosemite Avenue, Madera, CA 93638. All bidders are invited to attend and will have the opportunity to visit the project site at the end of the meeting. Any prospective bidder may also attend the meeting by Zoom at <https://cityofmadera.zoom.us/j/83850577756?pwd=blG7bEN49tLFsM7sFsYXnWQuFiASbM.1> Meeting ID: 838 5057 7756, Passcode: 925791
On the same day and time. All bidders are invited to attend in person or by Zoom.

The ENGINEER is the City Engineer of the City of Madera and the telephone number is (559) 661-5418.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 60 days after the actual date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified period the time may be extended by mutual agreement between the OWNER and the BIDDER.

Any one or more of the following causes may be considered as sufficient for disqualification of a BIDDER and rejection of his proposal or proposals:

- a. More than one proposal for the same work from an individual, partnership or corporation.
- b. Evidence of collusion among BIDDERS. Participants in such collusion will receive no recognition as BIDDERS for any future work of the OWNER until such participant shall have been reinstated as a qualified BIDDER.
- c. Lack of competency and adequate machinery, plant or other equipment, as may be revealed by financial statement if required.
- d. For unsatisfactory performance record as shown by past work for the OWNER, judged from the standpoint of workmanship and progress.
- e. Prior commitments or obligations, which in the judgment of the OWNER might hinder or prevent the prompt completion of the work.
- f. Failure to pay or satisfactorily settle all payments due for labor or materials on former contracts in force with the City of Madera at the time of letting the BID.
- g. Failure to comply with any qualifications regulation of the OWNER.
- h. Omission of proposal guaranty.

A BIDDER who claims a mistake in his BID must follow the procedures in Public Contract Code Division 2, Part 1, Chapter 5, et seq. in seeking relief of his BID.

BIDDERS must satisfy themselves as to the accuracy of the estimated quantities in the Bid Schedule by examination of the site and a review of the DRAWINGS and SPECIFICATIONS including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or the nature of the WORK to be done.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER, or any person shall not affect the risks, or obligations assumed by the CONTRACTOR or relieve the CONTRACTOR from fulfilling any of the conditions of the Contract.

Each BID must be accompanied by a Bid Bond payable to the OWNER for ten percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the bonds of all except the three lowest responsible BIDDERS. When the Agreement is executed, the bonds of the two remaining unsuccessful BIDDERS will be returned. The Bid Bond of the successful BIDDER will be retained until the Payment Bond and Performance Bond have been executed and approved, after which it will be returned. A certified or cashier's check may be used in lieu of a Bid Bond.

A Performance Bond and a Payment Bond, each in the amount of 100 percent of the CONTRACT PRICE, with a corporate bonding company licensed to transact such business in the State of California, with a current A.M. Best's rating of not less than A: VII, will be required

for the faithful performance of the Contract, or as approved by the City Attorney. The Payment Bond and Performance Bond must be issued by an admitted surety holding a certificate of authority to transact surety insurance in California issued by the Insurance Commissioner.

Attorneys-in-Fact who sign Bid Bonds or Payment Bonds and Performance Bonds must file with each bond a certified and effective dated copy of their power of attorney.

The party to whom the Contract is awarded will be required to execute the Agreement, obtain the Performance Bond and Payment Bond, and provide proof of carriage of insurance on the specified format within ten (10) calendar days from the date when the NOTICE OF AWARD is delivered to the BIDDER. The NOTICE OF AWARD shall be accompanied by the necessary Agreement and Bond forms. In case of failure of the BIDDER to execute the Agreement, the OWNER may, at his option, consider the BIDDER in default, in which case the Bid Bond accompanying the proposal shall become the property of the OWNER.

The party to whom the Contract is awarded will be required to meet the insurance requirements as specified in the Contract Documents and provide proof of carriage of insurance on the specified format prior to execution of the Agreement.

The OWNER, within fifteen (15) days of receipt of acceptable Insurance Forms, Performance Bond, Payment Bond and Agreement signed by the party to whom the Agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may, by written notice, withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the Agreement by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period; the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the 10-day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall not relieve any BIDDER from any obligation with respect to his BID.

Pursuant to the provisions of the Public Contract Code of the State of California, each BIDDER shall set forth in his proposal the name and location of the place of business of each subcontractor who will perform work or labor or render service to the CONTRACTOR in or about the construction of the WORK in an amount in excess of 1/2 of 1% of the CONTRACTOR'S total BID, or, in the case of BIDS or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent of the prime CONTRACTOR'S total BID or ten thousand dollars (\$10,000), whichever is greater, and the portion of the WORK which will be done by each subcontractor.

The OWNER may make such investigations as it deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the

Agreement and to complete the WORK contemplated therein. The CONTRACT will not be awarded to anyone on the debarred list of Contractors.

Bids will be compared on the basis of the TOTAL BID. Award will be made to the lowest responsible BIDDER.

A conditional or qualified BID will not be accepted.

All applicable laws, ordinances, and the rule and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the Contract throughout.

Prior to beginning any work, the CONTRACTOR shall secure a City of Madera Business License at his own cost and expense.

Each Contractor and Subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him in connection with the public work. Such records shall be certified and available for inspection at all reasonable hours at the principal office of the Contractor as required by Labor Code Section 1776.

The Contractor shall forfeit to the City as a penalty \$50.00 per day for each workman paid less than the rate set forth in the wage determination of the Director of Industrial Relations. The Contractor shall keep an accurate record of all personnel employed under the various classifications listing the name, classification, and hourly rate of such personnel, which record shall be made available for inspection by the owner.

At the time of award, and in accordance with the provisions of Section 3300 of the Public Contract Code, the general contractor for this project shall have a **Class 'A'** California State Contractor's License issued in accordance with the provisions of the Contractors State License Law, California Business and Professions Code, Division 5, Chapter 9, as amended.

No bid submitted will be invalidated by the failure of the bidder to be licensed in accordance with the laws of the State. The Contract will not be awarded unless the CONTRACTOR has a valid license in the appropriate classification for the work performed. Failure of the bidder to obtain the required licensing for an award of Contract shall constitute a failure to execute the Contract and shall result in the forfeiture of the security of the bidder.

Department of Industrial Relations Annual Registration:

- a. Pursuant to Labor Code Sections 1772 and 1771(b), all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations.
- b. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations.
- c. Pursuant to Labor Code Section 1725.5 - no Contractor or subcontractor may work on a public works project unless registered with the Department of Industrial Relations.
- d. Pursuant to Labor Code Section 1771.4(a)(1) – all contractors and subcontractors must furnish Certified Payroll Records (CPRs) weekly to the Agency they are contracted with and file electronic certified payroll records weekly directly to the Labor Commissioner, Division of Labor Standards Enforcement (DLSE).

- e. Pursuant to Labor Code Section 1776(c) – the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or forms that contain the same information as the forms provided by the division.
- f. Pursuant to Labor Code 1771.5 - the awarding agency shall withhold contract payments when payroll records are delinquent or inadequate.
- g. Pursuant to Title 8 California Code of Regulations Section 16451(d)/Labor Code Section 1771.4(a)(2) - the Contractor must post job Posters and Notices as required by Department of Industrial Relations and as required by other State agencies.
- h. Pursuant to Labor Code Section 1773.3 - the Public Agency must file a PWC 100 Form with the DIR within 5 days of the award of a public works project. PWC Form 100 will be amended to reflect changes in contract time. The DIR will also be notified within 5 days of the completion of project.

Contact Haley Christensen, City of Madera, Labor Compliance Officer, at (559) 661-5418 regarding labor compliance, certified payroll submittals and monitoring.

In bidding on this Project, it shall be the Bidders sole responsibility to evaluate and include the cost of complying with all labor compliance requirements under this contract and applicable law(s) in the Project bid.

Pursuant to Section 1777.1 of the Labor Code, the Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a subcontractor on a public works project. This list of debarred contractors is available from the Department of Industrial Relations at www.dir.ca.gov/DLSE/Debar.html

Questions and Requests for Information/Clarification

No verbal requests or requests made in any other format will be accepted. Any questions about the RFP must be submitted electronically and individually (not in a paragraph format nor combined in a single submission) through the City's electronic bid management system (PlanetBids) at <https://pbsystem.planetbids.com/portal/54016/portal-home> under the "Q&A" tab. All posted questions will be answered in writing and conveyed via written addenda to all Proposers via posting through the City's electronic bid management system (PlanetBids) at <https://pbsystem.planetbids.com/portal/54016/portal-home> under the "Addenda/Emails" or the "Q&A" ta

Attachment C

Bid Proposal

BIDDER'S NAME: _____
(Submit with Bid Proposal)

**BID PROPOSAL
BIDDER'S CHECKLIST**

**OLIVE AVENUE AND KNOX STREET
WIDENING AND INTERSECTION IMPROVEMENTS
OLIVE AVENUE TO NEPLUS WAY
CITY PROJECT NO. R-000010 Phase III**

SUBMIT THIS BIDDER'S CHECKLIST WITH YOUR BID DOCUMENTS. Bidders shall complete and submit all documents marked with an "X" in the "REQUIRED" column for bids to be considered responsive.

REQUIRED

- 1. **BID PROPOSAL FORM** (including Bidder's Checklist and Bid Proposal Form)
- 2. **BID SCHEDULE**
- 3. **SUBCONTRACTOR LISTING** (In excess of 1/2 of 1%)
- 4. **BID DEPOSIT** attached to front of Proposal in the form of:
 - Certified Check Bidder's Bond (Page 15)
 - Cashier's Check Irrevocable Letter of Credit
 - Certificate of Deposit
- 5. **CERTIFICATION** (Comptroller General's List)
- 6. **NONCOLLUSION AFFIDAVIT**
- 7. **PUBLIC CONTRACT CODE**
- 8. **DEBARMENT AND SUSPENSION CERTIFICATION**
- 9. **EQUAL OPPORTUNITY CERTIFICATION**
- 10. **ADDENDA** – Signature page of all Addenda issued

If one of the three lowest bidders, submit no later than 4:00 p.m. on the 3rd business day after bid opening:

- 11. **LETTER FROM BIDDER THAT BIDDER WILL PERFORM NOT LESS THAN 30% OF THE TOTAL NET BID AMOUNT (ORIGINAL CONTRACT PRICE),** excluding specialty items designated by the City on the bid proposal, Page 15, to be submitted within three working days from the date of the bid opening.

SUBMITTED BY:

Name of Company _____ Contact Name _____

Address _____ City _____ State _____ Zip _____

Phone No. _____ Fax No. _____

Documents required on the checklist but not included in the bid package may render your bid non-responsive and ineligible for award. Bids received by the City of Madera by the scheduled bid opening time will be opened and publicly read but are subject to verification that all the required documents have been submitted.

BIDDER'S NAME: _____
(Submit with Bid Proposal)

BID PROPOSAL FORM

**OLIVE AVENUE AND KNOX STREET
WIDENING AND INTERSECTION IMPROVEMENTS
OLIVE AVENUE TO NEPLUS WAY
CITY PROJECT NO. R-000010 Phase III**

Proposal of _____ (hereinafter called "BIDDER"), organized and existing under the laws of the State of _____, doing business as (an individual), or (a partnership), or (a corporation), to the City of Madera (hereinafter called "OWNER"):

In compliance with your advertisement for Bids, BIDDER hereby proposes to perform all work required for "**WIDENING AND INTERSECTION IMPROVEMENTS – OLIVE AVENUE AND KNOX STREET, PHASE-3, CITY PROJECT NO. R-000010 (Ph. 3)**" in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this BID, each BIDDER certifies, and in the case of a joint BID, each party thereto certifies as to his own organization, that this BID has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this BID with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence work under this Contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT in **One Hundred Twenty (120) Calendar Days**

BIDDER further agrees to pay as liquidated damages, the sum of **\$3,600** for each consecutive calendar day thereafter, as provided in Section 1-17 of the General Conditions.

BIDDER acknowledges receipt of the following ADDENDA:

- No. _____, dated _____, 2024
- No. _____, dated _____, 2024
- No. _____, dated _____, 2024

The undersigned, as BIDDER, declares that the only persons, or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm or corporation; that the BIDDER has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plan therein referred to; and he proposes and agrees if this proposal is accepted, that the BIDDER will contract with the City of Madera to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract in the manner and time therein prescribed and according to the requirements of the OWNER as therein set forth, and that he will take in full payment therefor the following prices, to wit:

Attachment D

Bid Bond

BIDDER'S NAME: _____
(Submit with Bid Proposal)

BID BOND

KNOWN ALL MEN BY THESE PRESENT, that we, the undersigned, _____
_____ as Principal, and _____
as Surety, are hereby held and firmly bound unto _____ as
Owner in the penal sum of _____ for the payment of which, well
and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.
Signed, this _____ day of _____, 2024. The condition of the above
obligation is such that whereas the Principal has submitted to
_____ a certain bid, attached hereto and hereby made a part
hereof to enter into a contract in writing, for the

**OLIVE AVENUE AND KNOX STREET
WIDENING AND INTERSECTION IMPROVEMENTS
OLIVE AVENUE TO NEPLUS WAY
CITY PROJECT NO. R-000010 Phase III**

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid.

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Principal (L.S.) By _____

Surety

By: _____
(Seal and Notarial Acknowledge of Surety)

Attachment E

Agreement

AGREEMENT

THIS AGREEMENT, made this ____ day of _____, 2024, between the City of Madera, hereinafter called "**OWNER**", and _____, doing business as (an individual), or (a partnership), or (a corporation), hereinafter called "**CONTRACTOR**".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The **CONTRACTOR** shall commence and complete all **WORK** required for the "WIDENING AND INTERSECTION IMPROVEMENTS – OLIVE AVENUE AND KNOX STREET, PHASE-3, CITY PROJECT NO. R-000010 (Ph. 3)"
2. The **CONTRACTOR** shall furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the **WORK** described herein.
3. The **CONTRACTOR** shall commence the **WORK** required by the **CONTRACT DOCUMENTS** within 10 calendar days after the date of the **NOTICE TO PROCEED** and will complete the same within the time period set forth in the **CONTRACT DOCUMENTS**. The **CONTRACTOR** shall submit a Payment Bond and Performance Bond in the amount of \$ _____, each and Insurance Certificates as specified in the **CONTRACT DOCUMENTS** prior to commencing any **WORK**.
4. The **CONTRACTOR** agrees to perform all of the **WORK** described in the **DOCUMENTS** for the unit and lump sum prices set forth in the Bid Schedule.
5. The term "**CONTRACT DOCUMENTS**" means and includes the following:
 - (A) Advertisement for Bids
 - (B) Information for Bidders
 - (C) Bid Proposal
 - (D) Bid Bond
 - (E) Agreement
 - (F) Payment Bond
 - (G) Performance Bond
 - (H) Insurance Requirements for Contractors
 - (I) General Conditions
 - (J) Special Conditions
 - (K) City of Madera Standard Specifications and Drawings
 - (L) State Standard Plans and Specifications
 - (M) PLANS and SPECIFICATIONS prepared or issued by CITY OF MADERA, entitled "OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS – OLIVE AVENUE TO NEPLUS WAY, CITY PROJECT NO. R-000010 PHASE III" - APRIL 2024

Addenda Nos. _____, dated _____
Addenda Nos. _____, dated _____
Addenda Nos. _____, dated _____

6. In the event the **CONTRACTOR** does not complete the **WORK** within the time limit specified herein or within such further time as authorized, the **CONTRACTOR** shall pay to the **OWNER** liquidated damages in the amount of **Thirty Six Hundred Dollars (\$3,600)** per

day for each and every calendar day delay in finishing the **WORK** beyond the completion date so specified.

7. The **OWNER** will pay to the **CONTRACTOR** in the manner and at such times as set forth in the General Conditions such amounts as required by the **CONTRACT DOCUMENTS**. For any moneys earned by the **CONTRACTOR** and withheld by the **OWNER** to ensure the performance of the Contract, the **CONTRACTOR** may, at his request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Division 2, Part 5, Section 22300 of the Public Contract Code of the State of California.

8. In the event of a dispute between the **OWNER** and the **CONTRACTOR** as to an interpretation of any of the specifications or as to the quality or sufficiency of material or workmanship, the decision of the **OWNER** shall for the time being prevail and the **CONTRACTOR**, without delaying the job, shall proceed as directed by the **OWNER** without prejudice to a final determination by negotiation, arbitration by mutual consent or litigation, and should the **CONTRACTOR** be finally determined to be either wholly or partially correct, the **OWNER** shall reimburse him for any added costs he may have incurred by reason of work done or material supplied beyond the terms of the contract as a result of complying with the **OWNER'S** directions as aforesaid. In the event the **CONTRACTOR** shall neglect to prosecute the work properly or fail to perform any provisions of the **CONTRACT**, the **OWNER**, after three days written notice to the **CONTRACTOR**, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due to the **CONTRACTOR**, subject to final settlement between the parties as in this paragraph herein above provided.

9. Attention is directed to Section 1735 of the Labor Code, which reads as follows:

“No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical conditions, marital status, or sex of such persons except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for by violation of this chapter”.

10. In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860) and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the Labor Code of the State of California, the **CONTRACTOR** is required to secure the payment of compensation to his employees and shall for that purpose obtain and keep in effect adequate Worker's Compensation Insurance.

The undersigned **CONTRACTOR** is aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against Liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions before commencing the performance of the **WORK** of this Agreement.

11. The **CONTRACTOR** shall comply with Part 7, Chapter 1, Article 2, Section 1775 of the Labor Code of the State of California. The **CONTRACTOR** shall, as a penalty to the **OWNER**, forfeit fifty dollars (\$50.00) for each calendar day, or portion thereof, for each workman paid less than the prevailing rates for such work or craft in which such workman is employed for any public work done under the Contract by him or by any **SUBCONTRACTOR** under him. The difference between such prevailing wage rates and the amount paid to each workman for each calendar day or portion thereof for which each workman was paid less than a prevailing wage rate, shall be paid to each workman by the **CONTRACTOR**.

12. The **CONTRACTOR** shall comply with Part 7, Chapter 1, Article 2, Section 1776 of the Labor Code of the State of California. The **CONTRACTOR** shall keep and require that all **SUBCONTRACTORS** keep accurate payroll records showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice worker or other employee employed by him in connection with public work. Such payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of the **CONTRACTOR** by the **OWNER**, its officers and agents and to the representatives of the Division of Labor Law Enforcement of the State Department of Industrial Relations. In the event of non-compliance with the requirements of Section 1776, the **CONTRACTOR** shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects the **CONTRACTOR** must comply. Should non-compliance still be evident after the ten (10) day period, the **CONTRACTOR** shall, as a penalty to the **OWNER** forfeit twenty-five dollars (\$25.00) for each calendar day, or portion thereof, for each worker until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

13. Attention is directed to the provisions in Sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the **CONTRACTOR** or any **SUBCONTRACTOR** under him. It is the **CONTRACTOR'S** responsibility to ensure compliance by both itself and all **SUBCONTRACTORS**.

Section 1777.5 provides, in part, as follows:

The **CONTRACTOR** or **SUBCONTRACTOR**, if he is covered by this section, upon the issuance of the approval certificate, or if he has been previously approved in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeyman stipulated in the apprenticeship standards. Upon proper showing by the **CONTRACTOR** that he employs apprentices in the craft or trade in the State on all of his/her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by a journeyman, or in the land surveyor classification, one apprentice for each five journeyman, the Division of Apprenticeship Standards may grant a certification exempting the **CONTRACTOR** from the one (1) to five (5) hourly ratio as set forth in this section. This section shall not apply to contracts of general **CONTRACTORS** or to contracts of specialty contractors not bidding for work through a general or prime **CONTRACTOR**, when the contracts of general **CONTRACTORS**, or those specialty **CONTRACTORS** involve less than thirty thousand dollars (\$30,000). Any work performed by a journeyman in excess of eight hours per day or forty (40) hours per week shall not be used to calculate the hourly ratio required by this section.

Apprenticeable craft or trade, as used in this section, shall mean a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council. The joint apprenticeship committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting a **CONTRACTOR** from the 1 to 5 ratio set forth in this section when it finds that any one of the following conditions is met:

- (a) In the event unemployment for the previous three month period in such area exceeds an average of 15 percent, or
- (b) In the event the number of apprentices in training in such area exceeds a ratio of 1 to 5, or
- (c) If there is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either (1) on a

statewide basis, or (2) on a local basis, or

- (d) If assignment of an apprentice to any work performed under a public works contract would create a condition which should jeopardize his life or the life, safety, or property of fellow employees, or the public at large or if the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

When such exemptions are granted to an organization which represents **CONTRACTORS** in a specific trade from the 1 to 5 ratio on a local or statewide basis the member **CONTRACTORS** will not be required to submit individual applications for approval to local joint apprenticeship committees, provided they are already covered by the local apprenticeship standards.

The **CONTRACTOR** is required to make contributions to funds established for the administration of apprenticeship programs if he employs registered apprentices or journeymen in apprenticeable trade on such contracts and if other **CONTRACTORS** on the public work site are making such contributions. The **CONTRACTOR**, and any **SUBCONTRACTOR** under him, shall comply with the requirements of Sections 1777.5 and 1777.6 of the Labor Code in the employment of apprentices. Information relative to number of apprentices, identifications, wages, hours of employment and standards of working conditions shall be obtained from the Division of Apprenticeship Standards. Consult the white pages of your telephone directory under California, State of, Industrial Relations, Apprenticeship Standards, for the telephone number and address of the nearest office. Willful failure by the **CONTRACTOR** to comply with the provisions of Sections 1777.5 will subject the **CONTRACTOR** to the penalties set forth in Section 1777.7 of the Labor Code.

14. Pursuant to California Labor Code Section 1813, eight hours in any one calendar day and forty (40) hours in any calendar week shall be the maximum hours any workman is required or permitted to work, except in cases of extraordinary emergency caused by fires, flood, or danger to life and property. The **CONTRACTOR** doing the work, or his duly authorized agent, shall file with **OWNER** a report, verified by his oath, setting forth the nature of the said emergency, which report shall contain the name of said worker and the hours worked by him on the said day, and the **CONTRACTOR** and each **SUBCONTRACTOR** shall also keep an accurate record showing the names and actual hours worked of all workers employed by him in connection with the work contemplated by this Agreement, which record shall be open at all reasonable hours to the inspection of the **OWNER**, or its officer or agents and to the Chief of all Division of Labor Statistics and Law Enforcement of the Department of Industrial Relations, his deputies or agents; and it is hereby further agreed that said **CONTRACTOR** shall forfeit as a penalty to the **OWNER** the sum of Twenty-Five Dollars (\$25.00) for each laborer, workman or any **SUBCONTRACTOR** under him for each calendar day during which such laborer, workman or mechanic is required or permitted to labor more than eight (8) hours in violation of this stipulation.

Overtime and shift work may be established as a regular procedure by the **CONTRACTOR** with reasonable notice and written permission of the **OWNER**. No work other than overtime and shift work established as a regular procedure shall be performed between the hours of 6:00 P.M. and 7:00 A.M. nor on Saturdays, Sundays or holidays except such work as is necessary for the proper care and protection of the work already performed or in case of an emergency.

CONTRACTOR agrees to pay the costs of overtime inspection except those occurring as a result of overtime and shift work established as a regular procedure. Overtime inspection shall include inspection required during holidays, Saturdays, Sundays and weekdays.

Costs of overtime inspection will cover engineering, inspection, general supervision and overhead expenses which are directly chargeable to the overtime work. **CONTRACTOR** agrees that **OWNER** shall deduct such charges from payments due the **CONTRACTOR**.

15. The **CONTRACTOR** shall comply with Division 2, Chapter 4, Part 1 of the Public Contract Code relating to subletting and subcontracting, specifically included but not limited to Sections 4104, 4106, and 4110, which by this reference are incorporated into this Agreement as though fully set forth herein.

16. The **CONTRACTOR** and the **OWNER** agree that changes in this Agreement or in the work to be done under this Agreement shall become effective only when written in the form of a supplemental agreement or change order and approved and signed by the **OWNER** and the **CONTRACTOR**. It is specifically agreed that the **OWNER** shall have the right to request any alterations, deviations, reductions or additions to the contract or the plans and specifications or any of them, and the amount of the cost thereof shall be added to or deducted from the amount of the contract price aforesaid by fair and reasonable valuations thereof.

This contract shall be held to be completed when the work is finished in accordance with the original plans and specifications as amended by such changes. No such change or modification shall release or exonerate any surety upon any guaranty or bond given in connection with this contract.

17. **Contractor** shall indemnify, defend with legal counsel approved by City, and hold harmless City, its officers, officials, employees, and volunteers from and against all liability, loss, damage, expense, and cost (including without limitation reasonable legal counsel fees, expert fees and all other costs and fees of litigation) of every nature arising out of or in connection with **Contractor's** negligence, recklessness, or willful misconduct in the performance of work hereunder, or its failure to comply with any of its obligations contained in this AGREEMENT, except such loss or damage caused by the sole active negligence or willful misconduct of the City. Should conflict of interest principles preclude a single legal counsel from representing both City and **Contractor**, or should City otherwise find **Contractor's** legal counsel unacceptable, then **Contractor** shall reimburse the City its costs of defense, including without limitation, reasonable legal counsel fees, expert fees, and all other costs and fees of litigation. The **Contractor** shall promptly pay any final judgment rendered against the City (and its officers, officials, employees and volunteers) with respect to claims determined by a trier of fact to have been the result of the **Contractor's** negligent, reckless, or wrongful performance. It is expressly understood and agreed that the foregoing provisions are intended to be as broad and inclusive as is permitted by the law of the State of California and will survive termination of this Agreement.

Contractor obligations under this section apply regardless of whether or not such claim, charge, damage, demand, action, proceeding, loss, stop notice, cost, expense, judgment, civil fine or penalty, or liability was caused in part or contributed to by an Indemnatee. However, without affecting the rights of City under any provision of this agreement, **Contractor** shall not be required to indemnify and hold harmless City for liability attributable to the active negligence of City, provided such active negligence is determined by agreement between the parties or by the findings of a court of competent jurisdiction. In instances where City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of **Contractor** will be for that entire portion or percentage of liability not attributable to the active negligence of City.

Contractor agrees to obtain or cause to be obtained executed defense and indemnity agreements with provisions identical to those set forth in this Section from each and every Subcontractor and Subconsultant, of every Tier. In the event the **Contractor** fails to do so,

Contractor agrees to be fully responsible to provide such defense and indemnification according to the terms of this Section.

18. Contractor must comply with the insurance requirements as described in the section "INSURANCE REQUIREMENTS FOR **CONTRACTOR**", pages 35-37 of the Contract Documents.

19. Amendments- Any changes to this Agreement requested by either City or **[Name of Successful Bidder]**, may only be effected if mutually agreed upon in writing by duly authorized representatives of the parties hereto. This Agreement shall not be modified or amended or any rights of a party to it waived except by such writing.

20. Termination.

A. This Agreement may be terminated at any time by either party upon fifteen (15) calendar days written notice. In the event the Agreement is terminated by either party, **[Name of Successful Bidder]** shall be compensated for services performed to the date of termination based upon the compensation rates and subject to the maximum amounts payable agreed to together with such additional services performed after termination which are authorized in writing by the City representative to wind up the work performed to date of termination.

B. City may immediately suspend or terminate this Agreement in whole or in part by written notice where, if in the determination of City, there is:

1. An illegal use of funds by **[Name of Successful Bidder]**;
2. A failure by **[Name of Successful Bidder]** to comply with any material term of this Agreement;
3. A substantially incorrect or incomplete report submitted by **[Name of Successful Bidder]** to City.

In no event shall any payment by City or acceptance by **[Name of Successful Bidder]** constitute a waiver by such party of any breach of this Agreement or any default which may then exist on the part of either party. Neither shall such payment impair or prejudice any remedy available to either party with respect to such breach or default. City shall have the right to demand of **[Name of Successful Bidder]** the repayment to City of any funds disbursed to **[Name of Successful Bidder]** under this Agreement which, as determined by the appropriate court or arbitrator, were not expended in accordance with the terms of this Agreement.

Notice of termination shall be mailed to the City:

City of Madera
Engineering Department
428 E. Yosemite Ave.
Madera, Ca 93638

To the Contractor **[Name of Successful Bidder]**

Notices. All notices and communications from the **[Name of Successful Bidder]** shall be to City's designated Project Manager or Principal-In-Charge. Verbal communications shall be confirmed in writing. All written notices shall be provided and addressed as soon as possible, but not later than thirty (30) days after termination.

21. Compliance With Laws- City shall comply with all Federal, State and local laws, ordinances, regulations and provisions applicable in the performance of City's services.

Wherever reference is made in this Agreement to standards or codes in accordance with which work is to be performed or tested, the edition or revision of the standards or codes current on the effective date of this Agreement shall apply, unless otherwise expressly stated.

22. Attorneys' Fees/Venue- In the event that any action is brought to enforce the terms of this Agreement, the party found by the court to be in default agrees to pay reasonable attorneys' fees to the successful party in an amount to be fixed by the Court. The venue for any

claim being brought for breach of this Agreement shall be in Madera County or as appropriate in the U.S. District Court for the Eastern District of California, located in the City of Madera.

23. Governing Law- The laws of the State of California shall govern the rights and obligations of the parties under the Agreement, including the interpretation of the Agreement. If any part of the Agreement is adjudged to be invalid or unenforceable, such invalidity shall not affect the full force and effect of the remainder of the Agreement.

24. City's Authority- Each individual executing or attesting to this Agreement on behalf of the City hereby covenants and represents: (i) that he or she is duly authorized to execute or attest and deliver this Agreement on behalf of such corporation in accordance with a duly adopted resolution of the corporation's articles of incorporation or charter and bylaws; (ii) that this Agreement is binding upon such corporation; and (iii) that Contractor is a duly organized and legally existing municipal corporation in good standing in the State of California.

25. Contractor's Legal Authority - Each individual executing or attesting this Agreement on behalf of **[Name of Successful Bidder]** hereby covenants and represents: (i) that he or she is duly authorized to execute or attest and deliver this Agreement on behalf of such corporation in accordance with such corporation's articles of incorporation or charter and by-laws; (ii) that this Agreement is binding upon such corporation; and (iii) that **[Name of Successful Bidder]** is a duly organized and legally existing corporation in good standing in the State of California.

26. Remedies for Default. Failure by a party to perform any term, condition or covenant required of the party under this Agreement shall constitute a "default" of the offending party under this Agreement. In the event that a default remains uncured for more than ten (10) days following receipt of written notice of default from the other party, a "breach" shall be deemed to have occurred. Any failure or delay by a party in asserting any of its rights and remedies as to any default shall not operate as a waiver of any default or of any rights or remedies associated with a default.

27. Independent Contractor. In performance of the work, duties, and obligations assumed by the Contractor under this Agreement, it is mutually understood and agreed that the City, including any and all of City's officers, agents and employees will, at all times, be acting and performing as an independent contractor, and shall act in an independent capacity and not as an officer, agent, servant, employee, joint venturer, partner, or associate of **City**. Furthermore, **City** shall have no right to control or supervise or direct the manner or method by which City shall perform its work and functions. The City shall comply with all applicable provisions of law and the rules and regulations, if any, of governmental authorities having jurisdiction over the subject matter hereof.

Because of its status as an independent contractor, City shall have absolutely no right to employment rights and benefits available to **City** employees. City shall be solely liable and responsible for providing to, or on behalf of, its employees all legally required employee benefits. In addition, City shall be solely responsible and hold **City** harmless from all matters relating to payment of City's employees, including compliance with Social Security, withholding and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, City may be providing services to others unrelated to **City** or to this Agreement.

28. Sole Agreement- This instrument constitutes the sole and only Agreement between City and **[Name of Successful Bidder]** in connection to the Project and correctly sets forth the obligations of the City and **[Name of Successful Bidder]** to each other as of its date. Any Agreements or representations in connection with the Project, not expressly set forth in this instrument are null and void.

29. Assignment-Neither the **[Name of Successful Bidder]** nor City will assign its interest in this Agreement without the written consent of the other.

30. During the performance of this agreement, the Contractor assures that no otherwise qualified person shall be excluded from participation or employment, denied program benefits, or be subjected to discrimination based on race, color, national origin, sex, age, or handicap, under any program or activity funded by this contract, as required by Title VI of the Civil Rights Act of 1964, Title I of the Housing and Community Development Act of 1974, as amended, and the Age Discrimination Act of 1975, and all implementing regulations.

31. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in THREE copies, each of which shall be deemed an original on the date first above written.

City of Madera
Herein Called OWNER

By: _____
Santos Garcia, Mayor

APPROVE AS TO FORM:

Shannon L. Chaffin, City Attorney

ATTEST:

Alicia Gonzales, City Clerk

BY: _____
Herein Called CONTRACTOR

BY: _____

Federal Tax I.D. No.

Contractor License Number

DIR Registration Number

NOTE: This Notary Acknowledgment on the following page is required for verification of Contractor's signature.

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of _____)

On _____, 2024 before me, _____
(insert name and title of officer)

Personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

Attachment F

Payment Bond

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter call Surety, are held and firmly bound unto

City of Madera
(Name of Owner)

428 East Yosemite Avenue, Madera CA 93638
(Address of Owner)

hereinafter called OWNER, in the penal sum of _____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents, and also by the provisions of Part 2, Title 14, Chapter 2 of the California Code of Civil Procedure (Section 995.010, et seq.) and of Section 3247, et seq. of the California Civil Code.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the ____ day of ____, 2024 a copy of which is hereto attached and made a part hereof for the construction of:

“WIDENING AND INTERSECTION IMPROVEMENTS – OLIVE AVENUE AND KNOX STREET
PHASE-3, CITY PROJECT NO. R-000010 (Ph. 3)”

NOW, THEREFORE, if the Principal and all subcontractors shall promptly make payment to all mechanics, material men, contractors, subcontractors, lessors of equipment, artisans, architects, registered engineers, licensed land surveyors, machinists, builders, teamsters and laymen and all persons and laborers of every class performing labor upon or bestowing skill or necessary services on or furnishing materials or leasing equipment to be used or consumed in or furnishing appliances, teams or power contributing to the work described in the above mentioned contract, and to any other persons named in Section 3181 of the California Civil Code, and of amounts due under the Employment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld and paid over the Employment Development Department from the wages of employees of the contractor and subcontractors pursuant to Section 13020 of the Unemployment Insurance code, with respect to such work and labor, then this obligation shall be null and void: otherwise it shall remain in full force and effect.

PROVIDED FURTHER, that this obligation shall inure to the benefit of all persons named in Section 3181 of the California Civil code, and all such claimants and their assigns shall have a right of action in any suit brought upon this bond.

PROVIDED FURTHER, that no suit, action or other proceeding to recover on this bond shall be maintained unless commenced within six (6) months from the completion of the work described in the above mentioned contract, as "completion" is defined in Section 3086 of the California Civil Code.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract of accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in THREE counterparts, each one of which shall be deemed an original, this the _____ day of _____, 2024.

ATTEST:

Principal

BY: _____(s)

(Principal) Secretary

(Seal)

(Witness as to Principal)

(Address)

ATTEST:

(Surety) Secretary

(Surety)

(SEAL)

Witness as to Surety

BY: _____
Attorney in Fact

(Address)

(Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

Attachment G

Performance Bond

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal,
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter call Surety, are held and firmly bound unto

City of Madera
(Name of Owner)

428 East Yosemite Avenue, Madera, CA 93638
(Address of Owner)

hereinafter called OWNER, in the penal sum of _____ Dollars, (\$_____) in lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the ____ day of _____, 2024 a copy of which is hereto attached and made a part hereof for the construction of:

“ OLIVE AVENUE AND KNOX STREET
WIDENING AND INTERSECTION IMPROVEMENTS
OLIVE AVENUE TO NEPLUS WAY
CITY PROJECT NO. R-000010 Phase III”

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be null and void: otherwise it shall remain in full force and effect.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

PROVIDED FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in THREE counterparts, each one of which shall be deemed an original, this the _____ day _____ 2024.

ATTEST: _____
Principal

BY: _____ (s) _____
(Principal) Secretary

(Seal)

(Witness as to Principal) (Address)

ATTEST:

(Surety) Secretary (Surety)

(SEAL)

Witness as to Surety BY: _____
Attorney in Fact

(Address) (Address)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all partners should execute Bond.

Attachment H

Insurance Requirements for Contractors

INSURANCE REQUIREMENTS FOR CONTRACTORS

Without limiting Contractor's indemnification of City, and prior to commencement of Work, Contractor shall obtain, provide, and continuously maintain at its own expense during the term of the Agreement, and shall require any and all Subcontractors and Subconsultants of every Tier to obtain and maintain, policies of insurance of the type and amounts described below and in form satisfactory to the City.

Minimum Scope and Limits of Insurance

- Contractor shall maintain limits no less than: \$2,000,000 **General Liability** (including operations, products and completed operations) per occurrence, \$4,000,000 general aggregate, for bodily injury, personal injury and property damage, including without limitation, blanket contractual liability. Coverage shall be at least as broad as Insurance Services Office (ISO) Commercial General Liability coverage form CG 00 01. General liability policies shall be endorsed using ISO forms CG 20 10 and CG 20 37 to provide that the City and its officers, officials, employees and agents shall be additional insureds under such policies.
- \$1,000,000 **Automobile Liability** combined single limit per accident for bodily injury or property damage at least as broad as ISO Form CA 00 01 for all activities of Contractor arising out of or in connection with Work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles. Automobile Liability policies shall be endorsed to provide that the City and its officers, officials, employees and agents shall be additional insureds under such policies.
- **Worker's Compensation** as required by the State of California and \$1,000,000 **Employer's Liability** per accident for bodily injury or disease. Contractor shall submit to the City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees, and volunteers.

Maintenance of Coverage

Contractor shall procure and maintain, for the duration of the contract, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the Work hereunder by Contractor, his agents, representatives, employees, subcontractors or subconsultants as specified in this Agreement.

Proof of Insurance

Contractor shall provide to the City certificates of insurance and endorsements, as required, as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the City prior to commencement of performance. Current evidence of insurance shall be kept on file with the City at all times during the term of this Agreement. Agency reserves the right to require complete, certified copies of all required insurance policies, at any time.

Acceptable Insurers

All insurance policies shall be issued by an insurance company currently authorized by the Insurance commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and a Financial Size Category Class VII (or larger), in accordance with the latest edition of Best's Key Rating Guide.

Waiver of Subrogation

All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against the City, its elected or appointed officers, agents, officials, employees, and volunteers, or shall specifically allow Contractor, or others providing insurance evidence in compliance with these specifications, to waive their right of recovery prior to a loss.

Contractor hereby waives its own right of recovery against the City and shall require similar written express waivers and insurance clauses from each of its subconsultants or subcontractors.

Enforcement of Contract Provisions (non estoppel)

Contractor acknowledges and agrees that any actual or alleged failure on the part of the Agency to inform Contractor of non-compliance with any requirement imposes no additional obligations on the City, nor does it waive any rights hereunder.

Specifications not Limiting

Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If Contractor maintains higher limits than the minimums required above, the entity shall be entitled to coverage at the higher limits maintained by Contractor.

Notice of Cancellation

Contractor agrees to oblige its insurance agent or broker and insurers to provide to the City with thirty (30) calendar days notice of cancellation (except for nonpayment for which ten (10) calendar days notice is required) or nonrenewal of coverage for each required coverage.

Self-insured Retentions

Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City's Risk Manager.

Timely Notice of Claims

Contractor shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional Insurance

Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgement may be necessary for its proper protection and prosecution of the Work.

Attachment I

Section 1, General Conditions

SECTION 1
GENERAL CONDITIONS

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SECTION 1

GENERAL CONDITIONS

1-1 DEFINITIONS - Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:

AASHTO - American Association of State Highway and Transportation Officials, current designation as of the Bid date unless otherwise indicated.

ACCEPTANCE - Project approved by Resolution or Minute Order of City Council of Madera.

ADDENDA - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications or corrections.

ANSI - American National Standards Institute, current designation as of the Bid date unless otherwise.

ASME - American Society of Mechanical Engineers, current designation as of the Bid date unless otherwise indicated.

ASTM - American Society for Testing Materials, current designation as of the Bid date unless otherwise indicated.

AWWA - American Water Works Association, current designation as of the Bid date unless otherwise specified.

BID - The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.

BIDDER - Any person, firm or corporation submitting a BID for the WORK.

BONDS - Bid, Performance and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.

BUSINESS LICENSE - A City of Madera Business License required for payment of the business tax based on gross receipts.

CALENDAR DAY - Each and every day of the year, including weekends and holidays.

CHANGE ORDER - A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.

COMPLETION - That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS so that the PROJECT or specified part can be utilized; or the purposes for which it is intended.

CONTRACT DOCUMENTS - The Contract, including Advertisement for Bids, Information for Bidders, BID, including Bid Representations and Certifications, Bid Bond, Agreement,

Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, General Conditions, Special Conditions, SPECIFICATIONS, DRAWINGS AND ADDENDA.

CONTRACT PRICE - The total moneys payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

CONTRACT TIME - The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

CONTRACTOR - The person, firm or corporation with whom the OWNER has executed the Agreement.

DRAWINGS - The part of the CONTRACT DOCUMENTS which shows the characteristics and scope of the WORK to be performed and which have been prepared or approved by the CITY ENGINEER.

ENGINEER - The City Engineer of the City of Madera, California

FIELD ORDER - A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.

IEEE - Institute of Electrical and Electronics Engineers, current designation as of the Bid date unless otherwise indicated.

NEC - National Electric Code, current designation as of the Bid date, unless otherwise indicated.

NEMA - National Electrical Manufacturers Association, current designation as of the Bid date unless otherwise indicated.

NOTICE OF AWARD - The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.

NOTICE TO PROCEED - Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.

OWNER - The City of Madera, for whom the WORK is to be performed.

PROJECT - The undertaking to be performed as provided in the CONTRACT DOCUMENTS.

SHOP DRAWINGS - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, supplier or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.

SJVAPCD - San Joaquin Valley Air Pollution Control District

SPECIFICATIONS - A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

STATE STANDARD SPECIFICATIONS - State of California, Department of Transportation Standard Specifications, 2018 Edition. Metric units shall be converted to English unit equivalents where applicable.

CALIFORNIA MANUAL ON TRAFFIC CONTROL DEVICES FOR STREETS & HIGHWAYS - FHWA's MUTCD 2023 Edition, as approved for use in California.

SUBCONTRACTOR - An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.

SUPPLIER - Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

SWPPP - Storm Water Pollution Prevention Plan on file with the City Engineer.

UNI - Uni-Bell Plastic Pipe Association, current designation as of the Bid date unless otherwise specified.

WORK - All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

- 1-2 ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS - The CONTRACTOR may be furnished additional instructions and detail drawings by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

The additional drawings and instructions thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

- 1-3 SCHEDULES, REPORTS AND RECORDS - The CONTRACTOR shall submit to the OWNER such schedules, reports, records and other data as the OWNER may request concerning WORK performed or to be performed. Prior to the first partial payment estimate, the CONTRACTOR shall submit schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part and, as applicable, the dates at which special detail drawings will be required, and respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment. The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK. The CONTRACTOR shall not be entitled to any payment until he has submitted the schedule, reports and records required under this Section. The CONTRACTOR shall revise or update the schedule whenever requested to do so by the ENGINEER.

- 1-4 DRAWINGS AND SPECIFICATIONS - The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the

CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS. Any discrepancies found between the DRAWINGS AND SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

The OWNER will furnish to the CONTRACTOR, free of charge, all copies of DRAWINGS AND SPECIFICATIONS reasonably necessary for the execution of the WORK. The CONTRACTOR shall keep one copy of all current DRAWINGS AND SPECIFICATIONS on the job site, in good order, available to the ENGINEER and his representatives.

ALL DRAWINGS, SPECIFICATIONS, and copies thereof furnished by the OWNER are the property of the ENGINEER. They are not to be used on other work, and, with the exception of the signed Contract set, are to be returned to the ENGINEER on request, at the completion of the WORK.

1-5 PRECEDENCE OF CONTRACT DOCUMENTS - The order of precedence of documents shall be:

1. Rules and Regulations of State Agencies relating to the source of funds for a project.
2. Permits from other agencies as may be required by law.
3. Supplemental Agreements, Change Orders, or Contract, the one dated later having precedence over another dated earlier.
4. Special Conditions.
5. General Conditions.
6. Technical Specifications.
7. Plans.
8. Standard specifications.
9. Standard Plans.

Change orders, supplemental agreements and approved revisions to plans and specifications will take precedence over documents listed above. Detailed plans shall have precedence over general plans.

Whenever any conflict appears in any portions of the contract, it shall be resolved by application of the order of precedence.

1-6 SHOP DRAWINGS - The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. For each item where a SHOP DRAWING is required, the CONTRACTOR shall submit a minimum of six (6) prints. The ENGINEER shall promptly review all SHOP DRAWINGS and retain three sets after his review. All additional copies shall be returned to the CONTRACTOR. If the CONTRACTOR requires more than three prints returned, he shall accordingly increase the number of prints submitted to the ENGINEER. The ENGINEER'S review of any SHOP DRAWINGS shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The review of any SHOP DRAWING which substantially deviates from the requirements of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been reviewed by the ENGINEER. A copy of each SHOP DRAWING and each sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

- 1-7 MATERIALS, SERVICES AND FACILITIES - It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.

Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

Materials, supplies, and equipment shall be in accordance with samples submitted by the CONTRACTOR and reviewed by the ENGINEER.

Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the CONTRACTOR or any SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

- 1-8 INSPECTION AND TESTING - All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS. No work requiring material testing or material inspection shall be performed on Saturdays, Sundays, or City-designated holidays.

All initial compaction and materials tests shall be performed at no expense to the CONTRACTOR. The cost of each subsequent retest shall be paid for by the CONTRACTOR if the first tests fail to meet the required relative compaction or specified strength. Additional materials testing shall be performed by the OWNER at the CONTRACTOR's expense as described in the various sections of the Technical Specifications.

The OWNER shall provide all other inspection and testing services not required by the CONTRACT DOCUMENTS. If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction specifically require any WORK to be inspected, tested, approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will furnish the ENGINEER the required certificates of inspection, testing or approval.

Neither observations by the ENGINEER nor inspections, tests or approvals by persons other than the CONTRACTOR shall relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

The ENGINEER and his representatives will at all times have access to the WORK. In addition, authorized representatives and agents of the OWNER and appropriate Federal or State agencies shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection or testing thereof.

If any WORK is covered contrary to the written request of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.

If any WORK has been covered which the Engineer has not specifically requested to observe prior to its being covered, or if the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

- 1-9 SUBSTITUTIONS - Wherever a material, article or piece of equipment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.
- 1-10 PATENTS - The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, but if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.
- 1-11 SURVEYS, PERMITS AND REGULATIONS - Control staking by the ENGINEER is limited to providing a reference line and temporary or permanent benchmarks for the CONTRACTOR'S use in staking the project to conform to the plans. Center line monuments will be referenced by the ENGINEER to facilitate replacement after the job is completed. Where possible, center line monuments and all other survey monuments in or adjacent to the project shall be preserved. The cost of replacement of monuments, which in the opinion of the ENGINEER need not have been destroyed, shall be deducted from the moneys due or to become due the Contractor for this project. Supplementary construction staking information to be provided by

the ENGINEER shall consist of electronic drawing files in the AUTOCAD format currently in use by the Design Engineer.

When monuments exist that control the location of boundaries, roads, streets, or provide survey control, the monuments shall be located and referenced by or under the direction of a licensed land surveyor or registered civil engineer prior to the time when any streets or other rights-of-way are improved or reconstructed and a corner record or record of survey of the references shall be filed with the County Surveyor. They shall be reset in the surface of the new construction in the manner shown on the DRAWINGS to perpetuate their location and a corner record or record of survey shall be filed with the County Surveyor prior to the recording of a Certificate of Completion for the project. It shall be the responsibility of the CONTRACTOR to provide for the monumentation required by this section.

All construction staking shall be the responsibility of the CONTRACTOR. Construction staking costs shall be included in the unit price of the various items of work and no additional monies shall be paid.

Reference lines and marks set by the ENGINEER shall be carefully preserved by the CONTRACTOR. In case such references or markings are destroyed or damaged by reason of the CONTRACTOR's operations, the cost of restoring them will be deducted from any moneys due or to become due the CONTRACTOR. Unless otherwise shown, all measurements and elevations on the plans are in feet and decimals of a foot.

The CONTRACTOR shall make a general check of all lines, dimensions and elevations and shall make all necessary rechecks during the progress of the WORK to avoid errors in construction. The CONTRACTOR shall be responsible for proper dimensions and fittings of all items of WORK being performed by him. Should any discrepancy be found in lines, dimensions, or elevations, they shall be reported to the ENGINEER immediately.

The CONTRACTOR shall protect all existing property and survey monuments, including survey control monuments for this WORK. Where it is necessary to disturb existing property, survey or control monuments in order to permit the prosecution of the WORK within the permanent and construction right-of-way, such monuments shall be reset by the CONTRACTOR. Such monuments shall not be disturbed during the prosecution of the WORK unless the CONTRACTOR has given the OWNER a minimum of 72 hours notice of the CONTRACTOR'S intent to disturb such monuments during the prosecution of his WORK.

1-12 LICENSE(S) & PERMITS - The CONTRACTOR shall have a City Business License prior to the beginning of WORK. Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be adjusted as provided in Section 1-14, CHANGES IN THE WORK.

1-13 PROTECTION OF WORK, PROPERTY AND PERSONS - The CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property

at the site or adjacent thereto, including trees, shrubs, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He shall erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He shall notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR shall remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

1-14 SUPERVISION BY CONTRACTOR - The CONTRACTOR shall supervise and direct the WORK. He shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR shall employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

1-15 CHANGES IN THE WORK - The OWNER may at any time, as the need arises, order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

The ENGINEER may also, at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or CONTRACT TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change, and the CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

1-16 CHANGES IN CONTRACT PRICE - The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (A) Unit prices previously approved.
- (B) An agreed lump sum.
- (C) If a lump sum or unit price cannot be mutually agreed upon, the CONTRACTOR shall be entitled to the sum of the following costs of doing the extra work:

(1) Direct Labor Costs. Charges for cost of all the labor furnished and used by the CONTRACTOR shall be made for manual classifications up to and including general foreman. It will not include charges for Assistant Superintendents, Superintendents, Office Personnel, Timekeepers, and Maintenance Mechanics. The time charged to extra work shall be subject to the daily approval of the ENGINEER and evidence of such daily approval shall be submitted with the billing.

Labor rates used to calculate the costs shall be those so designated in the Advertisement for Bids. No time or charges will be allowed, except when the men are actually engaged in the proper, efficient, and diligent performance or completion of the extra work as authorized. Overtime shall not be worked without prior approval by the ENGINEER.

(2) Equipment Costs. Charges for the rental and operation of the equipment furnished and used by the CONTRACTOR shall be made for all prime construction and automotive equipment. It will not include charges for equipment or tools with a new cost of \$500.00 or less. Equipment time charges must be subject to the daily approval of the ENGINEER and evidence of such daily approval submitted with the billing. The equipment rental and operation rates used shall be those agreed upon by the ENGINEER and the CONTRACTOR prior to commencement of the extra work. No time or charges will be allowed except when equipment is actually being used for the proper and efficient performance or completion of the extra work as authorized.

(3) Material Costs. Charges for the cost of materials furnished by the CONTRACTOR shall be made providing such furnishing was specifically authorized in the extra work order and the actual use verified by the ENGINEER. Charges must be net cost to the CONTRACTOR delivered at the job, and vendor's invoice must accompany the billing along with verification of use of such materials by the ENGINEER.

(4) Tools, Supplies, Overhead, Supervision, and Profit. A charge for tools, supplies, overhead, supervision and profit will be allowed in the amount of 15% of the total Direct Labor Costs and Material Costs, as defined above, and 5% for work by Subcontractors.

Any extra work performed hereunder shall be subject to all of the provisions of the CONTRACT and the CONTRACTOR'S sureties shall be bound with reference thereto as under the CONTRACT.

1-17 TIME FOR COMPLETION AND LIQUIDATED DAMAGES - The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED and be fully completed in **One Hundred Twenty (120) Calendar**.

Time is of the essence in this agreement. The CONTRACTOR shall proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the

CONTRACT TIME for the completion of the WORK, or specific portions of the WORK, described herein in a reasonable time.

The parties hereto agree that it is extremely difficult and impractical in this case to determine the actual damages the OWNER will suffer if the CONTRACTOR fails to complete the WORK within the CONTRACT TIME and for said reason, if the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER, the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS. The time for completion of the WORK shall be extended, and the CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER:

- A. To any preference, priority or allocation order duly issued by the OWNER.
- B. To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and climatic conditions which, in the opinion of the ENGINEER, make prosecution of the WORK unreasonably difficult.
- C. To any delays of SUBCONTRACTORS occasioned by any of the causes specified in the above paragraphs.

1-18 CORRECTION OF WORK - The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER shall bear the expense of making good all WORK of other contractors destroyed or damaged by such removal or replacement.

1-19 SUSPENSION OF WORK, TERMINATION AND DELAY - The OWNER may, at any time and without cause, suspend the WORK or any portion thereof for a period of not more than ninety (90) days, or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any such suspension.

If the CONTRACTOR is adjudged as bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, material or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all the

materials, equipment, tools, constructing equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess shall be paid to the CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR shall pay the difference to the OWNER.

Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the Contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after the (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the Contract and recover from the OWNER payment for all WORK executed and all expenses sustained. In addition and in lieu of terminating the Contract, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or, if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

1-20 PROGRESS ESTIMATE - On or about the last day of the calendar month, the CONTRACTOR will, except as hereinafter provided, make in writing and certify to the ENGINEER an estimate of the amount and value of the work completed by the CONTRACTOR up to that time in the performance of the Contract. In case of work for which unit prices are named in the Contract, the estimate shall be computed on the basis of said unit prices. In the case of work for which a lump sum is named in the Contract, the CONTRACTOR may use a breakdown of the lump sum price, provided that such breakdown is submitted within 15 calendar days after the execution of the Contract Agreement in a form

acceptable to the ENGINEER. No payment will be made to the CONTRACTOR until such schedule has been submitted to and reviewed by the ENGINEER. To the figure thus arrived at shall be added any amounts due the CONTRACTOR for extra work and the amount of any approved claims for extra costs to the date of the Progress Estimate. The retained percentage hereinafter provided for shall be deducted from the total thus computed; and from the remainder, there shall be further deducted any amounts due the OWNER from the CONTRACTOR for supplies or materials furnished or services rendered and any other amounts that may be due the OWNER under the terms of the Contract. In preparing estimates for partial payments, consideration shall be given to delivery on the site of pipe, valves, fittings and miscellaneous metal which will become a part of the finished construction work and for which payment in full has been made by the CONTRACTOR, but no consideration will be given to preparatory work done or other materials on hand. From the balance thus determined shall be deducted the amount of all previous payments and the remainder shall constitute the partial estimate for that month. Such partial estimates shall not be required to be made by strict measurement, but may be made by measurement or by estimation or partly by one method and partly by the other and it shall be sufficient if they are approximate only. Partial estimates may be withheld or reduced if, in the opinion of the ENGINEER, the CONTRACTOR is not diligently and efficiently endeavoring to comply with the intent of the Contract. No such estimate or payment shall be construed to be an acceptance of any defective work or improper materials. Progress estimates shall be made in the form of itemized invoices in triplicate and shall be submitted together with the data set forth below:

A recapitulation showing balance due current month as follows:

Total Contract Price	_____
Extra Work Ordered	_____
Total Contract Price w/ CCO's	_____
Gross Earnings to Date (Including extra work ordered)	_____
Less 10% of gross Earnings to Date	_____
Net Earnings to Date	_____
Less Previous Claims	_____
Balance Due this Claim	_____

1-21 PROGRESS PAYMENTS - The OWNER will make payments on account of the Contract as follows: Not later than the 30th day of the month following the month in which the Contract is awarded, and the 30th day of each calendar month thereafter, the OWNER will pay to the **CONTRACTOR 95% (5% retention)** of the amount earned by the CONTRACTOR during the preceding month at the rate of prices set forth in the Contract, based on the estimate of the CONTRACTOR as reviewed and approved by the ENGINEER. At the request and expense of the CONTRACTOR 100% of the amount earned, which is funded by non-federal moneys, will be paid as specified above provided securities are substituted for the retention withheld. Securities shall be deposited with the OWNER or with a State or federally chartered bank as the escrow agent. In the event the securities are to be deposited with an escrow agent, CONTRACTOR agrees to execute any and all necessary documents including an escrow

agreement substantially similar to the form set forth in Public Contract Code, Section 22300. Securities eligible for substitution shall include those listed in Section 16430 of the Government Code or bank or savings and loan certificates of deposit. The CONTRACTOR shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon. If the OWNER fails to make payment by the date specified above, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is received by the CONTRACTOR.

The retention will be held by the OWNER or the securities will be held by the OWNER or escrow agent until thirty five (35) days following filing of the Notice of Completion.

1-22 FINAL ESTIMATE - Upon completion of the contract and final inspection and acceptance by the ENGINEER, the ENGINEER shall prepare a final estimate of quantities and the value of such work and the OWNER shall pay to the CONTRACTOR the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be retained under the provisions of the CONTRACT. All prior progress estimates and payments shall be subject to correction in the final estimate and payment.

1-23 ACCEPTANCE & FINAL PAYMENT - Upon receipt of the WRITTEN NOTICE from the CONTRACTOR that the WORK is ready for final inspection and acceptance, the ENGINEER will promptly make such inspection, and when he finds the WORK acceptable under the CONTRACT, and the CONTRACT fully performed, he will promptly issue a final certificate, over his own signature, stating that the WORK required by this Contract has been completed and recommending acceptance of the Work by the OWNER. The OWNER, after acceptance of the work by City Council, then shall issue a formal Notice of Acceptance, and the entire balance found to be due shall be paid to the CONTRACTOR by the OWNER thirty five (35) days from the date of recording by the OWNER of the Notice of Acceptance of all WORK covered by this Contract.

Before issuance of the Notice of Acceptance, the CONTRACTOR shall submit evidence satisfactory to the OWNER that all payrolls, materials bills, and other indebtedness connected with the WORK have been paid, or if not paid, then the CONTRACTOR shall submit evidence of the status of any unpaid indebtedness.

The making and acceptance of the final payment shall constitute a waiver of all claims by the OWNER except the following:

- A. those arising from unsettled liens;
- B. those arising from faulty work appearing within twelve (12) months after the date of filing of the Notice of Acceptance;
- C. those arising from failure to meet the requirements of the SPECIFICATIONS; or,
- D. those arising from manufacturers' guarantees.

It shall also constitute a waiver of all claims by the CONTRACTOR except those previously made and still unsettled.

All prior certificates upon which partial payment may have been made, being merely estimates, shall be subject to a correction on the final certificate.

- 1-24 QUANTITIES & UNIT PRICES - The quantities noted in the schedule are approximations for comparing BIDS, and no claim shall be made against the OWNER for excess or deficiency therein. Payment at the unit or lump sum prices set forth in the schedule will constitute payment in full for the completed WORK and will include materials, supplies, labor, tools, machinery, and all other expenditures incident to satisfactory compliance with the Contract, unless otherwise specifically provided.

The quantities of WORK performed will be computed for payment by the ENGINEER on the basis of measurements taken by the ENGINEER, and these measurements shall be final and binding.

- 1-25 PROOF OF CARRIAGE OF INSURANCE - CONTRACTOR shall furnish such insurance coverage as indicated in the section "INSURANCE REQUIREMENTS FOR CONTRACTORS".

- A. "General Liability Special Endorsement"
- B. "Automobile Liability Special Endorsement"
- C. "Workers' Compensation/Employees Liability Special Endorsement"
- D. "Certificate of Insurance"

All of the above to be submitted prior to execution of this agreement.

Insurance shall be provided by an insurance company licensed to transact such business in the State of California with a current A.M. Best's rating of no less than A:VII. Liability insurance shall be written on an "occurrence" basis.

CONTRACTOR shall furnish OWNER, through the ENGINEER, concurrently with the execution thereof, with satisfactory proof of carriage of the insurance required and that each carrier shall give OWNER at least thirty (30) days prior notice of the cancellation of any policy during the effective period of this contract.

- 1-26 CONTRACT SECURITY - The CONTRACTOR shall, within ten (10) days after the receipt of the NOTICE OF AWARD, furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS.

Such bonds shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the State of California. The bonding company shall be an admitted surety holding a certificate of authority to transact surety insurance in California issued by the Insurance Commissioner. The expense of these bonds shall be borne by the CONTRACTOR. If at any time a surety on any such bond is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such bond(s) shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the OWNER.

- 1-27 ASSIGNMENTS - Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligation thereunder, without written consent to the other party.

1-28 INDEMNIFICATION - The CONTRACTOR will indemnify and hold harmless the OWNER and their officers, agents, employees, from and against all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from the performance of the WORK, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, or any SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the OWNER, his agents or employees arising out of the preparation or review of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, design or SPECIFICATIONS.

1-29 SEPARATE CONTRACTS - The OWNER reserves the right to let other contracts in connection with this PROJECT. The CONTRACTOR shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S work depend upon the work of any other contractor, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other contractors who are parties to such contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

If the performance of additional WORK by other contractors or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the Contract, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entitles him to an extension of the CONTRACT TIME, he may make a claim therefore as provided in Sections 1-14 and 1-15.

1-30 SUBCONTRACTING - The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

The CONTRACTOR shall perform with its own organization contract work amounting to **not less than 30 percent** of the total original contract bid price, excluding any specialty items designated by the OWNER. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the CONTRACTOR'S organization (23 CFR 635).

The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS in so far as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that

the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

Nothing contained in this Contract shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

- 1-31 ENGINEER'S AUTHORITY - The ENGINEER shall act as the OWNER'S representative. He shall decide questions which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

The CONTRACTOR will be held strictly responsible to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.

The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

- 1-32 LAND AND RIGHTS-OF-WAY - Prior to issuance of the NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.

The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired. The CONTRACTOR shall provide, at his own expense and without liability to the OWNER, any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

- 1-33 GUARANTY - Unless stipulated otherwise in the SPECIFICATIONS, the CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of completion. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of completion of the system that the completed system is free from all defects due to faulty materials and workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

- 1-34 TAXES - The CONTRACTOR shall pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed.

- 1-35 CONTRACTOR'S UNDERSTANDING - It is understood and agreed that the CONTRACTOR has, by careful examination, satisfied himself as to the nature and extent of the WORK, the character, quality, and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the WORK, the general and local conditions, and all other matters which can in any way affect the WORK under this Contract. No verbal agreement or conversation with any officer, agent or employee of the OWNER, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

- 1-36 ACCIDENTS - The CONTRACTOR shall provide, at the site, such equipment and medical facilities as are necessary to supply first-aid service to anyone who may be injured in connection with the WORK. The CONTRACTOR must promptly report in writing to the ENGINEER all accidents whatsoever arising out of, or in connection with the performance of the WORK, whether on or adjacent to the site which causes death, personal injury, or property damages are caused, the accident shall be reported immediately by telephone or messenger to both the ENGINEER and the OWNER. If any claim is made by anyone against the CONTRACTOR or any SUBCONTRACTOR on account of any accident, the CONTRACTOR shall promptly report the facts in writing to the ENGINEER, giving full details of the claim.
- 1-37 SAFETY AND SANITATION - The CONTRACTOR shall provide adequate safety and sanitation facilities according to State Laws and local ordinances.
- 1-38 CLIMATIC CONDITIONS - The ENGINEER may order the CONTRACTOR to suspend any WORK that may be subject to damage by climatic conditions. The CONTRACTOR may suspend WORK if climatic conditions are such that the CONTRACTOR is unable to work. In such case, the CONTRACTOR, within seven (7) days, shall request in writing a CHANGE ORDER to extend the CONTRACT TIME.
- 1-39 OFFICIALS NOT TO BENEFIT - No official of the OWNER shall receive any benefit that may arise by reason of this Contract.
- 1-40 CLEAN-UP - During the progress of the WORK, the CONTRACTOR shall maintain the site and related structures and equipment in a clean, orderly condition and free from unsightly accumulations of rubbish. Upon completion of the WORK, the CONTRACTOR shall remove from the vicinity of the WORK all plants, buildings, rubbish, unused materials, concrete forms, temporary bridging, and other like material, belonging to him or used under his direction during construction, and in the event of his failure to do so, the same may be removed by the OWNER after ten (10) calendar days notice to the CONTRACTOR at the expense of the CONTRACTOR, and his surety or sureties shall be liable therefore.

As part of the final clean-up, the CONTRACTOR shall dress up and grade the right of way to match existing ground surfaces, and shall remove therefrom all weeds and other growth. Where the construction has crossed yards or driveways, they shall be restored to a condition equivalent to the condition existing prior to the construction as determined by the ENGINEER.

No direct payment will be made to the CONTRACTOR for any clean-up work, but all compensation therefore shall be included in the prices BID in the schedule for the various items of work.

- 1-41 UNFAIR BUSINESS PRACTICES CLAIMS; ASSIGNMENT TO AWARDING BODY - In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the CONTRACTOR or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract: This assignment shall be made and become effective at the time the awarding body tenders final payment to the CONTRACTOR, without further acknowledgment by the parties.

- 1-42 CONSTRUCTION RECORD DRAWINGS - The CONTRACTOR shall maintain a neatly marked set of record drawings showing the final locations and layout of all piping and conduit, structures, and other facilities. Drawings shall be kept current weekly, in full accordance with and showing all field instructions, change orders and construction adjustments. Drawings shall indicate location of subgrade structures left in place.

Drawings shall be subject to the inspection of the ENGINEER at all times and progress payments may be withheld if drawings are not current. At the final inspection the CONTRACTOR shall submit to the inspector, for review and comment by the ENGINEER, one (1) set of marked record drawings. Drawings shall be stamped "AS BUILT", dated, and signed by the CONTRACTOR. The work will not be formally accepted until the drawings are accepted by the ENGINEER.

- 1-43 STATE LABOR STANDARDS PROVISIONS - State prevailing wage rates shall apply when the State wage rate is higher than the federal wage rate. All CONTRACTORS and SUBCONTRACTORS are subject to the application of Section 1720 et seq. of the California Labor Code which details the regulations and procedures governing the payment of State prevailing wages.

All CONTRACTORS and SUBCONTRACTORS are subject to the provisions of Section 3700 of the California Labor Code which requires that every employer be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the code.

All CONTRACTORS and SUBCONTRACTORS are subject to the provisions of Section 1810-1814 of the California Labor Code which provide that the maximum hours a worker is to be employed is limited to eight (8) hours a day and forty (40) hours a week and the CONTRACTOR or SUBCONTRACTOR shall forfeit, as a penalty, twenty-five (\$25) dollars for each worker employed in the execution of the Contract for each calendar day during which a worker is required or permitted to labor more than eight (8) hours in any calendar day or more than eight (8) hours in any calendar day or more than forty (40) hours in any calendar week and is not paid overtime.

Section 1815 of the California Labor Code requires that, notwithstanding the provision of Sections 1810-1814, employees of CONTRACTORS who work in excess of eight (8) hours per day and forty (40) hours per week shall be compensated for all hours worked in excess of eight hour per day at not less than 1-1/2 times the basic rate of pay.

- 1-44 PAYROLL RECORDS - Each CONTRACTOR and SUBCONTRACTOR shall keep an accurate payroll record showing the name, address, Social Security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him in connection with the WORK. Such records shall be certified and available for inspection at all reasonable hours at the principal office of the CONTRACTOR as required by Labor Code Section 1776. Certified payrolls shall be submitted to OWNER weekly. Fringe benefit statements and apprenticeship agreements will be submitted with the project's first certified payroll or when there are mandated changes in the fringe benefits or when new apprentices are employed.

- 1-45 OVERTIME INSPECTION FEES - The CONTRACTOR shall pay CITY for all overtime inspection in accordance with existing resolutions or fee schedule of the CITY unless the charges for such inspection have been specifically waived elsewhere within this Contract. Overtime inspection charges will be made for all inspections on Saturdays, Sundays, and

CITY-designated holidays, and hours worked by the inspector other than those of the normal CITY working day.

- 1-46 CLAIMS FOR ADDITIONAL TIME - Extension of time, when granted, will be based upon the effect of delays to the WORK as a whole and will not be granted for non-controlling delays to minor included portions of the WORK unless it can be shown that such delays did, in fact, delay the progress of the WORK as a whole. The CONTRACTOR shall not be entitled to damages or additional payment due to these delays except when CITY is responsible and the delay is unreasonable under the circumstances involved, and not within the contemplation of the parties. No compensation for WORK delays prior to the original Contract duration shall be paid.

If delays are caused by unforeseen events beyond the control of the CONTRACTOR, such delays will entitle the CONTRACTOR to an extension of time as provided herein. War, governmental regulations, priorities, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of WORK, other similar action of the elements, inability to obtain materials, equipment or labor because of Federal Government restrictions arising out of the National Defense or War Program, required "Extra Work", action or inaction by the CITY, or other specific reasons as may be further described in the Specifications may constitute such a delay.

If the CONTRACTOR is delayed by the failure of the CITY to furnish necessary rights of way or materials agreed to be furnished by it, or by failure to supply necessary plans or instructions concerning the WORK, after written request therefore, the CONTRACTOR shall be entitled to an extension of time as provided herein.

- 1-47 RECYCLING - The City of Madera encourages all CONTRACTORS, SUBCONTRACTORS, vendors and suppliers to recycle in accordance with current industry best practices and as required by the State of California recycling of construction materials.

All asphalt concrete to be removed shall be removed by grinding and the grindings shall become City-Owned Material and shall be hauled to the **Talley Sand & Gravel at 12483 Road 29, Madera, California, and dispose of at that location as specified by the Engineer.**

Construction and demolition debris generated under a city issued building, renovation, or demolition permit and equal to or exceeding eight cubic yards of material by volume shall have necessary mixed and/or source separated C&D recycling bin(s) or roll-off boxes for the removal and recycling of all construction and demolition debris from the project site. The project permittee, designated hauler, or recycler shall provide to the City of Madera a monthly C&D report which contains at a minimum the construction site address, weight of material hauled, date hauled, material type, recycling facility name and address, and assurances from the recycling facility that a minimum of 50% of the C&D material has been recycled.

The city will provide the proper documentation form: however, other forms of documentation can be used as long as it is deemed by city staff to be acceptable and complete. See appendix for debris management report.

- 1-48 COLLECTION, TRANSPORT OF ALL CONSTRUCTION AND DEMOLITION DEBRIS - The City of Madera requires all Contractors, Subcontractors, vendors and suppliers to utilize Mid Valley Disposal for collection, transportation, and reporting of all construction and demolition debris.

Attachment J

Section 2, Special Conditions

SECTION 2
SPECIAL CONDITIONS

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SECTION 2

SPECIAL CONDITIONS

2-1 REQUIREMENTS - It is required that there be constructed and completed in accordance with "WIDENING AND INTERSECTION IMPROVEMENTS – OLIVE AVENUE AND KNOX STREET"

2.2 DESCRIPTION OF THE WORK - The principal components of the WORK to be performed under these CONTRACT DOCUMENTS included but are not limited to the following:

The work in general consists of widening and intersection improvements to Olive Avenue and Knox Street, to Arterial Street standards, including: concrete curbs, gutters, sidewalk and ADA ramps, installation of sewer manhole, installation of water mains and service, fire hydrants, and installation of storm drain pipelines and drainage structures. Street construction includes removal of existing pavements, grading of roadway subgrade, placing aggregate base, and asphalt concrete paving. Also included is the installation of traffic signals, installation of streetlight and electrical systems, and installation of electrical meter for street lighting.

2-3 LABOR - If any SUBCONTRACTOR or person employed by the CONTRACTOR shall appear to the ENGINEER to be incompetent or to act in a disorderly or improper manner, they shall be removed immediately on the request of the ENGINEER, and that person shall not again be employed on the work.

No person whose age or physical condition is such as to make his employment dangerous to his health and safety or to the health and safety of others shall be employed on the work, and in no event shall any person under the age of sixteen (16) years be employed.

The work shall at all times be executed under safe working conditions, and the conditions of work shall be subject to inspection and correction by the ENGINEER or safety inspectors of the OWNER.

2-4 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK - The CONTRACTOR shall commence WORK and shall complete all of the WORK in accordance with the schedule and within the time stated in the BID. The capacity of the CONTRACTOR's construction plant, sequence of operations, method of operations, and the forces employed shall, at all times during the continuance of the Contract, be subject to the approval of the ENGINEER and shall be such as to ensure the completion of the WORK in accordance with the required schedule and within the time specified.

2-5 SCHEDULE OF WORK - The CONTRACTOR shall submit a schedule of work for the improvements for review at the pre-construction meeting. This schedule shall indicate the date the CONTRACTOR will obtain any and all permits from outside agencies, including a permit from the Division of Industrial Safety for any excavation five (5) feet or more in depth. This schedule shall show all items of work and expected construction times for each item. This schedule shall be revised every two (2) weeks as required and submitted to the ENGINEER. The ENGINEER may withhold progress payments for failure of the CONTRACTOR to submit a schedule of work.

2-6 SEQUENCE OF WORK - The CONTRACTOR shall schedule work with the utmost diligence and execute the work expeditiously so as to minimize public inconvenience.

2-7 RESPONSIBILITY REGARDING EXISTING UTILITIES AND PRIVATE PROPERTY - The existence and location of public and private utilities indicated on the DRAWINGS are not guaranteed and any additional utilities and facilities not shown on the DRAWINGS shall be investigated and protected by the CONTRACTOR. The CONTRACTOR shall be held responsible for damage to and for maintenance and protection of existing pipelines, irrigation facilities, public utilities, driveways, alleys, sidewalks, curbs and gutters, and existing fences.

Excavation in the vicinity of existing public utility structures, underground electrical or telephone cable, oil or gas pipelines, and waterlines shall be carefully done by hand. The CONTRACTOR shall adequately protect all adjoining property and structures from damage, whether within or without of the OWNER-furnished rights-of-way, and shall be fully responsible for any damage to adjoining property and structures which may result from WORK done under this Contract. Unless otherwise provided, the CONTRACTOR shall repair or replace all existing improvements (e. g. curbs, sidewalks, driveways, fence, signs, utilities, street surfaces, structures, sprinkler, etc.) damaged or removed as a result of his operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension, whether within the right-of-way or on private property. All repairs and replacements for items on private properties shall be made within seven (7) calendar days.

All costs to the CONTRACTOR for protecting, removing and restoring existing improvements shall be included in the various bid items and no separate payment will be made therefore.

It shall be the CONTRACTOR's responsibility to notify the Underground Service Alert (USA) Organization for utility undergrounding permits per Section 4216 of the Government Code. The CONTRACTOR shall obtain all identification numbers and certifications required for underground utility locations prior to starting excavation within the project limits of work. The USA North's - Underground Service Alert phone number is 811/1-800-227-2600.

The CONTRACTOR shall use extreme care during construction to prevent damage from dust to adjacent property. The CONTRACTOR shall sprinkle the areas where the passage or operation of vehicles and equipment creates a dust problem, or take other preventive measures as directed by the ENGINEER. The CONTRACTOR shall furnish all labor, equipment, materials and means required to control dust which is in any way a result of the CONTRACTOR'S operations.

The CONTRACTOR shall be responsible for all damage or injury which may result to property, outside of the construction right-of-way or within the right-of-way where so noted, from the CONTRACTOR'S operations hereunder, or otherwise, from the performance of this Agreement or failure of performance of this Agreement by said CONTRACTOR or any of his subcontractors or employees.

2-8 PROJECT SITE MAINTENANCE - Throughout all phases of construction, including suspension of work, and until final acceptance of the project, the CONTRACTOR shall keep the work site clean and free from rubbish and debris. The CONTRACTOR shall also abate dust nuisance by cleaning, sweeping and sprinkling with water or other means as necessary.

CONTRACTOR shall maintain site in accordance with the City of Madera NPDES Permit for their storm drainage system. Copy of said permit is available at the office of the City of Madera ENGINEER.

Materials and equipment shall be removed from the site as soon as they are no longer necessary. Upon completion of the work and before final inspection, the entire work site shall be cleared of equipment, unused materials and rubbish so as to present a satisfactory clean and neat appearance. All cleanup, dust control, and project site maintenance costs shall be absorbed in the CONTRACTOR'S bid.

- 2-9 NOTIFICATION - All homeowners and businesses affected by the construction shall be notified five (5) days in advance of the Work. The notification shall be in a form of a written posting, stating the time and date that the activities will take place. Should work not occur on the specified day, a new notification will be distributed. Suitable signs shall be posted 48 hours prior to the surfacing. "No Parking" signs shall include the wording, "Vehicle Code Section 22654".

- 2-10 WATER SUPPLY - Water will be available to the CONTRACTOR for the performance of the WORK from assigned City fire hydrants. CONTRACTOR will be billed monthly for metered fire hydrant water. Prior to the use of any hydrant, the CONTRACTOR shall notify the Madera Public Works Department and a representative from the Public Works Department will install a meter furnished by the Public Works Department on the fire hydrant. It will be the CONTRACTOR'S responsibility to convey the water to the work site. Regardless of the method of conveyance chosen, it shall not be cause for closure of any streets nor shall it create a nuisance to nearby residents. The CONTRACTOR is responsible for security of the City-furnished meter. An air gap shall be maintained between the hose or pipe discharge to prevent possible backflow in the event of distribution system pressure loss. Payment of work specified above shall be included in the unit and lump sum prices bid in the schedule for the various items of WORK. **See Appendix C for additional requirements.**

- 2-11 MATERIALS FURNISHED BY OWNER - No labor, material, or other facilities shall be provided by the OWNER unless otherwise indicated on the DRAWINGS or in the SPECIFICATIONS.

- 2-12 MATERIALS FURNISHED BY CONTRACTOR - Unless otherwise stipulated, the CONTRACTOR shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary for the execution and completion of the WORK.

- 2-13 REQUEST FOR EXTENSION OF TIME - No extension of time shall be made for delay occurring more than seven (7) calendar days before a claim is made therefore in writing to the ENGINEER. In the case of a continuing cause of delay, only one claim is necessary.

- 2-14 RIGHTS-OF-WAY - The CONTRACTOR shall not be entitled to extra compensation for hardships and increased cost caused by the WORK being adjacent to telephone-telegraph lines and guide wires, power lines and guide wires, buildings, fences, pipelines, ditches, roadways, and other obstacles, which may physically restrict or limit the use of construction equipment. In some cases, such physical confinement may necessitate special methods of construction of the WORK. If the CONTRACTOR desires to utilize additional area, he shall obtain the necessary written approvals from the landowner.

No additional compensation shall be paid to the CONTRACTOR for the cost of obtaining additional right-of-way or for the inability to obtain such.

2-15 TRAFFIC CONTROL, CONSTRUCTION SIGNS, BARRICADES, AND LIGHTS

2-15.1 TRAFFIC SAFETY AND ACCESS - The CONTRACTOR'S operations shall cause no unnecessary inconvenience. The access rights of the public shall be considered at all times. A schedule of work shall be submitted to the ENGINEER for approval prior to the start of construction. CONTRACTOR shall immediately notify ENGINEER of any changes to the approved schedule.

The CONTRACTOR shall submit a traffic control plan to the ENGINEER for approval before the start of construction.

The CONTRACTOR shall backfill all trenches at the end of each working day. The CONTRACTOR shall place and compact backfill in trenches as required to obtain a stable foundation daily for traffic use. In paved areas, three (3) inches of "cold mix" asphalt concrete shall overlay the compacted backfill and be installed daily. Temporary paving work shall be completed to the satisfaction of the ENGINEER. A stockpile of "cold mix" asphalt concrete shall be kept at the project site. There shall be no exception to this requirement.

Public ingress-egress to all streets including driveway access for residences and businesses shall be maintained at all times.

Where necessary, the CONTRACTOR shall place ramps, temporary driveways or steel plates.

Work will not be permitted on Sundays. The CONTRACTOR must submit an application for Saturday work at least 7 (seven) days in advance of the Saturday in question. Overtime expenses will be charged to the CONTRACTOR for approved Saturday work.

Before the CONTRACTOR commences work, he shall discuss with the ENGINEER his proposal for controlling access during the work.

All costs to the CONTRACTOR for complying with the provisions of this section shall be included in various bid items and no separate payment will be made.

2-15.2 PUBLIC SAFETY - The CONTRACTOR shall have at the work site copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders and General Industrial Safety Orders issued by the State Division of Industrial Safety. He shall comply with the provisions of these and all other applicable laws, ordinances and regulations.

2-15.3 TRAFFIC CONTROL - The CONTRACTOR shall be solely and completely responsible for furnishing, installing and maintaining all warning signs and devices, necessary to safeguard the general public and the work, and to provide for the proper and safe routing of the vehicular and pedestrian traffic during the performance of the work. This requirement shall apply continuously and not be limited to normal working hours. All traffic control devices left in use over-night shall be illuminated. Arrow boards will be required for lane closures. The CONTRACTOR shall submit a plan showing traffic control measures and/or detours for vehicles and pedestrians affected by the construction to the ENGINEER for review and approval. This plan shall be submitted a minimum of five (5) working days prior to the start of work within the street right-of-way. The CONTRACTOR will not be allowed to begin work until an approved plan is on file

with the ENGINEER. Approval by the ENGINEER shall in no way relieve the CONTRACTOR from maintaining proper controls at all times.

- 2-16 STORAGE OF EQUIPMENT AND MATERIALS - Construction equipment shall not be stored in streets, roads or highways without obtaining the approval of the ENGINEER, and then not for more than five (5) days after unloading. All materials or equipment not installed or used in the construction within five (5) days after unloading shall be stored elsewhere by the CONTRACTOR at his expense unless he is authorized additional storage time. Construction equipment shall not be stored at the work site before its actual use on the work and not for more than five (5) days after it is no longer needed on the work. Time necessary for repair or assembly of equipment may be authorized by the ENGINEER.
- 2-16.1 STOCK PILE SITES - Any sites for stockpiling shall be clean and free of objectionable materials and shall be located outside the street right-of-way in a location identified by the ENGINEER. Arrangements for these sites shall be the responsibility of the CONTRACTOR. If on private property, a written agreement with the Owner shall be provided to the ENGINEER prior to commencing operations.
- 2-17 GENERAL PROVISIONS - The specification of any action or remedy that may be taken by the OWNER or the ENGINEER pursuant to the terms hereof for the failure of the CONTRACTOR to perform this Contract or for the breach hereof or for indemnity shall not be the exclusive action or remedy of the OWNER or the ENGINEER, but shall be cumulative with all other actions, rights, and remedies contained herein
- 2-18 CLEAN AIR ACT OF 1970 ET SEQ. AND FEDERAL WATER POLLUTION CONTROL ACTS AS AMENDED BY THE CLEAN WATER ACT OF 1977 - CONTRACTOR agrees to comply with Federal clean air and water standards during the performance of this Contract. The CONTRACTOR shall provide a Storm Water Pollution Prevention Plan (SWPPP) or a Water Pollution Control Program (WPCP) plan as is applicable for the project and shall be prepared and submitted for approval prior to the start of the work. The plan shall be prepared by an authorized QSD and approved by the CITY ENGINEER.

The Contractor shall coordinate with the City of Madera and file a Notice of Intent (NOI) to comply with associated construction activity of this project with the State Water Resources Control Board, and shall pay the fees required. The CONTRACTOR and SUBCONTRACTORS shall be regulated by the general construction permitting. The City's Storm Water Pollution Prevention Plan (SWPPP) is on file at the office of the City ENGINEER.

Full compensation for furnishing labor, materials, tools, equipment and incidentals for doing all work for compliance with this special condition shall be included in the Contract BID ITEM price or within the various BID items and no additional compensation will be allowed therefore.

- 2-19 AWARD OF CONTRACT - The award of contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed.
- 2-20 HAZARDOUS MATERIAL AND CHANGED CONDITIONS
- A. The CONTRACTOR shall promptly, and before the following conditions are disturbed, notify the ENGINEER, in writing, of any:

1. Material that the CONTRACTOR believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, which is required to be moved to a Class I, Class II, or Class III disposal site in accordance with provision of existing law.
 2. Subsurface or latent physical conditions at the site differing from those indicated.
 3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.
- B. The ENGINEER shall promptly investigate the conditions, and if he finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the CONTRACTOR's cost of or time required for performance of any part of the work, the CONTRACTOR shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The CONTRACTOR shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.
- C. In the event that a dispute arises between the ENGINEER and the CONTRACTOR whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the CONTRACTOR'S cost of or time required for performance of any part of the work, the CONTRACTOR shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The CONTRACTOR shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

2-21 ACCESS TO PROPERTY - Pedestrians and vehicular access to properties shall be provided and maintained at all times. Exceptions include during the actual placing of concrete or, for very short periods, during paving operations. Access shall be safe and reasonable for pedestrians and for motor vehicles used by property owners and emergency vehicles (fire, police, and ambulance). The ENGINEER will make the sole determination of what is safe and reasonable.

2-22 HOURS OF LABOR - The CONTRACTOR shall forfeit, as penalty to the OWNER, the sum of twenty-five (\$25.00) for each laborer, worker, mechanic, and any subcontractor under him for each calendar day during which such laborer, worker, mechanic or subcontractor is required or permitted to labor more than eight (8) hours in violation of this stipulation.

Overtime and shift work may be established as a regular procedure by the CONTRACTOR with reasonable notice and written permission of the ENGINEER. No work other than overtime and shift work established as a regular procedure shall be performed between the hours of 6:00 p.m. and 7:00 a.m. nor on Saturdays, Sundays or City holidays, except such work as is necessary for the proper care and protection of the work already performed, or in case of an emergency.

City holidays shall be defined as those holidays annually observed by the City. These are: New Years Day, Martin Luther King's Birthday, President's Day, Good Friday (4hrs), Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving Day and Christmas Day, (a total of 11½

days). City staff shall not work on City recognized Holidays unless the Contractor agrees to cover the cost of staff time.

CONTRACTOR agrees to pay the costs of overtime inspection except those occurring as a result of overtime and shift work established as a regular procedure. Overtime inspection shall include inspection required during holidays, Saturdays, Sundays and weekdays. Costs of overtime inspection will cover engineering, inspection, general supervision and overhead expenses which are directly chargeable to the overtime work. CONTRACTOR agrees the ENGINEER shall deduct such charges from payment due the CONTRACTOR.

2-23 DUST CONTROL - CONTRACTOR shall prepare and provide a dust control plan in accordance with San Joaquin Valley Unified Air Pollution Control District requirements. Said plan shall be approved prior to start of construction. All cost for preparing said plan and acquiring approval shall be included in CONTRACTOR's bid. Dust control requirements shall be included in all construction contract specifications. These construction contract specifications shall include the following San Joaquin Valley Unified Air Pollution Control District's Regulation VIII, Rule 8020 fugitive dust mitigation requirements for the control of fine particulate matter (PM10) from construction activities:

"All disturbed areas of a construction site, including storage piles of fill dirt and other bulk materials, which are not being actively utilized for construction purposes for a period of seven calendar days or more, shall be stabilized using one or more of the following approved soil stabilization methods to effectively limit visible dust emissions. Where soil moisture or natural crusting is sufficient to limit visible dust emission, no action is required. Disturbed areas shall be stabilized for the duration of the construction activity or until construction work resumes on the inactive disturbed area.

- a. Where water is used as the dust suppressant, watering shall be applied to effectively limit visible dust emissions; or
- b. Where a chemical dust stabilizer or suppressant, watering shall be applied to effectively limit visible dust emission; or
- c. Where planting of trees and vegetative ground cover is utilized, vegetation shall be planted in sufficient density and watered with sufficient frequency to effectively stabilize the disturbed area and limit visible dust emissions.

All operations shall effectively limit visible dust emissions from on-site unpaved roads and off-site unpaved access roads using one or more of the following stabilization methods. Road stabilization shall be maintained for the duration of the activity. Where soil moisture is sufficient to meet this requirement, no action is required.

- a. Where water is used as the dust suppressant, watering shall be applied to effectively limit visible dust emissions.
- b. Where a chemical dust stabilizer or suppressant is used, the stabilizer or suppressant shall be applied to effectively limit visible dust emissions.

No person shall undertake any land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill operations, or demolition activities, without utilizing appropriate dust control measures during the land preparation, demolition, excavation or extraction. Appropriate dust control measures may consist of the effective application of water or pre-soaking.

All operations shall limit track-out and expeditiously remove the accumulation of mud or dirt from public paved roads, including shoulders, adjacent to the site. Removal activities must comply with local requirements and procedures.

In addition to restrictions imposed by local agencies, the use of dry rotary brushes for removal of deposited mud/dirt carryout from a paved road shall be prohibited, except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. The use of blower devices for removal of deposited mud/dirt carryout from subject paved roads shall be prohibited.”

2-24 NOISE CONTROL - Noise generating construction equipment activities shall be limited to 7:00 a.m. to 6:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on Saturdays. No noise generating construction activities shall be permitted on Sundays and holidays.

All construction equipment shall be maintained according to manufacturers' specifications and noise generating construction equipment shall be equipped with mufflers.

2-25 CLEAN-UP - The CONTRACTOR shall clean up the job site prior to acceptance of the WORK. All dirt, spoil, and debris of any nature shall be removed and the entire site shall present a clean, workmanlike appearance. Any damage to paint work caused from spillage or splattering, or from prime coating, paving or seal coating operations shall be corrected. All areas such as man-ways, gutters, and intersections shall have the surfacing mix removed as specified by the ENGINEER. The CONTRACTOR shall remove, on a daily basis, any debris associated with the performance of the WORK.

2-26 SPREADING EQUIPMENT - Except as herein specified, pavers shall be capable of spreading and finishing asphalt concrete true to line, grade and crown as required in State Standard Specification, Section 39.

- Pavers shall be equipped with quick and efficient steering devices and shall have reverse as well as forward travelling speeds;
- Pavers shall have a receiving hopper of sufficient capacity to permit a uniform spreading operation. The hopper shall be equipped with distributing screws of the reversing type to place the mixture uniformly in front of the screed;
- The screed shall be equipped with a controlled heating device for use when required. The screed shall strike off the mix to the depth and cross section specified without the aid of manual adjustments during operations;
- Particular attention shall be directed to the setting, clearance and wear condition of the tamper bar on paver screeds so equipped.

2-27 24-HOUR CUSTOMER ACCESS - Service Provider must respond to calls from customers or the City concerning leaks, loss of service and other problems associated with installations on a 24-hour per day basis. Service Provider must respond within one (1) hour of receiving the call and mobilize to correct any problems within three (3) hours of receiving the call.

Attachment K

Section 3, City of Madera Standard Specifications and Drawings

SECTION 3

STANDARD SPECIFICATIONS AND PLANS CHECKLIST

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SECTION 3

STANDARD SPECIFICATIONS AND PLANS

The following indicated provisions of the City of Madera's Standard Specifications, dated April 2005, are hereby referred to and incorporated herein as though set forth in full.

The Standard Specifications and Standard Drawings are available online at www.madera.gov, click on Departments, then on the left panel select Engineering and click on Standard Drawings and Specifications. These online specifications and drawings are the most current, approved issue.

SECTION	TITLE
1.	TERMS, DEFINITIONS
2.	SCOPE AND CONTROL OF THE WORK
3.	CHANGES IN WORK
4.	CONTROL OF MATERIALS
5.	UTILITIES
6.	PROGRESS AND ACCEPTANCE OF WORK
7.	CONTRACTOR'S RESPONSIBILITIES & CONDUCT
8.	MEASUREMENT AND PAYMENT
9.	RESERVED
10.	CLEARING AND GRUBBING
11.	EXCAVATION & GRADING
12.	AGGREGATE SUBBASE AND AGGREGATE BASE
13.	ASPHALT CONCRETE PAVEMENT
14.	CONCRETE IMPROVEMENTS
15.	TRAFFIC DIVIDER ISLANDS
16.	TRENCHING AND TRENCH RESURFACING
17.	SANITARY SEWER PIPE AND APPURTENANCES
18.	BIKE LANE GUIDELINES
19.	JACKING PIPE
20.	STORM DRAINAGE PIPING AND STRUCTURES
21.	DOMESTIC WATER FACILITIES DESIGN CRITERIA
22.	WATER FACILITIES
23.	TRAFFIC SIGNALS
24.	DEMOLITION OF BUILDINGS
25.	PLANTING AND IRRIGATION SYSTEMS
26.	RESERVED
27.	CONSTRUCTION PLAN SUBMITTALS
28.	TRAFFIC STRIPES AND PAVEMENT MARKINGS
29.	CONCRETE MASONRY WALL
30.	ORNAMENTAL STREET LIGHTING
31.	TRAFFIC SIGNALS
32.	"UPS" FOR TRAFFIC SIGNALS

STANDARD PLANS

PLAN NUMBER	TITLE
B-1	FOUR (4) INCH MASONRY WALL
B-2	SIX (6) INCH MASONRY WALL
B-3	CHAINLINK FENCE DETAILS
B-4	COMPLEX DIRECTORY SIGN
B-5	PEDESTRIAN RAMP
B-6	PEDESTRIAN RAMP
E-1	SURVEY MONUMENT
E-2	PROPERTY MONUMENT DETAILS
E-3	ELEVATION BENCHMARK DETAILS
E-4	PARKING LOT REQUIREMENTS
E-5	SPECIFICATIONS PARKING LOT
E-6	PARKING LOT DETAILS
E-7	TYPICAL REFUSE CONTAINER ENCLOSURE DETAILS
S-1	48 INCH SEWER MANHOLE
S-2	60 INCH SEWER MANHOLE
S-3	WASTE WATER SAMPLING MANHOLE
S-4	DROP MANHOLE TYPE "A"
S-5	DROP MANHOLE TYPE "B"
S-6	CAST IRON MANHOLE FRAME AND COVER
S-7	LAMPHOLE SEWER CLEANOUT
S-8	PIPE BEDDING & TRENCH BACKFILL (for concrete encasement, 6" – 24" pipe)
S-9	CONCRETE SUPPORT FOR UNDERCUT PIPELINES 12" OR LARGER
S-10	PIPE BEDDING & TRENCH BACKFILL
S-11	SAND AND GREASE INTERCEPTOR
S-12A	SEWER HOUSEBRANCH CONNECTION DETAILS "A"
S-12B	TEMPORARY CLEANOUT
S-13	HOUSE BRANCH CONNECTIONS
S-14	INSTALLATION OF SEWER PIPE IN JACKED STEEL CASING
SD-1	STORM DRAIN BASIN REQUIREMENTS
SD-2A	STORM DRAIN BASIN OUTLET STRUCTURE
SD-2B	STORM DRAIN BASIN OUTLET STRUCTURE
SD-2C	STORM DRAIN BASIN OUTLET STRUCTURE
SD-2D	STORM DRAIN BASIN OUTLET STRUCTURE
SD-2E	STORM DRAIN BASIN OUTLET STRUCTURE
SD-2F	STORM DRAIN BASIN OUTLET STRUCTURE
SD-2G	STORM DRAIN BASIN OUTLET STRUCTURE-GATE DETAIL
SD-2H	STORM DRAIN BASIN OUTLET STRUCTURE-GATE DETAIL
ST-1	CONCRETE VALLEY GUTTER
ST-2	RESIDENTIAL STREET
ST-3	RESIDENTIAL ACCESS STREET
ST-4	COLLECTOR STREET WITH TWO WAY LEFT TURN LANE
ST-5	ARTERIAL STREET

PLAN NUMBER	TITLE
ST-6	FRONTAGE STREET
ST-7	CONCRETE VALLEY GUTTER IN ALLEYWAYS
ST-8	COMMERCIAL AND RESIDENTIAL CONCRETE ALLEY APPROACH
ST-9	STRUCTURAL SECTION FOR RESIDENTIAL BOUNDARY STREET
ST-10	STRUCTURAL SECTION FOR COLLECTOR BOUNDARY STREET
ST-11	CUL-DE-SAC DETAIL (DEAD END ROAD)
ST-12	TYPICAL CURB AND CURB & GUTTER
ST-13	SIDEWALK AND APPROACH DETAIL – 1
ST-14	SIDEWALK AND APPROACH DETAIL – 2
ST-15	NEW DRIVEWAY WITH EXISTING GUTTER
ST-16	CURB ACCESS RAMP
ST-17	SIDEWALK CHANNEL DRAIN NEW OR EXISTING
ST-18	STORM WATER INLET
ST-19	UTILITY LOCATION IN STREET AREA
ST-20	STREET LIGHT INSTALLATION
ST-21	STREET LIGHT POLE NUMBERING
ST-22	STREET LIGHT CONCRETE PULL BOX
ST-23	STREET LIGHT CONNECTION DIAGRAM
ST-24	SPECIFICATIONS STREET LIGHT INSTALLATION
ST-25	STREET NAME SIGN
ST-26	STREET NAME SIGN
ST-27	GUARD PANEL
ST-28	PROTECTION POST
ST-29	STREET EXCAVATION, BACKFILL & SURFACE RESTORATION
ST-30	DECORATIVE STREET LIGHTS
W-1	CONCRETE THRUST BLOCKS FOR CAST IRON FITTINGS
W-2	CONCRETE THRUST BLOCKS FOR CAST IRON FITTINGS
W-3	THRUST BLOCK BEARING AREA
W-4	CAST IRON CAP FOR REPAIR OF A.C. PIPE
W-5	FIRE HYDRANT INSTALLATION WITH PROTECTOR POSTS
W-6	FIRE HYDRANT PAVEMENT MARKERS
W-7	REPLACEMENT OF HOUSE SEWER CROSSING WATER MAIN
W-8	VALVE WELL & COVER
W-9A	1" WATER SERVICE CONNECTION WITH METER
W-9B	WATER SERVICE CONNECTION & METER BOX INSTALLATION
W-10	1¼", 1½", 2" SERVICE CONNECTION & METER BOX INSTALLATION
W-11	WATER SAMPLING STATION
W-12	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (RP) FOR WATER MAIN CONNECTION & PROCEDURES
W-13	FLUSHING NEW WATER MAIN
W-14	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY
W-15	REDUCED PRESSURE PRINCIPLE FIRE SPRINKLER SYSTEM CLASS III, IV & V
W-16	DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY
W-17	WATER WELL DESTRUCTION

PLAN NUMBER	TITLE
W-18	AIR VACUUM AND RELEASE VALVE
W-19	DOUBLE CHECK BACKFLOW PREVENTION ASSEMBLY
W-20	CONSTRUCTION WATER SOURCE
W-21	PRESSURE VACUUM BREAKER
W-22	INSTALLATION REQUIREMENTS FOR AN APPROVED AIR GAP SEPARATION
W-23	MONITORING WELL MANHOLE CONSTRUCTION DETAIL
W-24	COMPOUND METER SETTING WITH BY-PASS
W-25	TURBINE METER SETTING WITH BY-PASS
W-26	FIRE HYDRANT INSTALLATION
W-27	GUARD POST DETAILS
W-28	BLOW-OFF ASSEMBLY TYPE B
W-29	AQUAGRIP GATE VALVE

Attachment L

Section 4, Bid Items

SECTION 4

EXPLANATION OF BID ITEMS

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SECTION 4

EXPLANATION OF BID ITEMS

4.00 GENERAL

All work shall be done as shown on the Plans, in conformance with the provisions in the Specifications, in conformance with the requirements in all permits related to or required for the work, and as directed by the Engineer.

The contract price paid per measure of work, or the contract lump sum price paid for an item of work, shall include full compensation for furnishing all labor, materials (unless specified as to be furnished by the City), tools, equipment, and incidentals necessary for furnishing and constructing complete in place and for doing all associated work, in accordance with the Plans, and in conformance with the provisions in the Specifications, and as directed by the Engineer.

This Explanation of Bid Items is intended to provide for each bid item, or a range of bid items, only a brief description of the work involved, a reference to the applicable section or condition in the Specifications, a brief description of any notable related work that is included or excluded, any limitation on the contract amount, and the basis of payment. Refer to the referenced section or condition in the Specifications for additional references and complete specifications for the work.

MEASUREMENT OF QUANTITIES

Unless otherwise specified, quantities of work shall be determined from field measurements by the Engineer in accordance with Section 9 of the State Standard Specifications.

Measurement by volume will be by the cubic dimension listed or indicated in the Bid Schedules. Method of volume measurement will be as determined or directed by the Engineer.

Measurement by area will be by the square dimension listed or indicated in the Bid Schedules. Method of square measurement will be as determined or directed by the Engineer.

Linear Measurement will be by the linear dimension listed or indicated in the Bid Schedules. Method of linear measurement will be as determined or directed by the Engineer. Generally, items, components or work to be measured will be measured at the centerline of the item in place.

Lump Sum measurement will be for the entire item, unit work, structure or combination thereof, as listed or indicated in the Bid Schedules. No extra payment shall be for parts of lump sum items.

CONTRACT PAYMENTS

The Contract payments for the specified items of work as set forth in the Bid Schedule shall be full compensation for furnishing all labor, materials, tools, equipment, transportation, services, documentation and incidentals, and for doing all work involved as required by the Plans and Specifications, Special Provisions, State Standards, Legal and Safety Provisions and all other Provisions of the Contract Documents.

Full compensation for all expenses incurred in conforming to the requirements for measuring materials of work shall be considered as included in the unit or lump sum prices paid for the materials and work being measured, and no additional compensation will be permitted.

Full compensation for an item of work for which no measure or payment is specified will be considered to be included in the applicable related item of work in the Bid Schedule or incidental to the Contract and as directed by the City Engineer.

Full payment for an item of work designated as Final Pay (F) shall be the final pay for the estimated quantity in the Engineer's Estimate for that item of work and no allowance will be made in the event the Contractor's computed quantity does not equal the estimated quantity.

4.01 BID ITEM 1 – MOBILIZATION AND DEMOBILIZATION

This is a lump sum bid item for "Mobilization and Demobilization" Reference is made to Subsection 5.04, "Mobilization," of the Special Provisions - Technical.

The total of all payments for mobilization shall not exceed \$ 30,000.

Progress payments for mobilization will be made as follows:

1. When 5% of the original contract amount is earned from other contract items, an amount equal to 50% of the contract lump sum price for mobilization or 5% of the original contract amount, whichever is less, will be paid for mobilization.
2. When 10% of the original contract amount is earned from other bid items, an amount equal to 100% of the contract lump sum price for mobilization or 10% of the original contract amount, whichever is less, less the amount previously paid for mobilization, will be paid for mobilization.
3. Upon completion of all work on the project, an amount equal to 100% of the contract lump sum price for mobilization, less the amount previously paid for mobilization, will be paid for mobilization.

The contract lump sum price paid for "Mobilization and Demobilization" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization and demobilization, complete in place, including remobilization, as shown on the Drawings, in conformance with the provisions in the Specifications, and as directed by the Engineer. Full compensation for any anticipated mobilization and demobilization costs in excess of the specified lump sum price shall be considered as included in the contract prices paid for the various items of work, and no separate payment will be made therefore.

4.02 BID ITEM 2 – STORM WATER POLLUTION PREVENTION

This is a lump sum bid item for "Storm Water Pollution Prevention." Reference is made to Subsection 5.05, "Storm Water Pollution Prevention," of the Special Provisions - Technical.

The contract lump sum price paid for "Storm Water Pollution Prevention" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "Storm Water Pollution Prevention," complete in place, including preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP); all work involved in the installation, implementation, maintenance, and removal of best management practices (BMPs); and site stabilization upon completion of construction; as shown on the

Drawings, in conformance with the provisions in the Specifications, as required by permitting agencies, and as directed by the Engineer.

4.03 BID ITEMS 3 – SJVAPCD & EMISSION CONTROL

This is a lump sum bid item. Reference is made to 5.06, "SJVAPCD Requirements," Subsections 5.07, "Dust Control Plan," and 5.08, "Street Sweeping," of the Special Provisions – Technical.

The contract lump sum price paid for, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in "Dust Control," including preparation and implementation of a Dust Control/Sweeping Plan, and maintaining a water truck and approved street sweeper on project site for duration of the construction project, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.04 BID ITEM 4 – TRAFFIC CONTROL, DETOURS, AND ACCESS

This is a lump sum bid item for "Traffic Control, Detours, and Access." Reference is made to Subsections 5.02, "Description and Order of Work", and 5.10, "Traffic Control, Detours, and Access," of the Special Provisions - Technical.

"Traffic Control, Detours, and Access" shall consist of constructing, maintaining and removing temporary paved detours; establishing, maintaining and discontinuing temporary alternate route detours; providing and maintaining traffic control; providing access to properties in the vicinity of the work; and providing for the convenience and safety of the public and public traffic, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

The contract lump sum price paid for "Traffic Control, Detours, and Access" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in "Traffic Control, Detours, and Access," complete in place, including preparing and securing the Engineer's approval of the traffic control plan; flaggers; furnishing, installing, maintaining and finally removing aggregate base and asphalt concrete for construction of optional detours not shown on the Plans; traffic control signs and devices; pavement markings; channelizers; and chain link fence; all as shown on the Drawings, in conformance with the provisions in the Specifications and required permits, and as directed by the Engineer.

4.05 BID ITEM 5 – TRAFFIC SIGNALS AND LIGHTING – OLIVE AVE. AND KNOX ST.

The lump sum price paid for this item shall include full compensation for all costs involved in furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in installing the traffic signal and street lighting systems, complete in place, and no additional payment will be made therefor. The work shall conform to the applicable provisions of the City of Madera Standard Drawings and Specifications, the applicable sections of the State Standard Specifications and Revised Standard Specifications, these specifications, as shown on the plans, and as directed by the Engineer. Reference is made to Subsection 5.34 "Traffic Signals and Lighting," of the Special Provisions – Technical.

This work shall consist of installing the traffic signal and street lighting systems, including, but not limited to, poles, mast arms, foundations, loop detectors, conduits, pull boxes, conductors,

cabinets, battery backup system, emergency vehicle detection system, and all other necessary appurtenances, complete in place.

Traffic signal equipment shall not be ordered until the contractor has potholed the foundation locations and determined the presence of existing utilities or other underground structures. If existing utilities or underground structures are found to conflict with the proposed foundations, the Contractor shall immediately notify the Engineer.

All materials shall be furnished and installed by the Contractor and shall be included in this bid item.

The Contractor shall furnish the Engineer a schedule of values for this contract lump sum item. Schedule of values table shall be submitted to the Engineer for approval prior to start of work.

The schedule of values must include type, size, quantity, and installation method for:

- 6.01. Foundations
- 6.02. Standards and poles
- 6.03. Conduit
- 6.04. Pull boxes
- 6.05. Conductors and cables
- 6.06. Service equipment enclosures
- 6.07. Battery backup system
- 6.08. Signal heads and hardware
- 6.09. Pedestrian signal heads and hardware
- 6.10. Pedestrian push buttons
- 6.11. Video detection system
- 6.12. Traffic Signal Loop detectors
- 6.13. Luminaires and lighting fixtures
- 6.14. Emergency vehicle detection system
- 6.15. Traffic signal controller and cabinet

The sum of the amounts for the line items of work listed in the schedule of values table for this bid item shall be equal to the contract lump sum bid price. No adjustments in compensation will be made in the contract lump sum price due to differences between the quantities shown in the schedule of values furnished by the Contractor and the quantities required to complete the work as shown on the plans and as specified in these specifications.

At the Engineer's discretion, the approved schedule of values may be used to determine partial payments during the progress of the work.

4.06 BID ITEM 6 – CLEARING AND GRUBBING

This is a lump sum bid item for "Clearing and Grubbing." Reference is made to Subsections 5.12, "Clearing and Grubbing, 5.14, "Existing Highway Facilities (Concrete and Asphalt Concrete)," of the Special Provisions – Technical and Sections 7-9, "Protecting, Restoring Existing Improvements," and 10, "Clearing and Grubbing," of the Standard Specifications.

"Clearing and Grubbing" shall consist of the removal and disposal of trees, roots, stumps, limbs, buried logs, concrete, asphalt concrete, existing turf, buried trash, trash piles, vegetation to be removed, fences, irrigation pipe and risers, standpipes, structures, pipes, debris, storm drain

lines and inlets, temporary detour improvements, sewer manholes and sewer mains to be removed or abandoned, removal and salvaging of existing signs, removal of any existing striping and any other obstructions and objectionable material within the limits of the work which are encountered during excavation together with restoration of any facilities disturbed as a result of the Contractor's operations

The work under this bid item shall include disposal to an approved recycling site, and all work shall be in accordance with the plans and specifications.

The contract lump sum price paid for "Clearing and Grubbing" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in "Clearing and Grubbing," including protection of adjacent improvements, trees and plants, disposal of removed materials, excavation, backfill, compaction, and grading, as shown on the Drawings, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.07 BID ITEM 7 – SAW-CUTTING ASPHALT AND CONCRETE

This item shall be bid per linear foot and shall consist of saw-cutting existing asphalt and/or concrete at the locations shown and indicated on the plans, and as directed by the Engineer. Reference is made to Subsection 5.18, "Saw-cutting" of the Special Provisions – Technical.

Saw-cutting shall consist of sawing either Portland cement concrete or asphalt concrete to a minimum depth of 4 inches with an abrasive type saw, to the lines shown on the plans and as directed by the Engineer.

1. Sawcut existing street asphalt concrete as required for new AC paving.
2. Saw cut existing sidewalks as necessary for the traffic signal installations, conduits, pull boxes and electrical connections.
3. Sawcut Concrete and AC pavements as required for new traffic signal loop installations.

The Contractor shall protect all sawcut edges from damage. Should any sawn edge become damaged, the Contractor shall re-saw the edge at his expense.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals to provide all necessary saw-cutting, including protecting the sawed edge, shall be considered as included in the unit price paid for "Saw Cutting Asphalt and Concrete," and no additional payment will be made therefore.

4.08 BID ITEM 8 – PAVEMENT AND BASE REMOVAL

This is a unit price bid item (Final Pay Quantity), per cubic yard, for "Pavement and Base Removal." Reference is made to Subsections 5.16, "Remove Existing Street Pavement and Base," and 5.17, "Earthwork," of the Special Provisions – Technical and in accordance with Section 7-1.02K(6)(j)(iii), "Lead Compliance Plan", of the State Standard Specifications.

The Contractor shall provide a plan for a method of removal of existing thermoplastic paint striping for approval by the Engineer. The Contractor shall also provide a lead compliance plan in accordance with Section 7-1.02K(6)(j)(iii) of the State Standard Specifications for removal and disposal of lead base paint material and soils material if the existing striping, markings and existing soil material contain lead.

"Pavement and Base Removal" shall consist of the removal of all existing asphalt concrete and aggregate base material as shown to be removed on the Plans and as directed by the Engineer. Material shall be removed to subgrade.

The contract unit price paid per cubic yard for "Pavement and Base Removal" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "Pavement and Base Removal," including pavement striping and marking paint removal per the approved Lead Compliance Plan, grinding, removal, loading, hauling and storage of the material to be removed or delivered to a recycling center as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.09 BID ITEM 9 – ROADWAY EXCAVATION AND SUBGRADE PREPARATION

This is a unit price (Final Pay Quantity) bid item, per cubic yard, for "Roadway Excavation and Subgrade Preparation." Reference is made to Subsections 5.16, "Remove Existing Street Pavement and Base," and 5.17, "Earthwork," of the Special Provisions - Technical.

"Roadway Excavation and Subgrade Preparation" shall consist of excavating and filling the soil after work in Bid Item 9, "Pavement and Base Removal" has been completed to achieve the appropriate road subgrade elevations. This item shall also include any import or export of soil as needed to meet design grades and the removal, disposal of unsuitable material and the preparation of subgrade prior to placement of additional material, including grading and compaction.

The contract unit price paid per cubic yard for "Roadway Excavation and Subgrade Preparation" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "Roadway Excavation and Subgrade Preparation," including full depth milling/grinding, removal, hauling, and storage of the material to be used as recycled base or to be delivered to a recycling center, as shown on the plans, complete in place, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.10 BID ITEM 10 – CLASS 2 AGGREGATE BASE

This is a unit price bid item, per ton, for "Class 2 Aggregate Base." Reference is made to Subsection 5.19, "Aggregate Base," of the Special Provisions – Technical and Section 12 of the Standard Specifications.

"Aggregate Base – Class II" may be material excavated under Bid Item 8 – "Pavement Base Removal" if tested within the last 30 days after excavation and passed the testing requirements. Reference is made to Subsection 12-5 of the Standard Specifications for use of recycled materials.

"Aggregate Base – Class II" shall consist of placing and compacting aggregate base material on a prepared subgrade or subbase surface. This bid item includes only aggregate base for the construction of improvements shown on the Plans.

Full compensation for aggregate base specified as incidental to or included in a contract item of work, including hauling, spreading, compaction, and testing, shall be considered as included in

the contract price paid for the item of work involved, and no additional compensation will be allowed therefor.

The contract unit price paid per ton for "Aggregate Base – Class II" shall also include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "Aggregate Base – Class II," complete in place, as shown on the Drawings, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.11 BID ITEM 11 – ASPHALT CONCRETE (TYPE A HMA)

This is a unit price bid item, per ton, for "Asphalt Concrete (Type A HMA)." Reference is made to Subsection 5.19, "Asphalt Concrete," of the Special Provisions – Technical and Section 39 of the State Standard Specifications.

"Asphalt Concrete (Type A HMA)" shall consist of furnishing and mixing aggregate and asphalt binder at a central mixing plant, hauling, spreading, and compacting the mixture in place, as shown on the Drawings.

Fog Sealing of new pavement is paid for separately, under Bid Item 12 - "Fog Seal".

The asphalt binder shall be PG 64 – 10 or as directed by the Engineer.

The contract unit price paid per ton for "Asphalt Concrete (Type A HMA)" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in "Asphalt Concrete (Type A HMA)," complete in place, including asphalt binder, paint binder (tack coat), hauling, spreading, compaction, and testing, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.12 BID ITEM 12 – FOG SEAL

This is a unit price bid item per SY, for "FOG SEAL" complying with Caltrans Specification, Section 94, and 5.20 of the Special Provisions – Technical.

Fog Seal shall consist of SS1H complying to Caltrans Specification Section 94, with a typical application rate for diluted emulsion (1:1 ratio), spread at 0.10 to 0.125 gallons per square yard.

4.13 BID ITEM 13 – STRIPING AND PAVEMENT MARKINGS

This is a lump sum bid item for "Striping and Pavement Markings." Reference is made to Subsections 5.25, "Pavement Striping and Markings," 5.24, "Removal of Pavement Striping and Markings," and 5.26, "Object Markers," of the Special Provisions – Technical.

This work shall include the furnishing, removing, relocating and installing traffic signs, street signs, permanent paint traffic lane striping, markings, reflective markers, crosswalks, and painting curb. The necessary grinding out of existing paint striping and markings, and furnishing and placing of slurry seal to where the existing paint striping, crosswalks and markings have been ground out is also included in this bid item.

The contract lump sum price for "Striping and Pavement Markings," shall include full compensation for all costs involved in furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in signing, striping and pavement markings, complete in place, shall be included in the lump sum price and no additional payment will be made.

4.14 BID ITEM 14 – SIGNAGE

This is a unit price bid item, per ‘each’ for various “Signages” conforming to the Caltrans Manual of Unified Traffic Control Devices, and as detailed below. Reference is also made to 5.23, “Roadside Signs,” of the Special Provisions – Technical.

STOP / ALL WAY – R1-1 and R1-3P	... 01 Ea. (Relocation)
NO STOPPING ANYTIME – R26 (S) (CA)	... 06 Ea.
BIKE LANE, BEGIN / END – R81(CA), R(81A/R81B(CA)	... 03 Ea.
RIGHT LANE MUST TURN RIGHT – R3-7	... 01 Ea.
RIGHT LANE TURNS RIGHT AHEAD – W73A (CA)	... 01 Ea.
THRU TRAFFIC MERGE LEFT – W74(CA)	... 01 Ea.

All four STOP (R1-1) and ALL WAY (R1-3P) signs will be removed and salvaged when the Traffic Signals are fully operational, and will be paid under Bid Item 5: “TRAFFIC SIGNALS and LIGHTING”.

4.15 BID ITEM 15 – CONCRETE CURB AND GUTTER

This is a unit price bid item, per linear foot, for “Concrete Curb and Gutter.” Reference is made to Subsection 5.21, “Concrete Construction,” of the Special Provisions – Technical, and Standard Drawing ST-12.

This item shall consist of constructing concrete curb and gutter at the locations and grades shown on the plans. Subgrade beneath the curb and gutter shall be properly prepared by scarifying the soil to a depth of 6 inches, compacting and moisture conditioning as needed to achieve 95% minimum relative compaction.

The contract unit price paid per linear foot for “Concrete Curb and Gutter” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Concrete Curb and Gutter,” complete in place, including forming, joint construction, finishing, curing, and testing, as shown on the Drawings, and in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.16 BID ITEM 16 – CONCRETE SIDEWALK

This is a unit price bid item, per square foot, for “Concrete Sidewalk.” Reference is made to Subsection 5.21, “Concrete Construction,” of the Special Provisions – Technical and in conformance with Standard Drawings ST-13A and ST-13B.

This item shall consist of constructing concrete sidewalk at the locations and grades shown on the plans. Subgrade beneath the sidewalk shall be properly prepared by scarifying the soil to a depth of 6 inches, compacting and moisture conditioning as needed to achieve 90% minimum relative compaction.

The contract unit price paid per square foot for “Concrete Sidewalk” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Concrete Sidewalk,” complete in place, including forming, joint construction, finishing, curing and testing, as shown on the Plans, and in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.17 BID ITEM 17 – CONCRETE ADA CURB RAMP WITH TRUNCATED DOMES

This is a unit price bid item, per each, for “Concrete ADA Curb Ramp.” Reference is made to Subsection 5.21, “Concrete Construction,” of the Special Provisions – Technical, and in conformance with Standard Drawing ST-16.

This item shall consist of constructing concrete curb ramp at the locations and grades shown on the plans. Subgrade beneath the curb ramp shall be properly prepared by scarifying the soil to a depth of 6 inches, compacting and moisture conditioning as needed to achieve 90% minimum relative compaction.

The contract unit price paid per each for “Concrete ADA Curb Ramp” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Concrete Curb Ramp,” complete in place, including forming, joint construction, finishing, curing, testing, and ensuring ramps are constructed in conformance with the “Americans with Disabilities Act (ADA)”, including truncated domes, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

4.18 BID ITEM 18 – 1” INCH WATER SERVICE AND METER

This is a unit price bid item, per each, for “Water Service and Meter.” Reference is made to Subsection 5.31, “Water Facilities” of the Special Provisions – Technical.

This item shall consist of abandoning the existing 1” water service, including all pipe, fittings, meter and meter box. Any landscape replacement necessary shall be included in this bid item. The cost shall also include the required trenching and reinstatement.

The unit price bid shall include full compensation for furnishing labor, material, tools, equipment, removal and disposal of existing material, and incidentals to perform this work as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer and no additional payment will be made therefore.

4.19 BID ITEM 19 – CONSTRUCTION STAKING

This is a lump sum bid item for “Construction Staking” and shall include survey work under the supervision of a licensed Professional Land Surveyor as necessary to provide construction staking control and as-built records of the improvements, in accordance with the plans, Section 1-11 of the General Conditions, this specifications and special provisions, and as directed by the Engineer.

The contract lump sum price paid for “Construction Staking” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals to complete “Construction Staking” in conformance with the plans, and as directed by the Engineer.

4.20 BID ITEM 20 – MISCELLANEOUS FACILITIES AND OPERATIONS

This is a lump sum bid item for “Miscellaneous Facilities and Operations.” Reference is made to Subsection 5.37, “Miscellaneous Facilities and Operations,” of the Special Provisions – Technical.

The contract lump sum price paid for “Miscellaneous Facilities and Operations” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in “Miscellaneous Facilities and Operations,” complete in place, as shown

on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

This item shall include, but not be limited to the following:

1. Install / Display project signs including funding source at the Beginning and End of Project
2. Written notices to businesses and residents
3. Maintaining access to businesses and residents affected by the project work
4. Coordination for Madera Transit Bus stop locations, if any.
5. Coordination for MUSD school bus stop locations
6. Construction Area Signs for temporary traffic control
7. Display 'No Parking' signs as required with the appropriate vehicle code section(s) for towing of parked vehicles.
8. Replacement of existing improvements / facilities damaged during construction
9. Dewatering as needed
10. Cleanup

Attachment M

Section 5, Technical Specifications

SECTION 5
SPECIAL PROVISIONS – TECHNICAL

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SECTION 5

SPECIAL PROVISIONS – TECHNICAL

5.01 CONSTRUCTION CONDITIONS

A. ENGINEER

The word “Engineer” shall mean and refer to The City of Madera Engineering Department, 428 E. Yosemite Avenue, Madera, CA 93638.

B. ARCHEOLOGICAL ARTIFACTS

Should the construction activities uncover items which may qualify as archeological artifacts, the Contractor shall cease construction at that location and immediately notify the Engineer.

C. CONTAINMENT AND TRANSPORTATION OF AGGREGATE MATERIAL

The Contractor shall refer to the provisions in Sections 23113, 23114, 23115 and 40000.16 of the California Vehicle Code regarding containment and transportation of any aggregate material upon public roadways, which provisions are hereby incorporated into these Special Provisions – Technical.

D. CONSTRUCTION SURVEYING

The Contractor shall provide construction surveying as required to provide horizontal and vertical control for the placement of improvements, equipment and systems in conformance with the Contract Documents and as directed by the Engineer and include all surveying costs in the various bid items

E. FULL COMPENSATION INCLUDED IN BID AMOUNT

The Contractor shall accept the compensation provided in the Contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until acceptance by the City and for all risks of every description connected with the prosecution of the work; also for the expenses incurred as consequence of the suspension or discontinuance of the work as provided in the Contract; and for completing the work according to the Plans and Specifications. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of the obligation to make good any defective work or material.

No compensation will be made in any case for loss of anticipated profits.

The contract prices paid for the work shall include full compensation for furnishing all labor, materials, tools, and equipment, and incidentals, for paying all related fees and expenses, and for doing all the work involved, complete in place, including work shown or specified for which specific contract items are not identified, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. The Contractor shall proportionally distribute incidental costs associated with work for which specific contract items are not identified among the contract prices for the work for which specific contract items are identified, and no additional compensation will be allowed therefor.

F. PERMITS, LICENSES AND FEES

The Contractor shall secure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work under this contract. The Contractor shall undertake all efforts necessary to develop complete self satisfaction as to the provisions in the various permits and the submission of a bid on this project will be deemed conclusive evidence that the Contractor has done so.

Satisfactory evidence of obtaining the required permits shall be submitted to the Engineer prior to, and as a condition of, issuance of the "Notice to Proceed." The Contractor shall abide by the conditions of said permits and perform all work governed by said permits in conformance therewith and as directed by the Engineer.

Full compensation for all work necessary to obtain and comply with all required permits and licenses, including any and all related fees and expenses, shall be considered as included in the contract prices for the items of work for which the permits and licenses are required, and no additional compensation will be allowed therefor.

1. CITY OF MADERA BUSINESS LICENSE

The Contractor shall obtain a City of Madera Business License for work in City right-of-way, and pay any and all related expenses required for the City of Madera Business License.

Contact Information: City of Madera, Finance Department, 205 W. 4th Street, Madera, CA 93637, (559) 661-5408.

2. CITY OF MADERA STREET WORK PERMIT

The Contractor shall obtain a City of Madera Street Work Permit for work in City right-of-way, and pay any and all related expenses, except that no permit fee will be required for the City of Madera Street Work Permit.

Should the Contractor desire to make preliminary soil investigations in public street rights-of-way, he shall secure the required permits from the appropriate agencies and conform to the requirements thereof.

Contact Information: City of Madera, Engineering Division, 428 E. Yosemite Avenue, Madera, CA 93638, (559) 661-5418.

3. CITY OF MADERA BUILDING PERMIT

The Contractor shall obtain a Building Permit for the associated electrical work and pay any and all related fees and expenses.

Contact Information: City of Madera, Building Division, 205 W. 4th Street, Madera, CA 93637, (559) 661-5440.

4. OTHER PERMITS

The Contractor shall obtain any and all other permits that may be required for the work, and pay any and all related fees and expenses.

Should the Contractor desire to make preliminary soil investigations in public street rights-of-way, he shall secure the required permits from the appropriate agencies and conform to the requirements thereof.

G. COMPLIANCE WITH SAFETY CODE

In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours.

The duty of the Engineer to conduct construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on or near the construction site. This review does not relieve the Contractor of any duties, obligations and responsibilities for compliance with the safety codes nor does it place any responsibility upon the Engineer for the Contractor's compliance with all appropriate safety requirements. The Contractor shall comply with all applicable codes, including the regulations and safety orders of the California Department of Industrial Relations, 2550 Mariposa Street, Fresno, California 93721, (559) 445-5302.

H. JOB SAFETY AND SPECIAL WORKER PROTECTION FROM TOXIC OR EXPLOSIVE GASES

The Contractor shall comply with the provisions in the Construction Safety Orders, Tunnel Safety Orders and General Safety Orders issued by the California Department of Industrial Relations, as well as all other applicable laws, ordinances and regulations.

In conformance with said Safety Orders, the Contractor shall protect workers from toxic or explosive gases by providing whatever testing equipment and other special equipment that may be needed to detect the presence of and to remove such toxic or explosive gases found to exist in any underground facilities involved in the work, whether these facilities are newly constructed or existing.

The above-named requirements of the California Department of Industrial Relations are minimum requirements. In addition, the Contractor shall provide, for the life of the contract, similar protection for any person, including the Engineer or any authorized representatives thereof, subcontractors, or any other person authorized or required to enter such underground facilities for inspection, repairs, or any other reason.

I. MINIMIZING NOISE IMPACTS OF CONSTRUCTION

The following measures shall be implemented by the Contractor to minimize noise impacts during construction:

The Contractor shall conduct all operations in conformance with the Noise Regulations in the Municipal Code of the City of Madera.

To minimize potential annoyance related to construction noise, advance notice of the proposed construction times shall be given to all residents and other occupants of structures along the route of the project. At least 5 working days notice shall be given to all residents, except that at least 2-weeks notice shall be given to noise-sensitive facilities, such as schools, churches, etc.

Noise generating activity shall be limited to the hours of 7:00 am to 7:00 pm, Monday through Friday. Construction activities shall occur only during daylight hours, unless special permission in writing is obtained from the Engineer. If nighttime construction is allowed at a location, advance scheduling information shall be provided to nearby residents. Unnecessary noise, such as idling vehicles, shall not be allowed during nighttime construction.

Construction activities, except of an emergency or maintenance nature, shall not occur on Saturdays or Sundays.

All construction equipment shall be equipped with proper mufflers and other noise suppression devices, insofar as practicable.

None of the above shall be interpreted to allow construction at any time not in conformance with jurisdictional agencies' laws, rules or ordinances regulating allowable hours of work and allowable noise levels.

J. COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

This Contract is subject to all terms and conditions of the OCCUPATIONAL SAFETY AND HEALTH ACT of 1970, the California Occupational Safety and Health Act and their present and future amendments.

The Contractor expressly assumes responsibility for compliance therewith and warrants that all materials, supplies and equipment provided or installed pursuant to this Contract, whether provided by the Contractor, subcontractor, or a supplier, fully satisfy the requirements in said Acts. The Contractor shall, upon insertion in each contract with a subcontractor or supplier of a clause by which the subcontractor or supplier warrants such compliance, be relieved of responsibility by the subcontractor or supplier.

K. MAINTAINING DRAINAGE

The Contractor shall provide and maintain drainage for the existing street sections or other areas of work. Temporary provisions for drainage of any area during construction where existing drainage facilities have been damaged or altered as a result of the Contractor's operations shall be made by the Contractor as directed by the Engineer.

The Contractor shall be responsible for all damages to public or private property incurred due to failure to provide adequate drainage within and through the construction area or due to blockage of existing drainage facilities at or upstream from the area of work.

L. EXISTING UTILITIES

Reference is made to Section 5 of the City Standard Specifications and these Special Provisions.

The Contractor shall notify Underground Service Alert (USA) by telephone, **calling "811"** at least 48 hours prior to the beginning of any excavation work, and request field marking of existing utility facilities in the work area.

Please email or call to confirm a field meet, before any of your work begins (a minimum of two days' notice is required).

Any unauthorized digging will be addressed as a threat to public safety and could result in notification to the relevant authorities.

M. SPECIAL REQUIREMENTS NEAR NATURAL GAS TRANSMISSION FACILITIES

Reference is made to Subsection 5.01L, "Existing Utilities," of these Special Provisions

The Contractor shall notify PG&E by contacting Rich Franklin by telephone, (559) 263-7279, no less than 48 hours in advance of performing work in the vicinity of natural gas transmission facilities, whether parallel or transverse to the proposed improvements. When required by PG&E, no work shall be done in the vicinity of natural gas transmission facilities unless a PG&E inspector is on hand at the site of the work.

If PG&E or the Engineer determines that temporary support or bracing of natural gas transmission facilities is necessary during construction, the Contractor shall provide such support or bracing, or shall make arrangements to have PG&E provide such support or bracing, as directed by the Engineer. The Contractor shall bear all costs and expenses associated with temporary support or bracing of existing natural gas transmission facilities, and shall bear all costs and expenses associated with damage to existing natural gas transmission facilities resulting from the Contractor's operations.

N. COORDINATION WITH UTILITIES AND OTHER CONTRACTORS

The Contractor shall diligently coordinate construction operations with, and shall cooperate with, utility companies and agencies and other contractors conducting operations adjacent to or within the work area to prevent delays or hindrances to the work.

It is possible that utility work conducted by utility agencies or companies, or by contractors performing work under contract to them, may result in delays in the Contractor's operations, and may require non-continuous operations in the vicinity of utility work when continuous operations would otherwise have been possible. If, in the opinion of the Engineer, a delay is unavoidable and directly attributable to such utility work, a time extension will be granted to account for the delay. However, if the delay is due to the Contractor's failure to diligently coordinate construction operations with the utility work, in the opinion of the Engineer, no time extension will be granted.

The Contractor shall not be entitled to compensation for reasonable delays of utility work.

O. COMPACTION TEST METHODS

Maximum dry density and field density and Relative Compaction determinations shall conform to the provisions in ASTM D1557, and California Test Method 216 and 231. Field density and moisture content determinations shall conform to the provisions in ASTM D1556, D2922, and/or D3017.

P. COSTS RELATED TO COMPLIANCE WITH ADDITIONAL CONDITIONS

Full compensation for all work and expenses involved in compliance with the additional conditions contained in this section, including work attributable to delays, non-continuous operations and multiple move-ins required as a result of coordination with utilities and other contractors, shall be considered as included in the contract prices paid for the various items of work, and no additional compensation will be allowed therefor.

5.02 DESCRIPTION AND ORDER OF WORK

The work in general consists of widening and intersection improvements to Olive Avenue and Knox Street, to Arterial Street standards including: concrete curbs, gutters, sidewalk and ADA ramps. Street construction includes removal of existing pavements, grading of roadway subgrade, placing aggregate base, and asphalt concrete paving. Also included is the installation of a new traffic signals system, and electrical service pedestal and meter for street lighting.

The Order of work for the construction of this project must accommodate the heavy traffic volumes at the intersections and is required to keep at least one lane in each direction open to traffic at all times. Construction operations cannot disrupt or create unsafe conditions for the traffic flows and pedestrian accessibility and mobility.

The Primary Contractor is required to coordinate and cooperate with other Contractors anticipated to perform construction work within the project limits during the construction staging of the road project under this contract.

5.03 PROSECUTION AND PROGRESS

Beginning of Work. - The Contractor shall begin onsite construction operations within ten (10) calendar days of the commencement date specified by the City in the Notice to Proceed.

Progress Schedule. - The Contractor shall diligently prosecute this work to completion no later than One Hundred twenty (120) calendar days total after the commencement date specified by the City in the Notice to Proceed. All work, must be completed within the One Hundred Twenty (120) calendar days allotted to the project.

At least seven (7) calendar days prior to the commencement date, the Contractor shall submit a proposed progress schedule. The schedule shall indicate the dates proposed for beginning and completion of each part of the work. The schedule will be reviewed by the Engineer for practicability with respect to overall completion time. No on-site construction operations shall begin prior to the date of the Engineer's approval of the Contractor's proposed progress schedule.

5.04 MOBILIZATION

"Mobilization" shall consist in the movement of personnel, equipment, supplies, and incidentals to the project site, and including any remobilization necessary because of the required construction schedule and/or order of work sequencing as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

Progress payments for mobilization will be as specified in Section 9-1.16D Mobilization of the State Standard Specifications.

5.05 STORM WATER POLLUTION PREVENTION

A. GENERAL

1. Summary

This site is covered by the Construction General Permit issued by the State Water Resources Control Board (SWRCB) under the National Pollution Discharge Elimination System permit program of the Environmental Protection Agency. The Contractor shall be fully aware of the requirements under this Permit including the latest amendments. A full copy of the General Permit and most recent orders can be found at the State Water Resources Control Board website, at:

https://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

This project will require a Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall have the SWPPP prepared by a QSD (Qualified SWPPP Developer) in accordance with the guidelines contained in the Construction General Permit under the National Pollution Discharge Elimination System (NPDES) permit program of the Environmental Protection Agency (EPA).

A Notice of Intent (NOI) to be covered by the Construction General Permit will be processed by the Contractor using the California Stormwater Multiple Applications and Report Tracking System (SMARTS), which is found online at <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>. The Contractor will setup and prepare the NOI as a "Data Entry Person" including the attachment of the SWPPP prepared by the Contractor's QSD. The Contractor will notify the City of Madera once the NOI is ready for

the City's Signatory Approval and submission to the SWRCB. The NOI will be approved prior to work commencing and the fees therefore will be paid by the City of Madera.

The Contractor, under the terms of this Contract, is the operator of the site. It is therefore the Contractor's responsibility to have a QSP (Qualified SWPPP Practitioner) implement and maintain the Best Management Practices (BMP) contained in the SWPPP.

Upon approval of the SWPPP, the Contractor is responsible throughout the duration of the project for installing, constructing, inspecting, and maintaining the control measures included in the SWPPP and any amendments thereto and for removing and disposing of temporary control measures. In addition, the Contractor is responsible throughout the duration of the project for monitoring and sampling discharge flows as specified in the SWPPP and any amendments thereto. Unless otherwise directed by the Engineer or specified in these Special Provisions, the Contractor's responsibility for SWPPP implementation shall continue throughout any temporary suspension of work ordered in conformance with the provisions in Section 8-1.06, "Suspensions," of the State Standard Specifications. Requirements for installation, construction, inspection, maintenance, removal, and disposal of control measures are specified in these Special Provisions.

Following completion of the construction project, the City of Madera will prepare and submit the executed NOT to the Central Valley Regional Water Quality Control Board (RWQCB) through SMARTS for termination of General Construction Permit coverage. Conditions for termination of General Construction Permits can be found in Order No. 2009-2009-DWQ.

2. SUBMITTALS

- a) SWPPP
- b) Addenda to SWPPP
- c) Reports required by the SWPPP

B. STORM WATER POLLUTION PREVENTION PLAN

1. The SWPPP will be prepared by a QSD in accordance with the guidelines contained in the General Construction Permit issued by the SWRCB under the NPDES permit program of the EPA.
2. The intent of the Construction General Permit is to protect the quality of the receiving waters of the United States by limiting the quantity of pollutants in rainfall runoff from construction sites. In order to accomplish this goal, each construction activity is

- required to prepare a plan that will govern work operations and activities to lessen the probability that pollutants will be present in rainfall runoff from their site.
3. This site will be covered by the General Construction Permit by the time construction begins.
 - a. All construction activity must comply with the conditions of the permit.
 - b. Copies of the approved NOI will be provided to the Contractor to place in the appropriate appendix of the SWPPP when the NOI is available.
 4. The Contractor's QSD will prepare the SWPPP to comply with the General Construction Permit.
 - a. The Contractor, under the terms of this Contract is the Operator of the site. It is therefore the Contractor's responsibility to faithfully and fully implement the BMP contained therein.
 - b. Failure to implement BMP's as required to meet the intent of the General Construction Permit and the SWPPP is a breach of state and federal laws.
 - c. Punishment for breaking the law can result in fines and imprisonment.
 5. The BMP's contained in the SWPPP must meet the intent of the General Construction Permit.
 - a. The Contractor's QSP must provide, implement, and carry out the BMP's that comply with the General Construction Permit regardless of the BMP's contained in the attached SWPPP.
 - b. The Contractor's QSP shall bear full responsibility for reviewing the BMP's contained in the SWPPP, ascertaining the BMP's ability to provide adequate controls, and implementing the BMP's or implementing others deemed by the Contractor/QSP to better accomplish the intent of controlling the quality of runoff water from the Project Site.
 - c. The Contractor's QSP will submit any BMP changes made in the field as an addendum to the SWPPP to the SWRCB and the SWPPP will reflect any changes made.
 6. Amendments to the SWPPP shall be submitted to the Engineer for review and approval in the same manner specified for the initially approved SWPPP. Approved amendments shall be dated and logged in the SWPPP. Upon approval of the amendment, the Contractor shall implement the additional control measures or revised operations.

C. EXECUTION

1. APPLICATION

a. General Requirements

- 1) The Contractor is to comply with the conditions of the General Construction Permit.
- 2) The SWPPP is prepared to aid the Contractor in complying with the General Construction Permit.
- 3) Services to be provided and maintained from commencement of Work until final acceptance.

b. Best Management Practices

- 1) Under the terms of this contract, the Contractor is the Operator of the Site and it is the Contractor's responsibility to faithfully and fully implement the BMP's.
- 2) Should the Contractor deem the BMP's in the SWPPP are inadequate to meet the requirements of the General Construction Permit, the Contractor shall implement new BMP's that are equal to or better than those contained in the SWPPP.
 - a) Should the Contractor implement new BMP's, he shall prepare all addenda to the SWPPP required by the General Construction Permit.
- 3) Failure to implement the BMP's as required to meet the intent of the General Construction Permit and the SWPPP is a breach of state and federal laws.
 - a) Punishment for breaking the law can result in fines and imprisonment.

2. FIELD QUALITY CONTROL

a. Monitoring of BMP's

- 1) Monitoring by Contractor's QSP
 - a) Carry out the Monitoring Program required by the SWPPP.
 - b) Prepare all reports required by the SWPPP.
- 2) Monitoring by City
 - a) The City will monitor the Contractor's implementation and maintenance of the BMP's.
 - b) Should the City determine that the Contractor's efforts fail to meet the requirement of the General Construction Permit, the SWPPP, and SWPPP amendments, the City reserves the right to that of the following actions:
 - Notify the SWRCB of the perceived failure of the contractor to comply with the General Construction Permit and SWPPP.
 - Withhold an amount of money from the Contractor's Payment Request, equal to the City's estimate of the value of the work required to implement and maintain the required BMP's.
 - Hire a separate contractor to perform work required to implement and maintain the BMP's and deduct the costs thereof from the Contractor's Payment.
- 3) If the Contractor or the Engineer identifies a deficiency in the deployment or functioning of an identified control measure, the deficiency shall be corrected immediately. The deficiency may be corrected at a later date and time if requested by the Contractor and approved by the Engineer in writing, but not later than the onset of subsequent precipitation. The correction of deficiencies shall be at no additional cost to the City.

b. Availability of SWPPP

- 1) The Contractor shall keep copies of the SWPPP and addenda thereto in the following locations:
 - a) Contractor's General Business Office
 - b) Contractor's Project Site Field Office

- c) Construction manager's Jobsite office
- 2) The SWPPP shall be available for public inspection at any time during normal business hours.
- 3) The Contractor shall make an electronic copy of the SWPPP available to the City.

3. CLEANING

a. Removal of BMP's

- 1) Completely remove from the Project Site all materials used to construct and maintain the BMPs upon completion of the Project.
 - a) Under written agreement and with the approval of the Owner, the Contractor may assign maintenance and removal responsibilities to a subsequent contractor for later work phases at the Project Site.

5.06 SJVAPCD REQUIREMENTS

Due to the anticipated disturbed area, the Contractor shall prepare a Dust Control Plan and Emission Control Plan in conformance with San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) requirements, and shall submit the plan to, and obtain the approval of, both the Engineer and SJVUAPCD.

Additional information for the Dust Control Plan and Emission Control Plan can be obtained at the following location:

San Joaquin Valley Air Pollution Control District
Central Region Office
1990 East Gettysburg Avenue
Fresno, CA 93726
Phone: (559) 230-5950
Fax: (559) 230-6062

The Contractor shall faithfully implement the plan during all work carried out under this contract.

5.07 DUST CONTROL PLAN

This work shall consist of providing and maintaining dust control about the site of the work, including any haul roads to or from the site, by whatever means are necessary, such as watering, sweeping or oiling, so as to cause the least possible dust nuisance to the public. Reference is made to Section 7-8, "Project Site Maintenance," of the City Standard Specifications.

In the event, a Dust Control Plan is not required to be submitted for this project, in conformance with the San Joaquin Valley Air Pollution Control District (SJVACPD) per Reg VIII requirements, dust control shall still be discussed in the SWPPP or WPCP. The Contractor shall provide a Construction Notification Form 48 hours prior to the commencement of any earthmoving activity and obtain approval of, both the Engineer and SJVAPCD. The Contractor shall faithfully implement the plan during all work carried out under this contract.

The Contractor shall comply with the Fugitive Dust rules as established by the San Joaquin Valley Unified Air Pollution Control District. Specifically: Rule Nos. 8010 – Fugitive Dust Administration Requirements; 8020 – Dust Control Requirements for Construction, Demolition, Excavation, Extraction activities and Other Earthmoving Activities; 8030 – Dust Control Requirements for Handling and Storage of Bulk Materials; 8070 – Dust Control Requirements for Vehicle and/or Equipment Parking, Shipping, Receiving, Transfer, Fueling and Service Areas.

The Contractor shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust. Their duties shall include non-working hours, holidays and weekend periods when work may not be in progress. The names and telephone numbers of such persons shall be provided to the Engineer.

The Contractor shall make his own arrangements for and shall provide himself with a satisfactory water supply. The Contractor shall furnish his own equipment for transporting and applying water. Such equipment shall meet the approval of the Engineer. Water trucks or sprinkler systems shall be used in sufficient quantities to prevent dust raised from leaving the site during clearing, grading, earth moving, excavation, or other activities.

During construction, water trucks or sprinkler systems shall be used to keep all active areas of construction and vehicle movement damp enough to prevent dust from being raised and leaving the site. As a minimum, this shall include wetting down such areas in the late morning and after work is completed for that day. Streets adjacent to the project site shall be swept at least once per day. The frequency of watering and street sweeping shall be increased if determined necessary by the Engineer.

A water truck shall always be kept at the project site during construction.

All material excavated or graded shall be sufficiently watered to prevent excessive dust release. Watering shall occur at least twice a day with complete coverage, preferably in the late morning and after work is done for the day. After each day's activities cease, the entire area of disturbed soil shall be sufficiently wet down to create a crust.

After clearing, grading, earthmoving, or excavation is completed in any area, the entire area of disturbed soil shall be treated to prevent the wind from picking up soil. This may be accomplished by: spreading soil binders; sufficiently wetting the area down to form a crust on the surface with repeated soakings, as necessary, to maintain the crust and prevent dust from being picked up by the wind; or other methods approved by the Engineer.

The area disturbed by clearing, earth moving, or excavation activities shall be minimized at all times.

All material transported offsite shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.

All clearing, grading, earth moving, or excavation activities shall cease during periods of high winds greater than 20 mph average over one hour.

Onsite vehicle speeds on unpaved surfaces shall be limited to 15 mph.

All internal combustion engines shall be properly maintained and tuned according to manufacturers' specifications.

Any dust control measure ordered by the Engineer shall be promptly and immediately carried out.

If the Contractor fails to provide dust control measures as specified or ordered by the Engineer within a time period deemed reasonable by the Engineer, the Contractor shall pay to the City liquidated damages of fifty dollars (\$50.00) for each half hour, or portion thereof, that elapses from the time the penalty is ordered into effect by the Engineer, until dust control measures as specified or ordered by the Engineer are completely carried out and the dust nuisance is eliminated or prevented. The liquidated damages shall be deducted from monies due or to become due the Contractor.

In addition to the liquidated damages specified above, if conditions warrant, the Engineer may order City forces to eliminate or prevent the dust nuisance, or may order the work to be done by others. The full cost thereof, in addition to the liquidated damages specified above, shall be deducted from monies due or to become due the Contractor.

The contract lump sum price paid for dust control shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work related to dust control as shown on the plans, in conformance with the provisions of the Contract Documents, and as directed by the Engineer.

5.08 STREET SWEEPING

Street sweeping shall be conducted with approved sweeping equipment where sediment is tracked from the job site onto paved roads and street gutters, as described in the approved Storm Water Pollution Prevention Plan (SWPPP) and in accordance with Section 13-4.03F, "Sweeping", "Storm Water Pollution Prevention" of these special provisions, and as directed by the Engineer.

The Contractor shall maintain at least one sweeper on the job site at all times during the period that sweeping work is required. Sweepers shall be self-loading, motorized, and shall have spray nozzles, and may include a vacuum apparatus.

Street sweeping shall start at the beginning of clearing and grubbing and shall continue until completion of the project, or as directed by the Engineer. Street sweeping shall be performed so that dust is minimized. If dust generation is excessive or sediment pickup is ineffective as determined by the Engineer, the use of water or a vacuum will be required.

At the option of the Contractor, collected material may be temporarily stockpiled in accordance with the approved SWPPP. Collected material shall be disposed of at least once per week.

5.09 OBSTRUCTIONS

Attention is directed to Section 15, "Existing Facilities," of the State Standard Specifications and these Special Provisions.

Prior to the spreading of asphaltic emulsion and/or asphalt concrete surfacing, manhole covers, valve covers, survey monuments, and other underground utility facilities shall be covered with paper or other such material and shall be fully protected from damage or displacement unless otherwise directed by the Engineer.

The Contractor's attention is directed to the aerial utility lines which may interfere with the Contractor's operations. It is the Contractor's responsibility to ascertain the exact location of the facilities for minimum safe clearance distance. Moreover, the Contractor, if necessary, shall make arrangements with the utility companies to temporarily relocate their facilities and pay for the relocation to provide minimum safe clearance.

The aerial utility lines are under the jurisdiction of Pacific Gas and Electric Company, AT&T, and Union Pacific Transportation Company.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 20 psi (gage); underground electric supply system conductors or cables either directly buried or in duct or conduit which do not have concentric neutral conductors or other effectively grounded metal

shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Engineer at least 48 hours prior to performing any work in the vicinity of such facilities.

If such facilities are not located on the Plans in both alignment and elevation, no work shall be performed in the vicinity of said facilities until the owner, or his representative, has located the facility by probing, or other means that will locate and identify the facility. Contractor shall assist in locating the facility by potholing, if this method is necessary. If, in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being located by the owner or his representative, the City will compensate the Contractor for such delays to the extent provided in Section 8-1.07, "Delays," of the State Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities," of the State Standard Specifications.

In the event that the utility facilities mentioned above are not removed or relocated by the times specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by said times, the State will compensate the Contractor for such delays to the extent provided in Section 8-1.07, "Delays," of the State Standard Specifications, and not otherwise, except as provided in Section 15, "Existing Facilities," of the State Standard Specifications.

Full compensation for conforming to the requirements of this section shall be considered as included in the contract unit prices paid for the various contract items of work, and no separate payment will be made therefor.

5.10 TRAFFIC CONTROL, DETOURS, AND ACCESS

A. GENERAL

Reference is made to Section 7-10 of the City Standard Specifications.

The Contractor shall maintain traffic as required by the permits to be obtained by the Contractor, in conformance with the provisions in the Specifications, and as directed by the Engineer. It shall be the Contractor's responsibility to provide for the convenience and safety of the public and public traffic in connection with construction operations. Traffic control shall be furnished, provided and maintained by the Contractor at all times throughout the life of the Contract.

The Contractor shall secure the site of work at all times. Children shall not be allowed in or along the area of the work, on spoil piles or at other unsuitable locations within the work.

The Contractor shall so conduct construction operations as to cause the least possible obstruction and inconvenience to public traffic and abutting property owners (or tenants), and shall have under construction no greater length or amount of work than can be properly prosecuted with due regard to the rights and safety of the public. Unless other existing streets are designated on the Plans or by the Engineer to be used as detours, all traffic shall be permitted to pass through the work. Residents along the work area shall be provided passage as far as practicable, as determined by the Engineer. Convenient access to driveways, houses and businesses along the road, street, alley, right-of-way, or other work area shall be maintained; temporary trench or pipe crossings shall be provided and maintained in good condition as required to provide such access. No more than one cross or intersecting street or road shall be closed at any one time in any one general area of the work without the approval of the Engineer.

The Contractor shall keep all Fire Departments, Police and Sheriff's Departments, ambulance companies, public transportation, and school districts informed at all times as to the exact location

and progress of the work and shall notify them immediately of any streets closed to traffic or impassable for fire-fighting, safety equipment, public transportation or school buses. At least 48 hours in advance of beginning work in any street, alley, or other public thoroughfare, the Contractor shall notify the Engineering department and any other jurisdictional agencies involved and comply with their requirements regarding traffic control and public convenience and safety. Such notifications shall include the name and telephone number of a responsible person who may be contacted at any hour in the event of a condition requiring immediate correction.

B. CONTRACTOR'S TRAFFIC CONTROL PLAN

A minimum of seven (7) working days in advance of commencing construction on the project, the Contractor shall submit detailed traffic control plans, including any proposed detours, to the Engineer. The Contractor shall obtain the approval of such plans, and any required modifications thereto, by the Engineer prior to the implementation of any traffic control measures and the commencement of any work requiring traffic control.

C. CONSTRUCTION SIGNING AND DELINEATION

The construction area shall be signed by the Contractor in accordance with the latest edition of the California Manual on Uniform Traffic Control Devices (California MUTCD). Signs in place during hours of darkness shall be reflectorized for nighttime visibility in conformance with the provisions in the California MUTCD. Compliance with the provisions in the California MUTCD shall be considered as a minimum requirement and it shall be the responsibility of the Contractor to provide additional safety devices when necessary to maintain a safe condition. Nothing in the Specifications is to be construed as to reduce the minimum standards in the California MUTCD.

All cones, pylons, barricades or posts used in the diversion of traffic shall be provided with flashers or other satisfactory illumination if in place during hours of darkness.

The signing, barricading, and diverting of traffic shall be subject to the approval of the various authorities with jurisdiction over such public streets. The Contractor shall maintain a 24-hour emergency service to remove, install, relocate, and maintain warning devices and shall furnish, names and telephone numbers of persons responsible for this emergency service. In the event these persons do not promptly respond or the authority deems it necessary to call out other forces to accomplish emergency service, the Contractor will be held responsible for the cost of such emergency service.

Suitable advisory signs shall be furnished and maintained by the Contractor, as approved by the Engineer, to advise motorists of scheduled operations or detours that may delay or block traffic in specific areas at specific times.

Suitable advisory signs shall also be furnished and maintained by the Contractor, as approved by the Engineer, to advise motorists of the alternate routes of access to commercial businesses along the work, and to the fact that said businesses remain open during construction. Such signs shall be of suitable size, design and number, to adequately inform the public of the available route(s) of access to the affected businesses, and shall be placed so as to provide such information to vehicles approaching a particular commercial establishment from any direction along public streets. Contractors on adjacent construction units of this project shall coordinate said signs between said construction units to accomplish adequate public notification for this purpose. The proposed size and wording of the signs, and their proposed placement locations and sequencing, shall be submitted to the Engineer, and approval gained therefor, prior to commencing work on this project.

High level warning is to be used in advance of the project along with the normal construction signs. All signing shall conform to the provisions in the California MUTCD. All signing shall be of standard size, shape and color. Non-standard signs, such as black on yellow "No Left Turn" signs will not be allowed. When a regulatory sign is used to prohibit a vehicular movement, 2 signs shall be used. Example: To prohibit left turns, one sign shall be at the intersection and another 100' to 200' back from the intersection. A complete detailed description of traffic control signs can be found in the California MUTCD.

Where traffic is to be moved out of its normal position, the Contractor shall furnish and maintain lighted arrow boards as required.

Surface mounted channelizers shall be furnished and placed, maintained, and later removed, to separate opposing traffic or to separate work area from a traffic lane, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. Channelizers shall be, at the Contractor's option, one of the following types, or approved equal:

TYPE	MANUFACTURER OR DISTRIBUTOR
Safe-Hit SH236SMA	Safe-Hit Corporation 930 W. Winton Ave., Building #11 Hayward, CA 94545
Carsonite "Super Duck" SDF-436	Carsonite International Corp. 2900 Lockheed way Carson City, NV 89701
Repo "The Replaceable Post"	Pacific Autopost, Inc. P.O. Box 4321 Laguna Beach, CA 95652-4321

Channelizer posts shall be orange in color.

Channelizer bases shall be applied only on a clean, dry surface during periods when the pavement and the air temperature is above 32°F and when the relative humidity is 80% or less. Channelizer bases shall be cemented to the pavement in accordance with Section 12-3.05, "Channelizers," of the State Standard Specifications.

Channelizers shall be placed uniformly, straight when on tangent alignment and on a true arc when on curved alignment. All layout work to place the channelizers to the proper alignment shall be performed by the Contractor.

Channelizers that are damaged from any cause, during the progress of the work, shall be repaired by and at the expense of the Contractor. Channelizer posts that are displaced or fail to remain in an upright position from any cause, during the progress of the work, shall be replaced immediately by the Contractor to their original locations. Replacement channelizer posts need not be new provided such used material, as determined by the Engineer, is not damaged and is suitable for the purpose intended.

When no longer required for delineation, as determined by the Engineer, channelizers, including bases, shall be removed by the Contractor. Care shall be exercised in the removal of the bases so as to prevent damage to the pavement. Any void left in the pavement, over 1/4 inch depth, as a result of the removal of the bases, shall be repaired by and at the expense of the Contractor.

Existing striping and road stencil work which conflicts with detour layout shall be blacked out with approved black paint. Conflicting signs shall be temporarily covered. Upon completion of the work in the area, such modifications shall be returned to their original state. All of these operations shall be the responsibility of the Contractor.

D. PERMANENT TRAFFIC CONTROLS

All existing permanent traffic control signs, barricades, and devices shall remain in effective operation, unless a substitute operation is arranged for and approved as a portion of the detailed traffic control plan specified above.

E. PEDESTRIAN WALKWAYS

A minimum of one 4-foot-wide pedestrian walkway shall be maintained and safely delineated along each public street at all times during construction.

The Contractor shall maintain pedestrian crossings at signals with adequate visibility for approaching traffic.

Pedestrian crossings of the work shall be provided and maintained by the Contractor at intervals not exceeding 300 feet, unless otherwise approved by the Engineer.

All pedestrian walkways and crossings, whether temporary or permanent, shall be compliant with the Americans with Disabilities Act.

F. ACCESS TO ADJACENT PROPERTIES

Prior to restricting normal access from public streets to adjacent properties, the Contractor shall notify each property owner or responsible person, in writing, providing information as to the nature of the access restriction, the approximate duration of the restriction, and the best alternate access route for that particular property. Such notification shall be made 48 hours in advance of said restriction. A copy of said notification shall be submitted to the Engineer.

Access, as determined by the Engineer, from public streets to all adjacent properties shall be maintained by the Contractor at all times during the construction. During working hours, pedestrian access to homes, churches, businesses, and access to neighborhoods, although at times inconvenient, shall be maintained. During non-working hours, convenient access shall be restored. Such access may be provided by means which may include, but not be limited to, steel plates, steel ramps, etc.

Vehicular access shall be maintained by the Contractor at all times to the following:

1. All commercial establishments.
2. All schools.
3. All active agricultural operations.

Such access shall be provided by alternate use of multiple access points, if available, or by construction of a temporary access as necessary, which may include, but not be limited to, steel plates, steel ramps, etc.

Where interruptions to access are allowed, every effort shall be made to restore the access at the earliest possible time. Access along the street shall be provided at all times for emergency vehicles.

Where adequate room is not available in the street for temporary storage of trench spoil, such material shall be removed from the street to a site obtained by the Contractor, and then returned

to the trench for backfill. Full compensation for such removal and replacement shall be included in the amount bid for the various items requiring excavation and no separate payment shall be made therefor.

Safe, adequate, continuous and unobstructed pedestrian and vehicular access shall be maintained to all fire hydrants along the work.

The Contractor shall cooperate with the various parties involved in the delivery of mail, the collection and removal of trash and garbage, and the bus or van transportation of students to and from schools, to maintain existing schedules for these services. When so directed by the Engineer, the Contractor shall maintain, or provide for temporary relocation of, existing public transportation stops.

G. TEMPORARY FENCING AT CONSTRUCTION SITES

In all cases where a construction site is left unattended, such as overnight or over non-working days, a temporary 6-foot high chain link fence shall be erected by the Contractor around the construction site. Said fencing shall be maintained by the Contractor to provide protection from entry into the construction area.

H. RESTRICTIONS ON TIMES WHEN CONSTRUCTION MAY OCCUR

Where shown on the Plans or the Contractor's traffic control plans as approved by the Engineer, or required by the Specifications, work at various locations shall be restricted to certain hours of the day or night.

If the Contractor fails to complete operations within the restrictions set forth, or commences work prior to the allowable time period, the Contractor shall pay to the City a liquidated damage of fifty dollars (\$50.00) for each half hour, or portion thereof, which elapses within said restricted period in violation of this restriction. Such liquidated damages shall be deducted from any monies due or to become due the Contractor and are in addition to any liquidated damages specified in the Contract Documents.

5.11 WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND

The Contractor shall comply with the provisions in the Construction Safety Orders, Tunnel Safety Orders, and General Safety Orders issued by the California Department of Industrial Relations, and shall comply with the provisions in the Federal Occupational Safety and Health Administration's regulations, as well as all other applicable laws, ordinances and regulations, as they pertain to the protection of workers from the hazard of caving ground.

In compliance with the provisions in Section 6705 of the Labor Code of the State of California, the Contractor shall obtain the approval and acceptance of the Engineer in advance of the excavation of any trench or trenches, jacking or receiving pits, or other pits, 5 feet or more in depth, of detailed plans showing the design of shoring, bracing, sloping, or other provisions to be made by the Contractor for worker protection from the hazard of caving ground during the excavation of trenches and pits, and during any other period that workers may be exposed to such hazard. Where such plan varies from the shoring system standards established by the California Department of Industrial Relations, or, if other qualifying conditions exist as set forth in the Federal or State regulations (such as depth of excavation in excess of 20 feet), the plan shall be prepared by a Registered Civil or Structural Engineer.

The requirements of the California Department of Industrial Relations, and the Federal regulations for the provision of worker protection from the hazard of caving ground, and all other applicable laws, ordinances and regulations, are minimum requirements. In addition, the Contractor shall

provide, for the life of the Contract, the same protection for any person, including the Engineer or any of his authorized representatives, subcontractors, or any other person required to be exposed to such hazard in the performance of the work, inspection of the work, or for any other reason.

The Contractor shall provide, at his expense, protective measures as necessary for testing personnel and other inspectors during the excavation, pipe bedding, pipe installation, backfill and compaction processes. This shall consist of additional shielding, shoring, sloping, or other procedures as necessary to adequately protect said personnel and provide adequate working room during testing and inspection.

5.12 CLEARING AND GRUBBING

“Clearing and Grubbing” shall consist of the removal and disposal of concrete, asphalt material, trees, roots, stumps, limbs, buried logs, wood, lumber, existing turf, buried trash, trash piles, vegetation to be removed, irrigation pipes and rise, standpipes, structures, pipes, debris, temporary detour improvements, removal and salvaging of existing signs, and any other obstructions and objectionable material within the limits of the work which are encountered during excavation for and installation of the proposed improvements.

The Contractor shall remove tree roots and stumps to a depth of 3 ft in such a way that no damage to underground facilities occur. The spaces left by removal of trees shall be backfilled with material free from deleterious material and compacted to 90% maximum density.

Contractor shall immediately restore landscape irrigation system facilities disturbed as a result of the Contractor’s operations and provide temporary landscape irrigation during the period of such disturbance. Loss of plants and lawn due to damage or lack of care by the Contractor shall be replaced, in like kind, at the Contractor’s expense.

Removed materials shall be disposed of outside the highway right-of-way as provided in Section 15-2.03, “Disposal”, of the State Standard Specifications.

Full compensation for clearing and grubbing, and disposing of to an approved location, shall be considered as included in the contract lump sum price paid for clearing and grubbing, and no separate payment will be made therefor.

5.13 EXISTING HIGHWAY FACILITIES (MISCELLANEOUS)

Attention is directed to Section 15, “Existing Facilities,” of the State Standard Specifications and these Special Provisions.

The Contractor shall remove existing fences that are shown on the Plans as to be removed or that interfere with construction of the proposed improvements. Where existing fencing is removed, and not replaced with new fence, the Contractor shall construct end or corner posts, as appropriate, at the limits of fence removal. The work shall conform to the design of the existing fence facilities and shall be equal in all respects to the best portions of the existing facilities. The work shall be performed in accordance with the requirements of the State Standard Specifications for new work of similar character which apply to the type of fence facility removed.

Existing roadside signs that interfere with construction, or are shown on the Plans as to be removed, shall be removed and disposed of, except that sign panels shall be salvaged. Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the Engineer. Concrete sign post foundations shall be removed and disposed of, and the resulting holes shall be backfilled and compacted with material equivalent to the surrounding material.

The Contractor shall protect existing utility poles for duration of the project or until they are removed by the various utilities.

Existing pipe (including casing pipe), drainage inlets, and manholes, where shown on the Plans to be removed, shall be completely removed and disposed of. Frames, covers, and grates shall be removed and salvaged.

Removed materials shall be disposed of outside the right-of-way.

Full compensation for removal of miscellaneous existing highway facilities, including salvaging sign panels, frames, covers and grates, and including plugging ends of casing pipes, shall be considered as included in the contract lump sum price paid for clearing and grubbing, and no separate payment will be made therefor.

5.14 EXISTING HIGHWAY FACILITIES (CONCRETE & ASPHALT CONCRETE)

Attention is directed to Section 15, "Existing Facilities", of the State Standard Specifications and these Special Provisions.

"Clearing and Grubbing" shall consist of the removal and disposal of concrete curb and gutter, concrete sidewalk, concrete median, asphalt concrete, saw cutting of concrete or asphalt concrete as required, and any other obstructions and objectionable material within the limits of the work which are encountered during excavation for, and installation of the proposed improvements.

Concrete, where shown on the Plans to be removed, shall be removed as provided in Section 15-1.03B, "Removing Concrete," of the State Standard Specifications. Broken concrete resulting from the removal of existing concrete curbs or from the adjustment or relocation of existing facilities and other concrete items shall be removed.

Removed materials shall be disposed of outside the right-of-way.

Full compensation for removal of existing concrete highway facilities, including curb, curb and gutter, sidewalk, and driveway, shall be considered as included in the contract lump sum price paid for clearing and grubbing, and no separate payment will be made therefor.

5.15 EXISTING HIGHWAY FACILITIES (ADJUSTMENT AND RELOCATION)

Attention is directed to Section 15, "Existing Facilities," of the State Standard Specifications and these Special Provisions.

Frames and covers of existing manholes, cleanouts, water valves, or other facilities shall be adjusted to grade as shown on the plans, in conformance with the specifications and special provisions.

Existing water service and meters shall be relocated as provided in Subsection 5.27, "Water Facilities," of these Special Provisions – Technical.

Broken concrete or other materials resulting from the adjustment or relocation of existing highway facilities shall be removed. Removed materials shall be disposed of outside the right-of-way.

5.16 REMOVE EXISTING STREET PAVEMENT AND BASE

Attention is directed to Section 15, "Existing Facilities," of the State Standard Specifications and these Special Provisions.

Existing asphalt concrete pavement and base shown on the Plans to be removed shall be removed to the bottom of the existing pavement and base. Material resulting from pavement and base removal shall be broken into pieces 3 inches or less. Material 2 inches or less, in greatest

dimension, may be used as recycled aggregate base in accordance with Section 12 of the Standard Specifications. Prior to removal of pavement, the existing pavement striping and markings shall be removed in compliance with these Special Provisions

Where a portion of existing pavement is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 4 inches before removing the pavement and base.

The pavement and base material removed from the roadway surface shall become the property of the Contractor. At the Contractor’s option, the material removed from the roadway surface may be utilized in the lower half of the Class 2 Aggregate Base layer for roadway construction, where the use of Class 2 Aggregate Base is shown on the Plans. Reference is made to Subsection 12-5 of the City Standard Specifications for use of Recycled Materials.

Removed pavement and base materials shall be delivered to a materials recycling center if not used as Aggregate Base.

Location	Beginning Location/Station	Ending Station/Location	Pavement Structural Section Thickness
Knox	51+28	54+20	4.2 inches
Olive	38+55	39+76	5.4 inches

The total estimated quantity of pavement and base removal, calculated as described above and shown in the proposal form, is hereby designated a final pay quantity, in accordance with the provisions of Section 9-1.02C, “Final Pay Item Quantities,” of the State Standard Specifications.

5.17 EARTHWORK

Earthwork shall conform to the provisions in Section 11, “Excavation & Grading,” of the Standard Specifications and these Special Provisions.

In addition to the foregoing requirements, all material placed within the upper 18 inches of subgrade below pavement sections shall have an R-value of at least 50. The existing soil has a R-value range of 35 to 63 and may be used as trench backfill and for final subgrade.

The depth of 95 percent relative compaction shall be below the grading plane for the entire width of new pavement and curb and gutter as shown on the Typical Sections of the construction plans.

Surplus or unsuitable excavated material other than removed pavement shall become the property of the Contractor and shall be disposed of outside the right-of-way in accordance with the provisions in Section 7-1.13 of the State Standard Specifications.

5.18 SAWCUTTING

Saw-cutting shall consist of sawing either Portland cement concrete or asphalt concrete to a minimum depth of four (4) inches with an abrasive type saw, to the lines shown on the Plans and as directed by the Engineer.

The Contractor shall protect all sawcut edges from damage. Should any sawn edge become damaged, the Contractor shall re-saw the edge at his expense.

Full compensation for saw-cutting, including protecting the sawed edge, shall be considered as included in the contract prices paid for the items for which saw-cutting is required, and no additional payment will be made therefore.

5.19 AGGREGATE BASE

Aggregate base shall be Class 2, $\frac{3}{4}$ inch maximum, and shall conform to the provisions in Section 26, "Aggregate Bases," of the State Standard Specifications and these Special Provisions.

Recycled aggregate base shall conform to the provisions in Section 12-5 "Use of Recycled Materials" of the City Standard Specifications. Recycled aggregate base (source) shall be tested or have been tested within the last 60 days.

5.20 ASPHALT CONCRETE (TYPE A HMA)

Asphalt concrete shall be Type A Hot Mix Asphalt and shall conform to the provisions in Section 39, "Asphalt Concrete," of the State Standard Specifications and these Special Provisions.

The aggregate for the asphalt concrete lower courses shall conform to the grading specified for $\frac{3}{4}$ inch maximum, medium grading. The aggregate for the asphalt concrete surface course shall conform to the grading specified for $\frac{1}{2}$ inch maximum, medium grading. The aggregate for Miscellaneous Asphalt Concrete shall be $\frac{1}{2}$ inch maximum, medium grading.

A paint binder (tack coat) of mixing type emulsion shall be applied between the layers of asphalt concrete at the rate of 0.02 to 0.10 gallon per square yard of the surface to be covered. The exact rate will be determined by the Engineer. The paint binder (tack coat) shall comply with the requirements in Section 39-4.02 of the State Standard Specifications. The payment for the furnishing and application of paint binder (tack coat) shall be included in the bid item for Asphalt Concrete and no separate payment will be made therefore.

Conformance with the grading requirements will be determined by California Test 202 prior to the addition of asphalt binder at the plant. Frequencies of testing will be determined by the Engineer. Asphalt binder shall be PG 64-10 in conformance with Section 92, "Asphalt Binders", of the State Standard Specifications.

FOG SEAL

Fog seals consist of a light spray application of diluted asphalt emulsion used primarily to seal an existing or rehabilitated asphalt surface to reduce raveling and enrich dry and weathered surfaces.

A Fog Seal coat, SS1H or approved equal shall be applied to the new asphalt concrete pavement, and shall conform to the provisions in Section 37 of the State Standard Specifications and as directed by the Engineer. The Fog Seal application shall be applied within seven (7) days after the asphalt concrete paving is completed. No cover material is applied.

5.21 CONCRETE CONSTRUCTION

Concrete curb and gutter, concrete curb, terminal sections, concrete ramps, concrete driveway approaches, alley approaches and concrete sidewalk shall conform to the provisions in Section 14, "Concrete Improvements," of the Standard Specifications, Section 73, "Concrete Curbs and Sidewalks," of the State Standard Specifications, Standard Drawings ST-1, ST-8, ST-12, ST-13A, ST-13B, ST-15, ST-16, and these Special Provisions.

Curb and gutter and drive approaches shall be constructed such that each property shall not be denied access to driveways for more than five calendar days including all excavation, forming, and concrete curing time.

The locations of the concrete sidewalk curbs shown on the Plans are locations where concrete sidewalk curbs are expected to be required. However, the actual locations may vary depending on the actual field conditions. The height of the concrete sidewalk curbs will vary as required to match both the existing and proposed improvements at the back of the new sidewalk.

Concrete curb and concrete curb and gutter will be measured by the linear foot, constructed as shown on the Plans, as specified in the State Standard Specifications and these Special Provisions, and as directed by the Engineer. Terminal sections and depressed sections will be measured as part of the concrete curb, or concrete curb and gutter, with which they are constructed.

The contract unit prices paid for concrete construction items shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all of the work involved in concrete construction, complete in place, including excavation and backfill and curing, as shown on the Plans, as specified in the Standard Specifications, these Special Provisions and as directed by the Engineer. Quantities will be measured from the back of adjacent curbs.

5.22 NOT USED

5.23 ROADSIDE SIGNS

The work under this section shall consist of furnishing all materials and installing median and roadside signs, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer. Reference is made to Section 56-2, "Roadside Signs", of the State Standard Specifications.

Roadside signs shall conform to the provisions in Part 2, Signs", of the California Manual on Uniform Traffic Control Devices, and the Traffic Signs Specifications of the Caltrans Traffic Operations Office of Signs, Markings and Permits. Ground-mounted roadside signs shall be installed on a single steel post in conformance with the details shown on Standard Drawing ST-25. Roadside signs mounted on street light poles, traffic signal standards, or other roadside facilities shall be installed using stainless steel strapping and saddle brackets, in conformance with the details shown on State Standard Plan RS4.

Signs to be relocated shall be removed, salvaged and stored by the Contractor until they can be installed. Contractor shall replace any damaged or lost signs at no expense to the Owner.

5.24 REMOVAL OF PAVEMENT STRIPING AND MARKINGS

This work includes removing existing traffic stripes and pavement markings at the street locations shown on the plans.

The Engineer shall determine the presence of lead in the existing striping. If found, Contractor shall submit a lead compliance plan in accordance with Section 7-1.02K(6)(j)(iii), "Lead Compliance Plan", of the State Standard Specifications.

Waste residue from removal of thermoplastic and painted traffic stripe and pavement marking is a non-hazardous waste residue and contains lead in average concentrations less than 1000 mg/kg total lead and 5 mg/L soluble lead. This waste residue does not contain heavy metals in concentrations that exceed thresholds established by the Health and Safety Code and 22CA Code of Regulations, and is not regulated under the Federal Resource Conservation and Recovery Act (RCRA), 42 USC §6901 et seq.

The Contractor is responsible for surveying and referencing out centerline, painted markings, starting and stopping points of permanent raised and recessed pavement parkers, and utility covers. The Contractor shall be responsible for ensuring that crosswalks are ADA compliant.

If temporary centerline tabs are used to reference centerline, Contractor's attention is directed to Section 12-6, "Temporary Pavement Delineation", of the State Standard Specifications.

5.25 PAVEMENT STRIPING AND MARKING

Painted traffic stripes (traffic lines) and pavement markings shall be thermoplastic and applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the State Standard Specifications and these Special Provisions.

The crosswalks at the intersections shall be painted in conformance with the provisions in Section 84-2, "Traffic Stripes and Pavement Markings," of the State Standard Specifications and these Special Provisions.

For each batch of thermoplastic, paint and glass beads for traffic stripes and pavement markings, the Contractor shall submit to the Engineer:

1. Certificate of Compliance under Section 6-1.07, "Certificate of Compliance", of the Standard Specifications
2. Department's Material Engineering and Testing Services notification letter stating the material is approved for use
3. Material Safety Data Sheet

Traffic stripe and pavement marking paint shall conform to the requirements in State Specification No. PTWB-01R2.

The color of the painted traffic stripes and pavement markings shall conform to the requirements in ASTM D 6628-01.

Retro-reflectivity of the paint traffic stripes and pavement markings shall conform to the requirements in ASTM D 6359-99. White painted traffic stripes and pavement markings shall have a minimum initial retro-reflectivity of $250 \text{ mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$. Yellow painted traffic stripes and pavement markings shall have a minimum initial retro-reflectivity of $150 \text{ mcd}\cdot\text{m}^{-2}\cdot\text{lx}^{-1}$.

Within 14 days of applying a painted traffic stripe or painted pavement marking, the retro-reflectivity of the traffic stripe or pavement marking shall be a minimum of 250 millicandelas per square meter per lux for white, and 150 millicandelas per square meter per lux for yellow. The Contractor shall test for retro-reflectivity under ASTM E 1710. The second application of paint shall be applied a minimum of 5 days after the first application.

5.26 OBJECT MARKERS

Object markers shall conform to the provisions in Section 82, "Signs and Markers," of the State Standard Specifications and these Special Provisions.

Retroreflective sheeting for metal and flexible target plates shall be the retroreflective sheeting designated for markers and delineators conforming to the requirements in ASTM Designation: D 4956-95.

5.27 SIDEWALK CHANNEL DRAIN

The modification and installation for replacement of existing curb drains shall conform to Standard Plan ST-17 of the Standard Specifications.

5.28 STORM DRAIN PIPE

12" Storm drain pipe shall be Class 150 DR 18 per AWWA C-900. Reference Subsection 21 – 14.2 "Polyvinyl Chloride (PVC) Pressure Pipe," of the State Standard Specifications and Sections 16, "Trenching and Trench Resurfacing," and 20, "Storm Drainage Pipeline" of the City Standard Specifications. The trench backfill shall consist of a 2 sack cement-sand slurry to the subgrade elevation at locations shown on the Plans.

18" and 24" Storm drain pipe shall be Class III or Cass IV (as specified) RGRCP per ASTM C76, and shall conform to Section 20, "Storm Drainage Piping and Structures," of the Standard Specifications.

5.29 STORM DRAIN INLETS

For street drainage, drainage inlets shall conform to the provisions in Section 51-1.02, "Minor Structures," of the State Standard Specifications and these Special Provisions. Drainage inlets shall conform to Standard Drawing ST-18, Plans and Specifications.

For alley drainage, inlets and outlets shall be furnished and installed in conformance with the notes on the Plans.

5.30 STORM DRAIN MANHOLES

Manholes shall be constructed in accordance with Detail 7 on sheet CD-2 of the Plans and as specified herein or as directed by the Engineer. Manholes shall be complete structures in place and backfilled, including the furnishing and placing of all materials involved. Precast concrete manholes shall consist of a poured in place concrete base section, reinforced concrete pipe section(s), cast iron frame and cover and a poured in place concrete collar. Invert channels shall be smooth and semi circular in shape conforming to the inside of the adjacent pipe invert, or flow channels may be provided by use of the bottom half of the specified main pipe. The floor and the wall of the manhole outside the channels shall be smooth and shall slope 1:12 towards the channels.

The top of the manhole base section shall be keyed to receive the tongue end of the riser section. The key shall be formed in the freshly poured concrete by using a template manufactured to the dimensions of the riser section. If the riser is cast-in-place monolithically with the base section by using a slip form or other means, the key may be omitted between the base and the riser. If the base and riser sections are not poured monolithically, but separately, a key shall be provided in the base section. In either case, a key will be required in the top of the riser section to receive the tongue end of the tapered cone.

The joints between the base and all precast elements of the manhole, including adjustment rings and manhole frame, shall be filled with cement mortar, or approved equal, prior to joining the elements.

The interior of the manhole shall be trowelled smooth with a wooden trowel, removing excess mortar extruded out of the joints for the entire height of the manhole, from the manhole frame to the floor. All excess mortar and any other debris shall be removed from the manhole.

A. MATERIALS

Pre-cast concrete pipe manholes shall consist of a poured in-place concrete base section, reinforced concrete pipe section(s), a reinforced concrete taper section, grade rings and cast-iron frame and cover. Precast sections shall be manufactured in conformity to Class II, ASTM Designation: C-478 for their respective diameters.

Elliptical single-line reinforcement will not be permitted. Single line circular reinforcement will be permitted, and the minimum steel area shall equal the minimum steel area required for the inter-cage reinforcement.

Tapered sections shall conform to the requirements for pipe of the size equal to the largest internal diameter of the tapered sections. Concrete for the base section shall be Class A. Precast manhole bases are not allowed.

B. INSTALLATION

The inside of the manhole shall be formed to the flow line of the storm drain. The formed flow channel depth shall extend above spring line up-to 2/3 the diameter of the pipe. The bench shall slope a minimum of 1:12. Changes in direction of flow shall be made with a smooth curve of as large as a radius as the size of the manhole will permit. Changes in size and grade of the channels shall be gradually and evenly.

A channel shall be formed and extended completely through a starting manhole. Stub-outs shall be installed in manholes at the locations and sizes shown on the Plans. All stub-outs shall be sealed with a plug of a type approved by the manufacturer of the pipe.

All manholes shall be completed to finish grade with concrete collar. In undeveloped areas where no street or alley surfacing is to be done in conjunction with or immediately after utility installation, the manhole cover shall be finished off to a level 25mm (1") above ground elevation and shall be provided with 300mm (12") grade rings. In existing street areas where surfacing exists and no new street regrading is contemplated in conjunction with or immediately after utility installation, such as new subdivisions, manholes shall initially terminate with the top of the cone 150mm (6") below subgrade and shall be brought to street or alley surface with grade adjustment rings and completed after street paving is accomplished. Unless specifically otherwise indicated in the Special Provisions, it is the responsibility of the Sewer Contractor to return and install the manhole covers to finish grade as specified and shown on the Standard Drawings.

The Contractor should be aware that connections to existing sewers will be "wet" and the Contractor shall make whatever arrangements are necessary to complete the manhole connections under the "wet" conditions.

Where necessary, manholes shall be equipped with an approved water-tight insert placed under the manhole cover to prevent rainwater or other inflows. No steps shall be installed in manholes unless otherwise noted on the Plans.

C. REMOVAL

Manholes abandoned in place shall be broken out within 0.9m (3') of the finish grade. The manhole frame and cover will be delivered to the Public Works yard. The sewer mains entering the manhole shall be sealed with concrete and the manhole backfilled with sandy soil and compacted to a relative compaction of 90% using optimum moisture and tested in accordance with ASTM D 1557.

Manholes to be removed shall have the base removed with the barrel and taper. The manhole frame and cover will be delivered to the City Corporation Yard. After the manhole has been removed completely, the excavation will be backfilled in accordance with the backfill requirements. Before backfilling, all sewer pipes that have entered the manhole will be sealed with concrete.

D. ADJUSTMENTS

Where existing manholes need to be raised or lowered to meet a new street grade, they will be left in place and marked until the street has been paved. After the paving material has been compacted, they will be dug out and the ring and cover removed and lowered or raised to grade by use of concrete around the frame. "Jiffy Rings" for raising manholes will be allowed.

E. PAYMENT

If existing manholes are to be removed and replaced they shall be included in the bid price of new manholes unless otherwise specified in the special provisions. The bid price for adjusting manholes to the new street grade shall include surface restoration.

5.31 WATER FACILITIES

The furnishing, installing, and relocating of water main pipelines, water services, and fire hydrant assemblies shall be in conformance with Section 21, "Domestic Water Facilities Design Criteria," and Section 22, "Water Facilities," of the Standard Specifications.

Water services shall conform to Standard Drawings W-9A, "1-inch Water Service Connection," W-9B, "Water Service Connection & Meter Box Installation," and W-10, "1¼", 1½", 2" Service Connection & Meter Box Installation.". Water services to be relocated shall also conform to the details on the Plans.

Installation of water main and trenching shall be in accordance with City Standard ST-29.

New fire hydrants and fire hydrants to be relocated shall conform to Section 22-10, "Fire Hydrant" of the Standard Specifications and Standard Drawings W-5, W-6, and W-26.

Water valves shall conform to Standard Drawing W-8, "Valve Well & Cover."

Thrust blocks shall conform to Standard Drawings W-1, W-2 and W-3.

Backflow preventers shall be in conformance with Section 25, "Planting and Irrigation Systems," of the Standard Specifications. All backflow preventers shall have enclosures in accordance with Standard Drawing W-15B, "Typical Enclosure Backflow Prevention Device."1

Testing shall be in accordance with Section 22, "Water Facilities," of the City Standard Specifications. Testing plan and procedures to be approved by the Engineer for each location. Sampling points to be determined by the Engineer and shall be spaced every 700 feet or in accordance with approved sampling plan. Testing and chlorinating of the pipe, including furnishing and installing bacteria sampling points for a continuous run of the proposed water main, construction water, temporary bulkheads, plugs, and/or temporary blow-off assembly necessary for pressure testing and disinfection, and handling of all discharged water from the flushing operations, shall also be included.

5.32 SEWER FACILITIES

The furnishing, installing, and relocating of sewer services and facilities shall be in conformance with Section 17, "Sanitary Sewer Pipe and Appurtenances," of the Standard Specifications and Standard Drawing S-2, "60 Inch Sewer Manhole."

5.33 STREET LIGHTING ELECTRICAL SYSTEM

This item is for installing the electrical system for a functional street lighting system in accordance with the provisions of Section 86, "Signals, Lighting and Electrical Systems," of the State Standard Specifications and Standard Drawings ST-22, ST-23, ST-24, and ST-29. The work shall include, but not be limited to, trenching, furnishing and installing the pull boxes, conduit, and wire between

the Electrical Service Panel and the street light pull box as shown on the Plans and for doing all other work necessary to complete the electrical system.

The conduit shall be 3- inch diameter, Schedule 80, and the wire shall be #8.

The pull box lids shall have a galvanized metal security lid to prevent vandalism and theft. The lid shall be a Lockjaw Security Lid No. ELJ09 or approved equal.

STREET LIGHTS

The installation of street lighting shall conform to the provisions in Section 86, " Signals, Lighting and Electrical Systems" of the State Standard Specifications, Standard Drawings ST 20, ST 21, ST 22, ST 23 and ST 24, and these Special Provisions.

5.34 TRAFFIC SIGNALS AND LIGHTING

A. GENERAL

1. Description

Installation of traffic signals and lighting shall conform to the provisions in Division X, "Electrical Work" of the 2018 Standard Specifications (as revised April 15, 2022) and these special provisions.

Traffic signal installation, and highway lighting work is to be performed at the following location:

a) **Intersection of Olive Avenue and Knox Street**

2. Equipment List and Drawings

The Contractor shall submit to the Engineer "as-built" prints prior to final acceptance of the work. The "as-built" prints shall indicate in red all deviations from the contract plans.

3. City Furnished Equipment

There will be no City-furnished material or equipment for this project.

4. Warranties, Guarantees, and Instruction Sheets

The Contractor shall be responsible for the entire work constructed under this contract including materials furnished and work performed by manufacturers', suppliers' and subcontractors'. The Contractor shall make, at no cost to the Owner or Agency, any repairs or replacements made necessary by defects in workmanship or materials that becomes evident within one year after filing of the Notice of Completion of the work. The Contractor shall make all repairs and replacements promptly upon receipt of written orders from the Agency Engineer.

If the Contractor fails to make the repairs or replacements promptly, the Owner or Agency may do the work and the Contractor and his surety shall be liable to the Owner or Agency for the cost.

Whenever any work is to be guaranteed or maintained by a manufacturer, supplier or subcontractor, said obligation shall be that of the Contractor.

All guarantees shall be in writing and delivered to the Engineer by the Contractor prior to final acceptance of the work.

5. Maintaining Existing and Temporary Electrical Systems

All work, materials and equipment required to keep the existing systems operational shall be considered as included in the prices bid for various item(s) of work and no additional compensation shall be allowed therefore.

Where the Contractor-installed facilities are damaged prior to final acceptance by the Engineer, the Contractor shall repair or replace such facilities at his own expense.

6. Removal and Salvaged Equipment

Equipment indicated as to be removed and salvaged by the Contractor shall be delivered by the Contractor to the City of Madera Corporation Yard located at 1030 South Gateway Drive, Madera.

B. MATERIALS AND INSTALLATION

1. Foundations

Foundations shall conform to the provisions in Section 56-3, "Standards, Poles, Pedestals and Posts," and Section 87-1.03E(3), "Concrete Pads, Foundations, and Pedestals," of the State Standard Specifications and these Special Provisions.

Portland cement concrete may be produced from commercial quality aggregates and cement and shall contain not less than 505 pounds of cementitious material per cubic yard (Class 3 concrete), except concrete for reinforced pile foundations shall contain not less than 590 pounds of cementitious material per cubic yard (Class 2 concrete).

Foundation concrete shall be placed in a single pour except that pouring on the top six inches may be postponed when prior approval has been obtained.

Fly ash substitutes and/or admixtures shall not be permitted.

No utilities shall be permitted to run through any foundations.

The top of the traffic signal controller cabinet foundation shall be 12 inches above the surrounding grade or sidewalk.

The Contractor shall obtain approval for pole foundation locations prior to excavation. The Contractor may not construct foundations until authorized by the City. The Contractor shall hand dig "Pot Hole" all foundations prior to using mechanized equipment to determine the existence of underground utility conflicts, if any.

2. Standards, Steel Pedestals, and Posts

Where the State Standard Plans refer to the side tenon detail at the end of the signal mast arm, the applicable tip tenon detail may be substituted.

The sign mounting hardware, as shown on "Detail U" of Revised Standard Plan ES-7N, shall be used to mount Series R-73, Regulatory Signs, on signal mast arms at the locations shown on the plans.

All new Series R-73, Regulatory Sign panels, oversize street name signs and other regulatory traffic signs shown on the traffic signal plans will be furnished and installed by the Contractor.

3. Conduit

Traffic signal conduit shall be Type 1. All conduit and fittings shall be hot dip galvanized.

Where called for on the plans non-metallic conduit shall be Type 3 (PVC Schedule 80).

Each length of conduit shall bear the labels of Underwriters Laboratories, Inc

All couplings shall be tightened to provide a good electrical and mechanical connection throughout the entire length of the conduit run.

Conduit threads and damaged conduit surfaces on metal conduit shall be thoroughly painted with zinc rich paint conforming to Military Specification DOD-P-21035A.

All conduit ends shall be threaded and capped with standard conduit caps until wiring is started. When the caps are removed the threaded ends shall be provided with approved insulated hot dipped galvanized malleable iron bushings. All bushings in pull boxes, controller or service pedestal shall have lay-in style copper lugs provided for bonding.

It shall be the privilege of the Contractor, at his own expense, to use larger size conduit if desired, and where larger size conduit is used, it shall be for the entire length of the run from outlet to outlet. No reducing couplings will be permitted.

All conduit shall be laid to a depth of not less than twenty-four inches nor greater than thirty-six inches below the curb grade in the sidewalk areas and from the finished surface in street areas. Conduits in sidewalk areas parallel to the curb shall not be installed more than twenty-four inches from inside of curb line toward property line.

Conduit shall be placed under existing pavement by approved jacking methods. Pavement shall not be disturbed without the written permission of the Engineer and then only in the event insurmountable obstructions are encountered. Excessive use of water, such that pavement might be undermined, or subgrade softened, will not be permitted.

Conduit in pull boxes shall not extend more than two inches inside the box wall. No conduit or utility shall pass through a signal, controller, or street light base or pull box except the conduit which terminates within the base or pull box.

Conduit for Traffic Signal Interconnect runs shall be 3-inch diameter, Type 3, Schedule 80 PVC.

Bushings shall be required on any PVC conduit greater than 1-inch trade size.

After the installation of all conductors and cables, the ends of conduits terminating in pull boxes, the controller cabinet and service pedestal shall be sealed with an approved duct seal material.

The Contractor will provide the City with delivery dates for poles from the pole manufacturer. The City will then notify the Contractor when he may begin construction of pole foundations. Installation of pole foundations may not begin until curbs and gutters have been installed (No Exceptions).

4. Pull Boxes

When pull boxes are placed in dirt and planting areas, a concrete collar shall be constructed around the pull box. The top of the pull box shall match the slope of the adjacent top of curb.

The surface elevation of the collar shall match the surface elevation of the pull box and slope away from the pull box at a rate of 1:50 (2% slope). The width of the collar shall be 12 inches wide and 3½ inches in depth.

The pull box centerline shall be parallel or at right angles to road centerline or as shown on the plans, or as directed by the engineer.

The words "TRAFFIC SIGNAL" shall be inscribed on all pull box covers except for the splice box (if used) adjacent to PG and E's service pole. This pull box cover shall be inscribed "PG and E". Pull boxes and utility boxes for fiber-optic traffic signal interconnect shall be inscribed "Signal Interconnect". Pull box covers shall contain hold-down bolts.

All pull boxes shall have extensions.

Pull boxes, covers, and extensions shall be precast reinforced concrete, except as shown on the plans. Recesses for suspension of ballasts will not be required. Grout in bottom of pull boxes will not be required.

All pull boxes shall be No. 6(E) unless otherwise noted on the plans. No. 2 pull boxes shall be installed at electrical service points as required by PG&E.

Grout shall not be placed in bottom of pull boxes.

5. Signal Cable

Signal Cable shall be installed in lieu of individual conductors. A separate multiconductor cable shall be provided from each pole to the controller cabinet.

Conductors and cables shall conform to the provisions in Section 86-1.02F, "Conductors and Cables," of the Standard Specifications and these Special Provisions.

All 12-conductor, and 3-conductor cables shall conform to the latest International Municipal Signal Association (IMSA) Specification 20-1. The cable conductors shall be 14 AWG solid copper.

When cables are pulled into the conduit, all ends of the cables shall be taped to exclude moisture, and shall be so kept until connected to terminals.

A minimum of three feet of slack in each single conductor and cable run shall be left at each signal or lighting standard and in each pull box.

No splices shall be allowed in multiconductor cables. Cables shall run from the controller terminal strip to the appropriate TS-4 terminal block.

All single conductor wire shall be of stranded construction with THWN type insulation.

Splices in single conductor wire shall be limited to the load side of the service pedestal breakers and to tap type splices located in pull boxes. These splices shall be made using either split bolts or c-tap connectors. The c-taps shall be properly sized for the wires being joined and installed with the proper tooling.

The splice shall be insulated as follows: minimum 2 layers of rubber tape, 1 layer--1/2 lapped plastic tape, 1 layer friction tape and then coated with an approved electrical sealing compound (Skotchkote).

Pedestrian push button circuits shall utilize a 3-conductor cable between the controller and a pedestrian TS-4 terminal assembly. The individual buttons shall be connected to the terminal assembly.

The single conductor #14 AWG THWN copper wire installed between the TS-4 terminal block and the individual signal heads terminal block shall be terminated as follows: At the signal head end, it will be installed using an insulated space terminal properly sized for the wire and the screw. The terminal shall be installed using the proper tooling. At the terminal assembly end, the wire shall be stripped, twisted neatly and soldered prior to installation into the box type pressure connector.

All multiconductor cable conductors shall be terminated at the controller using the spade terminals.

The lugs used to connect with controller field terminals shall be soldered after being properly crimped. Soldering shall be by means of an iron or gun. No open flame torch may be used.

6. Wiring

SplICES shall be Type C insulated by Method B.

7. Bonding and Grounding

Bonding and grounding jumpers shall be visible after caps have been poured on foundation.

8. Service

The Contractor shall be responsible for coordinating with the serving utility and shall pay all costs and fees required by the serving utility.

The Contractor shall furnish and install an anodized aluminum service pedestal and Type III-CF service with two (2) meters as shown on the plans and in these special provisions. All circuits in the service pedestal shall be metered. Test bypass switch(es) shall be provided in the service enclosure for safety lights.

The service equipment enclosure shall be TESCO Type 28-102 service equipment enclosure or approved equal.

Service shall conform to the provisions in Section 87-1.03L, "Utility Service," of the Standard Specifications, the National Electric Code, the plans, and these special provisions.

9. Testing

Materials and equipment furnished by the Contractor shall be tested and/or certified at his expense.

10. Numbering Electrical Equipment

Self-adhesive reflective numbers and edge sealer shall be furnished and installed by the Contractor except for the Caltrans intersection.

Equipment numbers shall be obtained from Cole Scroggins, Facilities Manager, at the City of Madera Public Works, (559) 661-5466, and placed on equipment. The numbers and edge sealer shall be placed on the equipment where designated by the Engineer. Reflective numbers shall be applied to a clean surface. Only the edges of the numbers shall be treated with edge sealer.

Self-adhesive equipment numbers shall be placed for all electroliers, and service pedestals. On service pedestals, the numbers shall be placed on the front door. On electroliers, the numbers shall be placed as directed by the Engineer.

C. CONTROLLER ASSEMBLIES

Model 2070E Controller Cabinet / FoundationThe Contractor shall furnish and install a new controller assembly as shown on the plans.

The Model 2070E controller assembly, including controller unit, completely wired controller cabinet and load switches and inductive loop detector sensor units for the new loop detectors will be furnished and installed by the Contractor.

The Contractor shall arrange to have a manufacturer's representative signal technician present at the time the equipment is turned on.

Controller Cabinet / Foundation.--The Contractor shall construct a controller cabinet foundation as shown on Revised Standard Plan ES-3C for a model 332LS cabinet with LX-BBS cabinet (including furnishing and installing anchor bolts), shall install the controller cabinet on said foundation, and shall make all field wiring connections to terminal boltlocks in the controller cabinet.

Battery Backup System.--A Myers Power Products, Inc. MP2000E UPS/BBS system, or approved equal, shall be furnished and installed by the Contractor. Contractor shall place the system on line as required by the City. A manufacturer's representative shall be present when the system is placed on line.

Modulated Light Signal Detection System.—Each controller/cabinet shall include a 3M, 700 Series, modulated light vehicle detection system, or approved equal, 100% compatible with current Opticom uses in the area. .

Model 721 detectors shall be furnished and installed by the Contractor as shown on the plans. They shall be mounted on traffic signal mast arms in accordance with Standard Plan ES-4E dated May 31, 2018.

The contractor shall demonstrate that all of the components of each system are compatible and will perform satisfactorily as a system. Satisfactory performance shall be determined using the following test procedure:

1. Each system to be used for testing shall consist of an optical emitter assembly, an optical detector, at least 200 feet of optical detector cable, and a discriminator module.
 - b) The discriminator modules shall be properly installed in the cabinet.
 - c) Two tests shall be conducted; one using a Class I signal emitter and a distance of 1,000 feet between the emitter and the detector, the other using a Class II signal emitter and a distance of 1,800 feet between the emitter and the detector. All range adjustments on the module shall be set to "Maximum" for each test.
 - d) Each above test shall be conducted for a period of one hour, during which the emitter shall be operated for 30 cycles, each consisting of a one minute "on" interval and a one minute "off" interval. During the total test period, (1) the emitter signal shall cause the proper responses from the controller unit during each "on" interval, and (2) there shall be no improper operation of either the controller unit or the conflict monitor during each "off" interval.

D. SIGNAL HEADS

Signal Heads:

Signal faces, signal heads and auxiliary equipment as shown on the plans, and the installation thereof, shall conform to the provisions in Section 86-1.02R, "Signal Heads," of the Standard Specifications and these Special Provisions.

All vehicular indications shall have visors and backplates. Visors on vehicular signals shall be "tunnel" type with open slot at bottom. Backplates shall be "slotted" to reduce wind loadings.

All signal heads, visors, and slotted backplates shall be metallic. All vehicle signal lenses shall be 12" in diameter.

Mounting framework shall consist of 1-1/2" steel pipe, ductile iron fittings, and bronze terminal compartments. Slipfitter attachments, MAS/MAT, shall be bronze.

After installation of the signal mounting framework, any through bolts that extend more than 1" beyond the nut shall be cut to three threads beyond the nut and painted with a zinc rich cold galvanizing compound.

All setscrews exposed to weather shall be zinc or cadmium plated and have square heads.

When a mast arm is not equipped with a mid-tenon, the contractor shall provide a PELCO Astro-Brac Signal Mounting Bracket, AB-3008 to install the MAS signal/s. The standard racket is

supplied with 29" mounting bands. Longer lengths are available and may be needed depending on the particular mast arm used. The bracket shall be installed using the manufacturers detailed installation instructions. Prior to mounting the bracket the contractor shall drill a 1" diameter hole in the mast arm corresponding to the desired signal placement. All burrs and sharp edges shall be removed. The area will be cleaned of any oil or drilling compound. A zinc-rich cold galvanizing compound will be applied to the bare metal.

A 1" Buna-N grommet will be installed in the drilled hole to protect the wiring. After the bands are adjusted and tightened, the tenon shall be marked and drilled to accept the MAS through bolt. After mounting and plumbing of the signal, the setscrews shall be secured.

Top openings of the signal heads shall be sealed with neoprene gaskets.

Mounting assemblies shall be bronze.

Mounting assemblies shall closely match the curvature of the pole.

Clam shell mountings shall not be used.

The manufacturer shall provide a written warranty against defects in materials and workmanship for the LED signal modules for a period of 36 months after installation of the modules. Replacement modules shall be provided promptly after receipt of modules that have failed at no cost to the City except cost of shipping of the failed modules. Warranty documentation shall be given to the Engineer prior to installation.

Pedestrian Signal Heads

Pedestrian signal faces, signal heads, and auxiliary equipment as shown on the plans, and the installation thereof, shall conform to the provisions in Section 86-1.02S, "Pedestrian Signal Heads," of the Standard Specifications and these Special Provisions.

Pedestrian signals shall be countdown type.

Signal alignment shall be as directed by the Engineer.

Mounting assemblies shall be bronze.

Mounting assemblies shall closely match the curvature of the pole.

Clam shell mountings shall not be used.

After installation of signal facilities, if bolt threads extend more than 25mm (1") beyond nut, bolts shall be cut to three threads beyond nut and painted with unthinned zinc rich paint conforming to the requirements of Military Specifications DOD-P.21035A.

All set screws exposed to weather shall be zinc or cadmium-plated with square heads.

The manufacturer shall provide a written warranty against defects in materials and workmanship for the LED pedestrian signal face modules for a period of 36 months after installation of the modules. Replacement modules shall be provided promptly after receipt of modules that have failed at no cost to the City except cost of shipping of the failed modules. Warranty documentation shall be given to the Engineer prior to installation.

E. DETECTORS

Loop detector sensor units, and hot melt rubberized asphalt sealant for inductive detector loop installation will be furnished by the Contractor.

Loop wire shall be Type 2.

Loop detector lead-in cable shall be Type B.

Loops shall be "Type E" installation, circular, 1.8 m (6') in diameter; or, "Type D", 6' square loops, or as indicated on the plans.

Loops shall be installed in the center of the travel lane with the advance approval of the Engineer.

After conductors are installed in the slots cut in the pavement, the slots shall be filled using hot melt rubberized asphalt sealant that conforms to Section 86-1.02W(4), "Hot-Melt Rubberized Asphalt Sealant," of the State Standard Specifications.

F. PEDESTRIAN PUSH BUTTONS

The pedestrian push button housing shall be metallic and shall closely match the curvature of the pole.

The pedestrian crosswalk switches shall meet the American Disabilities Act (ADA) standards.

Pedestrian push buttons shall be the ADA audible type, Polara "BullDog", or approved equal. The button must have an LED light indicator to give an indication of button being pushed.

Button must give a two toned beep indication of button being pushed.

Sign shall have international symbol as show on Standard Plan ES-5C.

Install P.P.B. 910 mm (36") up from pole base and on the side of the pole facing crosswalk. If mounted on a 910 mm (36") post, a post top mounting shall be provided by the Contractor.

The sign and housing shall face towards the crosswalk being served by the P.P.B.

G. LIGHTING

Luminaires shall be furnished and installed by the Contractor as shown on the plans. Luminaires shall be LED, cut-off, Type III medium distribution, 90 Lumens per watt (L/W).

Luminaires shall be mounted on the upper mast arm on the traffic signal poles and new lighting standards as shown and designated on the equipment schedule and plans and City of Madera Standard Specification Drawing No. ST-18 (except LED lamps in slim, low profile, cast aluminum fixtures/housings shall be used).

A NEMA photoelectric control shall be furnished on the mast-arm pole nearest the service pedestal (Type II photoelectric control). This work shall conform to Sections 86-1.02M, "Photoelectric Controls and 87-1.03M, "Photoelectric Controls", of the State Standard Specifications.

All luminaires shall be numbered with 2-inch pressure sensitive numbers as stated on the plan. The identification numbers shall be placed vertically, 8-feet above the pole base.

All luminaires are to be mounted on horizontal mast arms, when tested in accordance with California Test 611, shall be capable of withstanding cyclic loading in:

- e) a vertical plane at a minimum peak acceleration level of 3.0 g's peak-to-peak sinusoidal loading (same as 1.5 g's peak) with the internal ballast removed, for a minimum of 2 million cycles without failure of any luminaire part, and

SECTION 5a horizontal plane perpendicular to the direction of the mast arm at a minimum peak acceleration level of 1.5 g's peak-to-peak sinusoidal loading (same as 0.75 g's peak) with the internal ballast installed, for a minimum of 2 million cycles without failure of any luminaire part.

No part of the slipfitter mounting brackets on the luminaires shall develop a permanent set in excess of 0.020 inches when the four 3/8 inch diameter cap screws used for mounting are tightened to a torque of 10-foot pounds.

H. NON-ILLUMINATED STREET NAME SIGNS AND HANGING BRACKETS

Existing oversized street name signs and mounting brackets shall be removed and relocated/reused by the Contractor where shown on the plans. The Contractor shall also furnish and install oversized street name signs and mounting brackets where shown on the plans.

Signs shall use both upper and lower case series "E" letters, 10-inch upper case, 8-inch lower case, no punctuation. Silver on Green 3M High Intensity Reflective Sheeting, or equal. Entire sign shall be silk screened.

Signs shall be 18-inch high by variable length (one legend). Signs shall be 0.080 Aluminum plate with 1 1/4-inch by 1/8-inch stiffeners top and bottom.

Contractor shall furnish and install mounting brackets for oversized mast arm street name signs. Mounting brackets shall be "Hawkins Overhead Mast Arm Adjustable Swing Sign Brackets", Series 250, or approved equal.

Oversized Street Name Signs shall be hung below the traffic signal mast arm as shown on the plans.

I. SIGNAL INTERCONNECT

Traffic Signal Interconnect conduit shall be furnished and installed by the Contractor as shown on the plans. 3-inch diameter Schedule 80 PVC conduit shall be installed by the Contractor. Interconnect conduit shall terminate in an ITS Vault as shown on the plans. A "Pull Rope" shall be installed in all signal interconnect conduit in order to install Fiber Cable at a future time (Fiber not a part of this contract). Vaults for traffic signal interconnect shall have the words "Signal Interconnect" inscribed on the lids.

J. PAYMENT

Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

5.35 SURVEY MONUMENTS

Survey monuments shall be constructed in conformance with the provisions in Section 78-2, "Survey Monuments," of the State Standard Specifications and these special provisions.

Survey Monuments shall conform to City of Madera Standard Drawing E-1, except that concrete shall be Class 2. The Contractor shall furnish and install all materials, including the bronze survey monument.

The locations where the monuments shall be constructed are shown on the Plans. The exact location of each monument will be provided to the Contractor by the Engineer, and the Contractor shall stake out and construct the monuments in the field.

5.36 CONSTRUCTION AREA SIGNS

Construction area signs for temporary traffic control shall be furnished, installed, maintained, and removed when no longer required in conformance with the provisions in Section 12-3.11, "Construction Area Signs," of the State Standard Specifications, and these special provisions.

Type II retroreflective sheeting shall not be used on construction area sign panels. Type III, IV, VII, VIII, or IX retroreflective sheeting shall be used for stationary mounted construction area sign panels.

Unless otherwise shown on the plans or specified in these special provisions, the color of construction area warning and guide signs shall have black legend and border on orange background.

Repair to construction area sign panels will not be allowed, except when approved by the Engineer. At nighttime under vehicular headlight illumination, sign panels that exhibit irregular luminance, shadowing, or dark blotches shall be immediately replaced at the Contractor's expense.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least 2 business days, but not more than 14 days, prior to commencing excavation for construction area sign posts. The regional notification centers include, but are not limited to, the following:

Underground Service Alert: 811

Excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes. The post hole diameter, if backfilled with portland cement concrete, shall be at least 4 inches greater than the longer dimension of the post cross section.

The Contractor shall maintain accurate information on construction area signs. Signs that are no longer required shall be immediately covered or removed. Signs that convey inaccurate information shall be immediately replaced or the information shall be corrected. Covers shall be replaced when they no longer cover the signs properly. The Contractor shall immediately restore to the original position and location any sign that is displaced or overturned, from any cause, during the progress of work.

5.37 MISCELLANEOUS FACILITIES AND OPERATIONS

This work shall consist of providing all miscellaneous facilities and operations required for work shown on the Plans or specified in the Specifications, or patently necessary for the completion of work so shown or specified, and not specifically included in the work under any other bid item, as shown on the Plans, in conformance with the provisions in the Specifications, and as directed by the Engineer.

This item shall include but not be limited to the following:

1. Install / Display project signs including funding source at the Beginning and End of Project
2. Written notices to businesses and residents
3. Maintaining access to businesses and residents affected by the project work
4. Coordination for Madera Transit Bus stop locations, if any.
5. Coordination for MUSD school bus stop locations
6. Construction Area Signs for temporary traffic control

7. Display 'No Parking' signs as required with the appropriate vehicle code section(s) for towing of parked vehicles.
8. Replacement of existing improvements / facilities damaged during construction
9. Dewatering as needed
10. Cleanup

5.38 CLEAN-UP

In addition to the requirements of the General Conditions, the Contractor shall remove all excess spoil, dirt, rubble, and any other material left over as a result of the work performed. The streets shall be left broom-clean upon completion of the work. All excess material shall be disposed of at an approved disposal site.

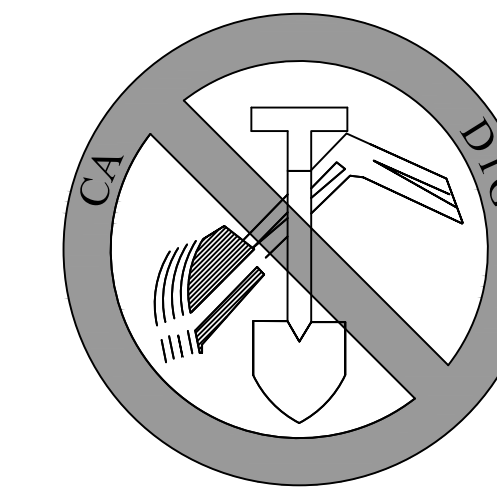
Full compensation for clean-up shall be considered as included in the prices paid for various contract items of work, and no separate payment will be made therefor.

Attachment O

Plans and Specification prepared or issued by City of Madera entitled
“CITY OF MADERA AVENUE 13 SEWER INTERCEPTOR REHABILITATION”
dated **April, 2024**

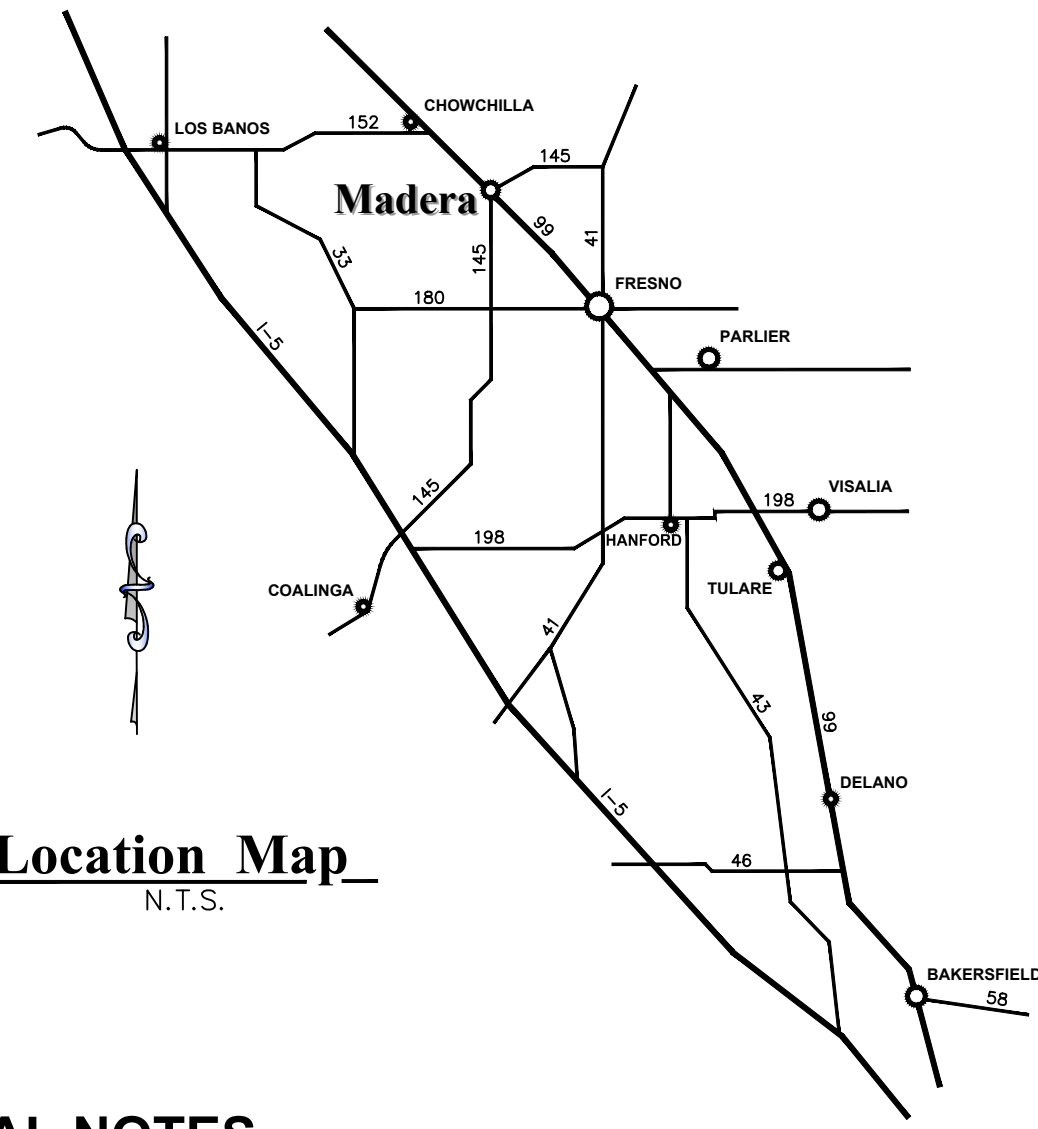
CITY OF MADERA CALIFORNIA

OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS FROM OLIVE AVENUE TO NEPLUS WAY CITY PROJECT NO. R 000010 (PHASE III)



**48 HOURS
BEFORE EXCAVATING
CALL "U.S.A." TOLL FREE
800 227-2600
UNDERGROUND SERVICE
ALERT**

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



Location Map
N.T.S.

GENERAL NOTES

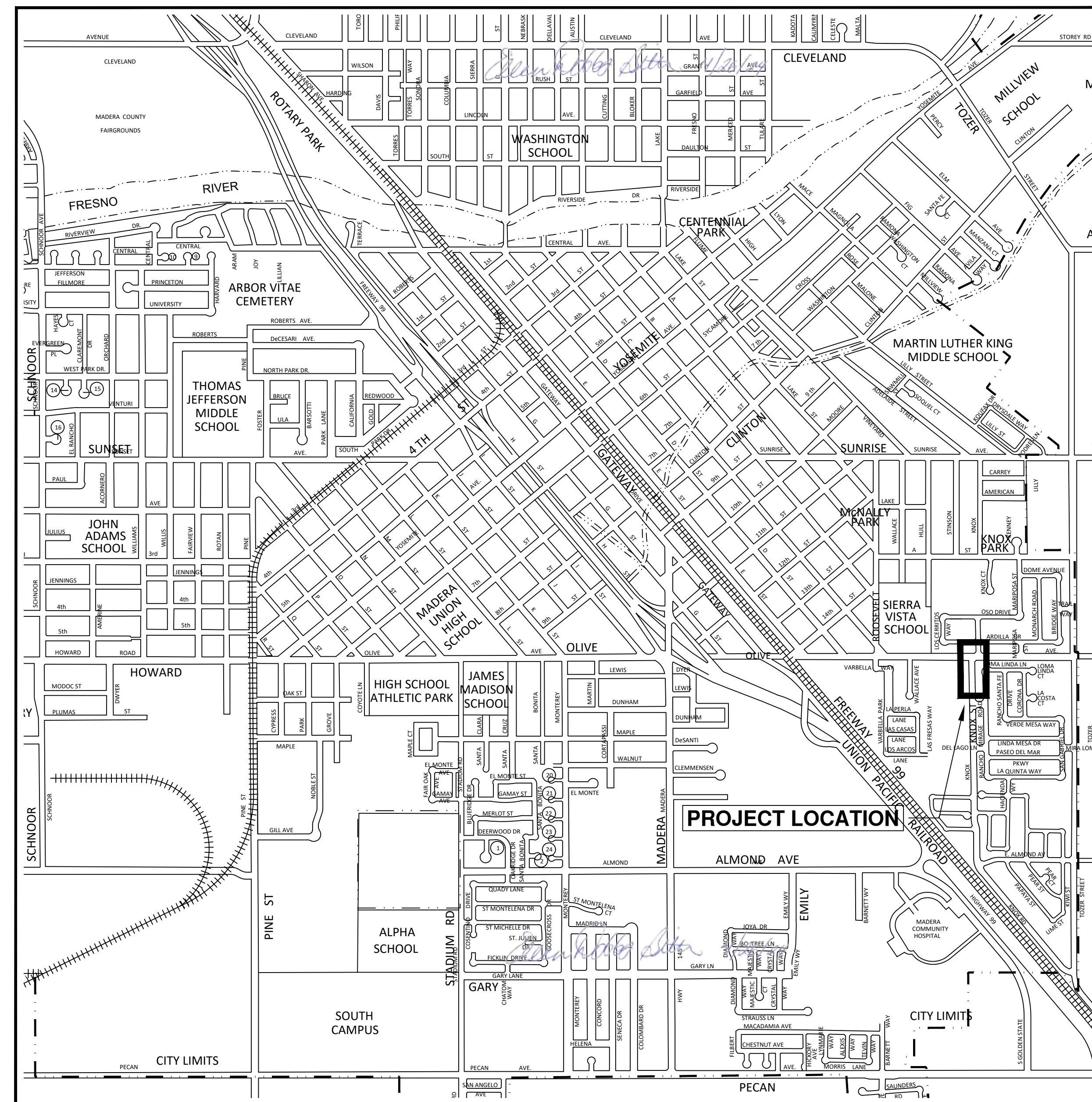
1. WORK SHALL BE DONE IN ACCORDANCE WITH THE 2018 EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD), 2014 EDITION, AND THE LATEST EDITION OF THE CITY OF MADERA STANDARD PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES, WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS, AND SHALL PROVIDE PROTECTION PRIOR TO, DURING AND AFTER TRENCHING, JACKING AND/OR BORING. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA), TOLL FREE AT (800) 642-2444, AT LEAST 48 HOURS BEFORE BEGINNING WORK.
3. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED TO PERFORM THE WORK AND HE SHALL ABIDE BY THE CONDITIONS OF THE PERMITS AND SHALL PERFORM ALL WORK ORDERED BY SAID PERMITS IN CONFORMANCE THEREWITH AND AS DIRECTED BY THE ENGINEER.
4. TRAFFIC CONTROL PLANS SHALL CONFORM TO PART 6 OF THE STATE OF CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2014 OR LATEST EDITION.
5. THE CONTRACTOR SHALL NOTIFY ALL RESIDENCES AND BUSINESSES AFFECTED BY THE WORK OF THIS CONTRACT PRIOR TO THE BEGINNING OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE EVIDENCE TO THE CITY WHEN SUCH NOTIFICATION HAS BEEN MADE.
6. CONTRACTOR MUST OBTAIN A NO FEE ENCROACHMENT PERMIT FROM THE CITY ENGINEERING DIVISION.
7. A PRE-CONSTRUCTION MEETING WITH THE CITY ENGINEER SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION.
8. DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING ALIGNMENT AND VERTICAL CONTROL OF THIS PROJECT, AND VERIFY ACTUAL PROFILE GRADE AND CROSS-SLOPE.
9. UTILITIES SHOWN WERE TAKEN FROM THE TOPOGRAPHIC BASE MAPS AND PLAN DRAWING PROVIDED BY UTILITY COMPANIES OR AGENCIES, AND/OR FIELD SURVEYS AND INVESTIGATION. THE DEPICTION IS BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME THESE PLANS WERE PREPARED. IT IS POSSIBLE THAT OTHER ADDITIONAL UTILITIES EXIST THAT WERE NOT REVEALED BY THAT INFORMATION.
10. ANY EXISTING SECTION CORNER, QUARTER SECTION CORNER, PROPERTY CORNER, STREET CENTERLINE MONUMENT, OR ANY OTHER BENCHMARK DAMAGED BY THE CONTRACTOR IN THE COURSE OF THE WORK COVERED BY THESE PLANS SHALL BE RESET TO THE SATISFACTION OF THE CITY ENGINEER. A LICENSED LAND SURVEYOR OR CIVIL ENGINEER LICENSED TO PERFORM LAND SURVEYING SHALL CERTIFY THE PLACEMENT OR REPLACEMENT OF ALL MONUMENTS AND BENCHMARKS IN ACCORDANCE WITH ALL LAWS, RULES AND REGULATIONS GOVERNING SUCH PLACEMENTS OR REPLACEMENTS. PLACEMENT/REPLACEMENT AND CERTIFICATION SHALL BE COMPLETED BEFORE FINAL ACCEPTANCE OF THE PROJECT WORK BY THE CITY. BRONZE CAPS REQUIRED FOR THE INSTALLATION OF NEW OR REPLACEMENT MONUMENTS SHALL BE FURNISHED BY THE CONTRACTOR PER CITY STANDARD DRAWING NO. E-1, AND APPROVED BY THE CITY PRIOR TO INSTALLATION. A RECORD OF SURVEY PREPARED BY A LICENSED LAND SURVEYOR OR CIVIL ENGINEER LICENSED TO PERFORM LAND SURVEYING, SHALL BE PREPARED AND RECORDED AFTER PLACEMENT/REPLACEMENT OF MONUMENTS HAS BEEN COMPLETED.
11. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE CITY ENGINEER, AT THE CONTRACTOR'S SOLE EXPENSE.
12. CONTRACTOR SHALL BE RESPONSIBLE TO SET MONUMENTS AT CENTERLINE INTERSECTION POINTS, AND BEGINNING AND END OF CURVES (BC & EC), WHERE MANHOLES OR OTHER OBSTRUCTIONS PREVENT THE INSTALLATION OF MONUMENTS AT THE PRESCRIBED LOCATIONS, MONUMENTS TIES SHALL BE FURNISHED SUFFICIENT IN NUMBERS TO RE-CREATE THE APPROPRIATE POINT.

GENERAL GRADING AND DRAINAGE NOTES

THE REQUIREMENTS AND INFORMATION SET OUT BELOW ARE PROVIDED FOR THE CONTRACTOR'S CONVENIENCE AND DO NOT ENCOMPASS ALL PROJECT REQUIREMENTS DESCRIBED BY THE PROJECT PLANS AND SPECIFICATIONS AND/OR APPLICABLE LAWS, REGULATIONS AND/OR BUILDING CODES.

1. CONSTRUCTION OF ALL PROJECT SITE IMPROVEMENTS SUBJECT TO ADA ACCESS COMPLIANCE, INCLUDING ACCESSIBLE PATH OF TRAVEL, CURB RETURNS, PARKING STALL(S) AND UNLOADING AREAS, BARRIER FREE AMENITIES AND/OR OTHER APPLICABLE SITE IMPROVEMENTS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT, CALIFORNIA TITLE 24, AND THE CALIFORNIA BUILDING CODE, CURRENT EDITION(S).
2. CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND SLOPES PRIOR TO THE PLACEMENT OF CONCRETE AND/OR PAVEMENT FOR CONFORMANCE WITH ADA ACCESS COMPLIANCE REQUIREMENTS. EXAMPLES OF MINIMUM AND MAXIMUM LIMITS RELATED TO ADA ACCESS COMPLIANCE INCLUDE, BUT ARE NOT LIMITED TO:
 - a) ACCESSIBLE PATH OF TRAVEL CROSS-SLOPE SHALL NOT EXCEED 2.00%
 - b) ACCESSIBLE PATH OF TRAVEL LONGITUDINAL SLOPES SHALL NOT EXCEED 5.00%
 - c) RAMP LONGITUDINAL SLOPES SHALL NOT EXCEED 8.33%
 - d) WALKS SHALL NOT HAVE LESS THAN 48 INCHES IN UNOBSTRUCTED WIDTH
3. CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IDENTIFIED BY THE PROFESSIONAL ENGINEERING SEAL AND SIGNATURE ON THESE PLANS, OF ANY SITE CONDITION(S) AND/OR DESIGN INFORMATION THAT PREVENTS THE CONTRACTOR FROM COMPLYING WITH THE LAWS, REGULATIONS AND/OR BUILDING CODES GOVERNING ADA ACCESS COMPLIANCE.
4. DRAINAGE SHALL NOT BE ALLOWED ONTO ADJACENT PROPERTY.
5. THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES AS REQUIRED BY THE PROJECT SPECIFICATIONS, AND BY GOVERNING PUBLIC AGENCIES.
6. THE CONTRACTOR SHALL IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE PROJECT SPECIFICATIONS.

CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE PERFORMANCE OF WORK, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, ON A CONTINUOUS BASIS NOT LIMITED TO NORMAL WORKING HOURS. CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE CITY OF MADERA FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OF MADERA.



VICINITY MAP

N.T.S.

BASIS OF ELEVATION

NATIONAL GEODETIC SURVEY (NGS) POINT "PID-GU1080", DESIGNATED "W 85 RESET 1932", LOCATED NEAR THE NORTHEAST CORNER OF THE GATEWAY DRIVE BRIDGE OVER THE FRESNO RIVER. SEE NGS DATA SHEET FOR FURTHER DIRECTIONS. THE NAVD88 ELEVATION, PER THE NGS DATASHEET = 274.10 FEET.

BASIS OF BEARINGS

THE NORTH LINE OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 30, TOWNSHIP 11 SOUTH, RANGE 18 EAST, MOUNT DIABLO MERIDIAN BEING SOUTH 89°08'13" EAST.

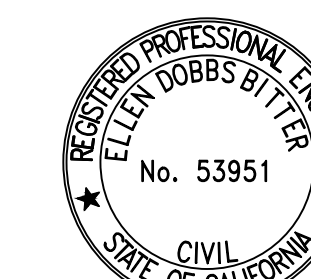
SHEET INDEX

SHEET NO.	SHEET ID	DESCRIPTION
1	C-1	COVER SHEET
2	P-1	PLAN & PROFILE - OLIVE AVENUE STA. 28+00 TO KNOX STREET
3	P-2	PLAN & PROFILE - KNOX STREET STA. 51+00 TO NEPLUS WAY
4	SM-1	STREET SIGNING, MARKING AND STRIPING PLAN
5	TS-1	TRAFFIC SIGNAL - OLIVE AVENUE AND KNOX STREET
6	TS-2	TRAFFIC SIGNAL - OLIVE AVENUE AND KNOX STREET SCHEDULE AND NOTES

CONTACTS

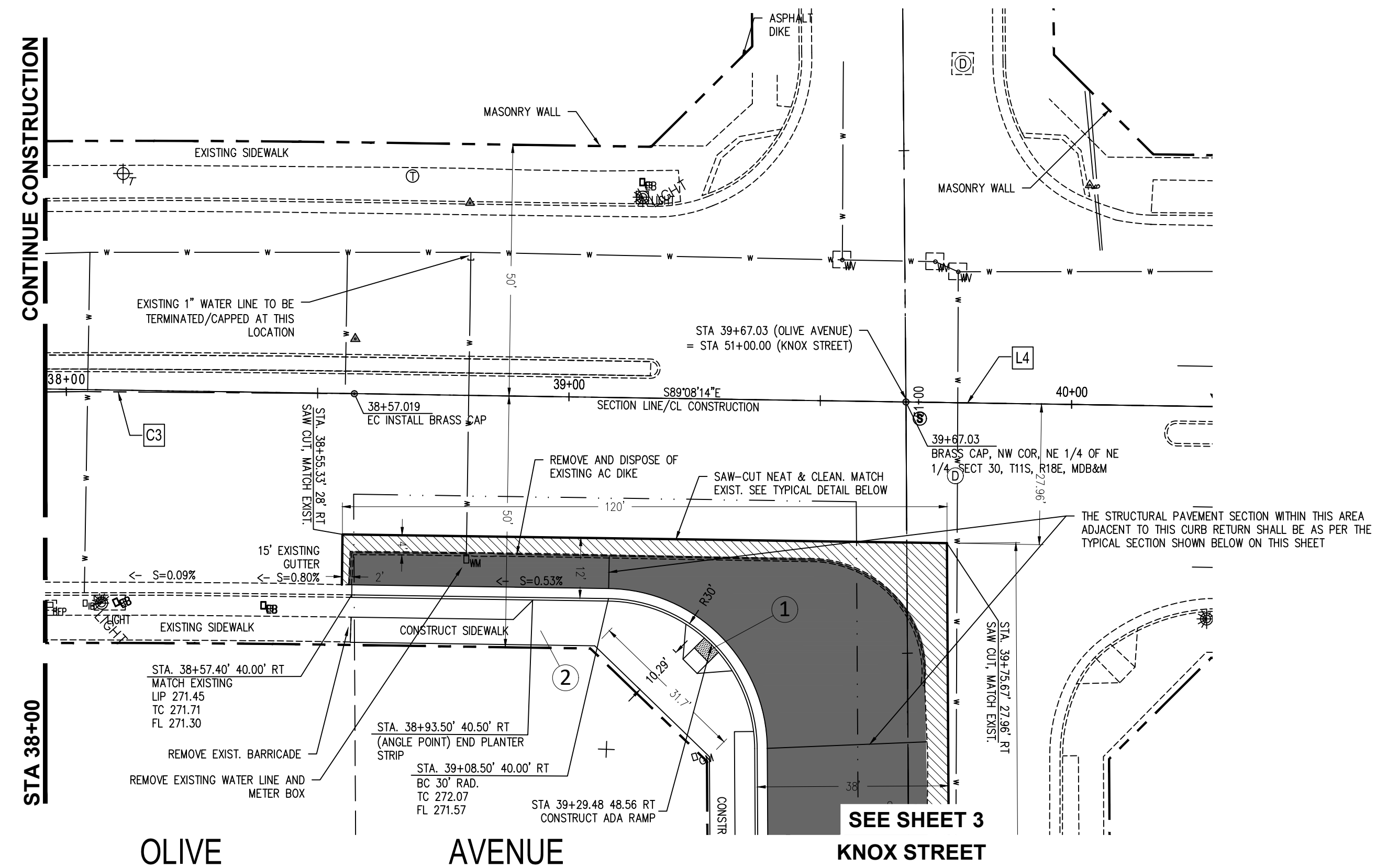
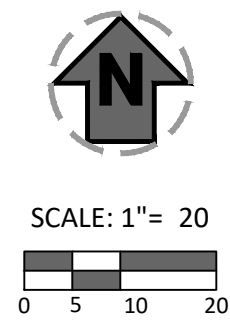
CITY ENGINEER.....	KEITH HELMUTH.....	559-661-5418
PROJECT ENGINEER.....	ELLEN BITTER.....	559-661-5418
ASST. PROJECT ENGINEER.....		559-661-5418
RESIDENT ENGINEER.....		559-661-5418
STREET DEPARTMENT.....		559-661-5466
CITY ELECTRICAL FACILITIES.....		559-661-5466
POLICE DEPARTMENT.....		559-674-5611
FIRE DEPARTMENT.....		559-661-5497
PACIFIC GAS & ELECTRIC.....		800-743-5000
COMCAST (CABLE).....		559-656-6000
AT&T.....		800-241-3624
SPRINT.....		800-521-0579
CENTURY LINK.....		800-526-3557
UNDERGROUND UTILITY LOCATING SERVICE.....		800-642-2444

OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS COVER SHEET	
	CITY OF MADERA ENGINEERING DEPARTMENT 428 EAST YOSEMITE AVENUE MADERA, CA 93637
C-1	SHEET 1 OF 6 SHEETS
APPROVED BY:	<i>Ellen Bitter</i> DATE 4-26-24 CITY ENGINEER
PLAN REVISION	
INITIAL ISSUE DATE:	04/22/2024
CHANGE	DATE APPROVAL
REV.	
REV.	
REV.	
REV.	
REV.	
CONTRACTOR:	
WORK ORDER No.	
REVIEWED BY:	PUBLIC WORKS: FIRE DEPARTMENT: PARKS DEPARTMENT: DESIGNED BY: E. BITTER DRAWN BY: S. ROBERSON CHECKED BY: INSPECTED BY:
CONSTRUCTION DATES:	DATE STARTED DATE COMPLETED
PROJECT No.	R-000010 (PHASE III)

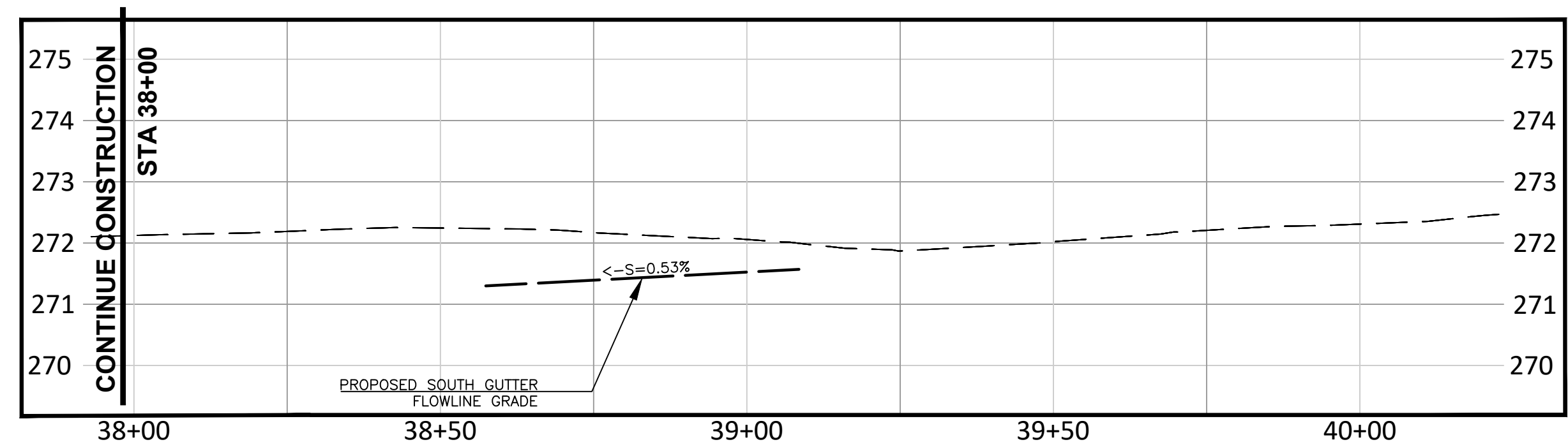


Ellen Dobbs Bitter 4/26/24
ELLEN DOBBS BITTER DATE

4/26/2024 10:27AM SCOPED PROJECTS BY: KASB-KALIBRA-TOOLBOX-WEEDING/SCOPED DRAWING/03/03/2024/CONTRACTOR/684002/18/1/2/20/24/03/03/2024



PLAN VIEW
SCALE: 1"=20'

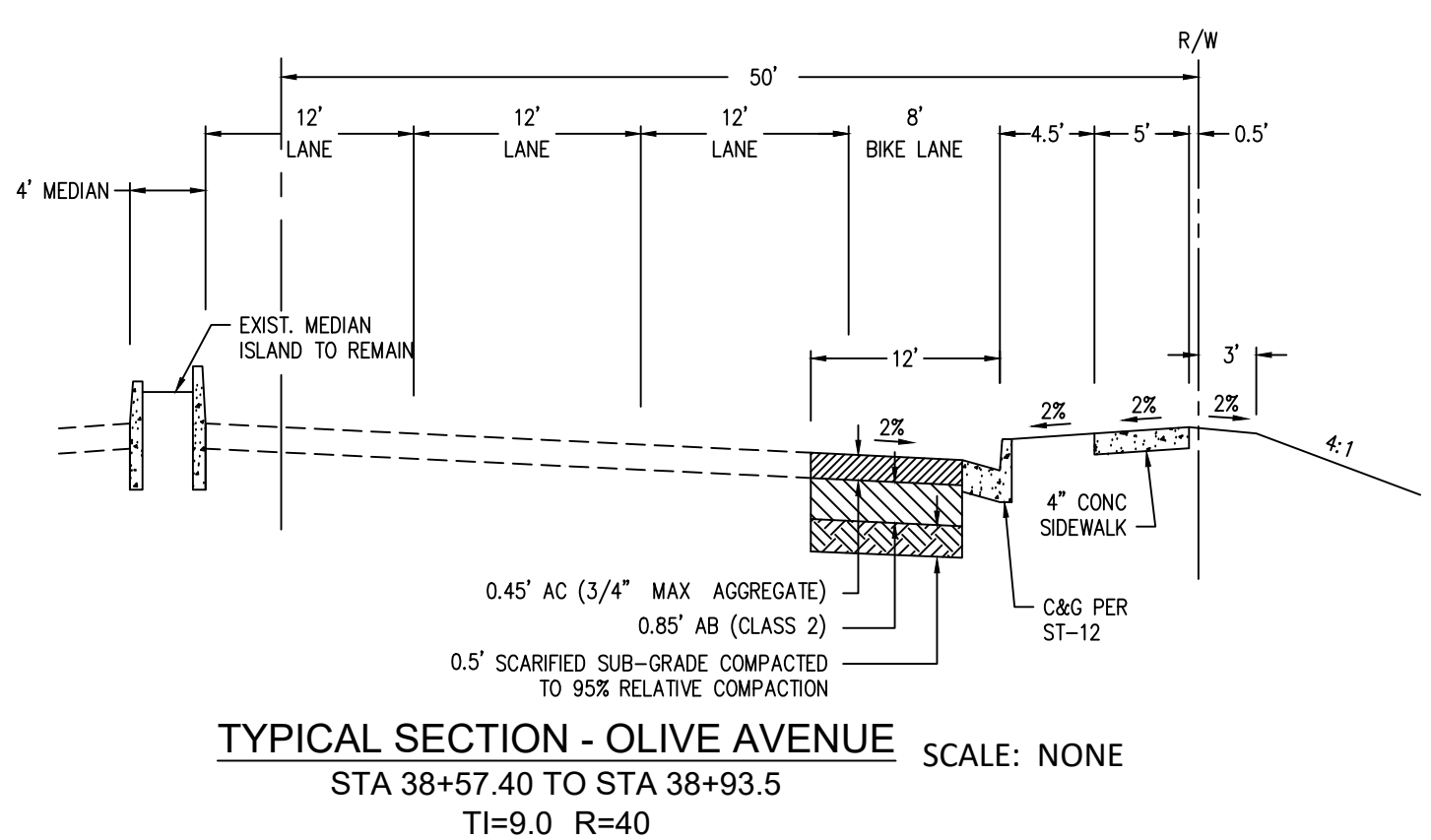


PROFILE VIEW
SCALE: HORIZ=1"=20'
VERT=1"=2'

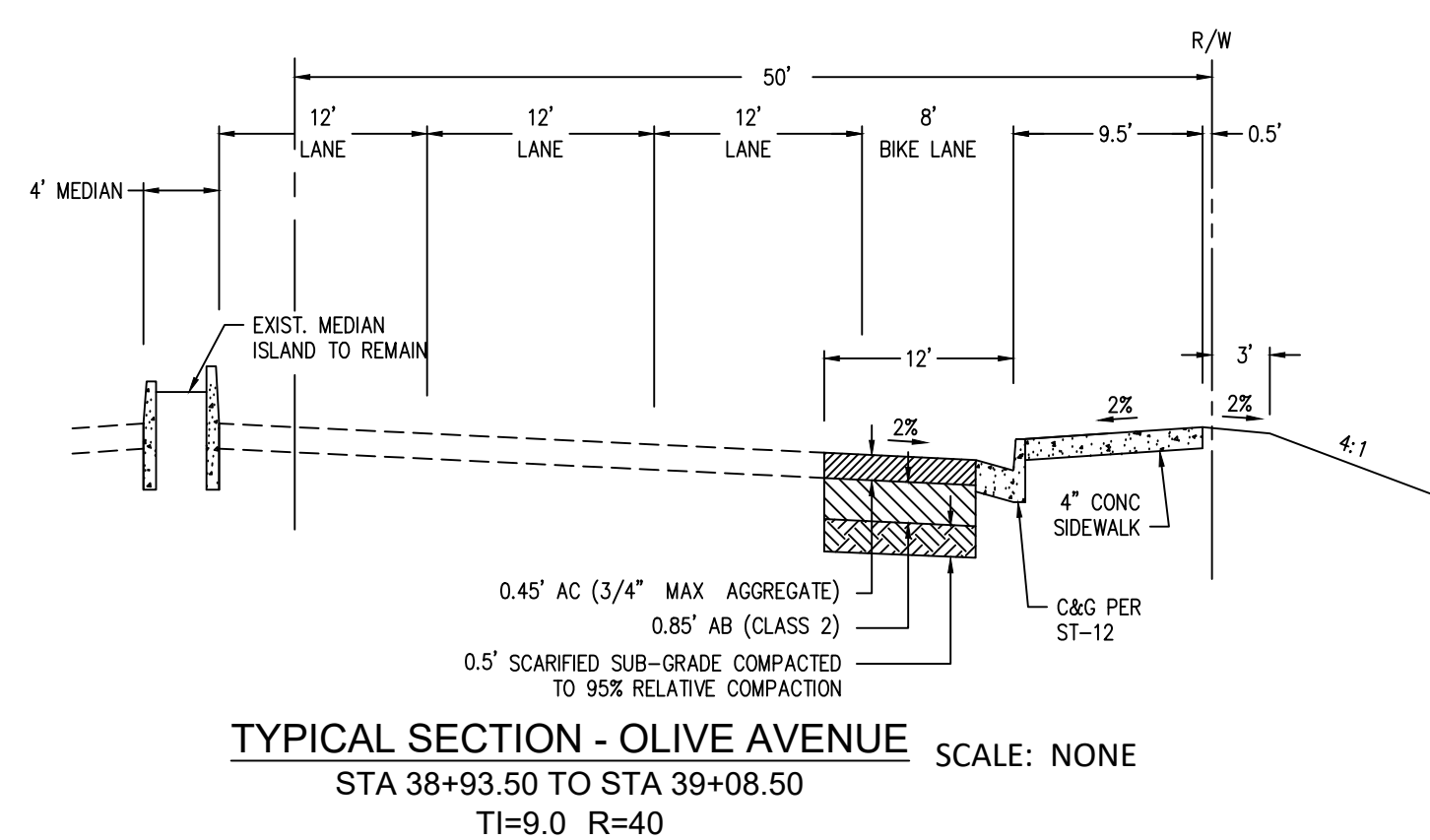
SYMBOL LEGEND		SYMBOL LEGEND		SYMBOL LEGEND	
BFP	BACKFLOW PREVENTER	TS	TRAFFIC SIGNAL POLE	AC	ASPHALT CONCRETE
EB	ELECTRIC BOX	ER	ELECTRIC RISER OR PANEL	AB	AGGREGATE BASE
IB	IRRIGATION BOX	TL	TELEPHONE RISER OR PANEL	EV	ELECTRIC VAULT
B	BUSH	SM	SURVEY MONUMENT	LT	LEFT
CB	CATCH BASIN	SDI	STORM DRAIN INLET	RT	RIGHT
T	TREE	SCO	SEWER CLEAN-OUT	STA	STATION
FH	FIRE HYDRANT	S	SIGN	TSV	TRAFFIC SIGNAL VAULT
GP	GUARDPOST	WV	WATER VALVE	TSB	TRAFFIC SIGNAL BOX
GW	GUY WIRE ATTACHMENT	GV	GAS VALVE	TV	TELECOMMUNICATIONS VAULT
WT	WATER TEE CONNECTION	TELE	TELEPHONE VAULT	HCR	HANDICAP RAMP
		WV	WATER VALVE PROPOSED	VAR	VEHICLE ACCESS RAMP
		W	WELL	OPL	OFFICIAL PLAN LINE

LEGEND

- CONSTRUCT ROADWAY PER TYPICAL SECTION AS SHOWN ON THIS SHEET
- SAWCUT, REMOVE AND DISPOSE EXISTING AC AND REPLACE PER TYPICAL SECTION (SEE THIS SHEET)
- CONSTRUCT ADA RAMP AND RETURN PER CITY STD. ST-16
- CONSTRUCT CONCRETE SIDEWALK PER CITY STD. ST-13A AND MAINTAIN ADA PATH OF TRAVEL AROUND CONTROLLER (SIGNAL) EQUIPMENT
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER MANHOLE



TYPICAL SECTION - OLIVE AVENUE
SCALE: NONE
STA 38+57.40 TO STA 38+93.5
TI=9.0 R=40



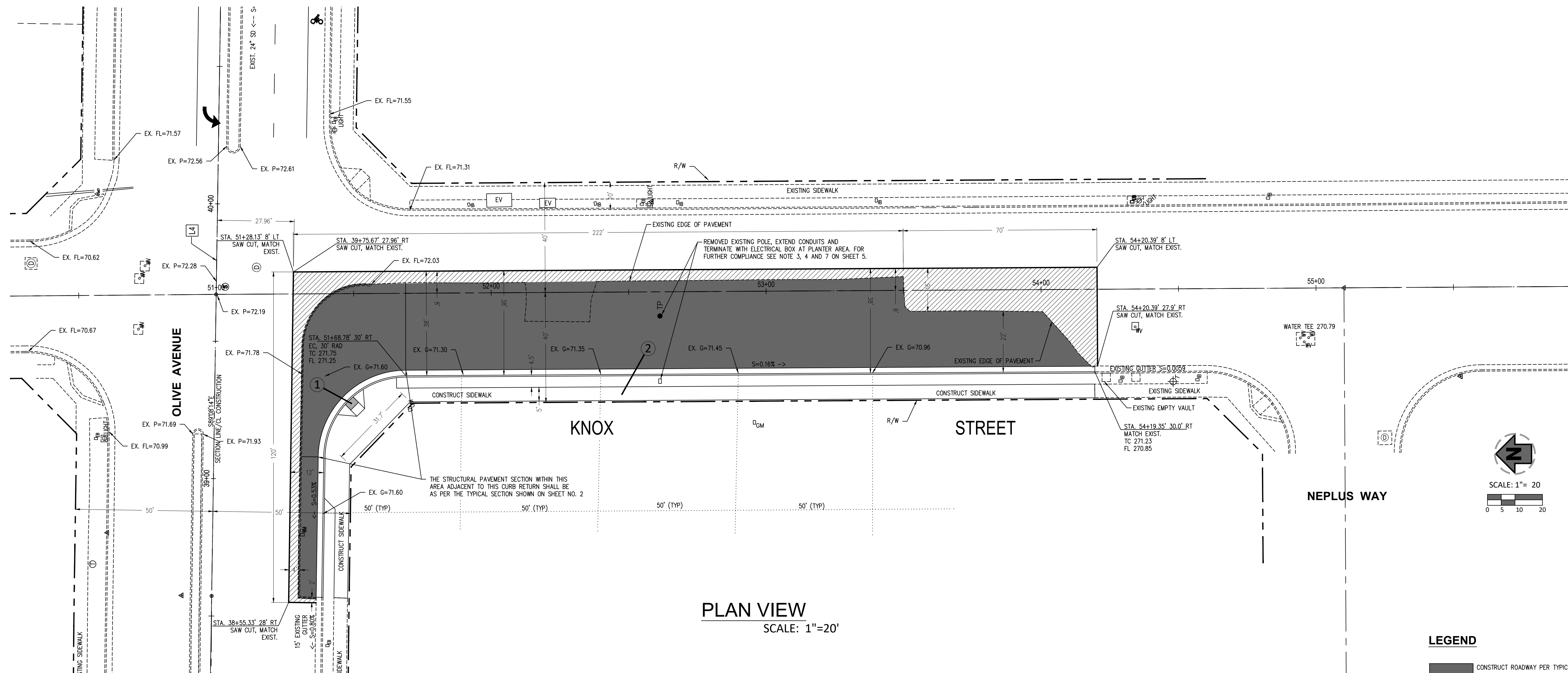
TYPICAL SECTION - OLIVE AVENUE
SCALE: NONE
STA 38+93.50 TO STA 39+08.50
TI=9.0 R=40

	OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS PLAN & PROFILE - OLIVE AVENUE STA. 38+00 TO KNOX STREET	
	CITY OF MADERA ENGINEERING DEPARTMENT 428 EAST YOSEMITE AVENUE MADERA, CA 93637	P-1 SHEET 2 OF 6 SHEETS APPROVED BY: <i>[Signature]</i> DATE 4-26-24 CITY ENGINEER
PLAN REVISION INITIAL ISSUE DATE: 04/22/2024 CHANGE DATE APPROVAL		REVIEWED BY: PUBLIC WORKS: FIRE DEPARTMENT: PARKS DEPARTMENT: DESIGNED BY: E. BITTER CHECKED BY: DRAWN BY: S. ROBERSON INSPECTED BY: CONSTRUCTION DATES DATE STARTED DATE COMPLETED CONTRACTOR: PROJECT No. R-000010 (PHASE III)



Ellen Dobbs Bitter 4/26/24
ELLEN DOBBS BITTER DATE

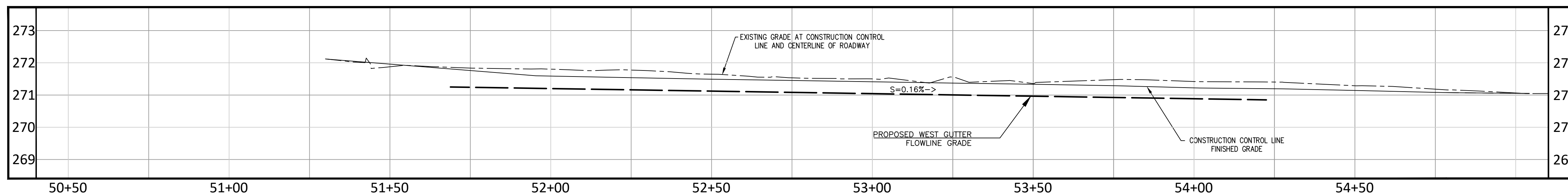
4/22/2024 10:51 AM
 S:\CIP\PROJECTS\BY\REGAL\MAPS\PP\1409-01\OLIVE WIDENING\CSO\DRAWING\010 PROFILE AND PLAN\CONSTRUCTION\PLAN AND PROFILE\02024 AND LILE\1409224



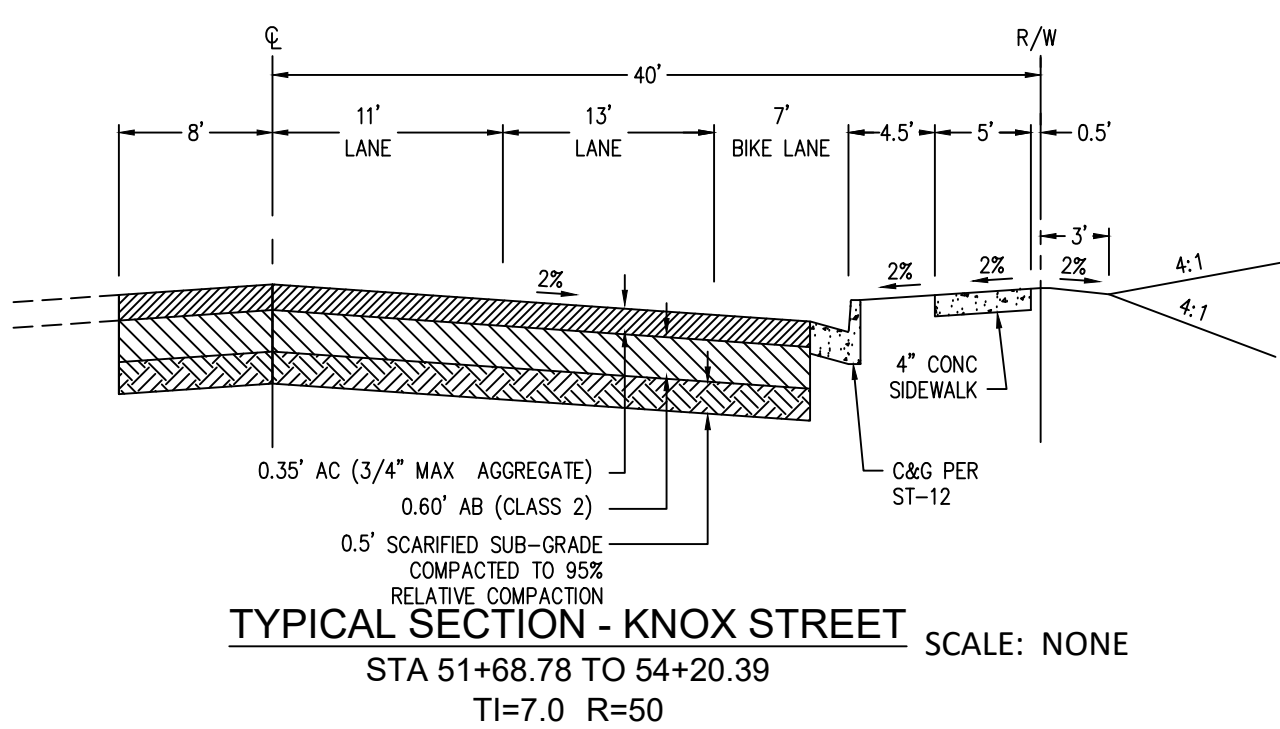
PLAN VIEW
SCALE: 1"=20'

LEGEND

- CONSTRUCT ROADWAY PER TYPICAL SECTION AS SHOWN ON THIS SHEET
- SAWCUT, REMOVE AND DISPOSE EXISTING AC AND REPLACE PER TYPICAL SECTION (SEE THIS SHEET)
- ① CONSTRUCT ADA RAMP AND RETURN PER CITY STD. ST-16
- ② CONSTRUCT CONCRETE SIDEWALK PER CITY STD. ST-13A
- Ⓧ EXISTING STORM DRAIN MANHOLE
- Ⓢ EXISTING SANITARY SEWER MANHOLE



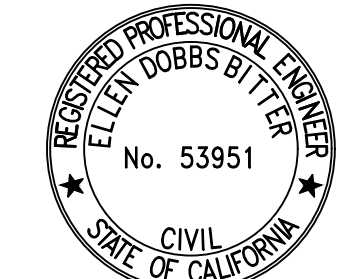
PROFILE VIEW
SCALE: HORIZ=1"=20'
VERT=1"=2'



TYPICAL SECTION - KNOX STREET
SCALE: NONE
STA 51+68.78 TO 54+20.39
TI=7.0 R=50

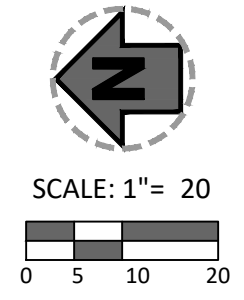
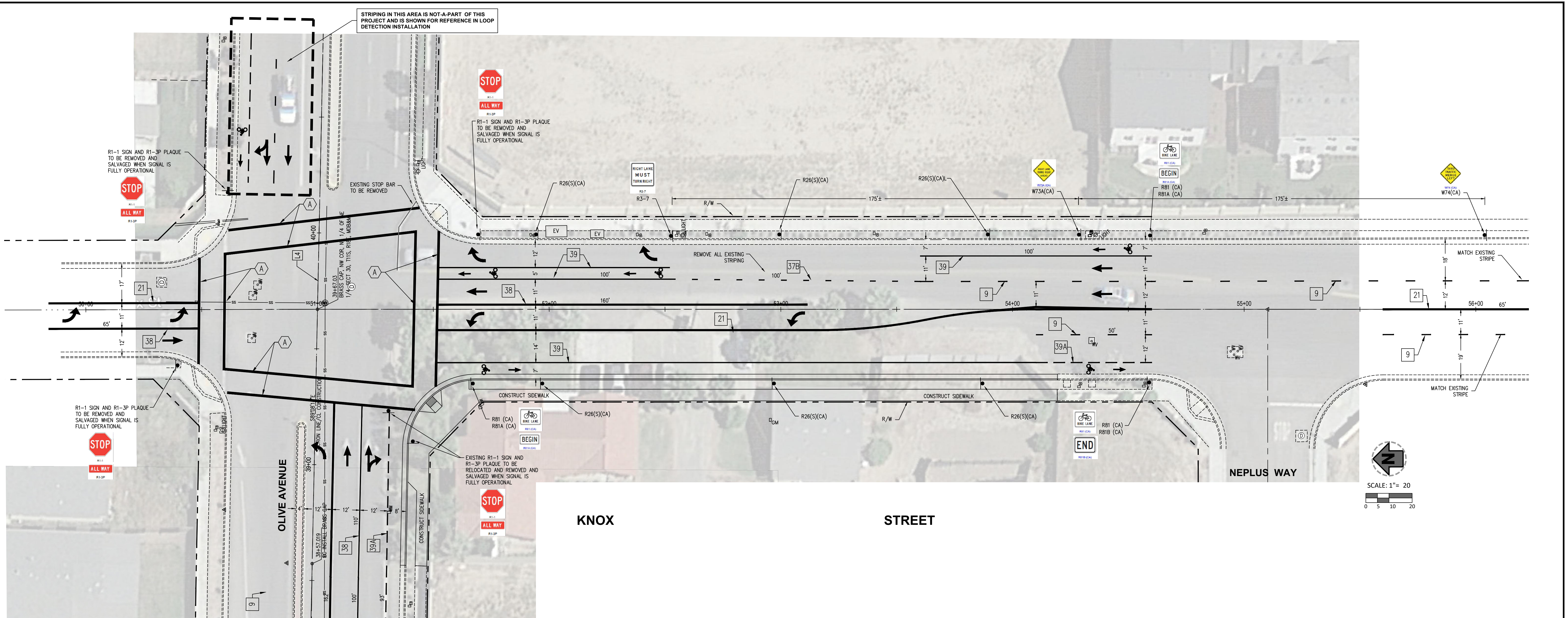
SYMBOL LEGEND	
BFP	BACKFLOW PREVENTER
EB	ELECTRIC BOX
IB	IRRIGATION BOX
	BUSH
	CATCH BASIN
	TREE
	FIRE HYDRANT
	GUARDPOST
	GUY WIRE ATTACHMENT
	WATER TEE CONNECTION
	HOSE BIB
	AREA LIGHT
	STREET LIGHT
	SANITARY SEWER MANHOLE
	STORM DRAIN MANHOLE
	TELEPHONE MANHOLE
	GAS METER
	WATER METER
	PALM TREE
	UTILITY POLE
	SERVICE POLE
	TELEPHONE POLE
	TRAFFIC SIGNAL POLE
	ELECTRIC RISER OR PANEL
	TELEPHONE RISER OR PANEL
	SURVEY MONUMENT
	STORM DRAIN INLET
	SEWER CLEAN-OUT
	SIGN
	WATER VALVE
	GAS VALVE
	TELECOMMUNICATIONS VAULT
	TELEPHONE VAULT
	WATER VALVE PROPOSED
	WELL
	ASPHALT CONCRETE
	AGGREGATE BASE
	ELECTRIC VAULT
	LEFT
	RIGHT
	STATION
	TRAFFIC SIGNAL VAULT
	TRAFFIC SIGNAL BOX
	TELECOMMUNICATIONS VAULT
	HANDICAP RAMP
	VEHICLE ACCESS RAMP
	OFFICIAL PLAN LINE

		OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS PLAN AND PROFILE - KNOX STREET OLIVE AVENUE TO NEPLUS	
		CITY OF MADERA ENGINEERING DEPARTMENT 428 EAST YOSEMITE AVENUE MADERA, CA 93637	
INITIAL ISSUE DATE: 04/22/2024		P-2 SHEET 3 OF 6 SHEETS	
CHANGE DATE APPROVAL		APPROVED BY: DATE 4-26-24 CITY ENGINEER	
REVIEWED BY: PUBLIC WORKS:		DESIGNED BY: E. BITTER CHECKED BY:	
DRAWN BY: S. ROBERSON INSPECTED BY:		CONSTRUCTION DATES DATE STARTED DATE COMPLETED	
CONTRACTOR:		PROJECT No. R-000010 (PHASE III)	
WORK ORDER No.		REVIEWED BY:	



Ellen Dobbs Bitter 4/26/24
ELLEN DOBBS BITTER DATE

4/22/2024 10:47 AM
 S:\CADD\PROJECTS\2024\KNOX AND OLIVE WIDENING\DRAWINGS\03 - PROFILE AND PLAN\KNOX.CONTRACTOR\KNOX.PLOT



- LEGEND: STRIPING**
- [NO.] REFERS TO STRIPING DETAIL NUMBER PER 2014 MUTCD MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
 - (A) 12" WIDE CROSSWALK WHITE LINES
 - (B) 12" WIDE CROSSWALK YELLOW LINES
 - (C) 12" WIDE STOP LINE
 - (D) 12" WIDE WHITE LINE, 10' SPACING
 - (F) TYPE Q OBJECT MARKER
 - (G) TYPE K2(CA) OBJECT MARKER
 - (H) REPAINT EXIST. STRIPING / MARKING

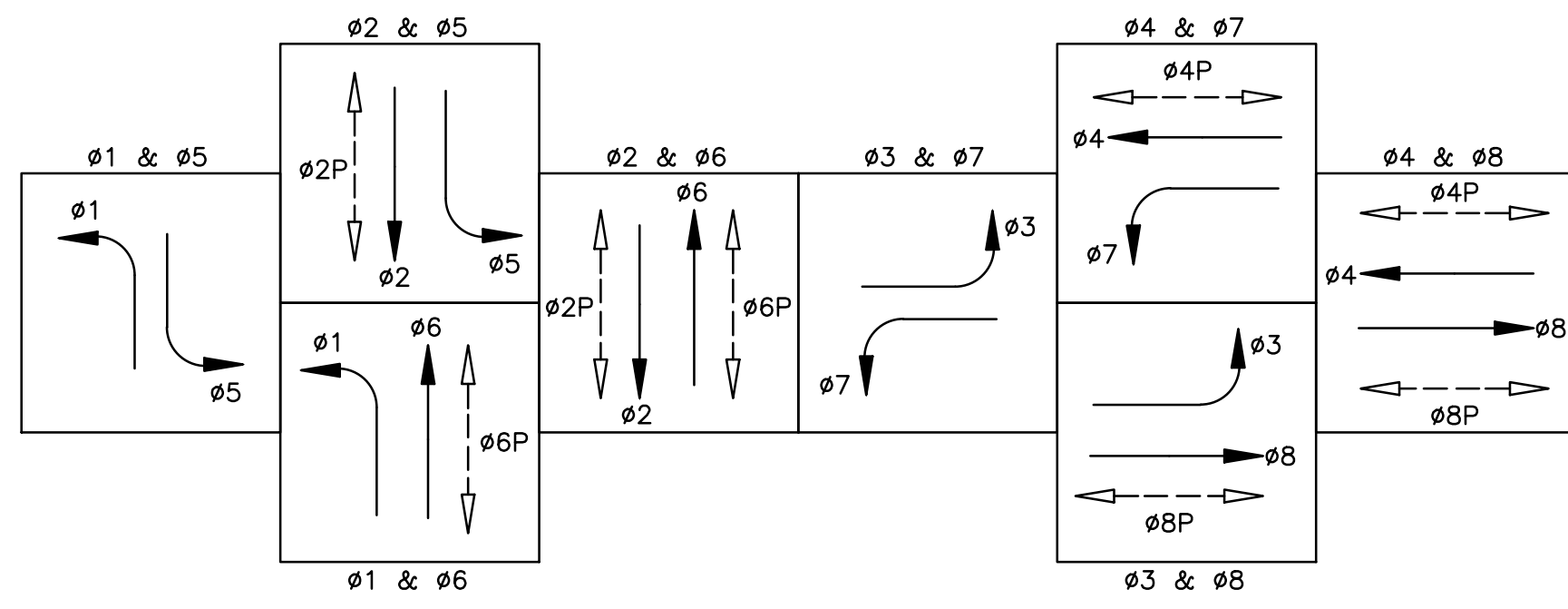
- GENERAL NOTES FOR SIGNING AND STRIPING:**
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CITY OF MADERA STANDARD SPECIFICATIONS, CALTRANS STANDARD PLANS AND SPECIFICATIONS, CALIFORNIA MUTCD, AND THE SPECIAL PROVISIONS.
 2. ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE PAINTED, EXCEPT AS OTHERWISE NOTED ON THE PLANS.
 3. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 4. REMOVE CONFLICTING EXISTING TRAFFIC STRIPES AND PAVEMENT MARKINGS BY APPROVED GRINDING METHOD.
 5. ALL CURB LANE WIDTHS ARE MEASURED TO FACE OF CURB.
 6. THIS PLAN IS ACCURATE FOR SIGNING AND STRIPING ONLY.
 7. ALL CROSSWALKS SHALL BE 12" WIDE, OUTSIDE EDGE TO OUTSIDE EDGE.
 8. PAINTING TO BE PER CALTRANS STANDARD, 7 DAYS AFTER FOG SEAL APPLICATION.
 9. PAINTING REQUIRES 2 COATS.
 10. INSTALL BLUE PAVEMENT MARKER AT ALL FIRE HYDRANTS PER CITY STD. DRAWING W-6
 11. PAINT MEDIAN NOSE 4 FEET WITH TRAFFIC YELLOW.
 12. INSTALL TYPE "Q" MARKERS ON ALL MEDIAN NOSES.

Ellen Dobbs Bitter 4/26/24
 ELLEN DOBBS BITTER DATE



CITY OF MADERA ENGINEERING DEPARTMENT 428 EAST YOSEMITE AVENUE MADERA, CA 93637		OLIVE AVENUE AND KNOX STREET WIDENING AND INTERSECTION IMPROVEMENTS STREET SIGNING, STRIPING & MARKING PLAN	
		SM-1 SHEET 4 OF 6 SHEETS	APPROVED BY: <i>E. Bitter</i> DATE 4-26-24 CITY ENGINEER
PLAN REVISION INITIAL ISSUE DATE: 04/22/2024		REVIEWED BY: PUBLIC WORKS: FIRE DEPARTMENT: PARKS DEPARTMENT: DESIGNED BY: E BITTER DRAWN BY: S ROBERSON CHECKED BY: INSPECTED BY:	
CHANGE DATE APPROVAL	CONSTRUCTION DATES DATE STARTED DATE COMPLETED		
WORK ORDER No.		PROJECT No. R-000010 (PHASE III)	

M020224.0201M
 SCOPED PROJECTS BY FICAL WORKS BY 14-15-2024 09:45:00 AM M020224.0201M 14-15-2024 09:45:00 AM M020224.0201M 14-15-2024 09:45:00 AM

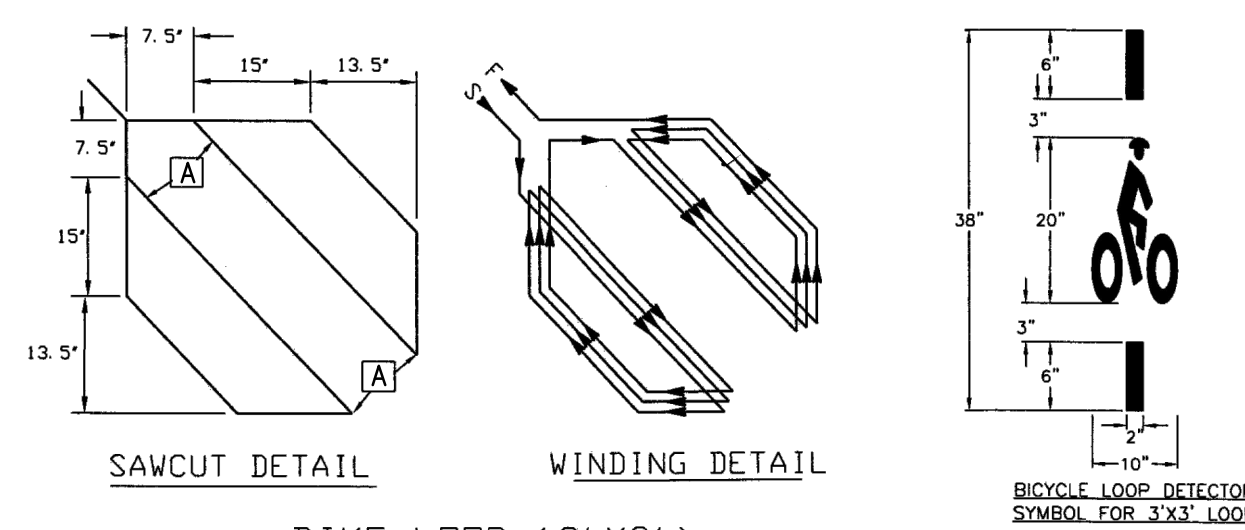
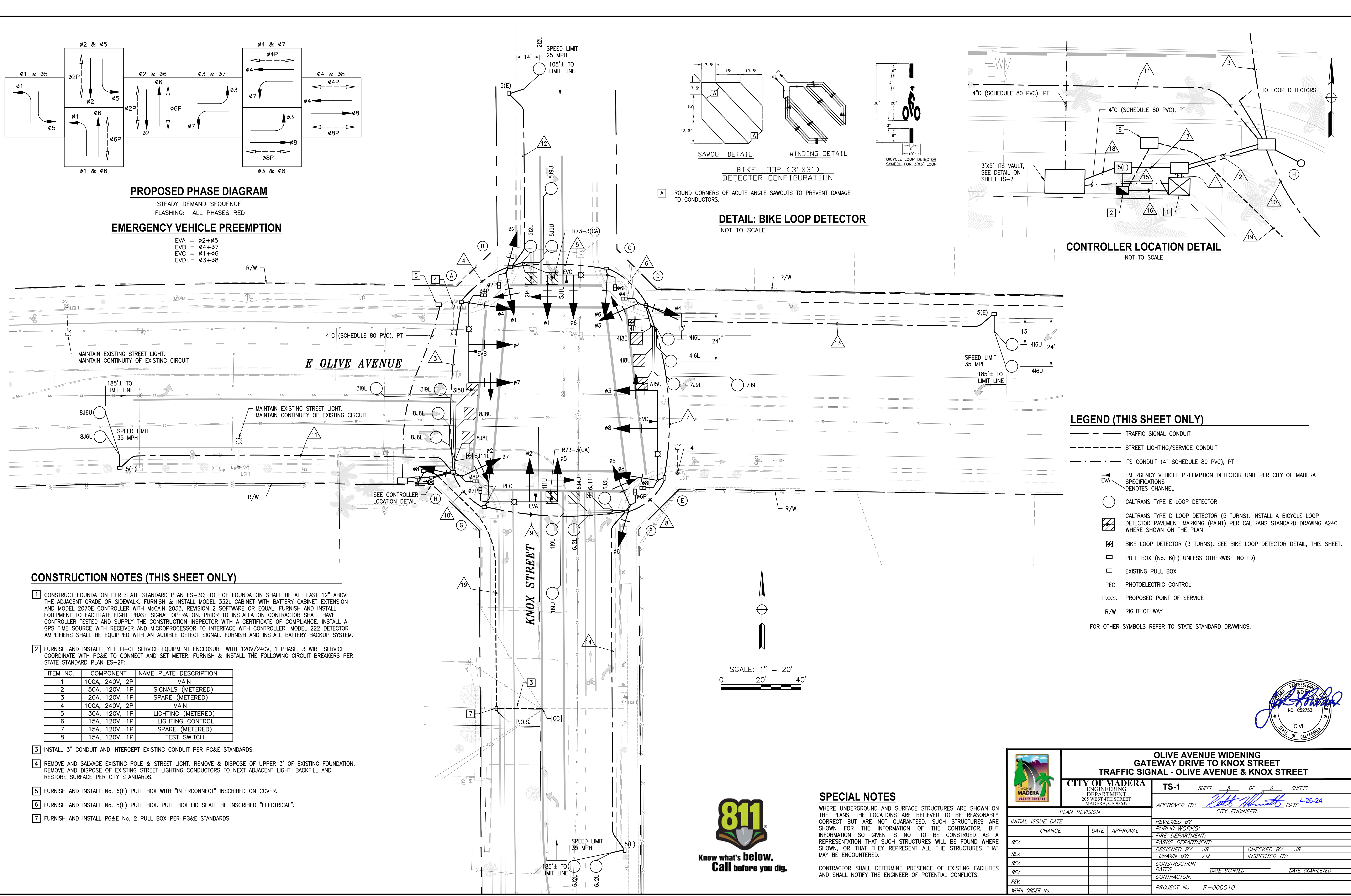


PROPOSED PHASE DIAGRAM

STEADY DEMAND SEQUENCE
FLASHING: ALL PHASES RED

EMERGENCY VEHICLE PREEMPTION

- EVA = 02+05
- EVB = 04+07
- EVC = 01+06
- EVD = 03+08

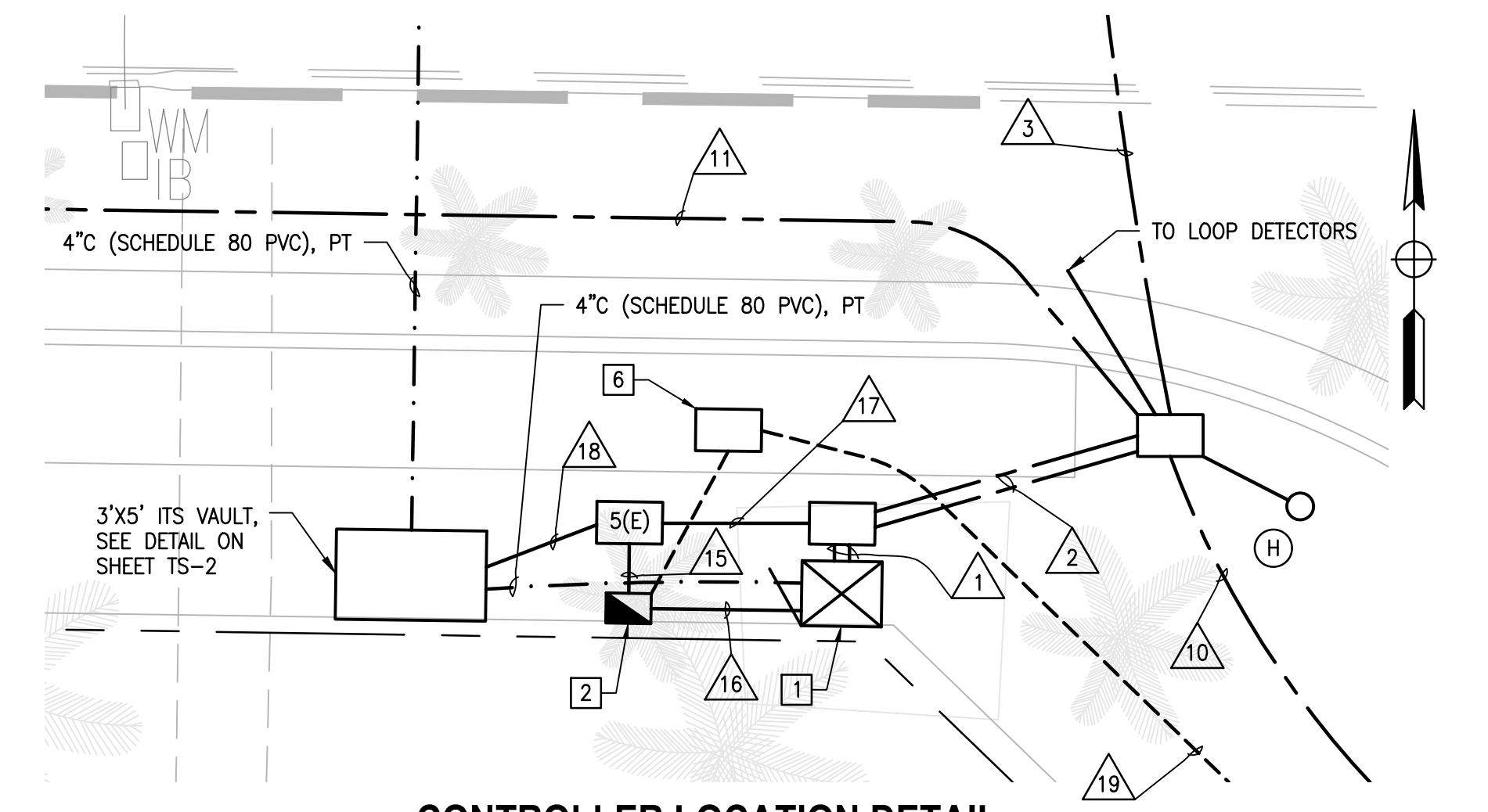


BIKE LOOP (3' X 3') DETECTOR CONFIGURATION

A ROUND CORNERS OF ACUTE ANGLE SAWCUTS TO PREVENT DAMAGE TO CONDUCTORS.

DETAIL: BIKE LOOP DETECTOR

NOT TO SCALE



CONTROLLER LOCATION DETAIL

NOT TO SCALE

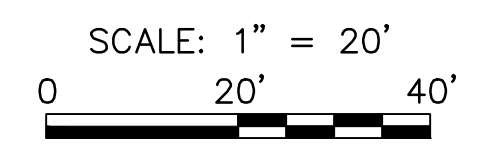
LEGEND (THIS SHEET ONLY)

- TRAFFIC SIGNAL CONDUIT
 - STREET LIGHTING/SERVICE CONDUIT
 - ITS CONDUIT (4" SCHEDULE 80 PVC), PT
 - EVA EMERGENCY VEHICLE PREEMPTION DETECTOR UNIT PER CITY OF MADERA SPECIFICATIONS DENOTES CHANNEL
 - CALTRANS TYPE E LOOP DETECTOR
 - ▨ CALTRANS TYPE D LOOP DETECTOR (5 TURNS). INSTALL A BICYCLE LOOP DETECTOR PAVEMENT MARKING (PAINT) PER CALTRANS STANDARD DRAWING A24C WHERE SHOWN ON THE PLAN
 - ▩ BIKE LOOP DETECTOR (3 TURNS). SEE BIKE LOOP DETECTOR DETAIL, THIS SHEET.
 - PULL BOX (No. 6(E) UNLESS OTHERWISE NOTED)
 - EXISTING PULL BOX
 - PEC PHOTOELECTRIC CONTROL
 - P.O.S. PROPOSED POINT OF SERVICE
 - R/W RIGHT OF WAY
- FOR OTHER SYMBOLS REFER TO STATE STANDARD DRAWINGS.

CONSTRUCTION NOTES (THIS SHEET ONLY)

- 1 CONSTRUCT FOUNDATION PER STATE STANDARD PLAN ES-3C; TOP OF FOUNDATION SHALL BE AT LEAST 12" ABOVE THE ADJACENT GRADE OR SIDEWALK. FURNISH & INSTALL MODEL 332L CABINET WITH BATTERY CABINET EXTENSION AND MODEL 2070E CONTROLLER WITH MCCAIN 2033, REVISION 2 SOFTWARE OR EQUAL. FURNISH AND INSTALL EQUIPMENT TO FACILITATE EIGHT PHASE SIGNAL OPERATION. PRIOR TO INSTALLATION CONTRACTOR SHALL HAVE CONTROLLER TESTED AND SUPPLY THE CONSTRUCTION INSPECTOR WITH A CERTIFICATE OF COMPLIANCE. INSTALL A GPS TIME SOURCE WITH RECEIVER AND MICROPROCESSOR TO INTERFACE WITH CONTROLLER. MODEL 222 DETECTOR AMPLIFIERS SHALL BE EQUIPPED WITH AN AUDIBLE DETECT SIGNAL. FURNISH AND INSTALL BATTERY BACKUP SYSTEM.
- 2 FURNISH AND INSTALL TYPE III-CF SERVICE EQUIPMENT ENCLOSURE WITH 120V/240V, 1 PHASE, 3 WIRE SERVICE. COORDINATE WITH PG&E TO CONNECT AND SET METER. FURNISH & INSTALL THE FOLLOWING CIRCUIT BREAKERS PER STATE STANDARD PLAN ES-2F:

ITEM NO.	COMPONENT	NAME PLATE DESCRIPTION
1	100A, 240V, 2P	MAIN
2	50A, 120V, 1P	SIGNALS (METERED)
3	20A, 120V, 1P	SPARE (METERED)
4	100A, 240V, 2P	MAIN
5	30A, 120V, 1P	LIGHTING (METERED)
6	15A, 120V, 1P	LIGHTING CONTROL
7	15A, 120V, 1P	SPARE (METERED)
8	15A, 120V, 1P	TEST SWITCH
- 3 INSTALL 3" CONDUIT AND INTERCEPT EXISTING CONDUIT PER PG&E STANDARDS.
- 4 REMOVE AND SALVAGE EXISTING POLE & STREET LIGHT. REMOVE & DISPOSE OF UPPER 3' OF EXISTING FOUNDATION. REMOVE AND DISPOSE OF EXISTING STREET LIGHTING CONDUCTORS TO NEXT ADJACENT LIGHT. BACKFILL AND RESTORE SURFACE PER CITY STANDARDS.
- 5 FURNISH AND INSTALL No. 6(E) PULL BOX WITH "INTERCONNECT" INSCRIBED ON COVER.
- 6 FURNISH AND INSTALL No. 5(E) PULL BOX. PULL BOX LID SHALL BE INSCRIBED "ELECTRICAL".
- 7 FURNISH AND INSTALL PG&E No. 2 PULL BOX PER PG&E STANDARDS.

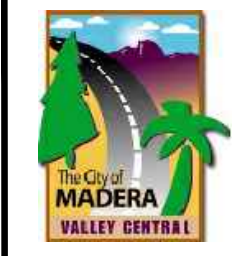


SPECIAL NOTES

WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS ARE BELIEVED TO BE REASONABLY CORRECT BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSTRUED AS A REPRESENTATION THAT SUCH STRUCTURES WILL BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL THE STRUCTURES THAT MAY BE ENCOUNTERED.

CONTRACTOR SHALL DETERMINE PRESENCE OF EXISTING FACILITIES AND SHALL NOTIFY THE ENGINEER OF POTENTIAL CONFLICTS.



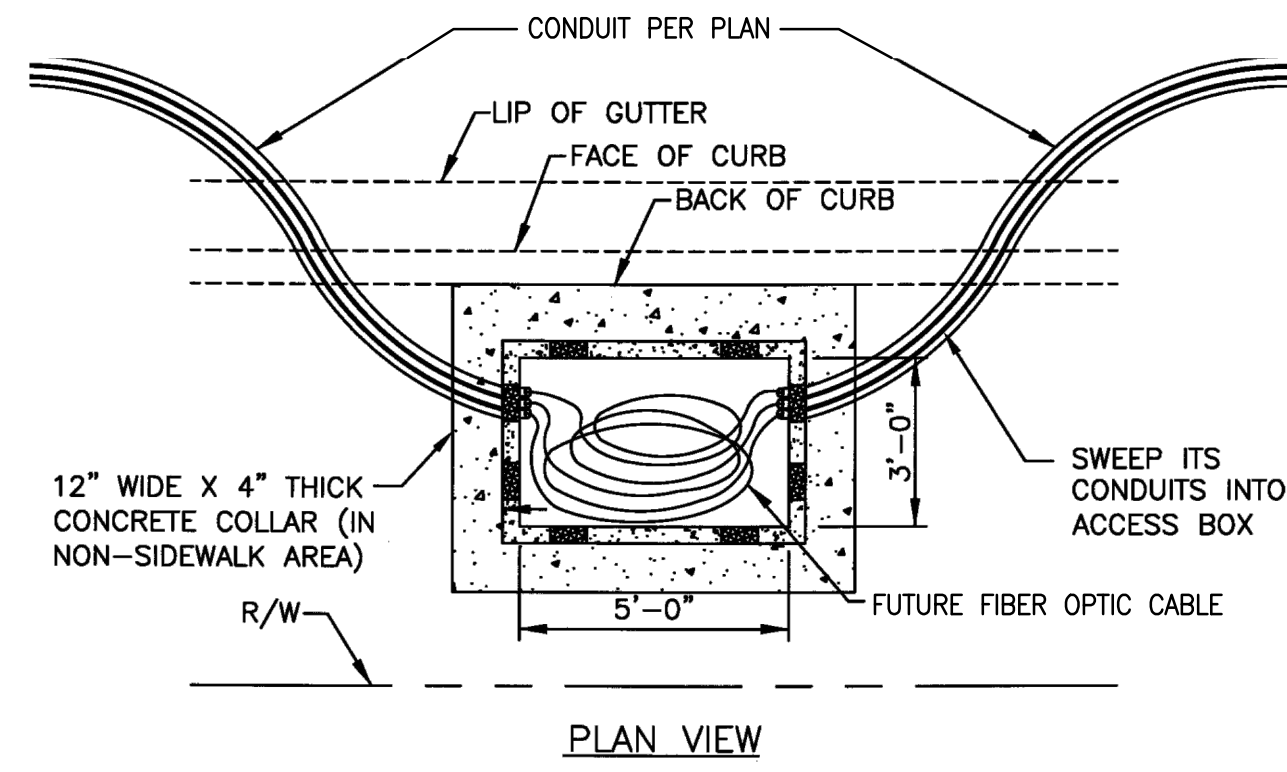
		OLIVE AVENUE WIDENING GATEWAY DRIVE TO KNOX STREET TRAFFIC SIGNAL - OLIVE AVENUE & KNOX STREET	
CITY OF MADERA ENGINEERING DEPARTMENT 205 WEST 4TH STREET MADERA, CA 93637		TS-1 SHEET 5 OF 6 SHEETS APPROVED BY: <i>[Signature]</i> DATE: 4-26-24 CITY ENGINEER	
INITIAL ISSUE DATE: _____ CHANGE: _____ DATE: _____ APPROVAL: _____		REVIEWED BY: _____ PUBLIC WORKS: _____ FIRE DEPARTMENT: _____ PARKS DEPARTMENT: _____	
REV. _____	DATE _____	DESIGNED BY: JR	CHECKED BY: JR
REV. _____	DATE _____	DRAWN BY: AM	INSPECTED BY: _____
REV. _____	DATE _____	CONSTRUCTION DATES: _____	DATE STARTED: _____ DATE COMPLETED: _____
REV. _____	DATE _____	CONTRACTOR: _____	PROJECT No. R-000010
WORK ORDER No. _____			

CONDUCTOR SCHEDULE																							
AWG OR CABLE	POLE	PHASE	CONDUIT RUN NUMBER AND SIZE																				
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
12 CSC (VEH. & PED) *	A	4, 7, 4P	2-4"	2-4"	4"	4"	4"	4"	4"	4"	4"	2"	2"	2"	2"	2"	2"	2"	2"				
	B	1, 2, 2P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P			
	C	1, 6, 6P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P	4P		
	D	3, 4, 4P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P		
	E	3, 8, 8P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	6P	
	F	5, 6, 6P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P
	G	2, 5, 2P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P	8P
	H	7, 8, 8P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P	2P
TOTAL			8	8	4	3	2	1	1	2	3												
TYPE C DLC *	LOOP DETECT.		#1	2	2																		
			#2	3	3	3	3																
			#3	2	2																		
			#4	5	5	5	5	5	5														
			#5	2	2	2	2																
			#6	5	5							5	5										
			#7	2	2	2	2	2	2														
			#8	5	5																		
TOTAL DLC			26	26	12	12	7	7		7	7	1	1	1	1	1	1	1	1	1	1	3	
#2	SERVICE																					3	
#4	SIGNAL POWER																					2	
#8	SAFETY LIGHTING			2	2	2	2				2	2	2					2		2			
#8	GROUNDING WIRE		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
#10	PHOTOELECTRIC CONTROL			3								3						3		3			
EMERGENCY VEHICLE PREEMPTION			4	4	2	1	1				1	1	2										
PERCENT CONDUIT FILL			20%	21%	21%	16%	11%	7%	0%	5%	12%	16%	4%	4%	4%	8%	14%	8%	2%			13%	

* NUMBER INDICATIONS ARE THE NUMBER OF CABLES WITHIN CONDUIT.

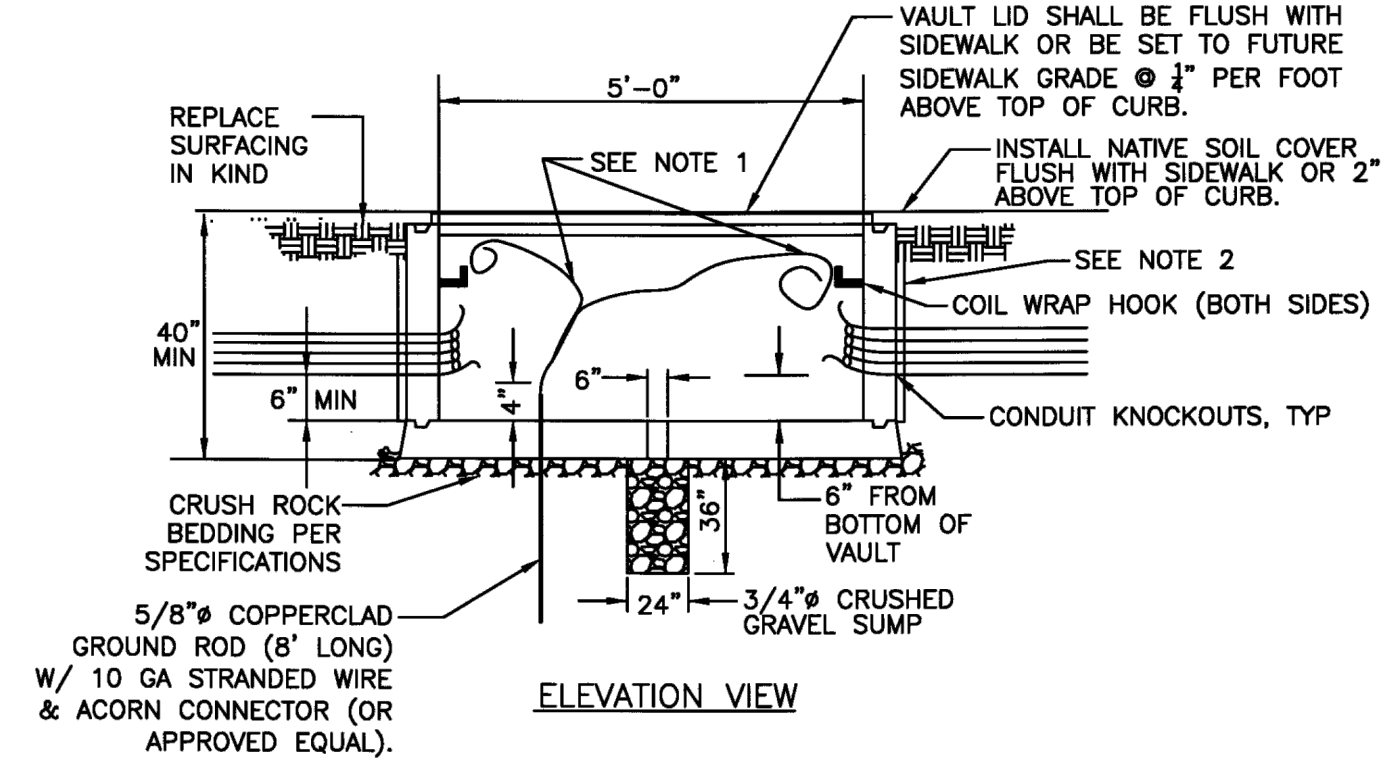
GENERAL NOTES (SHEETS TS-1 AND TS-2 ONLY)

- WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, 2018 EDITION, THE LATEST CALTRANS ADOPTED EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA-MUTCD), THE LATEST EDITION OF THE CITY OF MADERA STANDARD SPECIFICATIONS AND DRAWINGS.
- THESE PLANS ARE ACCURATE FOR ELECTRICAL WORK ONLY.
- NO ABOVE GROUND WORK, EXCEPT SERVICE EQUIPMENT, SHALL BE PERFORMED UNTIL THE CONTRACTOR HAS ALL MATERIALS ON HAND TO COMPLETE THAT PARTICULAR SIGNAL LOCATION OR LIGHTING CIRCUIT.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL EXISTING UTILITIES WHETHER OR NOT THEY ARE SHOWN ON THESE PLANS, AND SHALL PROVIDE PROTECTION PRIOR TO, DURING, AND AFTER TRENCHING, JACKING AND/OR BORING. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA), BY CALLING 811, AT LEAST TWO (2) WORKING DAYS BEFORE BEGINNING WORK.
- CONDUIT INSTALLATION ACROSS ROADWAYS SHALL BE BY JACKING OR DIRECTIONAL DRILLING METHODS UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. CONTRACTOR SHALL SUBMIT A BORING PLAN FOR APPROVAL BY THE ENGINEER.
- CONTRACTOR SHALL ARRANGE WITH UTILITY COMPANIES FOR ALL REQUIRED UTILITY RELOCATIONS, INCLUDING OVERHEAD CONFLICTS.
- ALL TRAFFIC SIGNAL AND LIGHTING FACILITIES, INCLUDING CABINETS, STANDARDS, PULL BOXES, CONDUITS, AND LOOP DETECTORS, ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. AFTER ALL UNDERGROUND UTILITIES ARE MARKED, THE CONTRACTOR SHALL MARK FINAL LOCATIONS IN THE FIELD AND NOTIFY THE ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK TO OBSERVE THE MARKED LOCATIONS.
- PULL BOXES SHALL BE NO. 6(E) UNLESS OTHERWISE NOTED ON THE PLANS. PULL BOXES SHALL NOT BE INSTALLED IN CURB RAMPS. ALL LIDS SHALL BE LABELED "SIGNAL" OR "ELECTRICAL" AND SHALL HAVE LOCK JAW LID OR EQUAL.
- ALL PULL BOXES INSTALLED IN NON-CONCRETE AREAS SHALL BE SURROUNDED BY A ONE (1)-FOOT-WIDE CONCRETE COLLAR, TO A DEPTH EQUAL TO THE PULL BOX AND EXTENSION.
- ALL CONDUITS SHALL HAVE BUSHINGS INSTALLED PRIOR TO INSTALLING CONDUCTORS. STEEL CONDUITS SHALL HAVE LAY-IN STYLE LUGS THAT ARE CAST INTEGRAL WITH THE BUSHING.
- CONDUIT BENDS OF 90 DEGREES ARE PROHIBITED UNLESS OTHERWISE NOTED OR WRITTEN PERMISSION IS GIVEN BY THE CITY OF MADERA ENGINEER.
- ALL NEUTRAL CONDUCTORS SHALL BE WHITE IN COLOR THROUGHOUT THEIR ENTIRE LENGTH.
- TRAFFIC SIGNAL CABLE SHALL NOT BE SPLICED BETWEEN THE CONTROLLER CABINET AND THE TERMINAL COMPARTMENTS MOUNTED ON THE POLES.
- SEAL CONDUIT WITH AN APPROVED DUCT SEAL AFTER ALL CONDUCTORS HAVE BEEN INSTALLED.
- ALL VEHICLE AND PEDESTRIAN SIGNAL SECTIONS SHALL UTILIZE LIGHT EMITTING DIODE (LED) SIGNAL MODULES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. VEHICLE SIGNAL SECTIONS SHALL HAVE 12" (300 MM) DIAMETER LENSES WITH BACKPLATES AND TUNNEL VISORS. ALL VEHICLE AND PEDESTRIAN SIGNAL SECTIONS SHALL HAVE METAL AND RUBBER WASHERS INSTALLED ON THE INSIDE OF THE HEAD.
- PEDESTRIAN SIGNAL UNITS SHALL BE FULL SYMBOL, CA-MUTCD COMPLIANT, LED "COUNTDOWN" TYPE WITH 9-INCH NUMERALS; GELCORE MODEL PS2-CFF1-01A-18, OR APPROVED EQUAL. SIGNAL ALIGNMENT SHALL BE AS DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE OPTICOM (CIT) EMERGENCY VEHICLE PREEMPTION (EVP) SYSTEM (721 TWO-WIRE DETECTION, SINGLE CHANNEL) IN ACCORDANCE WITH THE CITY STANDARD SPECIFICATIONS. EVP DETECTOR UNITS SHALL BE INSTALLED ON SIGNAL MAST ARMS AS SHOWN ON THE PLAN, CENTERED OVER THE NUMBER ONE THROUGH LANE, WITH BRACKETS APPROVED BY THE CITY OF MADERA. THE CONTRACTOR SHALL DELIVER THE MODEL 762 DISCRIMINATORS TO THE CITY.
- SIGNS SHALL BE TYPE III OR IV RETROREFLECTIVE SHEETING PER ASTM D4956-17. ALL SIGNS SHALL BE COVERED WITH A TRANSLUCENT ANTI-GRAFFITI FLUOROPOLYMER FILM THAT DOES NOT IMPAIR THE REFLECTIVITY OF THE SIGN.
- CONDUITS EXITING THE CONTROLLER FOUNDATION AND ENTERING INTO THE CONTROLLER CABINET SHALL BE ALIGNED TO ENTER WITHIN THE TEES SPECIFIED CABINETS WITHOUT ANY MODIFICATIONS TO THE CABINET BASE.
- ALL RESURFACING SHALL MATCH EXISTING SURFACES AFTER SIGNAL FACILITIES ARE REMOVED AND/OR RELOCATED.
- ALL LUMINAIRE CIRCUITS SHALL BE FUSED. THE FUSE SHALL BE LOCATED IN THE LUMINAIRE HOUSING AT EACH POLE (5 AMP KTK FUSE IN TRON HEB TYPE FUSE HOLDER).
- THE CONTRACTOR SHALL FURNISH AND INSTALL PG&E POLE NUMBERS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL AN ACCESSIBLE (AUDIBLE) PEDESTRIAN SIGNAL (APS) SYSTEM (2-WIRE POLARA NAVIGATOR OR APPROVED EQUAL). THE APS SHALL PROVIDE BOTH A VIBRATING ARROW BUTTON AND AUDIBLE SOUNDS DURING THE "WALK" INTERVAL, AS WELL AS A LOCATING TONE DURING THE PEDESTRIAN CLEARANCE AND "DON'T WALK" INTERVALS. CABINET CONTROL UNIT (CCU) SHALL BE MOUNTED ON A CITY-APPROVED MANUFACTURED BRACKET (McCain M49021 OR APPROVED EQUAL). THE CONTRACTOR SHALL PROVIDE THE CITY WITH THE LATEST MEANS OF PROGRAMMING THE APS SYSTEM. PEDESTRIAN PUSH BUTTONS SHALL HAVE 2" DIAMETER ACTUATORS AND COMPLY WITH THE AMERICAN DISABILITIES ACT (ADA).
- CONTRACTOR TO FURNISH AND INSTALL HAWKINS HANGERS, OR APPROVED EQUAL, FOR ALL STREET NAME SIGNS.

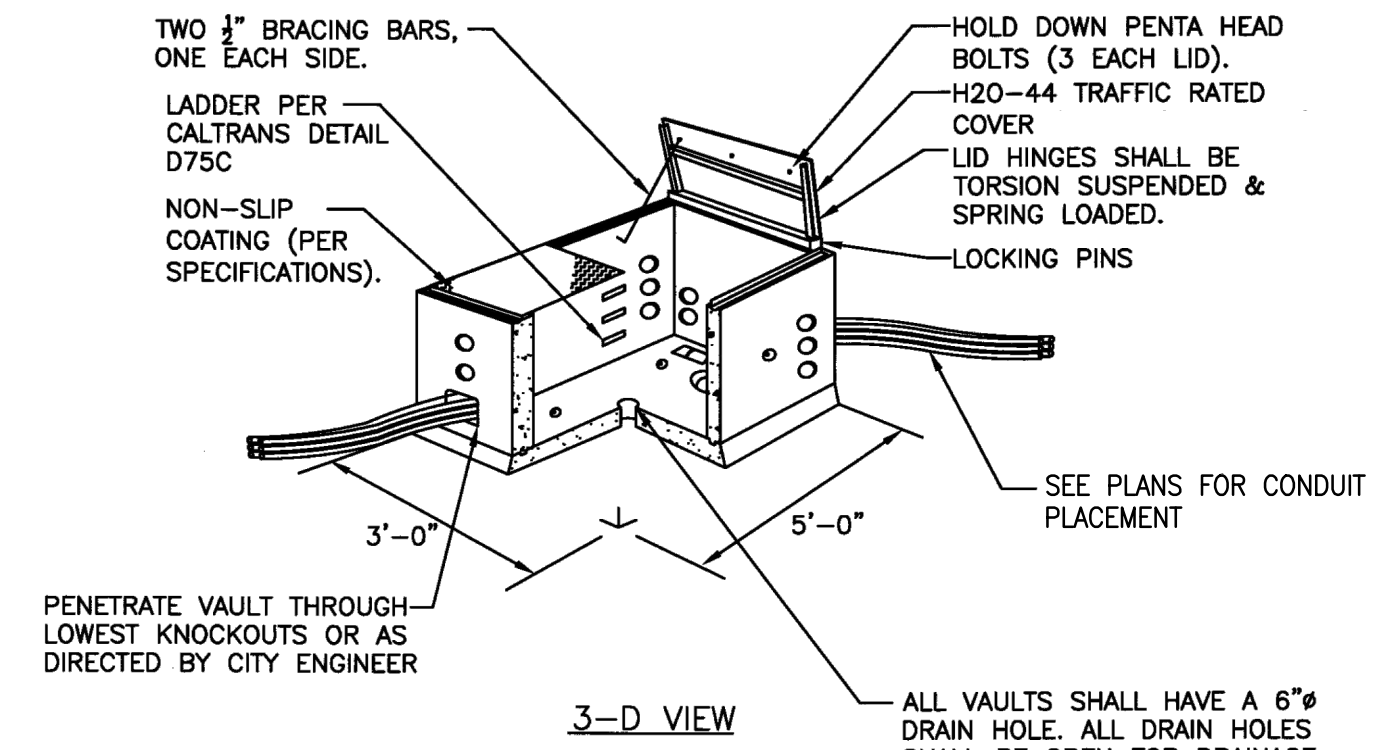


- NOTES:
- 90° CONDUIT ENTRIES ARE NOT ALLOWED. CONDUIT SHALL BE DIRECTLY ACROSS FROM ADJACENT CONDUITS.
 - VAULT SHALL HAVE A TORSION SUSPENDED & SPRING LOADED LID WITH TWO HOLDUP BRACING BARS.
 - VAULTS SHALL INCLUDE BOLT DOWN LIDS.
 - LABELING ON LID SHALL READ "ITS COMMUNICATIONS".
 - VAULTS SHALL BE APPROVED BY THE CITY ENGINEER.
 - FOR ADDITIONAL 3' X 5' VAULT DETAILS, SEE 3'X5' ITS VAULT DETAIL B.

3'X5' ITS VAULT DETAIL A



- NOTES:
- INSTALL COMMUNICATIONS BELLS ON CONDUIT ENDS & CONNECT TONEABLE CONDUIT TO GROUNDING ROD.
 - WRAP VAULT WITH BUILDING PAPER PER SPECIFICATIONS BEFORE BACKFILLING.



3'X5' ITS VAULT DETAIL B

3'X5' ITS VAULT DETAIL
NOT TO SCALE

EQUIPMENT SCHEDULE

LOCATION	POLE TYPE	MAST ARM LENGTH		SIGNAL MOUNTING			BACK-PLATE	PPB	LUMINAIRE (LED)	G7 SIGN SNS	NOTES:
		SIGNAL	LUMINAIRE	POST	MAST-ARM	PED					
(A)	26-4-100	40'	15'	SV-1-T	MAT MAS (F=19')	SP-1-T	3	2P	100	Olive Ave	EVC. FURNISH AND INSTALL CREE STR-LWY-2M-HT-10-E-UL-SV-525-R-UTL-40K SAFETY LIGHT.
(B)	1-A (10')	-	-	TV-2-T	-	SP-1-T	2	4P	-	-	
(C)	19-4-100	30'	15'	SV-1-T	MAT (F=13')	SP-1-T	3	4P	100	Knox St	EVD, R73-3(CA). FURNISH AND INSTALL CREE STR-LWY-2M-HT-10-E-UL-SV-525-R-UTL-40K SAFETY LIGHT.
(D)	1-A (10')	-	-	TV-2-T	-	SP-1-T	2	6P	-	-	
(E)	26-4-100	45'	15'	SV-1-T	MAT MAS (F=19')	SP-1-T	3	6P	100	Olive Ave	EVA. FURNISH AND INSTALL CREE STR-LWY-2M-HT-10-E-UL-SV-525-R-UTL-40K SAFETY LIGHT.
(F)	1-A (10')	-	-	TV-2-T	-	SP-1-T	2	8P	-	-	
(G)	24-4-100	35'	15'	SV-1-T	MAT (F=14')	SP-1-T	3	8P	100	Knox St	EVB, R73-3(CA). FURNISH AND INSTALL CREE STR-LWY-2M-HT-10-E-UL-SV-525-R-UTL-40K SAFETY LIGHT.
(H)	1-A (10')	-	-	TV-2-T	-	SP-1-T	2	2P	-	-	

- NOTES:
- LUMINAIRES SHALL BE PER CITY OF MADERA STANDARD DRAWING ST-20.
 - CONTRACTOR TO VERIFY OVERHEAD AND UNDERGROUND UTILITY CLEARANCE PRIOR TO ORDERING EQUIPMENT. ARRANGE FOR UTILITY RELOCATION OR MODIFY EQUIPMENT SIZE/LOCATION AS NECESSARY WITH APPROVAL OF ENGINEER.



SPECIAL NOTES

WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS ARE BELIEVED TO BE REASONABLY CORRECT BUT ARE NOT GUARANTEED. SUCH STRUCTURES ARE SHOWN FOR THE INFORMATION OF THE CONTRACTOR, BUT INFORMATION SO GIVEN IS NOT TO BE CONSTRUED AS A REPRESENTATION THAT SUCH STRUCTURES WILL BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL THE STRUCTURES THAT MAY BE ENCOUNTERED.

CONTRACTOR SHALL DETERMINE PRESENCE OF EXISTING FACILITIES AND SHALL NOTIFY THE ENGINEER OF POTENTIAL CONFLICTS.

		OLIVE AVENUE WIDENING GATEWAY DRIVE TO KNOX STREET OLIVE AVENUE & KNOX STREET - SCHEDULE & NOTES			
CITY OF MADERA ENGINEERING DEPARTMENT 200 WEST 4TH STREET MADERA, CA 93637		TS-2 SHEET <u>6</u> OF <u>6</u> SHEETS			
PLAN REVISION		APPROVED BY: <i>John Blum</i> DATE 4-26-24 CITY ENGINEER			
INITIAL ISSUE DATE		REVIEWED BY:			
CHANGE		DATE		APPROVAL	
REV.		PUBLIC WORKS:			
REV.		FIRE DEPARTMENT:			
REV.		DESIGNED BY: JR		CHECKED BY: JR	
REV.		DRAWN BY: AM		INSPECTED BY:	
REV.		CONSTRUCTION DATES			
REV.		DATE STARTED		DATE COMPLETED	
REV.		CONTRACTOR:			
WORK ORDER No.		PROJECT No. R-000010			

Attachment 2

Project Map

LOCATION MAP



OLIVE AVENUE

KNOX STREET

PROJECT LIMITS



CITY OF MADERA
ENGINEERING DEPARTMENT
428 E YOSEMITE
MADERA, CA 93638

LOCATION MAP

DR BY: EP
CH BY: _____
DATE: 6/13/24
SCALE: NTS
SHT 1 OF 1