NOTICE TO CONTRACTORS,

PROPOSAL,

AGREEMENT, &

SPECIAL PROVISIONS

FOR CONSTRUCTION ON

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

IN STANISLAUS COUNTY,
TURLOCK, CALIFORNIA.

Municipal Services Department/ Roads Program

Contact Person: Fred Pezeshk

William D. Morris, P.E., P.L.S.
City Engineer

Proposals shall be delivered to Turlock, California
at or before **2:00:00 pm local** on **April 10, 2025**
at the office of the City Engineer,
Municipal Services Department
156 S. Broadway, Suite 150
Turlock, CA 95380
Phone: 209-668-5520

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CITY OF TURLOCK, CALIFORNIA
NOTICE TO CONTRACTORS

Sealed proposals will be received by the City Engineer of the City of Turlock, Municipal Services Department/Engineering Division, 156 S. Broadway, Suite 150, Turlock, California 95380, until **2:00:00 pm local on April 10, 2025**, for:

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

In accordance with and as described and provided in the plans, specifications and the proposed form of contract therefore, all of which are on file in the office of the City Engineer, and to which special reference is hereby made.

No verbal, telegraphic, electronic mail, facsimile, or telephone Proposals shall be considered.

An optional Pre-Bid meeting will be held on Monday, March 24, 2025, 10:00 am at Turlock City Hall, 156 S. Broadway Turlock, CA 95380.

Proposals are required to be complete and for the entire work, materials and improvements unless the contrary is indicated in the specifications.

All questions shall be directed, in writing, to Fred Pezeshk at email address: fpezeshk@turlock.ca.us or at physical address:

Municipal Services Department
156 S. Broadway, Suite 150
Turlock, CA 95380

Questions regarding alleged patent ambiguity of the plans, specifications, or estimate must be **submitted in writing at least five (5) business days, not including City holidays, prior to bid opening**. After this time, the City will not consider these questions as bid protests.

INSPECTION OF SITE

Bidders are required to inspect the sites of the work to satisfy themselves by personal examination or by such other means, as they may prefer, of the locations of the proposed work and of the actual conditions at the project sites. Inspections shall be between the hours of 7:00 a.m. and 5:00 p.m. on weekdays only.

Submission of a bid by the bidder shall constitute acknowledgement that, if awarded the contract, the bidder has relied and is relying on their own examination of

(a) the sites of work,
(b) access to the sites and
(c) all other data and matters requisite to the fulfillment of the work and on their own knowledge of the facilities on and in the vicinity of the sites of the work to be constructed under the contract.

In accordance with the provisions of California Business and professions Code, Section 7028, the Contractor shall possess the following contractor license at the time of bid and for the duration of the contract.

1. A-General Engineering Contractor

All electrical work shall be performed by a contractor or subcontractor with a C-10 Electrical Contractor license.

Failure to possess the specified license(s) shall render the Bid as non-responsive, shall act as a bar to award of the contract to any Bidder not possessing said license(s) at the time of Bid opening and shall result in the forfeiture of the security of said Bidder. Furthermore, any Bidder or Contractor not so licensed shall be subject to all legal penalties imposed by law, including, but not limited to, any appropriate disciplinary action by the Contractor's License Board.

Each proposal must be accompanied by cash, cashier's check, or check certified by a responsible bank, or by a bid bond, the proposed form of which is on file in the office of the City Engineer of said City and to which special reference is hereby made in a sum not less than ten percent (10%) of the total amount bid, payable to the City of Turlock as liquidated damages in the case the bidder is awarded the contract and fails within ten (10) days after the date of mailing to him by the City Engineer of a notice of award of the contract and that the contract is ready for signature to execute the above-mentioned written contract and file with the City Engineer satisfactory insurance certificates as required by the terms of said contract and satisfactory bonds as required by law for the faithful performance of said contract and for the protection of material, men and laborers. Special reference is hereby made to Sections 5100, et. seq., of the Public Contracts Code of the State of California and to the proposed forms for said bonds now on file in the office of the said City Engineer for further particulars regarding bonds.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the County of Stanislaus in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at 156 S. Broadway St, Turlock, CA 95380 and available from the California Department of Industrial Relations' Internet web site at http://www.dir.ca.gov/DLSR/PWD.

Bidders' attention is directed to the insurance requirements in the contract. It is highly recommended that bidders confer with their respective insurance carriers or brokers to determine in advance of bid submission the availability of insurance certificates and endorsements prescribed and provided herein.

If an apparent low bidder fails to comply strictly with the insurance requirements, that bidder may be disqualified from award of the contract.

No proposal will be considered unless made on forms furnished by the City Engineer of said City at his office of said City. Each proposal must be sealed, and the envelope containing the same must be addressed to the City Engineer of the City of Turlock and must be plainly marked. Each proposal shall clearly identify the bidders name and address on the sealed envelope.

Each bid shall separately state in figures the price offered for the approximate quantity of each item set forth and shall also state in words and figures the total contract price. Quantities set forth in the proposal form and in the specifications are approximate only, being given as a basis for comparison of bids, and the City of Turlock does not expressly or implied agree that the actual amount of work or materials will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work or materials as may be deemed necessary by the City Engineer.

Proposals may not be withdrawn for a period of sixty (60) days after the time fixed for opening of proposals. The City Council of the City of Turlock reserves the right to reject any and all proposals or any part thereof and to waive any errors or informalities in any proposals and to set and act as sole judge of the merit and qualifications of the equipment, supplies or services offered.

At the request and expense of Contractor, pursuant to Division 2, Part 5, Section 22300, et. seq., of the Public Contracts Code, securities equivalent to any funds withheld as retention from progress payments made under this contract may be deposited with the City of Turlock or with a State or Federally chartered bank as escrow agent, who shall pay such moneys to Contractor upon completion of the contract.

Copies of the Contract Documents, including Instructions to Bidders, Bid Proposal forms, Plans and Specifications, may be downloaded from the engineering division's web site or purchased for a non-refundable fee of **two hundred forty-four dollars ($244.00)** at the Office of the City Engineer, 156 S. Broadway, Ste. 150, Turlock, CA 95380, Phone (209) 668-5520. For additional information, go to **http://www.cityofturlock.org/capitalprojects**

The U.S. Department of Transportation (DOT) provides a toll-free "hotline" service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 a.m. and 5:00 p.m., Eastern Time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report these activities. The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

No contractor or subcontractor may be listed on a bid proposal for a public works unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for public work on a public works unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner.

The contractor shall post job site notices prescribed by regulation. (*See* 8 Calif. Code Reg. §16451(d) for the notice that previously was required for projects monitored by the CMU.)

DATED: 3/13/2025

CITY OF TURLOCK

By: _____

William D. Morris, PE., P.L.S.
City Engineer

PROPOSAL

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

City of Turlock, California

DATED:_____

To: The Honorable City Council of the City of Turlock, California:

NAME OF BIDDER:_____

BUSINESS ADDRESS:_____

PLACE OF RESIDENCE:_____

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose.

In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item. In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail except as provided in (a) or (b), as follows:

(a) If the amount set forth as unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage wise the unit price or item total in the Department's Final Estimate of cost.

PROPOSAL SUBMITTAL CHECKLIST

The bidder shall provide a complete proposal in a sealed envelope before 2:00:00 pm local time on April 10, 2025 at the address shown on the cover sheet of these specifications.

FAILURE TO PROVIDE ALL THE REQUIRED DOCUMENTS LISTED IN THE TABLE BELOW MAY CAUSE THE PROPOSAL TO BE CONSIDERED NON-RESPONSIVE.

Complete Proposal **Page No.**

- ☐ PROPOSAL AND BIDDING FORM 5-12
- ☐ AFFIDAVIT 13
- ☐ INFORMATION REQUIRED OF BIDDER 14-15
- ☐ BIDDER'S BOND 16-17
- ☐ LIST OF SUBCONTRACTORS 18
- ☐ IRAN CONTRACTING ACT CERTIFICATION 19

The Successful Bidder shall submit within one week after receipt of Bids, one copy of all documentary information generated in preparation of Bid prices for this Project. This material is hereinafter referred to as "Escrow Bid Documents." The Escrow Bid Documents of the Successful Bidder will be held in escrow for the duration of the contract. See Special Provisions Section "Escrow Bid Documents."

In accordance with the annexed Notice to Contractors, the undersigned, as bidder, declares that he has carefully examined the location of the proposed work, the plans, specifications and technical requirements therefore, and the proposed forms of contract and bonds mentioned or referred to in said Notice and on file in the office of the City Engineer of the City of Turlock, together with the prevailing rate of per diem wages for each craft or type of workmen needed to execute said contract; and he proposes and agrees that if this proposal is accepted, he will furnish all labor, materials, equipment, plant transportation, service, sales taxes, permit fees and other costs necessary to complete the construction in strict conformity to the plans and specifications and he will enter into a written contract with the City of Turlock in the form of contract on file in the Office of the City Engineer for such purposes, and that he will execute and/or provide all bonds and insurance certificates required by law and/or by said contract and/or mentioned in said Notice to Contractors all in accordance with and subject to all applicable laws, and that he will take in full payment therefore the following unit prices, to wit:

BIDDING FORM

City of Turlock is hereinafter called the Owner.

BIDDER:_____

The work to be done and referred to herein is in City of Turlock , State of California. It is shown on a set of Plans, entitled: Roads Program Capital Improvement Project Plan Location #2 and is to be constructed in accordance with the Project Specifications and contract documents attached hereto by reference.

In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents and the following Addenda, receipt of all which is hereby acknowledged.

Addendum No.	**Addendum Date**
_____	_____
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and became familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

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 he has carefully examined the location of the proposed work, the Plans and Specifications referred to, the referenced proposed contract, and the Bidder proposes and agrees that, if this proposal is accepted, he will contract with the Owner 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 as therein set forth, and that he will take in full payment therefor the following unit prices as set forth in the Bid Schedule below.

CITY OF TURLOCK

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

BID SCHEDULE

Item	Description	Quantity	Unit	Unit Price	Total
Roadway Items					
1.	Potholes Existing Utilities	1	LS	$_____	$_____
2.	Construction Funding Signs	2	EA	$_____	$_____
3.	Traffic Control System	1	LS	$_____	$_____
4.	Portable Changeable Message Sign	4	EA	$_____	$_____
5.	Job Site Management	1	LS	$_____	$_____
6.	Prepare Storm Water Pollution Prevention Plan	1	LS	$_____	$_____
7.	Erosion and Dust Control BMPs	1	LS	$_____	$_____
8.	Construction Staking	1	LS	$_____	$_____
9.	Remove Concrete (Curb Ramp, Sidewalk, Valley Gutter, Curb & Gutter)	2480	SY	$_____	$_____
10.	Remove Concrete (Retaining Curb)	38	LF	$_____	$_____
11.	Roadway Excavation *(F)*	1620	CY	$_____	$_____
12.	Aggregate Base (Class 2)	85	CY	$_____	$_____
13.	Full Depth Reclamation – Cement	19200	SY	$_____	$_____
14.	Cement (Full Depth Reclamation - Cement)	540	TON	$_____	$_____

Item	Description	Quantity	Unit	Unit Price	Total
15.	Mix Design (Full Depth Reclamation - Cement)	1	LS	$_____	$_____
16.	Hot Mix Asphalt (Type A)	6700	TON	$_____	$_____
17.	Cold Plane AC Pavement (Var Depth)	19200	SY	$_____	$_____
18.	Minor Concrete (Curb and Gutter)	1890	LF	$_____	$_____
19.	Minor Concrete (Retaining Curb)	610	LF	$_____	$_____
20.	Minor Concrete (Curb Ramp)	2150	SF	$_____	$_____
21.	Minor Concrete (Sidewalk)	8370	SF	$_____	$_____
22.	Minor Concrete (Valley Gutter)	4580	SF	$_____	$_____
23.	Minor Concrete (Driveway)	3120	SF	$_____	$_____
24.	Detectable Warning Surface (Truncated Domes)	450	SF	$_____	$_____
25.	Adjust Drainage Inlet to Grade	7	EA	$_____	$_____
26.	Reset Monument Cover to Grade	11	EA	$_____	$_____
27.	Adjust Manhole Frame and Cover (Sewer)	20	EA	$_____	$_____
28.	Adjust Manhole Frame and Cover (Storm Drain)	7	EA	$_____	$_____
29.	Adjust Manhole Frame and Cover (Water Valve)	35	EA	$_____	$_____
30.	Adjust Manhole Frame and Cover (Water Meter)	6	EA	$_____	$_____
31.	Adjust Manhole Frame and Cover (Sewer Cleanout)	4	EA	$_____	$_____
32.	Roadside Sign – One Post	1	EA	$_____	$_____
33.	Relocate Roadside Sign	5	EA	$_____	$_____
34.	Thermoplastic Traffic Stripe	7110	LF	$_____	$_____
35.	Thermoplastic Pavement Markings	1480	SF	$_____	$_____
36.	Video Sewer and Storm Drain Inspection	1	LS	$_____	$_____

Item	Description	Quantity	Unit	Unit Price	Total
Mobilization					
37.	Mobilization	LS	1	$_____	$_____
				TOTAL BID	$_____

(F) Denotes Final Pay Item Per Section 9-1.02C of The State Standard Specifications.

COMPANY'S NAME: _____

BY: _____

ADDRESS: _____
(Number) (Street)

_____
(City) (State) (ZIP)

CONTRACTOR'S PHONE #:_____

NOTE: CONTRACTOR WILL BE REQUIRED TO LIST THEIR LICENSE NUMBER, EXPIRATION DATE, AND APPROPRIATE STATEMENT REGARDING PERJURY AND SIGNED BY INDIVIDUAL AUTHORIZED TO DO SO. FAILURE TO INCLUDE THE ABOVE ITEMS MAY CAUSE SAID CONTRACTOR'S BID TO BE REJECTED.
A-General Engineering Contractor:

_____, Contractor's License #_____, Class__
(Company's Name)

Expires_____. DIR #:_____

This information is true, is provided as per Section 7028.15 of the Business and Professions Code, and is made herein under penalty of perjury.

X_____
(Bidder's Signature) (Date)

If the proposal is accepted and the undersigned shall fail to contract as aforesaid and fail to file with the City insurance certificates as required by said contract, within fourteen (14) days after the bidder has received notice from the City Engineer or his representative of the City of Turlock that the contract has been awarded to bidder and is ready for signature, the City of Turlock may, at its option, determine that the bidder has abandoned his contract, and thereupon this proposal and the acceptance thereof shall be null and void.

Also accompanying this proposal is an affidavit of non collusion and questionnaire to general contractors, a statement of proposed sub contractors, if any, the address of mill, shop or office of any sub contractor, and a statement of work to be performed by sub contractors.

The names and addresses of persons interested in the foregoing proposal as principals are as follows:

(**IMPORTANT NOTICE**: If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a partnership,

state true name of firm, also names of all individual co partners composing firm; if bidder or other interested person is an individual, state first and last name in full.)

Licensed in accordance with an act providing for the registration of Contractors,
License No._____Expiration Date_____.

DATED:_____, 20____

Address:_____

Phone:_____

X_____
Signature of Bidder

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officers authorized to sign contracts on behalf of the corporation; if bidder is a co partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts in behalf of the co partnership; and, if bidder is an individual, his signature shall be placed above. If a signature is by an agent other than an officer of a corporation or a member of the partnership, a Power of Attorney must be on file with the City Clerk prior to opening or submitted with the bid; otherwise, the bid will be disregarded as irregular and unauthorized.

AFFIDAVIT

The undersigned bidder, being first duly sworn, deposes and says that he/she are the party making the foregoing proposal or bid, that this bid is genuine and not collusive or sham, that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any other person or bidder, to put in a sham bid, or that said other person shall refrain from bidding, and has not in any manner sought by collusion to secure any advantage against the said City or any person interested in said improvement, for him/herself or any other person.

X_____

Signature of Bidder

Jurat (Government Code Section 8202)

State of California

County of _____

Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20_____

by _____ proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

(AFFIX SEAL)

_____

NOTARY PUBLIC SIGNATURE

_____

NOTARY PUBLIC PRINTED NAME

INFORMATION REQUIRED OF BIDDER

The bidder is required to provide the following information. Additional sheets may be attached if necessary.

Contractor's mailing address:_____

Contractor's telephone number:_____

Number of years experience as a contractor in construction work or installation work similar to that required in these specifications:

_____

Name of person who inspected the site of the proposed work for your firm:

_____

Date of Inspection:_____

List at least four projects completed as of recent date:

Project No. and Title: _____
Class and Type of Work: _____
Name, Address, and Phone No. of Owner _____
Registered Engineer in Charge of Project: _____
Total Contract amount: _____
Contract amount you performed: _____
Name of Prime Contractor if you were Sub: _____
Date Completed: _____
Liquidated Damages Assessed: _____

Project No. and Title: _____
Class and Type of Work: _____
Name, Address, and Phone No. of Owner _____
Registered Engineer in Charge of Project: _____
Total Contract amount: _____
Contract amount you performed: _____
Name of Prime Contractor if you were Sub: _____
Date Completed: _____
Liquidated Damages Assessed: _____

Project No. and Title: _____
Class and Type of Work: _____
Name, Address, and Phone No. of Owner _____
Registered Engineer in Charge of Project: _____
Total Contract amount: _____
Contract amount you performed: _____
Name of Prime Contractor if you were Sub : _____
Date Completed: _____
Liquidated Damages Assessed: _____

Project No. and Title: _____
Class and Type of Work: _____
Name, Address, and Phone No. of Owner _____
Registered Engineer in Charge of Project: _____
Total Contract amount: _____
Contract amount you performed: _____
Name of Prime Contractor if you were Sub : _____
Date Completed: _____
Liquidated Damages Assessed: _____

BIDDER'S BOND

KNOW ALL MEN BY THESE PRESENTS:
That we _____as
BIDDER, and _____as
SURETY a corporation duly organized under the laws of the State of _____
and duly licensed to become sole Surety on bonds required and authorized by the State of California, as SURETY, are held and firmly bound unto the City of Turlock, hereinafter called the City, in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Bidder above named, submitted by said Bidder to the City, for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability of the Surety hereunder exceed the sum _____
_____
Dollars ($_____).

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, whereas the bidder has submitted the above-mentioned bid to the City for certain construction specifically described as follows for which bids are to be opened at Engineering Division, Municipal Services Department, City Hall, 156 S. Broadway Suite 150, Turlock, California, on

_____, _____, 20___, at_____.
(day) (date) (time)
for

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

NOW, THEREFORE, if the aforesaid Bidder is awarded the contract and, within the time manner required under the specifications after the prescribed forms are presented to him for signature, enters into a written contract in the prescribed form in accordance with the bid, and files the two bonds with the City, one to guarantee faithful performance and the other to guarantee payment for labor and materials as required by law, then obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such a suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this _____day of _____, 202_.

BIDDER

_____**(SEAL)**
(Bidder's Name and Corporate Seal)

_____
(Signature)

_____
(Print Name and Title)

(ATTACH ACKNOWLEDGMENT OF BIDDER)

SURETY

_____**(SEAL)**
(Surety's Name and Corporate Seal)

_____
(Signature)

_____
(Print Name and Title)

(ATTACH ACKNOWLEDGMENT OF SURETY'S ATTORNEY-IN-FACT)

NOTE: ATTACH CERTIFIED COPY OF POWER OF ATTORNEY

SUB-CONTRACTORS
City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

Prime Contractor:_____ DIR NUMBER:_____

Pursuant to California Public Contract Code §4100, the Bidder shall list each subcontractor who will perform Work or labor or who will render service to the prime Contractor in or about the construction of the Work or improvement, or a subcontractor duly licensed who, under subcontract to the prime Contractor, specially fabricates and installs a portion of the Work or improvement according to detailed Drawings contained in the Contract Documents, in an amount in excess of 1/2 of 1 percent of the prime Contractor's total Bid or, in the case of Bids or offers for the construction of streets or highways, including bridges, in excess of 1/2 of 1 percent of the prime Contractor's total Bid or $10,000, whichever is greater. After the opening of Bids, no changes or substitutions will be allowed except as otherwise provided by law. The listing of more than one subcontractor for each item of Work to be performed with the words "and/or" will not be permitted.

IF NO SUBCONTRACTORS WILL FURNISH WORK, THEN WRITE "NONE" BELOW IN THE SPACE PROVIDED.

NAME	LICENSE NUMBER	DIR NUMBER	ADDRESS	WORK ITEMS TO BE PERFORMED AND % OF ITEM

IRAN CONTRACTING ACT CERTIFICATION

Reference: Public Contract Code Section 2200 et seq.

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 et seq.) is true and correct:

☐ The Contractor is not:

(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of $20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ The City of Turlock has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the City of Turlock will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The amount of the Contract payable to the Contractor for the Project does not exceed $1,000,000.

Bidder's Signature: _____

Bidder's Name and Title: _____

Firm: _____

Date: _____

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of $250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

AGREEMENT

FOR ROADS PROGRAM PUBLIC IMPROVEMENT PROJECT

Project No. 23-067 Package #2

Roads Program Capital Improvement Project

THIS PUBLIC IMPROVEMENT AGREEMENT (the "Agreement") is entered into by and between the CITY OF TURLOCK, a California municipal corporation ("City"), and _____, a _____ ("Contractor"), on this ____ day of _____ 20__ (the "Effective Date"). City and Contractor may be collectively referred to herein as the "Parties" or individually as "Party." There are no other parties to this Agreement.

RECITALS

A. City seeks a duly qualified and licensed firm experienced in the construction of _____ (the "Project").

B. The Project involves the expenditure of funds in excess of $5,000 and constitutes a "public project" pursuant to Public Contract Code section 20161.

C. Contractor has made a proposal to City to provide construction services, a copy of which is attached and incorporated hereto as **Exhibit A** (the "Services").

D. City has determined it is necessary and desirable to employ the services of Contractor to perform construction work on the Project.

E. City has taken appropriate proceedings to authorize construction of the Project and execution of this contract pursuant to Public Contract Code section 20160 et seq.; specifically, on _____, 20___, at a duly noticed meeting of the City Council of the City of Turlock, this contract for the construction of the improvements hereinafter described was awarded to Contractor as the lowest responsive and responsible bidder for said improvements.

NOW, THEREFORE, in consideration of the promises and covenants set forth below, the Parties agree as follows:

AGREEMENT

1. Contract Documents:
This Agreement, together with the following documents, are collectively referred to herein as the "Contract Documents":

i. Notice to Bidders;
ii. Contractor's Bid or Proposal accepted by City;
iii. Special Provisions of the City of Turlock Project No. 23-067 Package #2;
iv. Plans and detailed drawings prepared for this Project and approved by City ("Project Plans");
v. All bonds and insurance required by the Contract Documents;
vi. Any and all supplemental agreements amending, decreasing, or extending the work contemplated or which may be required to complete the work in a substantial and acceptable manner; and
vii. The current edition of the City of Turlock Standard Specifications and Drawings.

All of the Contract Documents are intended to incorporate the terms of the others so that any work called for in one and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all said documents. The documents comprising the complete contract will hereinafter be referred to as the "Contract." In case of any dispute regarding the terms of the Contract, the decision of the City Engineer shall be final.

2. Term.
The Contract shall be effective as of the Effective Date first stated above. Contractor shall not commence work on the Project until it has been given notice by City ("Notice to Proceed"). The Contract shall terminate one (1) year(s) after City accepts Contractor's performance of the Services by recording a Notice of Completion with the County of Stanislaus Clerk Recorder (the "Term"), unless the Parties mutually agree in writing to terminate the Contract earlier or extend the Term in an agreed writing executed by both Parties.

3. Scope of Work.

(a) *Services.* Contractor shall perform the Services described in Exhibit A, subject to all terms and conditions in the Contract. Contractor shall not receive additional compensation for the performance of any Services not described therein.

(b) *Modification.* City, at any time, by written order, may make changes within the general scope of the work under this Agreement or issue additional instructions, require additional work or direct deletion of work. Contractor shall not proceed with any change involving an increase or decrease in the Contract Price, as defined in Section 4 of this Agreement, without prior written authorization from City. Contractor shall not be entitled to compensation for the performance of any such unauthorized work. Contractor further waives any and all right or remedy by way of restitution

or quantum meruit for any and all extra or changed work performed without express and prior written authorization of City. Notwithstanding the foregoing, Contractor shall promptly commence and diligently complete any change to the work subject to City's written authorization issued pursuant to this Section ; Contractor shall not be relieved or excused from its prompt commencement of diligent completion of any change subject to City's written authorization by virtue of the absence or inability of Contractor and City to agree upon the extent of any adjustment to the completion schedule or Contract Price on account of such change. The issuance of a change order pursuant to this Section 3 in connection with any change authorized by City shall not be deemed a condition precedent to Contractor's obligation to promptly commence and diligently complete any such change authorized by City hereunder. City's right to make changes shall not invalidate the Contract nor relieve Contractor of any liability or other obligations under the Contract. Any requirement of notice of changes in the scope of work to Contractor's surety shall be the responsibility of Contractor.

(c) *Specific Materials & Performance of Work.* Contractor shall furnish all tools, equipment, facilities, labor, and materials necessary to perform and complete, in good workmanlike manner, the work of general construction as called for and in the manner designated in, and in strict conformity with, the plans and specifications for said work entitled, **"Special Provisions for Project No. 23-067 Package #2."** The equipment, apparatus, facilities, labor, and material shall be furnished, and said work performed and completed as required by the Contract under the direction and supervision, and subject to the approval, of the City Engineer or City Engineer's designated agent.

(d) *Exhibits.* All "Exhibits" referred to below or attached hereto are, by this reference, incorporated into the Contract.

	Exhibit Designation	Exhibit Title
1.	Exhibit A	Scope of Services
2.	Exhibit B	Payment by Force Account
3.	Exhibit C	Workers' Compensation Insurance Certification
4.	Exhibit D	Performance Bond
5.	Exhibit E	Payment Bond

4. Contract Price.

City shall pay, and Contractor shall accept in full payment for the work set forth above in Section 3, Scope of Work, an amount not to exceed _____ **Dollars ($_____.00)** (the "Contract Price"). Said amount shall be paid pursuant to Section 8 of this Agreement. The Contract Price may only be changed by a contract change order. The value of any work covered by a contract change order for an adjustment in the Contract Price will be determined in the sole discretion of City as follows:

(a) If the work performed is on the basis of unit prices contained in the Contract Documents, the change order will be determined in accordance with the provisions in Section 4-1.05, "Changes and Extra Work", of the Caltrans Standard Specifications, as applicable; or

(b) If the work performed is not included on the engineer's estimate associated with a unit price, the change order will be by a mutually agreed lump sum; or

(c) If the change order is not determined as described above in either subdivision (a) or (b), the change order will be determined on the basis of force account in accordance with the provisions set forth in **Exhibit B**, "Payment by Force Account," attached hereto and incorporated herein by reference.

5. Time for Performance.

The time fixed for the commencement of work under the Contract is within ten (10) working days after the Notice to Proceed has been issued. The work on this project, including all punch list items, shall be completed on or before the expiration of **Eighty-five(85)** working days (the "Completion Date") beginning on the first day of work or no later than the tenth day after the Notice to Proceed has been issued.

(a) *Right of City to Increase Working Days:* If Contractor fails to complete the Services by the Completion Date, the City Engineer shall have the right to increase the number of working days in the amount the City Engineer may determine will best serve the interests of City, and if the City Engineer desires to increase said number of working days, the City Engineer shall have the further right to charge Contractor and deduct from the final payment for the work the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to Contractor, and which accrue during the period of such extension, except that the cost of the final service and preparation of the final estimates shall not be included in such charges. No extension of time for completion of Services under the Contract shall be considered unless requested by Contractor at least twenty (20) calendar days prior to the Completion Date, in writing, to the City Engineer.

The Completion Date may only be changed by a contract change order. The value of any work covered by a contract change order for an adjustment in the Completion Date will be determined as follows:

i. Additional working days will be awarded where the amount of time is mutually agreed upon by Contractor and the City Engineer; or

ii. Additional working days will be awarded where Contractor is prevented from completing any part of the work identified on the critical path and:

1. where the delay is caused by acts of public enemy, fire, floods, tsunamis, earthquakes, epidemics, quarantine restrictions, strikes, labor disputes, shortage of materials and freight embargos, provided that Contractor shall notify Engineer in writing of the causes of delay within fifteen (15) days from the beginning of that delay; or

2. where the delay is caused by actions beyond the control of Contractor; or

3. where the delay is caused by actions or failure to act by the City Engineer.

Contractor shall not be entitled to an adjustment in the Completion Date for delays within the control of Contractor. Delays resulting from and within the control of a subcontractor or supplier of Contractor shall be deemed to be delays within the control of Contractor.

(b) *Excusable Delays.* Contractor shall not be in breach of the Contract in the event that performance of Services is temporarily interrupted or discontinued due to a "Force Majeure" event which is defined as: riots, wars, sabotage, civil disturbances, insurrections, or explosions; natural disasters, such as floods, earthquakes, landslides, and fires; strikes, lockouts, and other labor disturbances; or other catastrophic events, which are beyond the reasonable control of Contractor. Force Majeure does not include Contractor's financial inability to perform, Contractor's failure to obtain any necessary permits or licenses from other governmental agencies, or Contractor's failure to obtain the right to use the facilities of any public utility where such failure is due solely to the acts or omissions of Contractor. If Contractor's performance of the Services is delayed by an excusable delay, the Completion Date shall be extended for such reasonable time as determined by the City Engineer. Extensions in time must be requested by Contractor within fifteen (15) calendar days of the excusable delay in order to receive consideration.

(c) *Emergency - Additional Time for Performance - Procurement of Materials.* If, because of war or other declared national emergency, the federal or state government restricts, regulates, or controls the procurement and allocation of labor or materials, or both, and if solely because of said restrictions, regulations or controls, Contractor is, through no fault of Contractor, unable to perform the Services, or the work is thereby suspended or delayed, any of the following steps may be taken:

i. City may, pursuant to resolution of the City Council, grant Contractor additional time for the performance of the Contract, sufficient to compensate in time, for delay or suspension.

   To qualify for such extension in time, Contractor within ten (10) days of Contractor's discovering such inability to perform, shall notify the City Engineer in writing thereof, and give specific reasons therefore; the City Engineer shall thereupon have sixty (60) days within which to procure such needed materials or labor as is specified in this agreement, or permit substitution, or provide for changes in the work in accordance with subdivision (b) of this Section.

   Substituted materials, or changes in the work, or both, shall be ordered in writing by the City Engineer, and the concurrence of the City Council shall not be necessary. All reasonable expenses of such procurement incurred by the City Engineer shall be defrayed by the Contractor; or

ii. If such materials or labor cannot be procured through legitimate channels within sixty (60) days after the filing of the aforesaid notice, either Party may, upon thirty (30) days' written notice to the other, terminate this agreement. In such event, Contractor shall be compensated for all work executed upon a unit basis in proportion to the amount of the work completed, or upon a cost-plus-ten-percent (10%) basis, whichever is the lesser. Materials on the ground, in process of

fabrication or in route upon the date of notice of termination specially ordered for the Project and which cannot be utilized by Contractor, shall be compensated for by City at cost, including freight, provided Contractor shall take all steps possible to minimize this obligation; or

iii. The City Council, by resolution, may suspend the Contract until the cause of inability to perform is removed for a period of not to exceed sixty (60) days.

If the Contract is not canceled, and the inability of Contractor to perform continues without fault on Contractor's part, beyond the time during which the Contract may have been suspended, as herein above provided, the City Council may further suspend the Contract, or either Party hereto may, without incurring any liability, elect to declare the Contract terminated upon the ground of impossibility of performance. In the event City declares this agreement terminated, such declaration shall be authorized by the City Council by resolution, and Contractor shall be notified in writing thereof within five (5) days after the adoption of such resolution. Upon such termination, Contractor shall be entitled to proportionate compensation at the Contract Price for such portion of the Contract as may have been performed; or

iv. City may terminate the Contract, in which case Contractor shall be entitled to proportionate compensation at the agreed rate for such portion of the Contract as may have been performed. Such termination shall be authorized by resolution of the City Council. Notice thereof shall be forthwith given in writing to Contractor, and the Contract shall be terminated upon receipt by Contractor of such notice.

In the event of the termination provided in this sub-paragraph (iv), none of the covenants, conditions or provisions hereof shall apply to the Services not performed, and City shall be liable to Contractor for the proportionate compensation last herein mentioned.

(d) *Delay Damages*. In the event Contractor, for any reason, fails to perform the Services to the satisfaction of the City Engineer by the Completion Date, City may, in accordance with Section 7203 of the Public Contract Code, in lieu of any other of its rights authorized by Section 6 of this agreement, deduct from payments or credits due Contractor after such breach a sum equal to **five thousand two hundred dollars** and no/100ths Dollars **($5,200.00)** for each calendar day beyond the Completion Date. This deduction shall not be considered a penalty but shall be considered as delay damages. The aforementioned rate of deduction is an amount agreed to by the Parties as reasonably representing additional construction engineering costs incurred by City if Contractor fails to complete the Services by the Completion Date. However, any deduction assessed as delay damages shall not relieve Contractor from liability for any damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed Contractor to complete the Services by the Completion Date. Due account shall be taken of any time extensions granted to Contractor by City. Permitting Contractor to continue work beyond the Completion Date shall not operate as a waiver on the part of City of any of its rights under the Contract nor shall it relieve Contractor from liability for any damages or costs resulting from delays to other contractors on the project or other

projects caused by a failure of the assessed Contractor to complete the Services by the Completion Date.

6. Termination.

(a) *Option of City to Terminate Contract for Failure to Complete Services.* If a Party should fail to perform any of its obligations hereunder within the time and in the manner herein provided, or otherwise violates any of the terms of the Contract (the "Defaulting Party"), the other Party shall give notice to the Defaulting Party and allow the Defaulting Party ten (10) days to correct such deficiency. If the Defaulting Party does not correct such deficiency, the other Party may immediately terminate the Contract by giving written notice of such termination, stating the reason for such termination. In such event, Contractor shall be entitled to receive payment for all Services satisfactorily rendered until such termination, provided, however, there shall be deducted from such amount the amount of damage, if any, sustained by virtue of any breach of the Contract by Contractor, including Delay Damages. If payment under the Contract is based upon a lump sum in total or by individual task, payment for Services satisfactorily rendered shall be an amount which bears the same ratio to the total fees specified in this Agreement as the Services satisfactorily rendered hereunder by Contractor to the total services otherwise required to be performed for such total fee, provided, however, that there shall be deducted from such amount the amount of damage, if any sustained by City by virtue of any breach of the Contract by Contractor. Upon termination, Contractor shall deliver copies of all Work Product, as defined in Section 19 of this Agreement, to City. If District terminates the Contract before Contractor commences any Services hereunder, City shall not be obligated to make any payment to Contractor.

(b) If Contractor should be adjudged bankrupt or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or if it or any of its subcontractors should violate any of the provisions of the Contract, City may serve written notice upon it and its surety of its intention to terminate the Contract. Such notice shall contain the reasons for City's intention to terminate the Contract, and unless such violations shall cease within five (5) calendar days after serving of such notice, the Contract shall cease and terminate upon the expiration of said five (5) calendar days. In the event of any such termination, City shall immediately serve written notice thereof upon the surety and Contractor, and the surety shall have the right to take over and perform the Contract; provided however, that, if the surety does not give City written notice of its intention to take over and perform the Contract or does not commence performance thereof within thirty (30) calendar days from the date of the service of such notice, City may take over the work and prosecute the same to completion by contract or any other method it may deem advisable, for the account and at the expense of Contractor, and Contractor and its surety shall be jointly liable to City for any excess cost occasioned City thereby, and in such event City may, without liability for so doing, take possession of and utilize in completing the work, such materials, appliances, and other property belonging to Contractor as may be on the Project site and necessary thereof.

7. Liability for Breach:

Neither Party waives the right to recover direct damages against the other for breach of the Contract, including any amount necessary to compensate City for all detriment proximately caused by Contractor's failure to perform its obligations hereunder or which in the ordinary course of things

would be likely to result therefrom. City reserves the right to offset such damages against any payments owed to Contractor. City shall not, in any manner, be liable for special or consequential damages, including but not limited to Contractor's actual or projected lost profits had Contractor completed the Services required by the Contract. In the event of termination by either Party, copies of all finished or unfinished Work Product, as defined in Section 19 of this Agreement, shall become the property of City. Notwithstanding the foregoing, in no event shall City be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with the Contract or the Services performed in connection with the Contract.

8. Compensation:

City shall make payments to Contractor in accordance with the provisions of Section 9 of the City Standard Specifications in legally executed and regularly issued warrants of City, drawn on the appropriate fund or funds as required by law and order of the City Council thereof. Contractor shall be administered a progress payment approximately every thirty (30) calendar days from the time work begins according to the payment schedule furnished by the City Engineer at the time work begins. Contractor shall provide access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify Contractor's charges to City under this Contract.

Monthly progress payments in the amount of 95 percent (95%) of the value of the work will be made to Contractor based on the Contractor's estimate and the schedule of prices contained in the accepted bid. The remaining 5 percent (5%) will be retained by City as partial security for the fulfillment of the Contract except that at any time after 50 percent (50%) of the work has been completed, if the City Engineer finds that satisfactory progress is being made and the Project's critical path of work are on schedule, City may discontinue any further retention. Such discontinuance will only be made upon the written request of Contractor. City may, at any time the City Engineer finds that satisfactory progress is not being made, again institute retention of 5 percent (5%) as specified above. Payment will be made as soon as possible after the preparation of the Contractor's estimate. City shall pay the remaining 5 percent (5%) of the value of the Services completed under this Contract, if unencumbered by retentions for claims, not sooner than the expiration of thirty-five (35) calendar days from the date of recordation of the Notice of Completion, pursuant to Section 2 of this agreement, and not later than sixty (60) days from the "completion" of the Services as said term is defined in Public Contract Code section 7107(c).

No estimate or payment shall be made if, in the judgment of the City Engineer, the work is not proceeding in accordance with the provisions of the Contract, or when, in his judgment, the total value of the work done since the last estimate amounts to less than $1,000. No progress payments will be made if the time allotted for the job is thirty (30) working days or less. Payment of any progress payment, or the acceptance thereof by Contractor, shall not constitute acceptance of the work performed under this Contractor, or any portion thereof, and shall in no way reduce the liability of Contractor to replace unsatisfactory work or materials, though the unsatisfactory character of such work or materials may not have been apparent or detected at the time such payment was made.

Additionally, as a precondition to City's progress payments hereunder, Contractor shall provide to City, prior to payment, unconditional waivers and releases of stop notices pursuant to Civil Code

section 8128 et seq. from each subcontractor and materials supplier. The form of said waivers and releases shall be as set forth in Civil Code section 3262(d)(2).

Pursuant to Public Contract Code section 22300 et seq., Contractor may request the right to substitute securities for any moneys withheld by City to ensure the performance required of Contractor under the Contract, or that City make payment of retentions earned directly into an escrow account established at the expense of Contractor.

9. Disputes Pertaining to Payment for Work:

Should any dispute arise respecting the true value of any work performed, of any work omitted, or of any extra work which Contractor may be required to do, or respecting the size of any payment to Contractor during the performance of the Contract, such dispute shall be decided by the City Engineer, and the decision of the latter shall be final and conclusive. The Parties agree to comply with the claims resolution procedures set forth in Public Contract Code section 9204 when applicable.

(a) *Claims Processing.* Any submission of a claim by Contractor must comply with the requirements of Public Contract Code section 9204. Upon receipt of a claim pursuant to this section, City shall conduct a reasonable review of the claim and, within a period not to exceed forty-five (45) days, shall provide Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, the Parties may, by mutual agreement, extend the time period provided in this subdivision. Contractor shall furnish reasonable documentation to support the claim. Any payment due on an undisputed portion of the claim shall be processed and made within sixty (60) days after City issues its written statement. If Contractor disputes City's written response, or if City fails to respond to a claim issued pursuant to this section within the time prescribed, Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute.

(b) *Meet-and-Confer Conference.* Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, City shall schedule a meet-and-confer conference within thirty (30) days for settlement of the dispute. Within ten (10) business days following the conclusion of the meet-and-confer conference, if the claim or any portion of the claim remains in dispute, City shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within sixty (60) days after the City issues its written statement.

(c) *Nonbinding Mediation.* Any disputed portion of the claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the Parties sharing the associated costs equally. The Parties shall mutually agree to a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing. If the Parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each Party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject judicial review pursuant to Section 23 of this Agreement.

Notwithstanding any claim, dispute, or other disagreement between the Parties regarding performance under the Contract, the scope of work hereunder, or any other matter arising out of or related to, in any manner, the Contract, Contractor shall proceed diligently with performance of the Services in accordance with City's written direction, pending any final determination or decision regarding any such claim, dispute, or disagreement.

10. Permits and Care of Work:

Contractor shall, at Contractor's expense, obtain all necessary permits and licenses for the construction of each improvement, give all necessary notices and pay all fees and taxes required by law, except those City fees set forth in Section 1 of the Special Provisions. Contractor has examined the Project site and is familiar with its topography and condition, location of property lines, easements, building lines, and other physical factors and limitations affecting the performance of the Contract. Contractor, at Contractor's expense, shall obtain any permission necessary for any operations conducted off the property owned or controlled by City. Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance.

11. Public Works and Payment of Prevailing Wage:

(a) *Monitoring and Enforcement.* In accordance with the provisions of Sections 1725.5, 1771.1, 1771.3, and 1771.4 of the Labor Code, all work performed under the Contract is subject to compliance monitoring and enforcement by the Department of Industrial Relations ("DIR"). All work performed by Contractor or its subcontractors under the Contract is subject to the requirements of Labor Code section 1720 et seq. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 of the Labor Code at the time the contract is awarded. Contractor and its subcontractors shall furnish the records specified in Section 1776 of the Labor Code directly to the Labor Commissioner, at least monthly, in the format prescribed by the Labor Commissioner.

In accordance with the provisions of Section 1773.3 of the Labor Code, City shall provide notice to DIR of the award of this Contract within thirty (30) working days of the award. The notice shall be transmitted electronically in a format specified by DIR and shall include the name of Contractor, any subcontractor listed on the successful bid, the bid and contract award dates, the contract amount, the estimated start and completion dates, Project location, and any additional information DIR specifies that aids in the administration and enforcement of Section 1720 et seq. of the Labor Code.

(b) *Wages & Hours of Employment*: In the performance of the Services under the Contract, eight (8) hours shall be the maximum hours of labor on any calendar day, and the minimum wages of compensation of persons performing labor in the execution of this agreement shall be the current prevailing scale of wages determined by DIR for the community. Contractor shall forfeit as penalty Twenty-five and no/100ths Dollars ($25.00) to be paid to City for each workman employed in the execution of the Contract by Contractor or its subcontractor(s), for each calendar day during which any workman is required or permitted to labor more than eight (8) hours, in violation of provisions of Labor Code section 1810 et seq. Contractor shall post prevailing wage rates at the

Project no later than the first day Contractor commences performance of the Services under the Contract.

12. Superintendence by Contractor:
Contractor shall give personal superintendence to the work on the Project or have a competent foreman or superintendent satisfactory to the City Engineer on the Project at all times during construction and performance of work under the Contract, with authority to act for Contractor.

13. Inspection and Testing by City:
Contractor shall at all times maintain proper facilities and provide safe access for inspection by City to all parts of the work performed on the Project and to the shops wherein the work is in preparation. Contractor shall notify City with sufficient time in advance of the manufacture of production materials to be supplied by Contractor under the Contract in order for City to arrange for mill or factory inspection and testing of same. Any materials shipped by Contractor from factory prior to having satisfactorily passed such testing and inspection by City's representative or prior to the receipt of notice from such representative that such testing and inspection will not be required shall not be incorporated on the Project. Contractor shall also furnish to City, in triplicate, certified copies of all factory and mill test reports upon request.

14. Conformity with Law and Safety:
Contractor shall observe and comply with all applicable laws, ordinances, codes, and regulations of governmental agencies, including federal, state, municipal, and local governing bodies having jurisdiction over any or all of the scope of Services, including all provisions of the Occupational Safety and Health Act of 1979 as amended, all California Occupational Safety and Health Regulations, the California Building Code, the American with Disabilities Act, any copyright, patent, or trademark law, and all other applicable federal, state, municipal, and local safety regulations, appropriate trade association safety standards, and appropriate equipment manufacturer instructions. All Services performed by Contractor or its subcontractors must be in accordance with these laws, ordinances, codes, and regulations. Contractor's failure to comply with any laws, ordinances, codes, or regulations applicable to the performance of the Services hereunder shall constitute a breach of contract. In cases where standards conflict, the standard providing the highest degree of protection shall prevail.

If a death, serious personal injury or substantial property damage occurs in connection with the performance of the Contract, Contractor shall immediately notify City's risk manager by telephone. If any accident occurs in connection with the Contract, Contractor shall promptly submit a written report to City, in such form as City may require. This report shall include the following information: (a) name and address of the injured or deceased person(s); (b) name and address of Contractor's subcontractor, if any; (c) name and address of Contractor's liability insurance carrier; and (d) a detailed description of the accident, including whether any of City's equipment, tools, or materials were involved.

If a release of a hazardous material, substance, or waste occurs in connection with the performance of the Contract, Contractor shall immediately notify City. Contractor shall not store hazardous materials or hazardous waste within City limits without a proper permit from City.

15. Other Contracts:

City may award other contracts for additional work on the Project, and Contractor shall fully cooperate with such other contractors and carefully fit Contractor's own work to that provided under other contracts as may be directed by the City Engineer. Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor.

16. Bonds:

Concurrently with the execution hereof, Contractor shall furnish, on the forms provided herein as **Exhibits D and E**, respectively, corporate surety bonds to the benefit of City, issued by a surety company acceptable to City and authorized and admitted to do business in the state of California, as follows:

(a) *Faithful Performance Bond.* In an amount equal to at least one hundred percent (100%) of the Contract Price as security for the faithful performance of the Contract. The bond shall contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code.

(b) *Payment Bond.* In an amount equal to at least one hundred percent (100%) of the Contract Price as security for the payment of all persons performing labor and furnishing materials in connection with the Contract. The bond shall be in accordance with the provisions of Sections 3225, 3226, and 3247 through 3252, inclusive, of the Civil Code and Section 13020 of the Unemployment Insurance Code of California. Said bond shall also contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code.

The surety companies shall familiarize themselves with all provisions and conditions of the Contract. It is understood and agreed that the surety or sureties waive the right of special notification of any modification or alterations, omissions or reductions, extra or additional work, extensions of time, or any other act or acts by City or its authorized agents under the terms of this Contract and failure to so notify the surety or sureties of such changes shall in no way relieve the surety or sureties of their obligations under the Contract.

17. Indemnification:

(a) *Indemnity for Professional Liability*. When the law establishes a professional standard of care for Contractor's Services, to the fullest extent permitted by law, Contractor shall indemnify, protect, defend, and hold harmless City and any and all of its elective and appointive boards, officers, officials, agents, employees or volunteers ("City's Agents") from and against any and all losses, liabilities, damages, costs, and expenses, including legal counsel's fees and costs but only to the extent Contractor or its subcontractors are responsible for such damages, liabilities and costs on a comparative basis of fault between Contractor or its subcontractors and City in the performance of professional services under the Contract. Contractor shall not be obligated to defend or indemnify City for City's own negligence or for the negligence of others.

(b) *Indemnity for other than Professional Liability.* Other than in the performance of professional services and to the full extent permitted by law, Contractor shall indemnify, defend, and hold harmless City and any and City's Agents from and against any liability, including liability for

claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including legal counsel's fees and costs, court costs, interest, defense costs, and expert witness fees, where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of the Contract by Contractor or by any individual or agency for which Contractor is legally liable, including, but not limited to, officers, agents, employees, or subcontractors of Contractor.

18. Contractor's Insurance:

Concurrently with the execution hereof, Contractor shall furnish City with satisfactory proof of carriage of the insurance required under this section, and that Contractor shall give City at least sixty (60) days prior notice of the cancellation of any policy during the Term of this contract. Contractor shall not commence work under this Agreement until Contractor has obtained City's approval regarding all insurance requirements, forms, endorsements, amounts, and carrier ratings, nor shall Contractor allow any subcontractor to commence work on a subcontract until all similar insurance required of the subcontractor shall have been so obtained and approved. 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 Services hereunder by Contractor, its agents, representatives, employees or subcontractors. Failure to maintain or renew coverage or to provide evidence of renewal may constitute a material breach of the Contract. Any available insurance proceeds in excess of the specified minimum limits and coverage shall be available to City.

(a) *General Liability Insurance*. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than Two Million Dollars ($2,000,000.00) per occurrence, Four Million Dollars ($4,000,000.00) general aggregate, for bodily injury, personal injury, and property damage, including, without limitation, blanket contractual liability and coverage for explosion, collapse, and underground property damage hazards. Contractor's general liability policies shall be primary and not seek contribution from City's coverages and be endorsed using Insurance Services Office form CG 20 10 to provide that City and its officers, officials, employees, and agents shall be additional insureds under such policies. For construction contracts, an endorsement providing completed operations to the additional insured, ISO form CG 20 37, is also required. The policy shall contain, or be endorsed to contain, the following provisions:

(1) City, its elective and appointive boards, officers, agents, employees, and volunteers are to be covered as additional insureds with respect to liability arising out of work or operations performed by or on behalf of Contractor, including materials, parts or equipment furnished in connection with such work or operations, which coverage shall be maintained in effect for at least three (3) years following the completion of the work specified in the Contract. General liability coverage can be provided in the form of an endorsement to Contractor's insurance (at least as broad as CG 20 10 for ongoing operations and CG 20 37 for products/completed operations), or as a separate Owners and Contractors Protective Liability policy providing both ongoing operations and completed operations coverage.

(2) For any claims related to the Project, Contractor's insurance coverage shall be primary insurance as respects City and any insurance or self-insurance maintained by City shall be excess of Contractor's insurance and shall not contribute with it.

(3) In the event of cancellation, non-renewal, or material change that reduces or restricts the insurance coverage afforded to City under the Contract, the insurer, broker/producer, or Contractor shall provide City with thirty (30) days' prior written notice of such cancellation, non-renewal, or material change.

(4) Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under Subdivision (b) of Section 2782 of the Civil Code.

(b) *Workers' Compensation Insurance*. Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance with limits of at least One Million Dollars ($1,000,000.00). Contractor shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of City, its officers, agents, employees, and volunteers.

(c) *Auto Insurance*. Contractor shall provide auto liability coverage for owned, non-owned, and hired autos using ISO Business Auto Coverage form CA 00 01, or the exact equivalent, with a limit of no less than Two Million Dollars ($2,000,000.00) per accident. If Contractor owns no vehicles, this requirement may be met through a non-owned auto endorsement to the CGL policy.

(d) Builder's Risk Insurance. {Intentionally Omitted}

(e) *Contractors Pollution Insurance*. Pollution Coverage shall be provided on a Contractors Pollution Liability form, or other form acceptable to City, providing coverage for liability arising out of sudden, accidental, and gradual pollution and remediation. The policy limit shall be no less than Two Million Dollars ($2,000,000.00) per claim. All activities contemplated in the Contract shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the Project site to the final disposal location, including non-owned disposal sites.

(f) *Professional Liability Insurance*. When applicable, Contractor shall maintain professional liability insurance that insures against professional errors and omissions that may be made in performing the Services to be rendered in connection with the Contract, in the minimum amount of Two Million Dollars ($2,000,000.00) per claim and in the aggregate. Any policy inception date, continuity date, or retroactive date must be before the effective date of this Agreement, and Contractor agrees to maintain continuous coverage through a period no less than three (3) years after completion of the services required by the Contract.

(g) *Umbrella or Excess Policy.* Contractor may use Umbrella or Excess Policies to provide the liability limits as required in this agreement. This form of insurance will be acceptable

provided that all of the Primary and Umbrella or Excess Policies shall provide all of the insurance coverages herein required. The Umbrella or Excess policies shall be provided on a true "following form" or broader coverage basis, with coverage at least as broad as provided on the underlying Commercial General Liability and automobile Liability insurance. No insurance policies maintained by the Additional Insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until the Contractor's primary and excess liability policies are exhausted.

(h) *Deductibles and Self-Insured Retentions*. Upon request of City, any deductibles or self-insured retentions must be declared to and approved by City. At the option of City, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City and City's Agents; or (2) Contractor shall provide a financial guarantee satisfactory to City guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

(i) *Acceptability of Insurers*. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII or with an insurer to which City has provided prior approval.

(j) *Verification of Coverage*. Contractor shall furnish City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this Section 18. All certificates and endorsements are to be received and approved by City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive Contractor's obligation to provide them. City reserves the right, at any time, to require complete, certified copies of all required insurance policies and endorsements.

(k) *Waiver of Subrogation*. With the exception of professional liability, Contractor hereby agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. The commercial general liability policy and workers' compensation policy shall be endorsed to contain a waiver of subrogation in favor of City for all work performed by Contractor, its agents, employees, independent contractors and subcontractors. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation.

(l) *Subcontractors*. Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

19. Ownership of Work Product:

Any and all work, artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, designs, specifications, drawings, diagrams, surveys, source codes, professional or technical information or data, photographs, notes, letters, emails, or any original works of authorship created by contractor or its subcontractors or subcontractors in connection with Services performed under the Contract ("Work Product") shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works are the property of City. In the event that it is ever determined that any Work Product created by Contractor or its subcontractors or subcontractors under the Contract are not works for hire under U.S. law, Contractor hereby assigns all copyrights to such Work Product to City. With the prior written approval of the City Engineer,

Contractor may retain and use copies of such Work Product for reference and as documentation of its experience and capabilities.

All Work Product shall become the property of City irrespective of where located or stored and Contractor agrees to deliver all such documents and information to City, without charge and in whatever form it exists, upon the Completion Date, as may be extended. Contractor shall have no ownership interest in such Work Product.

All Work Product of Contractor under the Contract, including written information which City will cause to be distributed for either internal or public circulation, including both preliminary and final drafts, shall be delivered to City in both printed and electronic form, or as may be specific in Exhibit A.

When the Contract is terminated, Contractor agrees to return to City all documents, drawings, photographs, and other written or graphic material, however produced, that it received from City or City's Agents, in connection with the performance of its Services under the Contract. All materials shall be returned in the same condition as received.

20. Taxes:

Payment of any taxes, including California sales and use taxes, levied upon the Contract, the transaction, or the Services or goods delivered pursuant hereto, shall be the obligation of Contractor. Contractor shall cooperate with City to the full extent possible to maximize the local allocation of California sales and use tax to City. Such cooperation shall include, but not be limited to:

(a) *Use Tax Direct Payment Permits.* Contractor shall apply for, obtain, and utilize, to the maximum extent reasonable, a California Use Tax Direct Payment Permit.

(b) *Purchases of $500,000 or More.* Contractor shall require vendors and suppliers located outside California from whom Contractor makes purchases of $500,000 or more to allocate the use tax to City.

21. Independent Contractor:

At all times during the Term of the Contract, Contractor shall be deemed to be an independent contractor and shall be wholly responsible for the manner in which Contractor performs the Services required under the Contract. Contractor shall be liable for its acts and omissions, and those of its employees, contractors, subcontractors, representatives, volunteers, and its agents. Nothing contained herein shall be construed as creating an employment, agency, or partnership relationship between City and Contractor. City shall have the right to control Contractor only insofar as the result of Contractor's Services rendered pursuant to the Contract; however, City shall not have the right to control the means by which Contractor accomplishes Services rendered pursuant to the Contract.

22. Contractor Not Agent:

Except as City may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to the Contract to bind City to any obligation whatsoever.

23. Arbitration of Disputes:

All claims, disputes, and other matters in question between City and Contractor arising out of, or relating to, this Contract or the breach thereof, including claims of Contractor for extra compensation of Services related to the project, shall be decided by arbitration before a single arbitrator in accordance with the provisions of Sections 1281 through 1284.2 of the Code of Civil Procedure (the "Arbitration Laws") unless the Parties mutually agree otherwise. The provisions of Section 1283.05 of the Arbitration Laws apply to any arbitration proceeding except as otherwise provided in the Contract. The arbitrator shall have authority to decide all issues between the Parties including, but not limited to, claims for extras, delay, and liquidated damages, if any, provided for the Contract, matters involving defects in the Services performed by Contractor or its subcontractors, rights to payment, and whether the necessary procedures for arbitration have been followed. The award rendered by the arbitrator shall be final and judgment may be entered upon it in accordance with applicable law in any court having competent jurisdiction thereof.

Notice of the demand for arbitration shall be filed in writing with the other Party. The demand for arbitration shall be made within a reasonable time after the claim, dispute, or other matter in question has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such claim, dispute, or other matter in question would be barred by the applicable statute of limitations.

The parties shall jointly appoint an arbitrator within fifteen (15) calendar days of the date of giving the notice of the demand for arbitration. If the Parties are unable to jointly agree upon the appointment of an arbitrator within said fifteen (15) calendar day period, and do not agree in writing to extend said period for a fixed period, then either Party may seek to have the arbitrator appointed by the Superior Court of Stanislaus County in accordance with the Arbitration Laws.

If any proceeding is brought to contest the right to arbitrate and it is determined that such right exists, the losing Party shall pay all costs and attorney's fees incurred by the prevailing Party.

In addition to the other rules of law which may be applicable to any arbitration hereunder, the following shall apply:

(a) Promptly upon the filing of the arbitration, each Party shall be required to set forth in writing and to serve upon each other Party a detailed statement of its contentions of fact and law.

(b) All Parties to the arbitration shall be entitled to the discovery procedures provided under Section 1283.05 of the California Code of Civil Procedure.

(c) The arbitration shall be commenced and conducted as expeditiously as possible consistent with affording reasonable discovery as provided herein.

(d) These additional rules shall be implemented and applied by the arbitrator.

The costs of arbitration shall be borne by the Parties as determined by the arbitrator, but each Party shall bear its own attorney's fees associated with the dispute with the other Party and to the arbitration.

All administrative remedies required under Section 9 of this Agreement or pursuant to Public Contract Code section 9204, or required by any other law, shall be exhausted prior to commencement of any arbitration under this Section 23.

24. Provisions Cumulative:
The provisions of the Contract are cumulative, and in addition to and not in limitation of, any other rights or remedies available to City.

25. Notices:
All notices shall be in writing and delivered in person or transmitted by certified mail, postage prepaid. Any Party hereto may at any time, by giving ten (10) days' written notice to the other Party hereto, designate any other address in substitution of the address to which such notice or communication shall be given. Such notices or communications shall be given to the Parties at their addresses set forth below.

If to City:
City of Turlock
Attn: Christopher Fisher, Municipal Services Director
156 S. Broadway, Suite 150
Turlock, CA 95380-5461

With courtesy copies to:
City of Turlock, City Attorney's Office
Attn: George A. Petrulakis, City Attorney
156 S. Broadway, Suite 230
Turlock, CA 95380-5456

If to Contractor:
_____
_____
_____

If to Contractor's Sureties:
_____
_____
_____
_____

26. City Contract Administrator:
The City's contract administrator and contact person for this Agreement is:

Fred Pezeshk, PE
City of Turlock, Roads Program Manager
156 S. Broadway, Suite 150
Turlock, California 95380-5461
Telephone: (209) 668-5520
E-mail: fpezeshk@turlock.ca.us

27. Interpretation:
As used herein, any gender includes each other gender, the singular includes the plural and vice versa.

28. Antitrust Claims:
Contractor or its subcontractors offer and agree to assign to City all rights, title, and interest to any causes of action under Section Four of the Clayton Act and the Cartwright Act concerning antitrust claims.

29. Use of City Project Number:
Contractor or its subcontractors agree to use the aforementioned City project number on all maps, drawings, submittals, billing, and written correspondence that involve City staff or contracted consultants. Nothing in this section shall preclude Contractor or its subcontractors from using their own project numbers for their own internal use.

30. No Conflict of Interest:
Contractor represents that no conflict of interest will be created under state or federal law by entering into or in carrying out the Contract.

31. Confidentiality:
Contractor understands and agrees that, in the performance of Services under the Contract, or in the contemplation thereof, Contractor may have access to private or confidential information that may be owned or controlled by City and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to City ("Confidential Information"). Contractor shall not, either during or after the Term, disclose to any third party any Confidential Information without the prior written consent of City. If City gives Contractor written authorization to make any such disclosure, Contractor shall do so only within the limits and to the extent of that authorization. Contractor may be directed or advised by the City Attorney on various matters relating to the performance of Services on the Project or on other matters pertaining to the Project, and in such event, Contractor agrees that it will treat all communications between itself, its employees, and its subcontracts as being communications which are within the attorney-client privilege.

32. Modification.
No alteration, amendment, modification, or termination of the Contract shall be valid unless made in writing and executed by all Parties to the Contract.

33. Waiver:
No covenant, term, or condition or the breach thereof shall be deemed waived, except by written consent of the Party against whom the waiver is claimed, and any waiver of the breach of any covenant, term, or condition shall not be deemed to be a waiver of any preceding or succeeding breach of the same or any other covenant, term, or condition.

34. Assignment:
No Party to the Contract shall assign, transfer, or otherwise dispose of this Agreement in whole or in party to any individual, firm, or corporation without the prior written consent of the other Party. Subject to the foregoing provisions, the Contract shall be binding upon, and inure to the benefit of, the respective successors and assigns of the Parties hereto.

35. Authority:
All Parties to this Agreement warrant and represent that they have the power and authority to enter into this Agreement and the names, titles, and capacities herein stated on behalf of any entities, persons, states, or firms represented or purported to be represented by such entities, person, states, or firms and that all former requirements necessary or required by state or federal law in order to enter into the Contract have been fully complied with. Further, by entering into this Agreement, neither Party hereto shall have breached the terms or conditions of any other contract or agreement to which such Party is obligated, which such breach would have a material effect hereon.

36. Governing Law:
The Contract shall be governed and construed in accordance with the laws of the state of California.

37. Severability:
If the Contract in its entirety is determined by an arbitrator or a court of competent jurisdiction to be invalid or unenforceable, the Contract shall automatically terminate as of the date of final entry of judgment. If any provision of the Contract shall be determined to be invalid and unenforceable, or if any provision of the Contract is rendered invalid or unenforceable according the terms of any federal or state statute, which becomes effective after the Effective Date of this Agreement, the remaining provisions shall continue in full force and effect and shall be construed to give effect to the intent of this Agreement.

38. Execution and Counterparts:
This Agreement may be executed simultaneously and, in several counterparts, each of which shall be deemed an original but together shall constitute one and the same instrument. The parties agree that this Agreement and any other documents to be delivered in connection herewith may be electronically signed utilizing services such as DocuSign and Nitro Sign, or by transmitting signatures in pdf or similar format, and that any electronic signatures appearing on this Agreement or such other documents are the same as handwritten signature for the purposes of validity, enforceability, and admissibility.

39. Mandatory and Permissive:
"Shall" and "will" and "agrees" are mandatory. "May" and "can" are permissive.

40. Headings:
Headings used in this Agreement are for reference purposes only and shall not be considered in construing this Agreement.

41. Attorney's Fees and Costs:
Except as expressly provided for in Section 23 of this Agreement, if any action at law or in equity, including action for declaratory relief, is brought to enforce or interpret the provisions of the Contract, the prevailing Party shall be entitled to reasonable attorney's fees and costs, which may be set by the court in the same action or in a separate action brought for that purpose, in addition to any other relief to which such Party may be entitled.

42. Necessary Acts and Further Assurances:

The Parties shall, at their own cost and expense, execute and deliver such further documents and instruments and shall take such other actions as may be reasonably required or appropriate to evidence or carry out the intent and purposes of the Contract.

43. Recitals:

The recitals set forth above ("Recitals") are true and correct and are hereby incorporated into and made part of this Agreement by this reference. In the event of any inconsistency between the Recitals and Section 1 through 43 of this Agreement, Sections 1 through 43 shall prevail.

[*Signatures on Following Page*]

CONTRACTOR

By: _____

_____
Print Name

Address:_____
_____
_____

Phone: _____

Date: _____

Federal Tax ID or Social Security No:

_____

DIR Registration Number:

_____

Affix Contractor's Seal Here

CITY OF TURLOCK, a municipal corporation

By: _____
Reagan M. Wilson, City Manager

Date: _____

APPROVED AS TO SUFFICIENCY:

By: _____
Christopher Fisher, Municipal Services Director

APPROVED AS TO FORM:

By: _____
George A. Petrulakis, City Attorney

ATTEST:

By: _____
Nichole Fiez, City Clerk

EXHIBIT A
SCOPE OF SERVICES

EXHIBIT B
PAYMENT BY FORCE ACCOUNT

For work paid by force account, the City Engineer compares City's records to Contractor's daily force account work report. When the City Engineer and Contractor agree on the contents of the daily force account work reports, the City Engineer accepts the report and City pays for the work. If the records differ, City pays for the work based only on the information shown on City's records. If a subcontractor performs work at force account, work paid at force account will be accepted at an additional 2 percent (2%) markup to the total cost of that work, including markups, as reimbursement for additional administrative costs. The markups specified in labor, materials, and equipment includes compensation for all delay costs, overhead costs, and profit. If an item's unit price is adjusted for work-character changes, City excludes Contractor's cost of determining the adjustment. Payment for owner-operated labor and equipment is made at the market-priced invoice submitted.

A. Labor. Labor payment is full compensation for the cost of labor used in the direct performance of the work plus a fifteen percent (15%) markup, as set forth below, and consistent with California Labor Code section 1770 et seq. Force account labor payment consists of:

1. Employer payment to the worker for:

    1.1 Basic hourly wage
    1.2 Health and welfare
    1.3 Pension
    1.4 Vacation
    1.5 Training
    1.6 Other State and federal recognized fringe benefit payments

2. Labor surcharge percentage in *Labor Surcharge and Equipment Rental Rates* current during the work paid at force account for:

    2.1 Workers' compensation insurance
    2.2 Social security
    2.3 Medicare
    2.4 Federal unemployment insurance
    2.5 State unemployment insurance
    2.6 State training taxes

3. Subsistence and travel allowances paid to the workers

4. Employer payment to supervisors, if authorized

The fifteen percent (15%) markup consists of payment for all overhead costs related to labor but not designated as costs of labor used in the direct performance of the work including:

(a) Home office overhead

(b) Field office overhead
(c) Bond costs
(d) Profit
(e) Labor liability insurance
(f) Other fixed or administrative costs that are not costs of labor used in the direct performance of the work

B. Materials. Material payment is full compensation for materials the Contractor furnishes and uses in the work. The City Engineer determines the cost based on the material purchase price, including delivery charges, except:

1. A fifteen percent (15%) markup is added;

2. Supplier discounts are subtracted whether the Contractor takes them or not;

3. If the City Engineer believes the material purchase prices are excessive, City pays the lowest current wholesale price for a similar material quantity;

4. If Contractor procured the materials from a source Contractor wholly or partially own, the determined cost is based on the lower of the:

   4.1 Price paid by the purchaser for similar materials from that source on Contract items; and
   4.2 Current wholesale price for those materials;

5 If Contractor does not submit a material cost record within thirty (30) days of billing, the determined cost is based on the lowest wholesale price:

   5.1 During that period
   5.2 In the quantities used

C. Equipment Rental. Equipment rental payment is full compensation for:

1. Rental equipment costs, including moving rental equipment to and from the change order work site using its own power.

2. Transport equipment costs for rental equipment that cannot be transported economically using its own power. No payment is made during transport for the transported equipment.

3. Fifteen percent (15%) percent markup.

If Contractor wants to return the equipment to a location other than its original location, the payment to move the equipment must not exceed the cost of returning the equipment to its original location.

If Contractor uses the equipment for work other than work paid by force account, the transportation cost is included in the other work.

Before moving or loading the equipment, Contractor must obtain authorization for the equipment rental's original location.

The City Engineer determines rental costs:

1. Using rates in *Labor Surcharge and Equipment Rental Rates*:

    1.1. By classifying equipment using manufacturer's ratings and manufacturer-approved changes.
    1.2. Current during the work paid by force account.
    1.3. Regardless of equipment ownership but City uses the rental document rates or minimum rental cost terms if:
        1.3.1. Rented from equipment business Contractor does not own.
        1.3.2. The Labor Surcharge and Equipment Rental Rates hourly rate is $10.00 per hour or less.

2. Using rates established by the City Engineer for equipment not listed in *Labor Surcharge and Equipment Rental Rates*. Contractor may submit cost information that helps the City Engineer establish the rental rate but City uses the rental document rates or minimum rental cost terms if:
    2.1. Rented from equipment business Contractor does not own.
    2.2. The City Engineer establishes a rate of $10.00 per hour or less.

3. Using rates for transport equipment not exceeding the hourly rates charged by established haulers.

Equipment rental rates include the cost of:

1. Fuel
2. Oil
3. Lubrication
4. Supplies
5. Small tools that are not consumed by use
6. Necessary attachments
7. Repairs and maintenance
8. Depreciation
9. Storage
10. Insurance
11. Incidentals

City pays for small tools consumed by use. The City Engineer determines payment for small tools consumed by use based on Contractor-submitted invoices.

The City Engineer may authorize rates in excess of those in the *Labor Surcharge and Equipment Rental Rates* if:

1. Contractor submits a request to use rented equipment

2. Equipment is not available from Contractor's normal sources or from one of Contractor's subcontractors
3. Rented equipment is from an independent rental company
4. Proposed equipment rental rate is reasonable
5. The City Engineer authorizes the equipment source and the rental rate before Contractor uses the equipment

D. Equipment on the Job Site. For equipment on the job site at the time required to perform work paid by force account, the time paid is the time:

1. To move the equipment to the location of work paid by force account plus an equal amount of time to move the equipment to another location on the job site when the work paid by force account is completed

2. To load and unload equipment

3. Equipment is operated to perform work paid by force account and:
   3.1. Hourly rates are paid in 1/2-hour increments
   3.2. Daily rates are paid in 1/2-day increments

E. Equipment Not on the Job Site Required for Original-Contract Work. For equipment not on the job site at the time required to perform work paid by force account and required for original-Contract work, the time paid is the time the equipment is operated to perform work paid by force account and the time to move the equipment to a location on the job site when the work paid by force account is completed.

The minimum total time paid is:

1. 1 day if daily rates are paid
2. 8 hours if hourly rates are paid

If daily rates are recorded, equipment:

1. Idled is paid as 1/2 day
2. Operated four (4) hours or less is paid as 1/2 day
3. Operated four (4) hours or more is paid as one (1) day

If the minimum total time exceeds eight (8) hours and if hourly rates are listed, City rounds up hours operated to the nearest 1/2-hour increment and pays based on the hours shown in the following table. The table does not apply when equipment is not operated due to breakdowns, in which case rental hours are the hours the equipment was operated.

Equipment Rental Hours

Hours operated	Hours paid
0.0	4.00
0.5	4.25
1.0	4.50
1.5	4.75
2.0	5.00
2.5	5.25
3.0	5.50
3.5	5.75
4.0	6.00
4.5	6.25
5.0	6.50
5.5	6.75
6.0	7.00
6.5	7.25
7.0	7.5
7.5	7.75
≥8.0	hours used

F. Equipment Not on the Job Site Not Required for Original-Contract Work. For equipment not on the job site at the time required to perform work paid by force account and not required for original-Contract work, the time paid is the time:

1. To move the equipment to the location of work paid by force account plus an equal amount of time to return the equipment to its source when the work paid by force account is completed

2. To load and unload equipment

3. Equipment is operated to perform work paid by force account

G. Non-Owner-Operated Dump Truck Rental. Contractor shall submit the rental rate for non-owner-operated dump truck rental to City. The City Engineer shall determine the payment rate. Payment for non-owner-operated dump truck rental is for the cost of renting a dump truck, including its driver. For the purpose of markup payment only, the non-owner-operated dump truck is rental equipment and the owner is a subcontractor.

The above markups shall constitute full compensation for all home office overhead, field office overhead, bond costs, profit, labor liability insurance, and other fixed or administrative costs that are not costs specifically designated as cost or equipment rental as stated above. The total payment made as provided above shall be deemed to be the actual cost of the work and shall constitute full compensation therefor.

When extra work to be paid for on a force account basis is performed by a subcontractor, an additional markup of 2 percent (2%) will be added to the total cost of that extra work including all markups specified in this Section. The additional 2 percent (2%) markup shall reimburse Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

EXHIBIT C

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Pursuant to Section 18(b) of the Agreement, Contractor certifies as follows:

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Signed: _____ Date: _____

_____
(Typed or Printed Name)

Business Address (Street Address, City, State & Zip Code):

_____

_____

_____

Business Phone: ( ) _____

EXHIBIT D

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of Turlock,** State of California, has awarded to _____, hereinafter designated as the "Principal," a contract for **"Project No. 23-067 Package #2, Roads Program Capital Improvement Project"** and,

WHEREAS, said Principal is required under the terms of said contract to furnish a bond for the faithful performance of said contract.

NOW, THEREFORE, we the Principal, and _____ as Surety, are held and firmly bound unto the City of Turlock in the penal sum of _____ **($_____)**, lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, or Principal's heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in said contract and any alteration thereof made as therein provided, on the Principal's part, to be kept and performed at the time and in the manner therein specified and in all respects according to their true intent and meaning; and shall defend, indemnify and save harmless the City of Turlock, its officers and agents as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

And the Surety, for value received hereby stipulates and agrees that, in accordance with the Plans, Standard Specifications, Special Provisions, and other contract documents, no change, extension of time, alteration, or addition to the terms of the contract, or to the work to be performed hereunder, or to the specifications accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration of additions to the terms of the Contract to the work, or to the specifications.

The City of Turlock reserves the right to refuse use of any Contractor assigned by any surety to complete the work.

[*Signatures on Following Page*]

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this _____ day of _____, 20__, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

_____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

NOTE TO SURETY COMPANY: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

EXHIBIT E

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the **City of Turlock**, a municipal corporation, has awarded to _____, hereinafter designated as the "Principal", a contract for "**Project No. 23-067 Package #2, Roads Program Capital Improvement Project"**; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract, to secure payment of claims of laborers, mechanics, or materialmen employed on work under said contract, as provided by law.

NOW, THEREFORE, we the undersigned Principal and Surety are held and firmly bound unto the City of Turlock in the sum of _____ **($_____),** said sum being equal to the estimated amount payable by said City of Turlock under the terms of the contract, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that if said Principal, or Principal's heirs, executors, administrators, successors, or assigns, or subcontractors shall fail to pay for any material, provisions, provender, or other supplies, implements, or machinery used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from these wages of employees of the Contractor and Contractor's subcontractors pursuant to the Revenue and Taxation Code, with respect to such work and labor, the Surety or Sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, said Surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Section 3138 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

Said Surety, for value received, hereby stipulates and agrees that, in accordance with the Plans, Standard Specifications, Special Provisions, and other Contract Documents, no change, extension of time, alteration or addition to the terms of the contract, or to the work to be performed there under, or to the specifications accompanying the same, shall in anywise affect its obligations 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.

[*Signatures on Following Page*]

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this _____ day of _____, 20__, the name and corporate seals of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) **Principal** _____

By _____

Title _____

(Attach Notarial Acknowledgment)

(Corporate Seal) **Surety** _____

Address _____

Phone No.: ( )_____ Fax No.: ( ) _____

By _____
Attorneys-in-Fact

Title _____

(Attach Notarial Acknowledgment)

<u>NOTE TO SURETY COMPANY</u>: There must be submitted a certified copy of unrevoked resolution of authority for the attorneys-in-fact.

(Seal) **Witness** _____

Approved as to form:

_____
Risk Manager

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SPECIAL PROVISIONS

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

SECTION 1 SPECIFICATIONS AND PLANS

SPECIAL NOTES:

1. Official bid documents including plans and specifications are available online at http://www.cityofturlock.org/capitalprojects. All bids submitted for this project must conform to the requirements of the official bid documents, including plans and specifications.

2. An optional Pre-Bid meeting will be held on Monday, March 24, 2025 at 10:00AM at Turlock City Hall, 156 S. Broadway Turlock, CA 95380.

1.01 SPECIFICATIONS:

The work described herein shall be done in accordance with the current City of Turlock Standard Specifications and the 2023 Edition of the State of California, Department of Transportation Standard Specifications (unless a different version is specifically noted) and Standard Plans (with exception that English units are to be used in place of metric) and in accordance with the following Special Provisions.

The Contract Documents are complementary; what is required by one is as binding as if required by all.

It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to City.

Clarifications and interpretations of the Contract Documents shall be issued by Engineer.

In case of conflict or discrepancy between any of the Contract Documents, the order of documents listed below shall be the order of precedence, with the first item listed having the highest precedence.

1. Contract Change Order (Modifications or changes last in time are first in precedence).
2. Addenda to Contract Agreement
3. Contract Agreement
4. Permits
5. Special Provisions
6. Notice Inviting Bids and Instructions to Bidders
7. Project Drawings
8. City of Turlock Standard Specifications
9. City of Turlock Standard Drawings

10. State Standard Specifications
11. State Revised Standard Plans
12. State Standard Plans

With regards to discrepancies or conflicts between written dimensions given on drawings and the scaled measurements, the written dimensions shall govern.

With regards to discrepancies or conflicts between large-scale drawings and small-scale drawings, the larger scale shall govern.

With regards to discrepancies or conflicts between detailed drawings and referenced standard drawings or plans, the detailed drawings shall govern.

In the event where provisions of codes, safety orders, contract documents, referenced manufacturer's specifications or industry standards are in conflict, the more restrictive and higher quality shall govern.

The Project Plans and Special Provisions are intended to be explanatory of each other. The work shall be performed and completed according to the true spirit, meaning, and intent of the Plans and Special Provisions.

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in these specifications, the special provisions, or the plans, the Contractor shall apply to the Engineer in writing for such further explanations as may be necessary and shall conform to them as part of the contract. All responses from the Engineer shall also be in writing. In the event of any doubt or question arising respecting the true meaning of these specifications, the special provisions or the plans, reference shall be made to the Engineer, whose decision thereon shall be final.

1.02 CONTRACTOR'S RESPONSIBILITY:

The Contractor shall examine carefully the site of the work and the plans and specifications therefore. The Contractor shall investigate to their satisfaction as to conditions to be encountered, the character, quality and quantity of surface, subsurface materials or obstacles to be encountered, the work to be performed, materials to be furnished, and as to the requirements of the bid, plans and specifications of the contract.

1.03 COMPLETENESS AND ACCURACY OF PLANS AND SPECIFICATIONS:

Pursuant to the California Public Contract Code, the bidder is required to review architectural or engineering plans and specifications prior to submission of a bid, and report any errors and omissions noted by Contractor to the architect, engineer or owner five days prior to the bid opening date.

SECTION 2 PROPOSAL REQUIREMENTS AND CONDITIONS

2.01 GENERAL:

The Contractor's attention is directed to the "Notice to Contractor" for the date, time and location of the mandatory Pre-Bid meeting, if applicable.

The bidder's attention is directed to the provisions in Proposal for this bid for the requirements and conditions which the bidder must observe in the preparation of and the submission of the bid.

The bidder's bond shall conform to the bond form in the Bid book for the project and shall be properly filled out and executed. The bidder's bond form included in that book must be used.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Bid book. Signing the Bid book shall also constitute signature of the Noncollusion Affidavit.

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on a future public works contract.

2.02 EXISTING UTILITIES, FACILITIES, AND SITE CONDITIONS:

The actual sizes, locations and materials of existing utilities and facilities shown on the plans may vary from what is shown on the plans. Attention is directed to the possible existence of underground facilities not indicated on the plans or in the special provisions. Contractor shall be responsible for verifying the locations and nature of the existing utilities, protecting them from damage and notifying Engineer of their location and nature.

Contractor shall examine carefully the site of the work. It is assumed that Contractor has investigated and is satisfied as to the conditions to be encountered as to the character, quality and quantities of work to be performed.

Although the City of Turlock's soil conditions are homogenous and sandy in nature, various subsurface conditions such as hardpan, and ground water may be encountered. The City of Turlock will not be held responsible in any way for the type and character of subsurface conditions encountered. If a subsurface report is desired by Contractor, it will be Contractor's responsibility and expense to verify the subsurface conditions by boring or other means necessary prior to bidding and/or performing work. Attention is

directed to Section 5.21, “Preservation of Property,” of these special provisions during boring and other miscellaneous operations.

Full compensation for furnishing all labor, materials, tools, equipment (including dewatering devices), and incidentals, and for doing all the work involved with and/or in verifying existing utilities, facilities, site and subsurface conditions as specified above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

Compensation for any portion of the Work not specifically identified in the Bid Schedule or Schedule of Values is understood to be included in the price for other items, unless specified in Special Provisions as extra work. No additional compensation is allowed to ensure the Work is completed as specified in the Contract.

2.03 [NOT USED]

2.04 [NOT USED]

2.05 ESCROW BID DOCUMENTS:

1. SCOPE

The lowest Bidder shall submit, within the specified time after receipt of Bids, one copy of all documentary information generated in preparation of Bid prices for this Project. This material is hereinafter referred to as "Escrow Bid Documents." The Escrow Bid Documents of the Successful Bidder will be held in escrow for the duration of the contract.

The Successful Bidder agrees, as a condition of award of the contract, that the Escrow Bid Documents constitute the complete, only, and all documentary information used in preparation of his Bid. No other Bid preparation information shall be considered in resolving disputes.

Nothing in the Escrow Bid Documents shall change or modify the terms or conditions of the Contract Documents.

2. OWNERSHIP

The Escrow Bid Documents are, and shall always remain, the property of CONTRACTOR, subject only to joint review by OWNER and CONTRACTOR, as provided herein.

OWNER stipulates and expressly acknowledges that the Escrow Bid Documents, as defined herein, constitute trade secrets. This acknowledgment is based on OWNER's express understanding that the information contained in the Escrow Bid Documents is not known outside the Bidder's business, is known only to a limited extent and only by a limited number of employees of the Bidder, is safeguarded while in Bidder's possession, is extremely valuable to Bidder, and could be extremely valuable to Bidder's competitors by virtue of it reflecting Bidder's

contemplated techniques of construction. OWNER acknowledges that the Bidder expended substantial sums of money in developing the information included in the Escrow Bid Documents and further acknowledges that it would be difficult for a competitor to replicate the information contained therein. OWNER further acknowledges that the Escrow Bid Documents and the information contained therein are made available to OWNER only because such action is an express prerequisite to award of the contract. OWNER further acknowledges that the Escrow Bid Documents include a compilation of information used in the Bidder's business, intended to give the Bidder an opportunity to obtain an advantage over competitors who do not know of or use the contents of the documentation. OWNER agrees to safeguard the Escrow Bid Documents, and all information contained therein, against disclosure to the fullest extent permitted by law.

3. PROGRAM

Escrow Bid Documents will be used to assist in the negotiation of price adjustments and Change Orders and in the settlement of disputes, claims, and other controversies. They will not be used for pre-award evaluation of CONTRACTOR's anticipated methods of construction or to assess CONTRACTOR's qualifications for performing the Work.

4. FORMAT AND CONTENTS

Bidders may submit Escrow Bid Documents in their usual cost estimating format. It is not the intention of this section to cause the Bidder extra work during the preparation of the Bid, but to ensure that the Escrow Bid Documents will be adequate to enable complete understanding and proper interpretation for their intended use. The Escrow Bid Documents shall be in the language of the Specifications.

The Escrow Bid Documents shall include all quantity takeoffs; crew; equipment; calculations of rates of production and progress; copies of quotations from equipment manufacturers, Subcontractors, and Suppliers; and memoranda, narratives, consultants' reports, add/deduct sheets, and all other information used by the Bidder to arrive at the prices contained in the Bid Form. Estimated costs should be broken down into the Bidder's usual estimate categories, such as direct labor, repair labor, equipment operation, equipment ownership, expendable materials, permanent materials, and subcontract costs as appropriate. Plant and equipment and indirect costs should be detailed in the Bidder's usual format. CONTRACTOR's allocation of plant and equipment, indirect costs, contingencies, markup, and other items to each Bid item shall be included.

Bidding Documents provided by the OWNER should not be included in the Escrow Bid Documents unless needed to comply with the requirements of this section.

5. SUBMITTAL

The Escrow Bid Documents shall be submitted in a sealed container within one week after the time of receipt of Bids. The container shall be clearly marked on the outside with the Bidder's name, date of submittal, project name, and the words "Escrow Bid Documents."

The Escrow Bid Documents shall be accompanied with a certification signed by an individual authorized by the Bidder to execute the Bid Form, stating that the material in the Escrow Documentation constitutes the complete, only, and all documentary information used in preparation of the Bid and that he has personally examined the contents of the Escrow Bid Documents container and has found that the documents in the container are complete.

Prior to award, Escrow Bid Documents of the apparent Successful Bidder will be unsealed, examined, organized, and inventoried by representatives of OWNER, together with members of CONTRACTOR's staff who are knowledgeable in how the Bid was prepared. This examination is to ensure that the Escrow Bid Documents are authentic, legible, and complete. It will not include review of, and will not constitute approval of, proposed construction methods, estimating assumptions, or interpretations of Contract Documents. This examination is subject to the condition that, as trade secrets, the Escrow Bid Documents are proprietary and confidential as described in Paragraph 2. Examination will not alter any condition(s) or term(s) of the contract.

If all the documentation required in Part 4, "Format and Contents," has not been included in the original submittal, additional documentation shall be submitted, at OWNER's discretion, prior to award of the contract. The detailed breakdown of estimated costs shall be reconciled and revised, if appropriate, by agreement between CONTRACTOR and OWNER before making the award.

If the contract is not awarded to the apparent Successful Bidder, the Escrow Bid Documents of the Bidder next to be considered for award shall be processed as described above.

Timely submission of complete Escrow Bid Documents is an essential element of the Bidder's responsibility and a prerequisite to contract award. Failure to provide the necessary Escrow Bid Documents will be sufficient cause for OWNER to reject the Bid.

If the Bidder's proposal is based on subcontracting any part of the Work, each Subcontractor whose total subcontract price exceeds 5 percent of the total Contract Price proposed by the Bidder shall provide separate Escrow Bid Documents to be included with those of the Bidder. These documents will be opened and examined in the same manner and at the same time as the examination described above for the apparent Successful Bidder.

If CONTRACTOR subcontracts any portion of the Work after award, OWNER retains the right to require CONTRACTOR to submit Escrow Bid Documents from the Subcontractor before the subcontract is approved.

Escrow Bid Documents submitted by unsuccessful Bidders will be returned unopened, unless opened as provided above, as soon as they are no longer needed by OWNER and no later than immediately following award of the contract.

6. STORAGE

The Escrow Bid Documents of the Successful Bidder will be placed in escrow prior to award of the contract, for the life of the contract, in a mutually agreeable institution. The cost of storage will be paid by OWNER.

7. EXAMINATION AFTER AWARD OF CONTRACT

The Escrow Bid Documents shall be examined by both OWNER and CONTRACTOR, at any time deemed necessary after award of the contract by either OWNER or CONTRACTOR, to assist in the negotiation of price adjustments and Change Orders, or the settlement of disputes.

Examination of the Escrow Bid Documents after award of the contract is subject to the following conditions:

a. As trade secrets, the Escrow Bid Documents are proprietary and confidential as described in Paragraph 2.

b. OWNER and CONTRACTOR shall each designate, in writing to the other party and a minimum of 10 days prior to examination, representatives who are authorized to examine the Escrow Bid Documents. No other person shall have access to the Escrow Bid Documents.

c. Access to the Escrow Bid Documents will take place only in the presence of duly designated representatives of both OWNER and CONTRACTOR.

8. FINAL DISPOSITION

The Escrow Bid Documents will be returned to CONTRACTOR at such time as the contract has been completed and final settlement has been achieved.

SECTION 3 AWARD AND EXECUTION OF CONTRACT

3.01 GENERAL:

The Contractor's attention is directed to the provisions in the Contract for the requirements and conditions concerning award and execution of contract.

The contract shall be executed by the successful bidder and shall be returned, together with the contract bonds and insurance, to the City so that it is received within 10 working days after the bidder has received the contract for execution. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address:

Attention: Gloria Aguilar
City of Turlock, Engineering Division
156 S Broadway, Suite 150
Turlock, CA 95380

Bid protests are due in writing by the fifth calendar day after the bid opening and are to be delivered to the following addressees:

William D. Morris, PE., P.L.S.
City of Turlock, City Engineer
156 S Broadway Suite 150
Turlock, CA 95380

AND

Fred Pezeshk, PE
City of Turlock, Roads Program Manager
156 S Broadway Suite 150
Turlock, CA 95380
(209)668-5520
FPezeshk@turlock.ca.us

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose bid complies with all the requirements prescribed.

SECTION 4 BEGINNING OF WORK, TIME OF COMPLETION AND DELAY DAMAGES

Attention is directed to Section 5 "Time for Performance" of the Agreement.

At no time shall construction begin prior to the issuance of the Notice to Proceed. Any work performed prior to the Notice to Proceed shall be done at the Contractor's own risk and payment will not be made therefor.

The Contractor shall follow the sequence of construction and progress of work as specified in Section 5.22, "Order of Work," of these Special Provisions.

Should the Contractor choose to work on a Saturday, Sunday or Legal Holiday as defined in Section 5.15 "Working Hours," of these Special Provisions, the Contractor shall reimburse the City of Turlock the actual cost of engineering, inspection, testing, superintendent, and/or other overhead expenses which are directly chargeable to the contract. Should such work be undertaken at the request of the City, reimbursement will not be required.

Attention is directed to Section 5(d) "Delay Damages" of the Agreement.

A pre-construction meeting will be held between Contractor and City prior to the beginning of construction. The exact time and place of this conference will be determined by City after award of the construction contract.

SECTION 5 GENERAL

5.01 LABOR NONDISCRIMINATION:

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM
(GOV. CODE, SECTION 12990)

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7 1.02I(2), "Nondiscrimination," of the State Standard Specifications, which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of $5,000 or more.

5.02 PREVAILING WAGE:

Attention is directed to Section 7-1.02K "Labor Code," of the State Standard Specifications, however certified payroll is not submitted to Caltrans for this project. Contractor shall submit certified payroll records to the DIR and to the City.

State Prevailing Wage Rates

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the County of Stanislaus in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at 156 S. Broadway St, Turlock, CA 95380 and available from the California Department of Industrial Relations' Internet web site at http://www.dir.ca.gov/DLSR/PWD. Changes, if any, to the general prevailing wage rates, will be available at the same location. Future effective general prevailing wage rates, that have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

5.03 DIFFERING SITE CONDITIONS:

1. Contractor's Notification: Promptly notify the City Engineer if you find either of the following conditions:

a. Physical conditions differing materially from either of the following:

- Contract documents
- Job site examination

b. Physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract.

c. Include details explaining the information you relied on and the material differences you discovered. If you fail to promptly notify the City Engineer, you waive the differing site condition claim for the period between your discovery of the differing site condition and your notification to the City Engineer. If you disturb the site after discovery and before the Engineer's investigation, you waive the differing site condition claim.

2. Engineer's Investigation and Decision Upon your notification: The Engineer investigates job site conditions and:

a. Notifies you whether to resume affected work.

b. Decides whether the condition differs materially and is cause for an adjustment of time, payment, or both.

5.04 REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES:

The contractor shall promptly, and before the following conditions are disturbed, notify the local public entity, 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, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
2. Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
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.

Upon notification of any of the above, the City shall promptly investigate the conditions, and if it 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 the time required for, performance of any part of the work, a change order shall be issued to modify the contract scope.

In the event that a dispute arises between the City and 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.

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8 1.07, "Delays," of the State Standard Specifications.

5.05 SIGNIFICANT CHANGES IN THE CHARACTER OF WORK

The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.

If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.

The term “significant change” shall be construed to apply only to the following circumstances:

a. When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

b. When a bid item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

5.06 UNAVOIDABLE DELAYS

No extension of time will be granted for a delay caused by a shortage of materials unless the Contractor furnishes to the Engineer documentary proof that he has made every effort to obtain such materials from all known sources, within reasonable reach of the work in a diligent and timely manner. The documentary proof shall indicate that the inability to obtain such materials, when originally planned, did in fact cause a delay in final completion of the entire work which could not be compensated for by revising the sequence of the Contractor’s operations. The term "Shortage of Materials" as used in this section, shall not apply to materials, articles, parts, or equipment that are processed, made, constructed, fabricated, or manufactured to meet the specific requirements of the contract. Only the physical shortage of material will be considered under these provisions as a cause for extension of time. Delays in obtaining materials due to priority in filling orders will not constitute a shortage of materials.

5.07 SUBCONTRACTING:

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City may exercise the remedies provided under Pub Cont Code § 4110. The City may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

Each subcontract must comply with the contract.

Each subcontractor must have an active and valid State contractor's license with a classification appropriate for the work to be performed (Bus & Prof Code, § 7000 et seq.).

At the pre-construction meeting, prior to starting work, Contractor shall submit a complete listing of subcontractors and the value of the work each subcontractor will perform.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations' Web site.

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

5.08 PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS:

A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanction and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

5.09 PROMPT PAYMENT OF FUNDS WITHHELD TO SUBCONTRACTORS:

The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the agency of the contract work and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within seven (7) days for construction contracts and fifteen (15) days for consultant contracts after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Any delay or postponement of payment may take place only for good cause and with the agency's prior written approval. Any violation of these provisions shall subject the violating prime contractor or subcontractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code and Section 10262 of the California Public Contract Code for construction

contracts, and Section 3321 of the California Civil Code for consultant contracts. This requirement shall not be construed to limit or impair any contractual, administrative or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the contractor; deficient subcontractor performance and/or noncompliance by a subcontractor.

5.10 PAYMENTS:

At the end of each month the Contractor shall submit a proposed progress invoice. The invoice shall delineate each bid item, the amount of work performed for the invoice period (previous month) and the total amount of work performed to date. A sample invoice with all of the required items will be given to the Contractor at the pre-construction meeting.

The Engineer will review the progress invoice and after any changes the Engineer makes, will issue an official invoice for the Contractor to sign. The Contractor shall sign the official invoice and return to the Engineer. After the Engineer receives the signed, official invoice, the progress payment will be processed.

Retention in the amount of 5% of the progress payment amount shall be held from all progress payments. Retention will be released 35 days after the Notice of Completion has been filed, insofar as no stop notices were filed.

Compensation for any portion of the work not specifically identified in the Bid Item List is understood to be included in the price for other items, unless specified in these special provisions as extra work.

5.11 [NOT USED]

5.12 GUARANTY:

Attention is directed to Section 9-4, "Guaranty," of the City of Turlock Standard Specifications.

5.13 PUBLIC SAFETY:

Clean-up shall be done as Work progresses at the end of each day and thoroughly before weekends. The Contractor shall not allow the Work site to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction operation. Materials which need to be disposed shall not be stored at the Project site, but shall be removed by the end of each Working Day. If the job site is not cleaned to the satisfaction of the Engineer, the cleaning will be done or contracted by the City and shall be back-charged to the Contractor and deducted from the Contract Price.

The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, debris, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction. Final acceptance of the Work by the City will be withheld until the Contractor has satisfactorily complied with the foregoing requirements for final clean-up of the Project site.

Construction materials and equipment shall not be stored in Streets, roads, or highways unless otherwise specified in the Special Provisions or approved by the Engineer. The Contractor shall make arrangements for storing its equipment and materials. The Contractor shall make its own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the Work. Approved areas within Work site may be used for temporary storage; however, the Contractor shall be responsible for obtaining any necessary permits from the City. In any case, the Contractor's equipment and personal vehicles of the Contractor's employees shall not be parked on the traveled way or on any section where traffic is restricted at any time.

The Contractor shall deliver, handle, and store materials in accordance with the manufacturer's written recommendations and by methods and means that will prevent damage, deterioration, and loss including theft. Delivery schedules shall be controlled to minimize long-term storage of products at the Project site and overcrowding of construction spaces. In particular, the Contractor shall provide delivery and installation coordination to ensure minimum holding or storage times for materials recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to assure materials are undamaged and are maintained under required conditions. All costs associated with the clean-up and storage required to complete the Project shall be the sole responsibility of the Contractor.

During construction all streets shall have a minimum of one traffic lane, not less than 11 feet wide open for use by local traffic to access driveways of all businesses and residences. Pedestrian and emergency vehicle access to all residences and businesses shall be maintained at all times. The full width of the traveled way shall be open for use by public traffic on Saturdays, Sundays and designated legal holidays, after 4:00 p.m. on Fridays and the day preceding designated legal holidays and when construction operations are not actively in progress.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

The cost for lead compliance plan and implementation shall be considered as included in the various other bid items and no additional compensation will be made therefore.

5.14 SOUND CONTROL REQUIREMENTS:

Sound control shall be in accordance with Section 14-8, "Noise and Vibration," of the State Standard Specifications and these special provisions.

The noise level from Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dba at a distance of 50 feet. This requirement in no way relieves Contractor from responsibility for complying with local ordinances regulating noise level.

Said noise level requirements shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety law for the protection of personnel.

Do not deliver, fuel or service construction equipment from 9:00 p.m. to 6:00 a.m. or on Sundays at the project site unless authorized by the Engineer.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

5.15 WORKING HOURS:

Contractor's working hours shall be between 7:00 a.m. and 5:00 p.m., Monday through Friday, excluding legal holidays.

Contractor shall notify Engineer 48 hours prior to beginning work.

Contractor shall not work outside the above-mentioned working hours without prior written consent of Engineer.

Designated legal holidays are: January 1st, the third Monday in January, the third Monday in February, the last Monday in May, July 4th, the first Monday in September, November 11th, Thanksgiving Day, the day after Thanksgiving, and December 25th. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When a designated legal holiday falls on a Saturday, the preceding Friday shall be a designated legal holiday.

5.16 UNDERGROUND SERVICE ALERT REQUIREMENTS:

Contractor shall contact Underground Service Alert of Northern California at least 48 hours in advance of any construction activity, will or could damage or affect any underground utility or subsurface improvement, and obtain an inquiry identification number. Contractor shall notify Underground Service Alert in the event of change in the project limits or change in original work previously shown on the plans or indicated in the specifications. Contractor shall not commence construction prior to City Inspector receiving City's notice from USA North regarding this construction activity.

5.17 DUST CONTROL:

Dust Control shall conform to the provisions in Section 10, "Dust Control", of the City Standard Specifications, these special provisions, and the Dust Control Notes on the Plans.

All exposed surfaces shall be watered a minimum of twice daily, including on holidays and weekends, unless deemed unnecessary due to weather.

Full compensation for Dust Control will be considered as included in the contract price paid for the erosion and dust control BMPs as specified in these Special Provisions and as determined by Engineer, and no separate payment will be made therefor.

5.18 WATERING:

Watering shall be in accordance with Section 10-6, "Watering," of the State Standard Specifications.

Full compensation for Watering will be considered as included in the various contract items of work requiring Watering, as determined by Engineer, and no separate payment will be made therefor.

5.19 USE OF HYDRANTS FOR CONSTRUCTION PURPOSES:

City will permit the use of a hydrant for construction purposes provided that the following are abided by:

1. A spanner wrench shall be the only type of wrench used on fire hydrants.
2. Contractor shall be liable for the damages to or loss of all hydrants and associated water lines and equipment which result from the use of this equipment.
3. Water shall only be used within City limits.
4. The vehicle must be approved by Engineer for approved backflow device.
5. Contractor shall pay a deposit on a water meter provided by the City. After the project ended the Contractor shall return the meter to the City for the release of the deposit.

Contractor shall obtain a no-fee monthly hydrant use permit for use of construction water for this project from the City of Turlock Municipal Services Department located at 156 S. Broadway Suite 270, Turlock, California 95380, ph:209-668-5590.

Use of city hydrants does not exempt Contractor from providing a water truck where hydrants cannot be utilized due to unsafe working conditions as deemed by Engineer.

5.20 PROGRESS SCHEDULE:

Contractor shall furnish City with a Critical Path Method progress schedule at the preconstruction meeting. Progress Schedules will be required for this contract and shall conform to the provisions in Section 8, "Prosecution and Progress" of the State Standard Specifications. If Contractor falls more than 10 working days behind the schedule, the Contractor shall submit an accelerated schedule to show how the work will be completed by the project Completion Date identified in the Agreement. The progress schedule shall show the construction activities extending for the duration of the working days. Any deviation from the outline must be approved by Engineer. Contractor shall not be allowed to start construction activities until the progress schedule is accepted by Engineer. Payment for the progress schedule shall be included under the Jobsite Management bid item.

5.21 PRESERVATION OF PROPERTY:

The work performed in connection with various existing facilities shall be in accordance with Section 7-8, "Preservation of Property," of the City Standard Specifications and these special provisions.

Due care shall be exercised to avoid injury or damage to existing improvements or facilities, utility facilities, adjacent property, and roadside trees, shrubs and other plants that are to remain in place.

Roadside trees, shrubs and other plants that are not to be removed and pole lines, fences, signs, markers and monuments, buildings and structures, conduits, pipelines under or above aground, sewer and water lines, sprinkler systems above or below ground, all roadway facilities, and any other improvements or facilities within or adjacent to the right-of-way shall be protected from injury or damage, and if ordered by Engineer, Contractor shall provide and install suitable safeguards, approved by Engineer, to protect such objects from injury or damage. If such objects are injured or damaged by reason of Contractor's operations they shall be replaced or restored at Contractor's expense. The facilities shall be replaced or restored to a condition as good or better as when Contractor entered upon the work, or as good as required by the specifications accompanying the contract, if any such objects are a part of the work being performed under the contract. Engineer may make or cause to be made such temporary repairs as necessary to restore to service any damaged facility. The cost of such repairs shall be borne by Contractor and may be deducted from any moneys due or to become due to Contractor under the contract.

The fact that any underground facility is not shown upon the plans shall not relieve Contractor of his responsibility under Section 2.02, "Existing Utilities and Facilities", of these provisions. It shall be Contractor's responsibility, pursuant thereto, to ascertain the location of such underground improvements or facilities that may be subject to damage by reason of his operations.

The Contractor shall protect private improvements from damage. On-site private improvements may include, but are not limited to, trees, shrubbery, lawns, landscape drainage features, irrigation facilities, structures, mailboxes, parking lot pavement, concrete curbing, and driveway pavement. If such objects are damaged, they shall be replaced, repaired and or restored at the Contractor's expense, to a condition as good or better as when the Contractor entered upon the property, as determined by the City Engineer.

During the contract period, the Contractor will not unreasonably interfere with business operations within the project limits or unreasonably delay access to or from private residential or commercial driveways. The Contractor, under circumstances within his control, will complete construction in a timely and diligent manner. Where commercial and multi-family residential properties are served by multiple driveways, Contractor shall maintain at least one driveway open for resident and business access at all times. Where commercial and multi-family residential properties are served by a single driveway, Contractor shall stage construction and provide temporary measures (i.e., plating) to maintain a minimum 10-foot open width for the driveway at all times. The Contractor shall not be allowed to impact or restrict use of any residential or multi-family or business driveways for more than 48 hours. To meet this schedule the Contractor may submit, for approval by the City Engineer, high strength or early strength concrete mixtures or high strength or early strength concrete accelerators or additives at no additional cost to the City. During the 48 hour driveway closure, the Contractor shall provide street parking for the affected residences and businesses. Pedestrian and emergency vehicle access to all residences and businesses shall be maintained at all times.

The Contractor shall be responsible for repairing, replacing, or modifying all public and privately-owned utility, landscape drainage, irrigation systems, and landscape within and outside the right-of-way areas

that are damaged, capped, or removed during construction. Damage shall include all that is caused as a result of any and all work associated with the contract. All repairs to utility, landscape drainage, irrigation systems, and landscape shall be done in a manner equal to or better than the previously existing conditions. If utility, irrigation systems, or landscape drainage systems are damaged during trenching, curb, gutter and sidewalk improvements or other construction activities, the Contractor shall repair the damage within two (2) calendar days in order to maintain full operation of the system. Any loss and/or subsequent replacement of plant material due to damage of the irrigation system or the neglect to repair it promptly shall be the sole responsibility of the Contractor. Landscape replacement or repair shall be completed as soon as it will not be damaged by further construction activities.

Work involving existing or proposed trees, shrubs, or other landscaping shall conform to the requirements of Section 20, "Landscape," of the State Standard Specifications and these Special Provisions.

No person is permitted to cut roots within the root protection zone without permission from the City Engineer.

Set up Root Protection Zone for the area of land immediately surrounding a tree that is left undisturbed and protected. The dimensions of the root protection zone are determined by measuring the diameter of the trunk and applying one foot of land area for every inch of trunk diameter (trunk diameter is measured at 4½ feet above grade). For example, a tree with a diameter of 12 inches will have a 12 foot radius as a root protection zone.

1. Root and branch pruning shall be done by or under the supervision of an ISA Certified Arborist, provided by the Contractor, and meet or exceed ANSI A300 or approved Tree Care Industry Standards. A certified arborist must be onsite during the entirety of pruning and tree trimming. Submit for approval the qualifications of the proposed arborist.
2. Root and branch pruning shall be done prior to disturbance of the site. No disturbance shall be done within a distance of 3x the diameter of the tree, due to stability concerns.
3. Before disturbance, meet with the arborist and City Representative on site to confirm the layout of root and branch pruning.
4. The layout will be marked on the ground between the disturbance and the tree, typically 6" closer to the tree than the back of the new curb.
5. Root and branch pruning shall be done with a sharp tool, in such a way that does not pull on the roots and branches, but leaves smooth cuts, as directed by the certified arborist.
6. Once exposed, roots must be covered within 8 hours. If roots will be left exposed for longer than 8 hours, they must be kept moist. One option is to put moist burlap over the exposed roots or 3" of mulch and water thoroughly.

Contractor shall restore all existing landscaping, landscaping drainage, and/or irrigation disturbed during construction activities. Replace landscaping with sod where grass is disturbed. The Contractor shall relocate sprinklers as necessary so as to water owner's landscaping, but not new concrete surfaces, typical of all locations where grass or bushes have been planted by owners.

Contractor shall be responsible for maintaining irrigation in the case of any interruption of service, including during holidays and weekends. Any dead landscaping due to construction activities or interruption of irrigation service shall be replaced in kind by the Contractor at no additional cost.

The Contractor shall be responsible for inserting the date on which a section of sidewalk (and driveways) are to be constructed. The door hangers will advise residents / businesses of parking and irrigation restrictions during and immediately in advance of the construction of proposed improvements. Any changes in the Contractor's schedule shall require that re notification take place at the Contractor's expense. It is the Contractor's responsibility to obtain, at his expense, City-approved door hangers.

Door hangers shall be placed before 1:00 PM seven days before beginning work to allow sufficient time for City inspection of the hangers.

The Contractor shall not be allowed to begin work until the residents / businesses within the work area have been notified. Within 24-hours of distributing the notifications, the Contractor shall submit to the Engineer the street addresses, the time, and the date the notices were placed. The Contractor is responsible for providing on the notice the Contractor's contact phone number(s) to be reached by the residents / businesses after hours and on weekends.

Full compensation for furnishing all labor materials, tools, equipment, and incidentals, and for doing all the work involved in protecting or repairing property, including maintain, repair and restore existing utility, landscaping and irrigation systems, and providing the services of an ISA Certified Arborist, as specified above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

5.22 ORDER OF WORK:

No work may take place prior to receipt of the Notice to Proceed. When required by the Special Provisions, the Plans or by the Engineer with advanced written notification of at least fifteen (15) working days, the Contractor shall follow the sequence of operations as set forth therein.

The project improvements will generally be constructed within existing right-of-way; however, some portions of the proposed pavement, curb & gutter, sidewalk, driveway, and curb ramp improvements are currently located outside existing right-of-way. The City is in the process of acquiring right-of-entry agreements required to construct these improvements as shown on the Contract Documents. The Contractor shall work with the City to stage the construction schedule to allow the City up to an additional sixty (60) calendar days to complete right-of-entry agreements prior to construction of improvements outside existing right-of-way. During such time, the Contractor shall hold their bid item unit pricing without adjustment. The time allowed for the completion of such improvements will be extended by a period of time equal to that lost due to the right of entry agreements.

If work in those areas affected by the right-of-entry agreements delays the current controlling operation by more than sixty (60) calendar days, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8 1.07,

"Delays," of the State Standard Specifications. No additional compensation will be considered for a delay less than sixty (60) calendar days.

The City may cancel the portion of the work affected by the right-of-entry agreements. In the event of cancelation, the Contractor shall be compensated for all work executed upon a unit basis in proportion to the amount of the work completed, or upon a cost plus-ten-percent (10%) basis, whichever is the lesser. Materials on the ground, in process of fabrication or in route upon the date of notice of cancelation specially ordered for the Project and which cannot be utilized by Contractor, shall be compensated for by City at cost, including freight, provided Contractor shall take all steps possible to minimize this obligation.

The Contractor's attention is directed to Section 7-11 of the City Standard Specifications regarding cooperation between contractors. The Contractor shall coordinate with the Contractors of the projects listed below. See map and cover sheet for each project attached to these specifications.

- Project No. 23-031, Plan Package 2, Roads Program Capital Improvement Project
- Project No. 23-033, Roads Program Capital Improvement Project
- Project No. 23-040, Water Line Replacement for 2024 Roads Program Construction
- Project No. 23-067, Plan Packages 1 & 3, Roads Program Capital Improvement Project
- Project No. 23-068, Plan Packages 1, 2, & 3, Roads Program Capital Improvement Project
- Project No. 23-069, Roads Program Capital Improvement Project

The Contractor shall protect in place the improvements constructed from the projects listed below, which are currently under warranty with the Contractor of that project. The Contractor shall repair any damage caused to these improvements at no additional cost to the City.

- Project No. 22-001, Package 1, Citywide Street Rehabilitation and Improvement Project
- Project No. 20-002, Southwest Quadrant Road Rehabilitation Project
- Project No. 21-021, Pedras Road Rehabilitation Project
- Project No. 23-031, Plan Package 1, Roads Program Capital Improvement Project
- Project No. 23-031, Plan Package 2, Roads Program Capital Improvement Project
- Project No. 23-032, Roads Program Capital Improvement Project
- Project No. 23-033, Roads Program Capital Improvement Project

The Contractor shall place orders of all of the necessary items specified in the plans and specifications herein within 2 working days after approval of the submittal.

Prior to performing any work that requires a lane closure, a Traffic Control Plan, prepared by the Contractor in general conformance with the provided Traffic Control Plans, shall be reviewed and approved by the City of Turlock. Traffic Control details have been provided as part of the Project Plans, however, the Contractor may find due to their chosen means and methods, a need for a viable method of controlling traffic associated with this Contract work, the Contractor shall have a traffic control plan prepared and signed by a State of California Registered Traffic Engineer hired by the Contractor.

Contractor shall comply with the City of Turlock Section 11 "Traffic Safety" and Section 12 Temporary Traffic Control of the State Standard Specifications.

The Contractor shall not begin demolition or excavation until SWPPP, prepared by the Contractor, is approved by the City of Turlock.

The Contractor shall notify the Engineer and the property owner, 5 working days before beginning work on or adjacent to any private properties.

5.23 AS-BUILTS:

When the job is complete, Contractor shall provide City with as-built drawings. These as-built drawings shall show any and all differences (revisions, additions, etc.) between the signed improvement plans and the installed improvements. The Contractor shall identify the depth and size of all utilities that are located in the field. The as-builts will consist of redlined signed improvement plans. The NOC will not be issued until acceptable as-builts have been received by the Engineer.

5.24 SURVEYING:

Construction survey staking shall be provided by the Contractor and shall comply with Chapter 12 of the Caltrans Surveys Manual. Contractor shall provide staking sufficient for the installation and inspection of all improvements shown on the plans. Staking shall remain in place for the inspection of all improvements and shall not be removed prior to obtaining permission from the Engineer.

Contractor is responsible for all construction surveying needed to verify all dimensions on the drawings. Within the first 10 working days, the Contractor's surveyor shall physically verify all conform or "match existing" locations (elevations and offsets) shown in the plans. The Contractor shall provide an exhibit to the Engineer reporting any discrepancies before proceeding with any other Work. The Contractor shall perform all survey and layout Work per the benchmark information on the Project Plans. All surveying Work must conform to the Professional Land Surveyors' Act (Business and Professions Code Section 8700 et seq). All Project surveying notes and "cut-sheets" are to be provided to the City after the completion of each surveying activity and all final surveying notes shall be provided before final payment to the Contractor.

The Contractor shall determine line and grade for each curb ramp, as specified in the plans. The line and grades shall meet current ADA guidelines and shall be reviewed by the Engineer prior to construction.

Preservation of existing monuments shall be Contractor's responsibility. Contractor shall notify City of all monuments that may/will be disturbed by construction operations. City will tie off said monuments and provide Contractor a notice to proceed.

Once Contractor is finished with its construction operations, City will relocate the monuments. Contractor shall install a monument well with concrete collar at each location which shall conform to the provisions in Section 22-1 "Survey Monuments" and Drawing M-1 "Monument Detail", of the City Standard Specifications and these specifications.

Prior to installation of all formwork, Contractor shall be required to notify the City a minimum of 48 hours in advance of scheduled formwork activities. The Engineer shall review the survey results and determine if the preparation of the building pad area is in conformance with the project plans and specifications. Contractor shall not proceed with installing formwork until after it is determined that the building pad area is in conformance with the project plans and specifications. After formwork is in place and prior to pouring any concrete, Contractor shall notify the City a minimum of 48 hours in advance for a survey of formwork. Upon completion of the survey, the Engineer may either approve or disapprove of the formwork. Contractor shall not proceed with pouring concrete until after the Engineer has certified that the area is in compliance with the project plans and specifications. Contractor shall be required to correct this work in a manner acceptable to the Engineer if found to not be in conformance with the project plans and specifications at his/her own expense.

The payment for construction surveying, as specified in these Special Provisions, is included in the payment for construction staking will be paid for on a lump sum basis. Re-staking and replacement of construction survey markers damaged as a result of the Work, vandalism, or accident shall be at the Contractor's expense.

5.25 TESTING:

Material testing for this project will be provided by the Contractor as set forth in Section 6 of the State Standard Specifications, the City Standard Specifications and the most current City Quality Assurance Program. The Contractor shall perform all testing to verify compliance with the Specifications of any and all materials furnished by the Contractor. The Contractor shall submit and receive the Engineer's approval of all compliance test results prior to incorporating materials into the project. The Contractor may elect to place material without the approved certificates of compliance and mix designs at Contractor's own risk. The Contractor shall notify the Engineer in writing to get the approval of placement of material without approved certificates of compliance and mix design, and $10,000 will be withheld from the Contractor's progress payment for each certificate of compliance and mix design until the certificate of compliance and mix designs are submitted and approved.

Unless otherwise noted, the Contractor shall provide all Quality Control Testing including compaction testing for the native soil. Acceptance testing will be performed by the City. Coordination of said testing is the responsibility of Contractor. The Contractor shall provide at least 48 hours' notice to the Engineer in advance of all testing. All costs associated with Quality Control Testing shall be included in the unit prices for the various contract items. No separate payment will be made therefore.

At locations determined per the test method and/or sites chosen by the project inspector, Contractor's testing laboratory will conduct all tests. Contractor shall supply any necessary equipment and or labor required to obtain all samples for the completion of the testing process.

The Size, Frequency, and Location of Sampling and Testing (non-NHS and non-SHS projects) and Materials Typically Accepted by Certificate of Compliance are shown in Appendix 2 and Appendix 3 of the City Quality Assurance Program. Additional requirements are set forth in the State Standard Specifications. All relative compaction shall be determined by the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material as determined by ASTM D-1557.

A copy of the City Quality Assurance Program is attached (see Attachment C) to and made part of these Special Provisions.

5.26 SUBMITTALS:

General

Before making submittals, Contractor shall ensure that products and materials will be available in the quantities and in the time required by the Contract and the approved outline of construction activity. Each submittal shall clearly identify, by highlighting, arrows or other defined and permanent mark, the products and materials proposed for use.

All Submittals shall be made to Engineer by Contractor, including those generated by subcontractors and suppliers. Contractor shall carefully review all subcontractor and supplier submittals before submitting to Engineer for review. Submittals received from sources other than Contractor's office shall be returned without action. If a submittal contains extraneous information, unmarked options or is incomplete, it will be returned to Contractor for correction and require re-submittal.

Submission

Submittals shall be made electronically in accordance with Section 5.29, "Internet Based Construction Management System," of these special provisions.

Each submittal shall contain, at a minimum, the following information:

1. Title page including the following information:

   Name of Contractor
   Name of subcontractor (if applicable)
   Description of item
   Item Number on Bid Schedule
   Contractor's initials and date indicating approval of item for submittal to Engineer

2. The brochure, product data sheet or catalog cut sheet. For all Product Data and Manufacturer's Instructions, excise or cross out non-applicable information and clearly mark applicable information with citations to and terminology consistent with Contract Documents.

3. Submittals that involve engineering computations or original design work shall show the name, the California State registration number, seal, and signature of the Professional Engineer certifying that such computations or design work are correct and in conformance with applicable standards, codes and accepted engineering practices.

4. For product samples, Contractor shall submit two (2) representative samples, one of which may be retained for the duration of the project or indefinitely at the discretion of Engineer. Although a reasonable attempt will be made to maintain the samples in good condition, neither City nor its representative will be responsible for the condition of the samples if returned to Contractor.

5. For material samples, unless a specific quantity is called for in the contract documents, Contractor shall submit a representative sample of the material, which may be retained for the duration of the project or indefinitely at the discretion of Engineer.

6. Certificates of compliance shall be submitted by Contractor to Engineer for those materials and products for which no sample and test results are specified. Certificates of compliance shall include the following information:

7. Statement that the product complies with the respective contract specifications.

8. Producer's name and address, product trade name and catalog number (if applicable), place of product origin, quantity of product to be furnished, and related contract plans and specification section numbers.

9. A certified copy of test results pertaining to the product from a certified independent testing laboratory. At the option of Engineer certified test results shall be signed and sealed by a Professional Engineer licensed to practice in the State of California.

10. Safety Data Sheets (SDS) for all materials used or stored on the site that possess a SDS, including materials used by Contractor for maintenance of equipment.

Review

Submittals will be processed by Engineer within ten (10) working days after receipt. When a submittal cannot be returned within that period, the Engineer will, within a reasonable time after receipt of the submittal, give notice of the date by which that submittal will be returned. Submittal shall receive one of four review actions:

1. No Exceptions Taken – The submittal is approved without comments.
2. Supply as Noted – The submittal is approved, provided that the Contractor addresses the included comments.
3. Rejected – The submitted product cannot meet project requirements and is rejected. Contractor shall provide a separate product that meets project requirements as a resubmittal.
4. Resubmit – The information provided with the submittal does not meet project requirements, however, Engineer has commented on some missing items that, if provided, may meet project requirements. Contractor shall resubmit the same product and provide additional information per the Engineer's comments.

Engineer will review submittals for general conformance with the Contract Documents. The work shall be in accordance with approved submittals except that the Contractor shall not be relieved of the responsibility for deviations from requirements of the Contract Documents by the Engineer's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed-the Engineer in writing of such deviation at the time of submittal as part of a cover letter to the submittal itself, and as a written communication separate from the submittal cover letter, and (1) the Engineer has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Engineer's approval thereof. The Engineer's review does not extend to accuracy of dimensions, quantities, or performance of equipment and systems designed by the Contractor, or means, methods, techniques, sequences, or procedures. Unless specifically authorized to do so by Engineer, Contractor shall not procure, manufacture, or fabricate any part of the contract work until submittals related to said contract work have been favorably reviewed by Engineer.

"Or Equal" Items

Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to for review under the circumstances described below.

1. "Or Equal" Items: If in the Engineer's discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may be accomplished. A proposed item of material or equipment will be considered functionally equal to a named item if:

a. In the exercise of reasonable judgment Engineer determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function of the named item, and;

b. Contractor certifies that: (i) there is no increase in cost to the City; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

5.27 NOTICE OF POTENTIAL CLAIM:

Attention is directed to Section 5-1.43 "Potential Claims and Dispute Resolution," of the State Standard Specifications.

5.28 PRESERVATION OF EXISTING MONUMENTS:

Preservation of existing monuments shall be Contractor's responsibility. Contractor shall notify Engineer of all monuments that may/will be disturbed by construction operations. Engineer will tie off said monuments and provide Contractor a notice to proceed.

Once Contractor is finished with its construction operations, Engineer will relocate the monuments. Contractor shall install a monument well with concrete collar at each location which shall conform to the provisions in Section 22-1 "Survey Monuments" and Drawing M-1 "Monument Detail", of the City Standard Specifications and these special provisions.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved with protecting existing monuments as specified above, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

5.29 INTERNET BASED CONSTRUCTION MANAGEMENT SYSTEM:

General

The Engineer and Contractor shall utilize Construction Management System (http://www.c-mis.com/), herein after called CMIS, for submission of all data and documents (unless specified otherwise in this Section) throughout the duration of the Contract. CMIS is an electronic project management system accessible through the Internet used to create, share, and review construction management documentation. CMIS is provided by the Engineer at no cost to the Contractor. CMIS will be made available to all Contractors' personnel, subcontractor personnel, suppliers, consultants, Engineer, and any of Engineer's representatives or agents. The joint use of this system is to facilitate electronic exchange of information, automation of key processes, electronic notification of project activity, and overall management of contract documentation. CMIS shall be the primary means of project information submission and management.

The Engineer will establish the Contractor's access to CMIS by enabling access and assigning user profiles to Contractor personnel, including subcontractors and suppliers, as requested by Contractor. All authorized personnel shall have an individual user profile; no joint-use or shared user profiles will be allowed. Each user profile shall be assigned to a user group and have specific permission settings and privileges based on the user's need within CMIS. Entry of information exchanged and transferred between the Contractor and its subcontractors and suppliers on CMIS shall be the responsibility of the Contractor.

The Contractor shall use computer hardware and software that meets the requirements of the CMIS system. As recommendations are modified by CMIS, the Contractor will upgrade their system(s) to meet or exceed the recommendations. Upgrading of the Contractor's computer systems will not be justification for a cost or time modification to the Contract. The Contractor shall ensure its own connectivity to CMIS through their internet service provider.

The Contractor shall be responsible for the validity of the information they place in CMIS, for the training of their personnel to understand and utilize CMIS, as well as the provision and accessibility of adequate resources to connect with CMIS. Accepted users shall be knowledgeable in the use of computers, including Internet browsers, email programs, and the Portable Document Format (PDF) document type. The Contractor shall utilize the existing forms in CMIS to the maximum extent possible. If a form does not exist in CMIS, the Contractor must include their own form or a form provided by the Engineer as an attachment to a submittal, RFI, or other document within CMIS. Note that only the following file types are accepted as attachments to documents within CMIS: PDF files, Microsoft Word (DOC) files, Microsoft Excel (XLS) files, picture files (JPG, TIFF, BMP, JPEG, etc.). PDF documents will be created through electronic conversion prior to uploading, such as through a "print to file" feature or "save as pdf" feature, rather than optically scanned whenever possible.

The Contractor shall provide a list of key CMIS personnel for the Engineer's acceptance. The list shall include the following information: first name, last name, address, title, office phone number, cell phone number, and email address. The Engineer is responsible for adding and removing users from the system and establishing read, write, and approval permission levels.

CMIS instructions are provided in the Information Handout.

Responses will be sent back to the Contractor. It is the Contractor's responsibility to disseminate responses to their subcontractors. Subcontractors will not have access to CMIS.

All costs associated with CMIS shall be included in other items of work and no separate payment will be made therefore.

Company Documents

This area is reserved for general documentation not related to a specific project. Only the Engineer shall post content in this area. Examples of content found in this area are: the City of Turlock Standard Specifications and Drawings, the 2023 State Standard Specifications, and the 2023 State Standard Plans. All files are in PDF format.

Project Summary

The project summary tab provides an overall summary of the project. It includes the current weather, the working days remaining and a summary of work for the past week. The summary of work is generated from the City's project inspector and the daily logs. This tab is for information only and the Contractor shall not take any action here.

Task Manager

The project schedule the Contractor submits is converted into a format that is uploaded by the Engineer into the task manager tab. The Contractor is responsible for providing schedule updates to the Engineer whenever the work progress in a manner different than the approved schedule.

Change Order Manager

The change order manager tab shall be used to track project change orders. Any potential change orders shall be tracked as a Request for Information (RFI) in the RFI tab. Once the Engineer agrees that a RFI will result in a contract change order, a new contract change order shall be created by the Engineer in the change order manager tab. The Engineer will finalize the contract change order through this tab. Once the change order is finalized, the Engineer will present the contract change order at a City Council meeting. After City Council approval the Engineer will make payment on the contract change order.

Transmittals

The transmittal tab shall be used to communicate general project information amongst all parties as well as used by the Contractor in the submission of certified payroll reports. The Engineer will upload the project-specific information including: bid documents, conformed plans, conformed specifications and the Notice to Proceed to the transmittal tab.

The Contractor shall submit certified payroll reports on a weekly basis through the transmittal tab. Each week shall have a separate transmittal where all the certified payroll reports and statements of non-performance for each contractor shall be posted.

Submittals

All submittals shall be submitted through the submittal tab. The preferred document type is PDF.

Before making submittals, the Contractor shall ensure that products and materials will be available in the quantities and in the time required by the Contract and the approved schedule of activities. Each submittal shall be legible and clearly identify, by highlighting, arrows or other defined and permanent mark, the products and materials proposed for use.

All submittals shall be generated from the prime contractor and any submittals that are uploaded by subcontractors or suppliers will not be reviewed. Contractor shall carefully review all subcontractor and suppliers submittals before submitting it to the Engineer for review. If a submittal contains extraneous information, unmarked options or is otherwise incomplete, it will be rejected and the Contractor shall make corrections and upload the resubmittal. Any resubmittal shall be made to the same transmittal item in CMIS.

Submittals shall be processed by the Engineer within ten working days after upload to CMIS. The Engineer will review submittals for general conformance with the Contract Documents and standards. Such review by the Engineer shall not relieve the Contractor of any responsibility for full compliance with the Contract Documents. Unless specifically authorized to do so by the Engineer, the Contractor shall not procure, manufacture, or fabricate any part of the contract work until submittals related to said contract work have been approved by the Engineer.

Each submittal shall have a unique title that is comprised of the item followed by a comma and the section of the specifications that reference the item (e.g. Minor Concrete, Section 8.01). The submittal type shall either be project materials or project information. The submittal description shall be used to identify any pertinent information or list a description of the item being submitted.

Certificates of compliance shall be submitted through the submittal tab. The submittal type shall be "certificate of compliance".

The Contractor shall submit progress invoices on the last working day of the month through the transmittal tab (select "progress invoice" for the type). The Engineer will review the submitted content and if found acceptable the Engineer will upload an official invoice for the Contractor to sign. The Contractor shall sign in blue ink and upload the signed invoice to the same transmittal where the Engineer will then process for payment.

RFIs

Submit an RFI through CMIS upon recognition of any event or question of fact arising under the Contract. The RFI type for this submittal shall be "Request for Information." The Engineer will also utilize the RFI tab in a similar manner when there is a question for the Contractor; this RFI type shall be "Response Required."

The Engineer responds to the RFI within 5 business days. Proceed with the work unless otherwise ordered. The Contractor may protest the Engineer's response by submitting an Initial Potential Claim Record form within 5 business days after receiving the Engineer's response.

The Prime Contractor shall submit all RFI's.

Daily Logs

The daily log tab is used by the City to document the activities of the work, any correspondence or direction given in the field, safety concerns and general comments about the project. The Contractor may view the contents of this tab for reference purposes. The information entered into the daily log tab is used to populate the project summary tab.

WSWD

The weekly statement of working days will be posted to the WSWD tab. CMIS automatically generates the WSWD from the information entered into the daily log tab. The WSWD shows the working days and non-working days charged for the reporting week, any time adjustments, a work completion date with the remaining working days left in the contract and the controlling activities for the week.

The Contractor will be allowed 15 days from the last working day of the weekly statement to protest in writing the correctness of the statement. The Contractor shall submit a transmittal stating what is being protested and the reasons for protest. The Engineer will respond to the protest. The Contractor may protest the Engineer's response by submitting a claim in accordance with Section 5.27 "Notice of Potential Claim" of the special provisions.

5.30 BUSINESS LICENSE:

Contractor shall obtain a City of Turlock business license prior to issuance of the Notice to Proceed. The cost of the business license is a up-front fee of eighty four dollars ($84) plus fifty cents per thousand dollars in revenue received for work performed on the project, made payable on a semi-annual basis.

Business Licenses are obtained through the Finance Division at Turlock City Hall, 156 S. Broadway, Suite 114. Additional information can be found on the City's website at http://ci.turlock.ca.us/doingbusinessinturlock/businesslicenses/newbusinesslicense.asp.

Full compensation for obtaining a business license as specified above shall be considered as included in the prices paid for the various contract bid items and no additional compensation will be allowed therefore.

5.31 TEMPORARY CONSTRUCTION POWER:

If temporary construction power is determined to be needed by the Contractor to perform the work, Contractor shall arrange and pay for all temporary electric power. The cost of temporary power shall be considered as included in the various contract bid items and no additional compensation will be allowed therefore.

5.32 SALVAGE MATERIALS:

If Contractor is directed to salvage materials in the Contract Documents, Contractor shall arrange for delivery of said item(s) to the City of Turlock Corporation Yard located at 701 S. Walnut Road, unless noted otherwise. Contractor shall coordinate delivery of salvaged materials through the public works inspector.

5.33 PERMITS:

Permit:	**Agency /Division:**	**Required for:**	**Fee**	**Notes**
Erosion and Sediment Control Plan	City of Turlock	Any ground disturbing work	$0	See Special Provisions Section "EROSION CONTROL"
Encroachment Permit	City of Turlock	Any work within City limits, including traffic control	$0	Issued by City Engineering Division after contract execution
Monthly Hydrant Use Permit	City of Turlock Municipal Services Department	Use of construction water from hydrants	$0 though a deposit is required for meter	See Special Provisions section "USE OF HYDRANTS FOR CONSTRUCTION PURPOSES"

5.34 UTILITY COORDINATION:

The Contractor's attention shall be directed to Section 5.16, "Underground Services Alert Requirements" and Section 2.02, "Existing Utilities, Facilities, and Site Conditions," of these Special Provisions.

All coordination with the utility companies shall be the Contractor's responsibility. All fees and permits associated with the City of Turlock shall be waived.

The cost to coordinate with utility companies shall be considered as included in the various contract items, and no additional compensation shall be made.

5.35 UTILITY VERIFICATION:

The City has endeavored to show on the Plans the approximate locations of utilities. The Contractor shall be responsible for verifying utility locations.

The location and existence of any underground utility or substructure was obtained from a search of available records. No guarantee is made or implied that the information is complete or accurate.

The locations and depths to public and private utilities are shown on the plans within the roadway (from curb to curb only) along Andre Lane from West Monte Vista Ave to West Tuolumne Road, along Gettysburg Street from Dels Lane to Andre Lane, and along Tampa Street, Niagra Street and Regis Street. This includes Quality Level B (QL-B) subsurface utility engineering (SUE) services, focusing on accurately identifying and mapping public and private utilities, based on available facility maps and visible surface facilities, as derived from electromagnetic induction and Ground Penetrating Radar (GPR) readings within the specified project area. Where possible, the tops of water valve nuts were surveyed using standard ground surveying methods.

It shall be the Contractor's responsibility alone to determine the location of underground utilities or substructures of every nature and to protect them from damage.

The Contractor shall pothole all utilities, including service connections, which may be in conflict with the work.

<u>DELAYS</u>

All notification to utility companies insofar as the relocation or removal of a utility shall be made by the Contractor and Engineer shall be notified at least forty eight (48) hours in advance of the needed work. Any costs for delay of the Contractor of utility companies in this regard shall be assigned to the Contractor, if these costs are a result of the Contractor's request being untimely in any respect excepting thereof any delay cost incurred as a result of the utility company not responding at their agreed time.

The Contractor shall submit a Utility Verification Plan to the Engineer for review and approval within 10 business days of Award. The Engineer shall have 5 business days to review the Utility Verification Plan. Potholing and/or verifications may not start until the Contractor's Utility Verification Plan has been approved by the Engineer. The Utility Verification Plan shall include the location of all known improvements and existing utilities (including but not limited to drainage, sewer, water, raw water, gas, petroleum, electric, communication, fiber, irrigation piping and electrical, highway lighting, street lighting, signals, traffic operating systems and railway facilities) that are shown on the plans, marked in the field, or could reasonably be inferred from the presence of visible above ground facilities, such as signal poles, roadway lighting, communication / traffic pull boxes, and existing irrigation facilities. The

Utility Verification Plan shall detail the location of each proposed pothole by station and offset, proposed depth of pothole, method of potholing, proposed method of backfilling and surface restoration. The Utility Verification Plan shall also include a schedule of when the Contractor plans to perform the work demonstrated in the Utility Verification Plan noting the dates, times and locations of all lane closures required to perform the potholing and/or verifications. Activities for developing and submitting the Utility Verification Plan, the Engineer's review of the Utility Verification Plan and performing the work detailed in the Utility Verification Plan shall be included in the Contractor's Baseline CPM Schedule, and all subsequent CPM schedules.

Within the first 10 working days, the Contractor shall physically verify all locations of existing utilities, and certify, in writing, that there are no conflicts with planned improvements. If there are conflicts, the Contractor shall indicate in writing, the specific conflict and allow the Engineer 10 working days to provide a response. The Contractor shall include a schedule activity for potholing (the Contractor's responsibility), and notification to the Engineer in the baseline schedule. The 10 working days for Engineer review shall be identified as an City-owned activity in the Contractor's baseline schedule. If there are no conflicts identified, this activity will then be shown as City-owned float. The Contractor shall not proceed with any other construction activities until written acceptance of the Contractor's utility conflict certification letter is granted by the Engineer.

COOPERATION

The contractor shall cooperate with all agencies affected by the project and notifying them at least 72-hours prior to commencement of any work and adjacent to this project.

Compensation for conforming to the requirements of "COOPERATION", including furnishing all labor, materials, equipment and incidentals for accomplishing the work as specified herein, shall be considered included in the various contract item of work and no additional compensation shall be allowed.

The Contractor shall:

1. Cooperate with utility personnel; provide access to work site.

2. Coordinate Work of the Contract with affected utilities. All USA markings shall be removed after completion of the work for which the markings were provided, and before City's Acceptance and/or approval of the Work.

3. The Contractor shall coordinate all service disruptions and shutdowns with respective utility agencies.

HIGH RISK UTILITY FACILITIES

Caution shall be used when working on or around high risk facilities within the Work area which may be potentially hazardous if damaged. A hazardous substance shall be defined as one having the potential for an immediate disaster such as, but not limited to, gasoline, electricity, fuel oil, butane, propane, natural gas, chlorine or other chemicals.

Gas pipelines are within the project limits and are considered a high risk utility.

The Contractor shall comply with the following requirements when working around underground hazardous utilities:

i. The Contractor shall not trench or excavate within the area where a utility known to carry a hazardous substance exists until its location has been verified by potholing or other proven methods acceptable to the Utility Owner. The intervals between exploratory excavations or location points shall be sufficient to determine the exact location of the line. Unless otherwise directed by the Engineer, potholing for underground hazardous utilities shall be performed by the Contractor.

ii. If it is determined that the horizontal or vertical clearance between the utility known to carry hazardous substances and the construction limit is less than 12 inches (18 inches if scarifying), the Contractor shall confer with its owner. Unless the owner elects to relocate the line or take it out of service, the Contractor shall not excavate until the line has been completely exposed by the Contractor within the limits of construction.

iii. Once the physical location of the utility known to carry hazardous substances has been determined, the Contractor, in cooperation with and with the concurrence of the utility owner, shall determine how to protect and/or support the utility from damage before proceeding with the Work.

iv. During all construction operations, the Contractor shall exercise extreme caution and protect the utilities from damage.

v. The Contractor shall notify the Engineer, the public agency maintaining records for the jurisdiction in which the Project is located and the owner, if known, whenever previously unidentified or unknown underground utilities are encountered so that the location can be accurately established and made a part of permanent substructure records.

Full compensation for protecting underground hazardous utilities as specified, identified or noted on the Plans shall be considered as included in the prices bid for the various items of work.

SECTION 6 CONTROL OF MATERIALS

The Contractor shall deliver, handle, and store materials in accordance with the manufacturer's written recommendations and by methods and means that will prevent damage, deterioration, and loss including theft. Delivery schedules shall be controlled to minimize long-term storage of products at the Project site and overcrowding of construction spaces. In particular, the Contractor shall provide delivery and installation coordination to ensure minimum holding or storage times for materials recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to assure materials are undamaged and are maintained under required conditions. All costs associated with the clean-up and storage required to complete the Project shall be the Contractor's sole responsibility.

The City uses a Quality Assurance Program (QAP) to ensure a material is produced to comply with the Contract.

The Contractor may examine the records and reports of tests the City performs if they are available at the job site.

Schedule work to allow time for QAP.

Testing of offsite material sources quality control is the Contractor's responsibility.

The acceptance testing performed by the Engineer does not relieve the Contractor of their responsibility to perform their own quality control (QC) testing as required by the Standard Specifications and these special provisions. The Contractor is responsible for the quality of the materials and the quality of work, including their subcontractors, suppliers, and fabricators. The Contractor may elect to perform QC testing in addition to those required by these special provisions to ensure satisfactory compliance with all contract requirements.

The QC manager shall have a minimum of 5 years of construction experience on projects similar to the work under this contract. Identify an alternate QC manager to serve in the event of the QC manager's absence. The requirements for the alternate shall be the same as for the designated QC manager.

Submit a QC plan that consists of plans, procedures, and organization necessary to construct a final product which complies with the contract. The QC plan shall cover all construction operations, both onsite and offsite, that require testing to ensure compliance. The QC plan shall be available at each location where work is performed.

Do not start any work identified in the QC plan until the QC plan is approved. The start of construction (first working day) will not be delayed, nor an extension of contract time (additional working days) be granted for any delay of work due to preparing and approving the QC plan.

The QC plan must be specific to this contract and address the following QC requirements:

1. Description of the QC organization, including an organizational chart showing lines of authority.

2. Determine when corrective actions are needed if an area of work does not comply with specifications.

3. Identify QC personnel, including the QC manager, by name, qualifications, duties, responsibilities, and authorities. Provide an organizational chart showing all QC personnel and their assigned QC responsibilities.

4. Include a letter signed by the Contractor which describes the responsibilities of the QC manager and delegates sufficient authority to the QC manager to adequately perform the required duties, including authority to stop work that is not in compliance.

5. Procedures for scheduling, reviewing, certifying, and managing submittals including those of subcontractors, offsite fabricators, suppliers, and manufacturers.

6. Procedures for the quality inspection of the materials which includes contractor verification testing of materials to ensure it meets specifications.

7. Control, verification, and manufacturing plant acceptance testing procedures for each specific test to ensure the quality of the Contractor's workmanship. Include test name, reference specification requiring test, feature of work to be tested, test frequency, typical sample locations, required documentation, and person responsible for each test. Laboratory facilities shall be properly certified and approved by the Engineer.

8. Specify corrective actions, including verification testing, to be implemented upon identification of construction deficiency.

9. Reporting procedures including all proposed QC forms, daily QC reports, and other reporting formats.

All costs associated with the QC plan shall be included in the unit prices for the contract items covered in the QC plan. No separate payment will be made therefore.

The Engineer will deduct the costs for testing of materials and work found to be unacceptable, as determined by the tests performed by the City, and the costs for testing of material sources identified by the Contractor which are not used for the work, from moneys due or to become due to the Contractor. The amount deducted will be determined by the Engineer. This testing, includes, but is not limited to, compaction, gradation, concrete testing asphalt, and any other testing identified by a California Test Method (CTM). Testing of offsite material sources shall be considered quality control testing and the Contractor's sole responsibility.

No payment will be made for material incorporated in the work until the correct certificate of compliance has been received and approved by the Engineer.

SECTION 7 (BLANK)

SECTION 8 PROSECUTION AND PROGRESS

8.01 START OF JOBSITE ACTIVITIES

The Engineer will issue a Notice to Proceed letter within 10 days after contract approval. The Notice to Proceed letter will state the earliest date on which the Contractor may commence jobsite activities. The Contractor shall not commence jobsite activities, subject to the exceptions listed in this section, prior to:

1. The date stated in the Notice to Proceed letter or
2. The Contractor receives authorization to start or
3. The following listed items are authorized or accepted by the Engineer:
    - 3.1. CPM baseline schedule
    - 3.2. SWPPP
    - 3.3. Contingency plan for opening closures to public traffic
    - 3.4. QC plan
    - 3.5. Material Safety Data Sheets
    - 3.6. Construction surveys
    - 3.7. Utility verification plan
    - 3.8. Notice of Materials to be Used form

Other than the submittals listed above, the Engineers' review times for any other submittals will not begin until the working days for the project have begun.

For purposes of determining time of completion, if the Contractor fails to accomplish all of the above listed items to the Engineer's satisfaction within 10 business-days following the earliest date for starting work as stated in the Notice to Proceed letter, work will be deemed to commence on the 11th business-day after the earliest date for starting work as stated in the Notice to Proceed letter, and each subsequent business-day until the Contractor accomplishes the above listed items to the Engineer's satisfaction will be considered to be a working-day as defined in section 1-1.07B of the State Standard Specifications.

Provided the Contractor has accomplished all of the above listed items to the Engineer's satisfaction, the Contractor shall begin work within 10 working-days after the earliest date for starting work as stated in the Notice to Proceed letter. The Contractor shall diligently prosecute the work to completion within the time limit provided. For purposes of determining time of completion, work will be deemed to commence on the day the Contractor begins work or 11 working-days after the date specified in the Notice to Proceed letter, whichever is earlier, and in accordance with contract requirements.

The Contractor may enter the jobsite prior to the first working day only to:

1. Measure controlling field dimensions and locating utilities per Section 5.35.

2. Construction area signs.
3. Implementation of SWPPP best management practices once the SWPPP has been accepted.

Submit a notification 72 hours before starting job site activities.

8.02 PROJECT MILESTONES

This section describes damages due to the City should the Contractor fail to meet certain project milestones. Attention is directed to Section 5 "Time of Performance" of the Agreement for liquidated damages for the Contractor's failure to perform all work on this project by the Completion Date.

The Contractor shall perform all required earthwork, grading, and initial paving (first lift) no later than eight (8) calendar days after the date when existing asphalt concrete surfaces have been demolished by way of cold plane grinding from any given area. In the event the Contactor fails to complete the required work in the timeframe indicated, the City may deduct from payments or credits due Contractor a sum equal to $500 for each and every calendar day delay in finishing the work.

SECTION 9 DESCRIPTION OF WORK

The work includes all necessary labor, materials, tools, equipment and any incidentals needed to perform the improvements as shown on the contract plans. This work includes curb and gutter, sidewalk and driveway reconstruction, curb ramp replacement, full depth reclamation for pavement rehab, signing and striping, and traffic signal modifications.

Timely Performance of Full Depth Pavement Recycling with Cement:

The City seeks to limit public impact due to construction, including the loss of access to paved roadway surfaces. Contractor shall perform all required earthwork, pulverizing and mixing existing pavement, and compacting and grading to complete pavement recycling operation. Completing the work within the number of working days shall be considered timely performance of pavement recycling work.

Failure to perform the work in a timely manner as specified herein shall subject the Contractor to damages identified in Section 5(d) of the Agreement.

SECTION 10 TECHNICAL SPECIAL PROVISIONS

City Project No. 23-067 Package #2
Roads Program Capital Improvement Project

The technical specifications contained herein have been prepared by or under the direction of the following Registered Persons.

TECHNICAL SPECIFICATIONS
(SECTIONS 10 THROUGH 14)

REGISTERED CIVIL ENGINEER

_____

10.01 POTHOLE EXISTING UTILITIES

Contractor shall verify the actual depth and horizontal location of existing underground utilities which may conflict with proposed underground storm drain systems, Full Depth Reclamation, or any work associated with this contract. Contractor shall exercise due diligence to utilize techniques and practices which will limit damage to located utilities, including vacuum truck and hand digging, or other means as required by the buried utility owner. Damage to buried utilities as a result of Contractor's failure to pothole shall be the Contractor's responsibility to repair at Contractor's expense.

The project plans depict sizes, horizontal locations, and materials of existing utilities based on surface evidence and facility maps from utility companies. It is possible not all underground laterals for water and gas are shown on plans and it is the contractor's responsibility to positively identify the depths of these facilities before performing work. Contractor shall pothole underground laterals at the main and existing gutter lip as the depth to utility laterals is expected to vary. Attention is directed to the possibility of utility locators marking utilities in locations other than what is shown on the plans or the possible existence of underground facilities not indicated on the plans or in the Special Provisions.

Contractor shall mark location and results of pothole efforts on an approved plan set. Contractor shall provide one copy, either physical or electronic, to the Engineer after pothole operations have been completed.

Pothole shall be backfilled with Aggregate Base per these specifications and native material in dirt and patched with cold permanent HMA.

The contract lump sum price paid for Pothole Existing Facilities shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in verifying the actual depth and horizontal location of existing underground utilities shown on the plans which may reasonably conflict with the proposed excavation work.

10.02 CONSTRUCTION AREA SIGNS:

Construction area signs shall include all temporary signs required for the direction of public traffic through or around the work during construction. Construction area signs must comply with the latest version of the California Manual on Uniform Traffic Control Devices (MUTCD) and in accordance with Section 11, "Traffic Safety" of City's Standard Specifications.

Temporary advance notification signs on Type III barricades shall be placed at all work zone entry points a minimum of 7 days prior to the start of construction at each roadway section. The signs must be 48" x 60" and include the anticipated construction start and completion dates. Reference City Standard Specification Section 11-13.

Construction area signs shall be installed at the locations shown on the plans as directed by the Engineer.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing construction area signs required for the direction of public traffic through or around the work and for erecting or placing, maintaining (including covering and

uncovering as needed) and, when no longer required, removing construction area signs at locations shown on the plans, shall be considered as included in the contract lump sum price paid for traffic control system and no separate payment will be made therefor.

Full compensation for furnishing, erecting, maintaining, and removing any additional construction area signs the Contractor may deem necessary will be considered as included in the lump sum price paid for traffic control system and no additional compensation will be allowed therefor.

10.03 TRAFFIC CONTROL SYSTEM

This section includes specifications for maintaining both pedestrian and vehicular traffic including street closure or detours if needed for all work within the public right-of-way. Submit Temporary Traffic Control Plan per section 11-2 of City Standard Specifications for approval before begin work. Contractor shall submit a completed Temporary Traffic Control Plan Checklist with submittal of the Temporary Traffic Control Plan. The checklist may be found online at the City's website at https://ci.turlock.ca.us/_pdf/trafficengineeringdoc.asp?id=4.

The Contractor shall implement traffic handling and staging as shown in the plans. Any deviation from the traffic handling and staging shown in the plans will be subject to the City's authorization.

If construction activities affect access to public parking, residential property, or commercial property, contractor shall post signs at 100-foot intervals on the affected streets at least 48 hours prior to starting construction. Signs must display No Parking – Tow Away. Signs must state the dates and hours parking or access will be restricted. To avoid unnecessary disruption of parking, placement of signs shall not extend beyond the work planned in Contractor's 3-week look ahead schedule. Parking restrictions are limited to working hours while active construction is being performed at a specific location. Notify residents, businesses, and local agencies at least 24 hours before starting activities. The notice must:

1. Describe the work to be performed
2. Detail streets and limits of activities
3. Indicate dates and work hours
4. Be authorized
5. State applicable penal code

Notify adjacent residents and business in writing 14 calendars day before the scheduled street closure. Include the closure schedule and duration of closures in the notification. Local access must be maintained at all times for traffic to all residences, businesses, and driveways within the construction zone. This includes, but is not limited to, waste management (Turlock Scavenger), delivery (USPS, FedEx, etc.), and other City provided services. If the contractor's operations impact the providers' regularly scheduled services, alternative accommodations must be provided to the satisfaction of the Engineer at the Contractor's expense.

Traffic Control Systems shall include all temporary signs required for the direction of public traffic through or around the work during construction. Construction area signs must comply with the latest version of the California Manual on Uniform Traffic Control Devices (MUTCD) and in accordance with Section 11, "Traffic Safety" of City's Standard Specifications.

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Construction area signs shall be installed at the locations shown on the plans as directed by the Engineer.

All traffic control devices, including delineators, temporary traffic stripes and pavement markings, barricades and barriers, warning signs and lights, temporary fencing, and flaggers, must comply with the latest version of MUTCD and in accordance with Section 11 of the City Standard Specification.

Traffic Control System will be paid for on a lump sum basis, which lump sum price shall include full compensation for furnishing all labor, including flagging costs, materials, tools, equipment, and incidentals, and for doing all the work involved in traffic control, including preparation of temporary traffic control plan and notifications to residents and business, as specified in these Special Provisions, and as directed by the Engineer.

Full compensation for furnishing, erecting, maintaining, and removing any traffic control devices the Contractor may deem necessary will be considered as included in the lump sum price paid for traffic control system and no additional compensation will be allowed therefor.

10.04 PORTABLE CHANGEABLE MESSAGE SIGN

Each portable changeable message sign unit shall consist of a controller unit, a power supply and a structural support system, all mounted on a trailer. The unit shall comply with section 11-13, "Advance Notification of Work", of City Standard Specification and Section 12-3.32, "Portable Changeable Message Signs", of State Standard Specifications.

Portable changeable message signs will be measured by the unit from actual count provided for the entire duration of construction. The contract unit price paid for portable changeable message sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, placing, operating, maintaining, repairing, replacing, transporting from location to location and removing the portable changeable message signs, as shown on the plans, as specified in City Standard Specifications and these Special Provisions, and as directed by the Engineer.

10.05 CONSTRUCTION FUNDING SIGNS

Contractor shall install construction funding signs per the details shown in the plans and in accordance with Section 12-3.11B(5) of State Standard Specifications and these Special Provisions.

Construction funding signs must be 96 by 48 inches complying with Section 6F.109(CA) of the California MUTCD.

Legend for the type of project and the funding partner agency pictographs must comply with details shown in the plans.

Construction funding signs shown on the plans will be paid for by the unit from actual count designated on the plans or ordered by the Engineer. The contract unit price paid for construction funding sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing construction funding signs required, including erecting or placing, maintaining and, when no longer required, removing at locations shown on the plans or as directed by the Engineer.

10.06 JOB SITE MANAGEMENT

Job site management work includes spill prevention and control, material management, waste management, and non-stormwater management activities complying with section 13-4 of State Standard Specification except dewatering activities which must comply with Dewatering section of these Special Provisions.

Dewatering

Contractor shall examine carefully the site of the work. It is assumed that Contractor has investigated and is satisfied as to the conditions to be encountered as to the character, quality and quantities of work to be performed.

Although the City of Turlock's soil conditions are homogenous and sandy in nature, various subsurface conditions such as hardpan, and ground water may be encountered. The City of Turlock will not be held responsible in any way for the type and character of subsurface conditions encountered. If a subsurface report is desired by Contractor, it will be Contractor's responsibility and expense to verify the subsurface conditions by boring or other means necessary prior to bidding and/or performing work.

The Contractor shall furnish, install, operate and maintain all machinery, appliances, and equipment to maintain all excavations free from water during construction. The Contractor shall dispose of the water so as not to cause damage to public or private property, or to cause a nuisance or menace to the public or violate the law. The dewatering system shall be installed and operated so that the ground water level outside the excavation is not reduced to the extent which would cause damage or endanger adjacent structures or property. The static water level shall be drawn down a minimum of one foot below the bottom of excavations to maintain the undisturbed state of natural soils and allow the placement of any fill to the specified density. The Contractor shall have on hand, pumping equipment and machinery in good working condition for emergencies and shall have workmen available for its operation. Dewatering systems shall operate continuously until backfill has been completed to one foot above the normal static groundwater level.

The contractor shall control surface water to prevent entry into excavations. At each excavation, a sufficient number of temporary observation wells to continuously check the groundwater level shall be provided.

The control of groundwater shall be such that softening of the bottom of excavations, or formation of "quick" conditions or "boils", does not occur. Dewatering systems shall be designed and operated so as to prevent removal of the natural soils. The release of groundwater at its static level shall be performed in such a manner as to maintain the undisturbed state of the natural foundations soils, prevent

disturbance of compacted backfill, and prevent flotation or movement of structures, pipelines and sewers. If an NPDES (National Pollutant Discharge Elimination System) permit is required for disposal of water from construction dewatering activities, it shall be obtained by the Contractor prior to any dewatering activities.

The contract lump sum price paid for job site management includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in spill prevention and control, material management, waste management, and non-stormwater management, including identifying, sampling, testing, handling, and disposing of hazardous waste resulting from your activities, as specified in State Standard Specifications and these Special Provisions, and as ordered by the Engineer.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in dewatering activities, shall be considered as included in the lump sum price paid for job site management and no additional compensation will be allowed therefore.

10.07 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Prior to commencing construction, a Contractor shall submit to the Engineer a completed SWPPP signed and certified by a Qualified SSWPP Developer (QSD). Once approved, Contractor shall submit SWPPP and Notice of Intent (NOI) with the California Department of Water Quality Control Board. Contractor shall adhere to the SWPPP at all times. Contractor shall file the annual report when the project is completed.

All construction activities shall comply with the requirements of the "*State Water Resources Control Board Phae II Small MS4 General Permit Order No. 2013-0001-DWQ, NPDES General Permit No. CAS000004 for Storm Water Discharge Associated within Construction Activity*".

Erosion and Dust Control BMPs

Contractor is responsible to furnish, install, maintain, and remove when not needed, appropriate and effective best management practices (BMPs) required by the Permit to reduce erosion and sediment transport and all potential pollutant sources.

Furnish, install, maintain, and remove temporary erosion and sediment control measures as required by the Permit.

Furnish, install, maintain, and remove temporary tracking control measures including street sweeping and dust control measures specified in Section 5.17, "Dust Control", of these Special Provisions. Maintain a clean a clean and safe worksite at all times, including street sweeping. If the Contractor fails to maintain a clean worksite, the City may order street sweeping or corrective action at the Contractor's cost.

The Lump Sum amount for Prepare SWPPP and Erosion and Dust Control BMPs shall include, but not be limited to, full compensation for the following:

1. Submit Permit Registration Documents (PRDs) per Attachment B of the Construction General Permit (CGP) to the State of California Water Resources Control Board, pay associated fees, and obtain permit approval.

2. Develop a SWPPP to conform to determined Risk Level and the Permit.

3. Administer, implement, maintain, and ensure adequate functioning of the various water pollution control measures identified within the SWPPP during construction including all visual inspections, sampling, monitoring and reporting requirements statutorily required for the determined Risk Level of the project site. These tasks shall be performed by the Contractor's Qualified SWPPP Practitioner (QSP) or Qualified SWPPP Developer (QSD).

4. Provide and maintain all documentation (at the jobsite) and administration for the entire Contract period.

5. Perform all work required for construction of effective treatment control Best Management Practices (BMPs), i.e: contingency basins, chemical treatments, etc.

Measurement and payment for prepare SWPPP, as described herein, shall be made at the contract Lump Sum price stated in the proposal. Full compensation for all work involved in the preparation, completion, and revision, including submitting permit registration documents and paying all fees, will be considered as included in the lump sum price paid for prepare SWPPP.

Full compensation for furnishing all work in visual inspections, sampling, monitoring, and reporting as required by the General Permit, shall be considered as included in the contract lump sum price paid for prepare SWPPP and no additional compensation will be allowed therefor.

The lump sum price paid for erosion and dust control BMPs shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, installing, maintaining, and removing temporary erosion, sediment, and dust control practices as shown on the SWPPP, as specified in these Special Provisions, and as directed by the Engineer.

Full compensation for furnishing and installing treatment control BMPs, as required by the Permit, shall be considered as included in the contract lump sum price paid for Erosion and Dust control BMPs and no additional compensation will be allowed therefor.

10.08 REMOVE EXISTING IMPROVEMENTS

The Contractor's attention shall be directed to Section 5.16, "Underground Services Alert Requirements" Section 2.02, "Existing Utilities, Facilities, and Site Conditions," Section 5.34 "Utility Coordination", Section 5.35 "Utility Verification", and Section 10.01 "Pothole Existing Utilities" of these Special Provisions.

Concrete, asphalt concrete and all other items designated on the plans to be removed or must be removed in order to install the improvements as shown on the plans, shall be removed and disposed of outside the City's right of way in accordance with the provisions in Section 7-10 of the City Standard Specifications. Sawcut all concrete and asphalt materials surfaces prior to removal per these Special Provision.

The Contractor shall protect all existing structures or facilities which are adjacent to or fall within the limits of the work to be done under this Contract and are called-out as Protect-in-Place. Any structure or facility to be protected which is damaged as a result of the Contractor's construction operation, shall be replaced by the Contractor, at their cost, to the satisfaction of the Engineer.

Clearing and Grubbing

Clearing and Grubbing shall conform to the requirements of the provisions in Section 17-2, "Clearing and Grubbing," of the State Standard Specifications, in accordance with the areas identified by the approved project plans, these Special Provisions, and as directed by the Engineer. Existing trash, construction debris, abandoned structures and other deleterious material are included in this item.

Areas to be cleared shall be grubbed to a depth necessary to remove brush, stumps, roots, buried logs or concrete and other objectionable material. Clearing and Grubbing includes trees, less than 6-inches in truck diameter, called-out for removal in the plan. Grubbing shall extend to the limits of work line.

All areas used by the Contractor as temporary right-of-way and staging areas shall not be contaminated with fuels, chemicals, lime or other soil stabilization treatments. All waste oil, solvent, and refined petroleum products shall be collected in appropriate containers and disposed of properly.

All stockpiling of cleared and grubbed material designated by the Contractor for final removal shall be considered incidental to this paid item and no additional compensation shall be allowed therefore.

All combustible waste materials resulting from clearing and grubbing from any construction operations of this Contract shall be removed from the site to an acceptable disposal area.

Clearing and Grubbing shall be limited to the excavation and improvements limits and within two feet (2') of structures, or other items to be constructed. All other vegetation outside clear and grub areas shall be protected in place from damage resulting from the Contractor's operation. Any item outside the above limits that is damaged or destroyed by the Contractor shall be replaced or restored to its original condition prior to acceptance of the improvements or the Contractor shall compensate the City for its replacement.

Clearing and Grubbing shall include but not be limited to the following:

1. Removal and disposal of all shrubs, trees less than 6-inches trunk diameter, and vegetation as shown on the plans and removal of construction debris, trash, and deleterious material as required to construct the improvement as shown on the Plans and as described in the Specifications, and as directed by the Engineer.

2. Removal items include, but are not limited to, trash, striping (by grinding), landscaping, decorative private property items in public right-of-way, concrete pavers, reinforcing steel, rock, boulders and cobbles, stumps and roots, shrubs, other vegetation or organic materials, soil, irrigation systems, spoils, debris, wood posts, delineators, pavement markers, and all other objectionable materials which interfere with the Work whether or not specifically indicated on the Plans or otherwise shown to be protected or relocated.
3. Abandoned utility lines and structures not removed with Engineer's approval shall be filled with slurry and conduits plugged.

Clearing and grubbing shall also include the relocation, adjusting to grade or salvaging of all facilities so indicated on the Plans which are not designated as separate bid items or which are not included in other bid items.

The Contractor shall notify and coordinate with the Engineer for residential decorative items in City right- of-way, including decorative concrete pavers, decorative wall blocks, rocks used for landscape decoration, boulders, and custom signs. If directed by the Engineer, the Contractor shall salvage the items for the property owners by removing and carefully and placing item at a location near the disturbed area on the private property, with the property owner's approval.

Miscellaneous fencing materials may be encountered during Work. The terminal post of each fence removed shall be reinforced by bracing or other appropriate means to maintain the structural integrity of the portion of fence to remain. Relocation and reconnection of existing fences as shown on the Plans shall include all posts, hardware, and all incidentals necessary to complete the Work.

During demolition operations, the Contractor shall provide temporary graded driveways and continuing maintenance thereof to provide safe, smooth, stable and continuous access to all residences and businesses within the Project area. All costs, if any, associated with such grading operations shall be borne by the Contractor and no additional payment shall be made to the Contractor.

Unless otherwise noted on Plans, the Contractor shall protect all existing sewer, water, electric, telephone, communication, television, fire lines, street lights, traffic signal, irrigation, and other utilities, services and systems, whether shown on the Plans or not. The Contractor shall maintain all services in working condition during the course of the Work.

The Contractor shall remove all existing abandoned pipelines and conduits of any type or use, and pipelines and conduits of any type or use that are abandoned during the course of the Work and shall replace said pipelines and conduits with properly compacted soils. The Contractor shall immediately restore to full operation any utilities, services or systems that are disturbed during the course of the Work.

Remove Tree

Trees greater than 6-inches in truck diameter shown on the plans to be removed shall be removed conforming to the requirements of the provisions in Section 17-2, "Clearing and Grubbing," of the State Standard Specifications, in accordance with the areas identified by the approved project plans, these Special Provisions, and as directed by the Engineer.

Field verify trees to be removed before construction.

Cut, remove, and dispose of stumps and rootballs of removed trees a minimum of 24-inches below the existing terrain surface. Apply an herbicide or stump killer approved by the Engineer, to kill remaining roots. The holes resulting from removal of existing trees must be backfilled and compacted with material equivalent to the surrounding material. The backfill must be graded to conform to the adjacent existing grade and must be placed per section 14 of the City Standard Specification.

Dispose of all tree debris from roadway, path or trail at each location before moving to next location.

Removal and Disposal of Materials

Unless otherwise stated on the Plans or Specifications, all material removed from the Work shall become the property of the Contractor and shall be disposed of in a lawful manner. Burning shall not be permitted on the site.

The Contractor shall conform to the following requirements:

1. In order to protect the public streets from deterioration due to hauling of materials, the Contractor shall submit, prior to the Pre-Construction Meeting, for approval a proposed route for hauling of materials for disposal. Upon approval, the Contractor shall strictly adhere to that route, unless written permission from the Engineer is obtained to change the route.

2. Prior to making removals, the Contractor shall meet with the Engineer to verify the limits of removals, locations of joins, to establish smooth joins and to ensure proper drainage. The Contractor may make minor changes in the location of joins and the limits of removals, provided a smooth join and proper drainage can be achieved and it has obtained prior written approval from the Engineer.

3. The Contractor shall be responsible for recycling and for obtaining a suitable disposal site for the material not suited for recycling, and upon request, file with the Engineer the written consent of the owner of the property upon which he intends to dispose of such material.

4. The Contractor shall notify the Engineer, of any changed conditions or material

differing from that represented in the Contract which the Contractor believes to be hazardous waste.

5. All combustible waste materials resulting from clearing and grubbing or from any construction operations of this contract shall be removed from the site as directed by the Engineer.

The Contractor is responsible for securing all required haul permits to transport removal material from the project site to the approved disposal site and the paying of all fees associated with the disposal of this material.

The 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 haul permits, fees, removal, haul away, and disposal of materials, as specified in the City and State Standard Specifications, these Special Provisions, and as directed by the Engineer.

All stockpiling of cleared and grubbed material designated by the Contractor for final removal shall be considered incidental to this bid item and no additional compensation shall be allowed.

The above prices and payments shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in the operations of concrete pathway removal, including removal and disposal of existing subbase and base, as shown on the plans, and as specified in these special provisions, and as directed by the Engineer.

Reinforcing or other steel may be encountered in portions of existing concrete items to be removed. No additional compensation shall be allowed for the removal of concrete containing reinforcing or other steel.

10.09 REMOVE CONCRETE CURBS

Remove and dispose of existing curbs including retaining curbs, shall be at the locations shown on the plans, outlined by limits of the retaining curb, or as required by the Engineer. Concrete removal shall include, but not be limited to, demolition, sawcutting, haul-off and disposal of excavated materials, or other work required to remove hardscape for proposed improvements.

Contractor shall leave a neat edge of pavement around all areas to be removed, prior to the start of any excavation.

Payment for remove concrete (retaining curb) shall be at the contract unit price per linear foot and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing existing curb, hauling, disposal of both existing concrete and underlying aggregate base or subbase, as specified in these Special Provisions, and as directed by the Engineer.

No additional payment for restoration of adjacent trees, roots, grass, and parkway, to remain-in-place,

but damaged by the Contractor during construction, shall be made.

10.10 REMOVE CONCRETE (FLATWORK)

Remove concrete (flatwork) includes remove and dispose of existing driveways, sidewalks, valley gutters, curb and gutter, and curb ramps. Removal shall be at the locations shown on the plans, outlined by limits of the driveway and sidewalk, or as required by the Engineer. The concrete removal work shall include, but not be limited to, demolition, sawcutting, haul-off and disposal of excavated materials, or other work required to remove hardscape for proposed improvements.

Contractor shall leave a neat edge of pavement around all areas to be removed, prior to the start of any excavation.

It shall be the sole and exclusive responsibility of the Contractor to provide for and include in its unit price any and all costs and expenses, to notify, schedule, coordinate and provide sufficient and adequate time for any and all inspections and survey as may be required by the plans, specifications, codes, ordinances, the resident, and/or any applicable governmental agency. The contractor shall maintain access for residential driveways and shall coordinate with the City to provide notice of disruptions to access. For sidewalk and curb ramp removal and replacements, the Contractor shall provide signage and pedestrian re-routing options, prior to closures.

Payment for remove concrete (driveway, curb ramp, sidewalk, valley gutter, and curb and gutter) shall be at the contract unit price per square yard and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing driveways, sidewalks, and curb ramps, complete in place, including breaking, removal, hauling, and disposal of both existing concrete and underlying aggregate base (as applicable), and backfilling, as shown on the plans, as specified in the City Standard Specifications and these Special Provisions, and as directed by the Engineer.

10.11 COLD PLANING AC PAVEMENT

Existing asphalt concrete pavement shall be ground at the locations shown on the plans. The removal depth will vary and shall be as determined by the contractor to establish the new roadway profile grades and cross-slopes shown in the plans. Grind, mill, and cold plane may be used interchangeability to indicate AC Pavement Grind per these project specifications.

Grinding asphalt concrete pavement shall be performed by the cold planing method. Grinding of the asphalt concrete pavement shall not be done by the heater planing method.

Cold planing machines shall be equipped with a cutter head not less than 30-inches in width and shall be operated so as not to produce fumes or smoke. The cold planing machine shall be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation.

The depth, width and shape of the cut shall be as indicated on the typical cross sections or as directed by Engineer. The planed AC surface depth is based on the proposed HMA section shown on the typicals

in order to meet PG grades on the plans. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform.

Planed widths of pavement shall be continuous except for intersections at cross streets where the planing shall be carried around the corners and through the conform lines. Following planing operations, a drop off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

Where transverse joints are planed in the pavement at conform lines, no drop-off shall remain between the existing pavement and the planed area when the pavement is opened to public traffic. If asphalt concrete has not been placed to the level of existing pavement before the pavement is to be opened to public traffic a temporary asphalt concrete taper shall be constructed. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a slope of 30:1 or flatter to the level of the planed area.

Asphalt concrete for temporary tapers shall be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers shall be completely removed, including the removal of all loose material from the underlying surface, before placing the permanent surfacing. Such removed material shall be disposed of outside the highway right of way in accordance with the provisions in Section 7-10 of the City Standard Specifications.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be become the property of Contractor and shall be disposed of at Contractor's expense. Removal/sweeping operations of cold planed material shall be concurrent with planing operations and follow within 50 feet of the planer, unless otherwise directed by Engineer.

Cold plane operations shall be scheduled such that not more than 7 calendar days shall elapse between the time when transverse joints are planed in the pavement at the conform lines and the permanent surfacing is placed at such conform lines.

Quantities of cold planning AC pavement to be paid for by the square yard will be calculated on the basis of the dimensions shown on the plans adjusted by the amount of any change ordered by Engineer. No allowances will be made for grinding outside those dimensions unless otherwise ordered by Engineer.

The contract price paid per square yard for cold planing AC pavement shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in grinding, complete in place, including furnishing and installing temporary hot mix asphalt taper, as shown on the plans, specified in the City Standard Specifications and these Special Provisions, and as directed by Engineer.

10.12 SAWCUTTING

The Contractor shall sawcut or leave a neat edge on the existing pavement at the pavement removal limits specified on the approved Plans in a manner consistent with the applicable governing agency

requirements and specifications.

Sawcutting shall be accomplished by the use of a power driven saw. The depth of cut shall be deep enough to produce a clean, straight break without loosening, cracking, or damaging adjoining asphalt or concrete. Waste material from sawcut operations shall be broom cleaned or vacuumed, and disposed of. Cleaning of sawcut area by washing and directing waste to public storm drains shall not be permitted.

The cost for Sawcutting shall be included in the various other bid items and no additional compensation will be made therefore.

10.13 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork", of State Standard Specifications and these Special Provisions.

Surplus excavated material shall become the property of Contractor and shall be disposed of outside the right-of-way and shall conform to the provisions in Section 7-10, "Disposal of Materials Outside the Right of Way", of City Standard Specifications.

Contractor shall not store any backfill, paving, or excavated material within the City right of way unless approved by Engineer.

When unsuitable materials are encountered, make reasonable efforts, as determined by the Engineer, to either dry out the soil or add moisture as needed to achieve proper compaction. Subgrade material that is pumping, or unstable due to oversaturation shall not be considered Unsuitable Material pursuant to this section. Prior to notifying the Engineer that you have encountered Unsuitable Material, you shall perform Quality Control Testing verifying that material is not exceeding its Optimum Moisture Content requiring additional drying out effort. The Quality Control Testing Results shall accompany the notification to the Engineer that you have encountered Unsuitable Material. In lieu of moisture conditioning the in-place soils, you may remove and replace soil at your expense.

All imported borrow shall be backfill material complying with Section 19-7 of State Standard Specifications. All backfill material shall be compacted at 95% relative compaction for the entire depth of imported material. The minimum compacted section shall be six inches and shall be composed of import borrow, existing material, or a combination of both. The contractor shall provide a submittal to the Engineer for review prior to importing or placing material.

Roadway excavation will be measured and paid by the cubic yard and the volume is determined from the average end areas and the distance between them. This item will be a final pay item. See section 9-1.02C of the State Standard Specifications.

The above price and payment for roadway excavation shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in importing,

excavating, hauling, compacting, and removing the surplus material, as shown on the plans, specified in State Standard Specifications and these Special Provisions, and as directed by Engineer.

10.14 HOT MIX ASPHALT (Type A)

Preconstruction Meetings

Hold a preconstruction meeting with the Engineer per section 36-1.01D(2) of the State Standard Specifications. Discuss project specifications and the processes for producing materials and quality control measures for pavement smoothness including visual inspection of finished HMA surface.

Prepare Existing Surface

Contractor shall prep the existing surface prior to placing HMA. Prepping the surface shall consist of sweeping and vacuuming the entire area to remove debris, organic matter, dirt, etc. Any work that will be required to fill potholes or make the surface suitable for paving shall be paid as extra work, through force account.

For full-depth asphalt pavement sections, the underlying subgrade or subbase shall be compacted to at least 95 percent of the maximum dry density (per ASTM D1557) prior to AC paving. Where existing base to remain, Contractor shall compact and prepare per the Aggregate Base requirements in these Special Provisions prior to AC paving.

Prior to any removal of existing asphalt concrete or cold planing, verify all existing ground lines. If you contest the existing ground lines shown in the plans, you must submit your survey information. The Engineer will then have 10 working days to review the submittal. If you begin any removal or cold planing prior to the approval of this submittal, the existing ground lines shown in the plans will be deemed accurate and will be used for calculating quantities of removal or cold planing.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all of the work involved with preparing the existing surface as specified above, shall be considered as included in the price paid for hot mix asphalt (Type A) and no additional compensation will be allowed therefor.

Materials

Hot Mix Asphalt (HMA) shall conform to the provisions in Section 39-2, "Hot Mix Asphalt," of State Standard Specifications.

The HMA construction process shall be standard. The aggregate gradation shall be ½" and the HMA type shall be type A. The binder shall be PG 64-10.

Schedule smoothness testing with the Engineer. Unless otherwise authorized, all smoothness testing must be performed in the presence of the Engineer in accordance with Pavement Smoothness section of these special provisions.

Add the following City's acceptance requirements for section 39-2.02A(4)(e) of State Standard

Specifications:

4. Visual inspection of finished HMA surface. HMA must be free of segregation, Coarse or fine aggregate pockets, hardened lumps, marks, tearing, and irregular texture.
    4.1. HMA that is determined to be unacceptable by visual inspection by the Engineer shall be repaired by one of the following methods as determined by the Engineer. The Engineer reserves the right to waive and/or reduce the dimensions of the repairs at the Engineer's discretion:
        4.1.1. Remove the pavement by an approved method, in the area to be repaired, to provide a minimum of 1.5 inches of new material. No feather paving will be allowed in making the above-mentioned repairs. The pavement shall be removed from lane line to lane line, or lip of gutter to center of roadway where edge lines and/or lane lines are not present. The area to be removed and replaced shall not be less than fifty (50) feet in length in the longitudinal direction.
        4.1.2. Fog seal. The area and dimensions of the fog seal shall be determined by the Engineer.
        4.1.3. Slurry seal or Microsurface. Type I or Type II shall be used as determined by the Engineer. The slurry seal or microsurfaced area shall be from lane line to lane line, or lip of gutter to center of roadway where edge lines and/or lane lines are not present. The area to be slurry sealed or microsurfaced shall not be less than twenty (20) feet in length in the longitudinal direction.

Contractor shall submit a quality control plan with the JMF. The JMF will not be accepted until the quality control plan is submitted. The Contractor's quality control plan shall conform to the provisions in 39-2.01A(3) "Submittals" of the State Standard Specifications.

Contractor shall tack coat all surfaces to receive HMA and shall conform to State Standard Specifications Section 39-2, "Hot Mix Asphalt."

Pavement Smoothness

At least 2 business days before performing corrective grinding for areas that do not meet the smoothness requirements, submit a corrective grinding plan as an informational submittal.

The corrective grinding plan must include:

1. Grinder make and model
2. Grinder wheelbase in feet, measured from the front centerline to the back centerline of the single wheel or tandem wheel spread
3. Grinder head position in feet, measured relative to the centerline of the front single wheel or the front tandem wheel spread
4. Tandem wheel spreads in feet
5. Tabular listing of the planned corrective grinding, including:
    5.1. Begin and End locations in stationing to the nearest foot
    5.2. Width of grind, such as left half lane, right half lane, or full-width lane

5.3. Corresponding grinder head depths to the nearest 0.01 foot
5.4. Direction of grind such as forward, reverse, forward-forward, reverse-reverse, forward-reverse, reverse-forward

Within 2 business days of measuring smoothness with a straightedge, submit a list of the areas requiring smoothness correction or a report stating there are no areas requiring smoothness correction. Identify the areas requiring smoothness correction by:

1. Location number
2. Street name
3. Beginning station to the nearest 0.01 mile
4. For correction areas within a traffic lane:
   4.1. Lane direction, *NB, SB, EB*, or *WB*
   4.2. Lane number from left to right in the direction of travel
   4.3. Wheel path, *L* for left, *R* for right, or *B* for both
5. Estimated size of correction area

Perform straightedge measurements in the presence of the Engineer.

Measure pavement smoothness 12-foot straightedge.

The City accepts pavement surfaces for smoothness based on compliance with the smoothness specifications for the type of pavement surface specified.

For areas that require pavement smoothness determined using a 12-foot straightedge, the pavement surface must not vary from the lower edge of the straightedge by more than:

1. 0.01 foot when the straightedge is laid parallel with the traffic lane centerline
2. 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

Notify the Engineer of the start location by station and start time at least 2 business days before each day of smoothness measurements. The Engineer must be present for smoothness measurements.

Payment

HMA will be subject to payment adjustments for Price Index Fluctuations per Section 9-1.07 of State Standards Specifications. The contract price paid per ton of HMA (Type A) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in placing, compacting, and quality-control of hot mix asphalt including surface preparation, tack coat placement, and pavement smoothness, as shown on the plans, as specified in

State Standard Specifications and these Special Provisions, and as directed by the Engineer. This item includes full depth AC Patch adjacent to proposed curbs and gutters, curb ramps and other hardscape construction.

10.15 FULL DEPTH RECLAMATION - CEMENT

Full depth reclamation - cement shall comply with Section 30, "Recycled Pavement" and Section 30-4, "Full Depth Recycling - Cement," of State Standard Specifications.

Work shall consist of pulverizing existing asphalt concrete, base, and subgrade soil following cold planing of existing asphalt concrete. Re-grade based on PG grades on plans and haul away excess material to allow for the net placement of new asphalt concrete. Add cement and water to the blended material in accordance with these and State Standard Specifications. Compact, fine grade to the grades required, cure and micro-crack the completed cement treated surface, prior to placement of asphalt concrete. Micro-cracking of the cement treated surface must be completed 48 to 56 hours after placement.

The Contractor shall be aware of existing utilities within the project limits that have not been potholed and may be within 24" vertical clearance of the FDR operation. The depth of existing utilities, where identified by potholing, has been provided on the plans. It is the Contractor's responsibility to pothole existing utilities, as described elsewhere in the specifications, and provide a report on the depth of the existing facilities to the Engineer. If the existing facility is determined to be within the **24"** of the FDR operation, the Engineer may elect to proceed with the work based on the following options to avoid relocating the utility:

- **Top of** utility is **24"** to **6"** below **bottom of** the FDR **section** - Contractor shall excavate above the utility to the minimum allowable FDR depth using hand or other methods as approved by the Engineer to remove existing roadway base and subgrade to a maximum of 6" above the existing utility to remain. Excavated material will be set adjacent to the trench for inclusion in the FDR mixing operation and spread back into the trench prior to the FDR compaction operation.

- **Top of** utility is less than 6" below **bottom of** the **section** FDR - Contractor shall excavate above the utility to the minimum allowable FDR depth using hand or other methods as approved by the Engineer to remove existing roadway base and subgrade to a maximum of 6" above the existing utility to remain. Trench spoils shall be disposed of by the Contractor. The Contractor shall place a minimum of 6" slurry cement backfill (compressive strength of 300psi) in the trench to the required grade for HMA paving. Slurry cement backfill shall comply with the City Standard Construction Specifications and will be paid for as extra work as described elsewhere in the specifications.

Obtain and test material every **500 feet** from the existing pavement structure by coring. You may perform additional sampling and testing to optimize the cement content and adjust for varying underlying materials. Determine the exact locations of the sampling locations between wheel paths. Do not sample in the shoulders. Sampling locations must provide sufficient representative material for

the mix design.

The cement content must be **5 percent** by dry weight of FDR—cement with a dry unit weight of **4.4 lb/sf**, except an increase or decrease in the cement content may be ordered based on your mix design. The mix design shown on the plans and specification is based on the removal of all existing AC pavement. The actual mix design used for the project shall be determined by the Contractor in accordance with 30-4.01C(2)(b) "Mix Design," of the State Standard Specifications. The mix design shown on the plans and Specifications is based on the removal of all existing AC pavement. The actual mix design used for the project shall be your mix design. The mix designs shall be submitted to and authorized by the Engineer prior to cold planning the AC pavement. During progress of the work, if you encounter an isolated area that requires more cement than described in the mix design for that area, notify the Engineer before applying the cement.

A test strip per Section 30-1.01D(3) of the State Standard Specifications is not required.

Attention is directed to the presence of shallow utilities within the limits of work. Contractor must use appropriate means and methods during construction to avoid damaging underground utilities. This includes but is not limited to, performing handwork around the shallow utilities.

Full depth reclamation - cement will be measured by the square yard, determined from horizontal measurements of the pavement surface to be recycled.

The quantities of cement (full depth reclamation - cement) used in the mix will be measured by the ton.

Mix design for the full depth reclamation - cement will be paid for on the basis of lump sum prices.

The contract price paid per square yard for full depth reclamation - cement shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the full depth reclamation - cement, complete in place, including excavations and disposal of excess material, hand work, backfill, slurry, cleaning the surface, compacting and grading and surface finishing, all as shown on the plans, and as specified in State Standard Specifications and these Special Provisions, and as directed by the Engineer.

The contract price paid per ton for cement (full depth reclamation - cement) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing cement in the mix, complete in place, as shown on the plans, and as specified in State Standard Specifications and these Special Provisions, and as directed by the Engineer.

The contract lump sum prices paid for mix design (full depth reclamation - cement) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in preparing and testing the mix, including adding water, supplementary aggregate if required by the Engineer, setting control additives, mixing water with asphaltic emulsion, and applying sand cover, complete in place, as shown on the plans, as specified in State Standard Specifications and

these Special Provisions, and as directed by the Engineer.

10.16 AGGREGATE BASE CLASS 2

Aggregate sub-base and base material shall consist of mineral aggregate, which has been spread and compacted on a prepared subgrade. This shall be to the established lines and grades shown on the plans and standard drawings.

Aggregate sub-base material shall be Class 2, in conformance with Section 25 of the Caltrans Specifications. Aggregate base material shall be Class 2, in conformance with Section 26 of the Caltrans Specifications.

Aggregate sub-base and base material shall conform to the City provisions section 12-5 "Aggregate Subbase and Base Material".

The contract price paid per Cubic Yard for Aggregate Base Class 2 shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and placing the Aggregate Base Class 2, complete in place, as shown on the plans, and as specified in City Standard Specifications and these Special Provisions, and as directed by the Engineer.

10.17 MINOR CONCRETE

Minor concrete work includes curb and gutter, retaining curb, curb ramp, sidewalk, driveway, mailbox pads, and valley gutter. All minor concrete work shall conform to provisions of Section 13, "Concrete Construction" of the City Standard Specifications.

All minor concrete material shall conform to the provisions of Section 90-2, "Minor Concrete," of State Standard Specifications.

Contractor shall submit a certificate of compliance for all minor concrete.

Within 72 hours of placing minor concrete, Contractor shall place backfill adjacent to the new concrete and existing grade. Backfill on street side shall consist of aggregate base topped with cutback asphalt except that cutback asphalt may be replaced by aggregate base if paving will start within 14 calendar days. Backfill on property side shall consist of native materials.

Contractor to match existing pathway materials (ie. brick, paver, etc) for Minor Concrete (Pathway) if existing material differs from concrete.

Lines, grades, dimensions and general construction of curb & gutter, retaining curbs, valley gutters, driveways, curb ramps, mailbox pads and sidewalk shall conform to the City Standard Drawings. Expansion joints shall be placed per standard plan. It is the responsibility of the Contractor to construct all finished surfaces so that positive drainage is maintained.

Prior to installation of all form work, you shall be required to notify the Engineer a minimum of 48 hours in advance of scheduled formwork activities. The Engineer shall review the survey results and

determine if the preparation of the subgrade is in conformance with the project plans and specifications. You shall not proceed with installing formwork until after the subgrade has been inspected for conformance with the project plans and specifications. After formwork is in place and prior to pouring any concrete, you shall notify the Engineer a minimum of 48 hours in advance for an inspection of the form work. You shall not proceed with pouring concrete until after the Engineer has inspected the form work for compliance with the project plans and specifications. You shall be required to correct this work in a manner acceptable to the Engineer if found to not be in conformance with the project plans and specifications at your expense.

Curb Ramp

Curb ramps shall conform to the provisions of Section 13-9, "Curb Ramp" of the City Standard Specifications and the 2010 ADA Standards.

Contractor shall construct curb ramps as located on the plans and in accordance with Section 13 of the City Standard Specifications.

Contractor will not be allowed to remove and replace all the access ramps at the same time. Contractor shall schedule the removal and replacement to provide pedestrian access at all times as approved by the Engineer.

Contractor shall construct retaining curbs as needed or as shown on the plans and in accordance with Section 13 of the City Standard Specifications.

Quantities of minor concrete (sidewalk, pathway, curb ramp, driveways, mailbox pads, valley gutters) to be paid for by the square foot will be calculated on the basis of the dimensions shown on the plans adjusted by the amount of any change ordered by Engineer.

Retaining curbs required for construction of curb ramps are non-pay items and included in the work for Minor Concrete (Curb Ramp).

The contract price paid per square foot for minor concrete (sidewalk), minor concrete (mailbox pads), minor concrete (driveway), minor concrete (curb ramp), and minor concrete (valley gutter) shall include full compensation for furnishing all labor, material (including adhesive, or reinforcing steel and dowels for anchoring, and expansion joint material), tools, equipment and incidentals, and for doing all the work involved in constructing different types of minor concrete facilities, complete in place, as shown on the plans, specified in the City Standard Specifications and these Special Provisions, and as directed by Engineer.

Full compensation for furnishing the labor needed to form the ramp (including retaining curbs), driveways, curb and gutter and sidewalk areas to the required line and grade per ADA requirements, including grooving details, shall be considered as included in the prices paid for the various Contract items of work involved and no additional compensation will be allowed therefor.

The contract price paid per linear foot for minor concrete (retaining curb) and minor concrete (curb and gutter) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in constructing types of curbs, complete in place, as shown on the plans, and as required by law, as specified in the City Standard Specifications and these Special Provisions, and as directed by the Engineer.

All existing curb paint shall be replaced in kind on new curbs placed with the project. This includes, but is not limited to, red curb, white curb, and house numbers. The contract price for minor concrete (curb and gutter) shall include all necessary curb paint, and no additional compensation shall be made.

No additional compensation shall be included for sawcutting, replacement of damaged concrete work, slot asphalt patch back, or for additional asphalt concrete pavement removal and replacement for fitting in extruder machinery or forms during the construction of concrete items, but shall be included in the cost of the concrete work being constructed. New or replaced curb and gutter, sidewalk, or driveway shall include any necessary grading behind the improvement to conform to the existing condition up to five feet beyond the improvement, and within the City right of way and no additional compensation shall be included. Existing walkways adjacent to proposed sidewalk or minor concrete improvements shall be reset or repaved by Contractor, as requested by Engineer, to conform to the new minor concrete construction at no additional cost.

Any portions of curb, gutter, sidewalk or any other City improvement damaged by the Contractor during the course of construction be replaced by the Contractor, at their cost, to the satisfaction of the Engineer. The cost of additional replacement of curb, gutter or sidewalk in excess of the estimated quantities shown in the Bid form and Specifications and found necessary during the process of construction (but not due to damage resulting from carelessness on the part of the Contractor during its operation), shall be paid to the Contractor at the unit prices submitted in their bid.

10.18 DETECTABLE WARNING SURFACE

Detectable warning surfaces must be installed per the locations shown on the plans and in accordance with City Standard Drawing C-15 and Section 13-10, "Detectable Warning Surface", of the City Standard Specifications and these Special Provisions.

The Contractor shall install detectable warning surfaces in a manner that extends the entire width of the opening of the ramp for a depth of 3 feet.

Submit a 5-year manufacturer's replacement warranty against defects in a prefabricated detectable warning surface. The 5-year manufacturer's replacement warranty for a prefabricated detectable warning surface must cover defects in dome shape, color fastness, sound-on-can acoustic quality, resilience, and attachment. The 5-year warranty period starts at Contract acceptance.

Quantities of detectable warning surface placed as shown on the plans or directed by the Engineer will be measured by the square foot as determined from measurement of the area covered by the detectable warning surface.

The contract price paid per square foot for detectable warning surface shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and placing the detectable warning surface, complete in place, as shown on the plans, and as specified in City Standard Specifications and these Special Provisions, and as directed by the Engineer.

10.19 ADJUST DRAINAGE INLET TO GRADE

Contractor shall adjust storm drain inlet in accordance to the details shown in the plans. Adjusting storm drain inlets consists of removing partially the inlet and either lowering or raising the drainage structures.

Adjust to grade with new materials that are similar in character to the existing materials.

Where storm drain inlets are adjusted before placing the uppermost layer of pavement or surfacing, limit the work area so that adjusting the inlet and final paving or surfacing withing the same work day. The top of the inlet grate or cover must be protected during paving operation by heavy plywood covers, steel plate covers, or other authorized methods. Excess paving material must be removed before rolling.

Where inlets are adjusted after placing the uppermost layer of pavement or surfacing, do not adjust the inlet to final grade until the paving or surfacing has been completed immediately adjacent to the inlet.

The contract unit price paid for adjust drainage inlet to grade includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in lowering and raising drainage inlet structure including frame and grate to grade, complete in place, including structure excavation and backfill, furnishing and installing additional bar reinforcing steel, concrete and HMA (Type A), as shown on the plans, as specified in the City Standard Specifications and these Special Provisions, and as directed by the Engineer.

10.20 ADJUST FRAMES AND COVERS TO GRADE

Frames and covers of new and existing utility manhole, shall be adjusted to grade and shall conform to the provisions in Section 12-12, "Adjusting Manhole Frames, Monuments and Valve Boxes", of the City Standard Specifications and these Special Provisions.

All city utilities that are within the limits of the full depth reclamation operation shall be lowered (remove lid and frame) and plated before the full depth reclamation operation.

All city utilities shall be raised up to finished grade within 7 days of paving.

All utilities shall be accessible 24 hours per day, 7 days per week throughout construction. The Contractor shall provide reference marks on the nearest curb for all utilities that are lowered.

The contract price paid per each for adjusting frames and covers to grade or adjust manhole frame and cover to grade (including sewer manholes, storm drain manholes, water valves, water meters, sewer

cleanouts) shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in lowering and raising utility manhole frames and cover, complete in place, including structure excavation and backfill, furnishing and installing additional bar reinforcing steel, concrete and HMA (Type A), as shown on the plans, specified in the City Standard Specifications and these Special Provisions, and as directed by Engineer.

10.21 THERMOPLASTIC STRIPING AND MARKINGS

All traffic stripes and pavement markings shall conform to Section 84-2, "Traffic Stripes and Pavement Markings," of State Standard Specifications. All striping and markings shall be thermoplastic.

Thermoplastic traffic stripes will be measured by the linear foot along the line of the traffic stripes, without deductions for gaps in broken traffic stripes. A double thermoplastic traffic stripe, consisting of two 6-inch wide yellow stripes, will be measured as 2 traffic stripes.

Pavement markings shall be measured by the square foot for the area covered.

Payment for thermoplastic pavement markings or thermoplastic traffic stripe shall include full compensation for performing all work required to install thermoplastic pavement markings and thermoplastic traffic stripes, and shall include furnishing and installing pavement markers and establishing alignment for stripes and layout work, respective to the detail on the State Standard Plans, in accordance with these Special Provisions and as directed by the Engineer.

10.22 INSTALL ROADSIDE SIGN

Contractor shall install sign posts and foundations in accordance with City Standard ST-11 and ST-12 and these Special Provisions.

Sign panels must comply with the lates version of the California Uniform Traffic Control Devices (CA MUTCD) and City Standard Plates. All signs shall be high intensity prismatic.

The contract price paid per each for install roadside sign-one post shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in installing each roadside sign, including, but not limited to, excavation, export, backfill, compaction; new concrete foundations / footings, installation of sign post, sign panels and hardware, complete in place, as shown on the plans, specified in the City Standard Specifications and these Special Provisions, and as directed by Engineer.

Full compensation for furnishing and installing sign panel fastening hardware shall be considered as included in the contract prices paid for the roadside signs requiring the hardware and no separate payment will be made therefor.

10.23 RELOCATE ROADSIDE SIGN

Where indicated on the Plans or as specified by the Engineer, the Contractor shall remove existing signs (posts and panels), then reinstall the signs (posts and panels) and foundations in accordance with City Standard ST-11 and ST-12 and these Special Provisions.

Unless the Engineer specifies otherwise, the existing sign panels shall be reused.

The contract price paid per each for relocate roadside sign shall include full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in removing the existing roadside sign and reinstalling it as shown on the Plans, including, but not limited to, excavation, export, backfill, compaction; new concrete foundations / footings, installation of sign post, complete in place, as shown on the plans, specified in the City Standard Specifications and these Special Provisions, and as directed by Engineer.

10.24 RESET MONUMENT COVER TO GRADE

Reset survey monument to grade as shown on the plans. Survey monument work must be performed by a licensed surveyor or civil engineer in the state of California and the work must comply with City Standard Drawing No. M-1.

The quantities of reset survey monument to grade will be paid for as units determined from actual count.

The contract unit prices paid for reset survey monument to grade shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing existing and installing new monuments, including disposing excavated materials, backfilling, furnishing and installing monument box, cast iron lid, brick footings, concrete collar and hot mix asphalt paving, complete in place, as shown on the plans, and as specified in these Special Provisions, and as directed by the Engineer.

10.25 MOBILIZATION & DEMOBILIZATION

Mobilization is intended to compensate the Contractor for operations including, but not limited to, those necessary for the movement of personal, equipment, supplies and incidentals to / from the project site; for the payment of premium cost and insurance for the project; for any necessary costs of acquisition of equipment, including purchase and mobilization expense; and for any other work and operations which must be performed or costs that must be incurred incident to the initiation of meaningful work at the site and for which payment is not otherwise provided in the contract.

(1) When 5 percent of the original contract amount is earned, 50 percent of the amount bid for mobilization, or 5 percent of the original contract amount, whichever is less, may be paid.

(2) When 10 percent of the original contract amount is earned, 75 percent of the amount bid for mobilization or 7.5 percent of the original contract amount, whichever is less, may be paid.

(3) When 20 percent of the original contract amount is earned, 95 percent of the amount bid for mobilization, or 9.5 percent of the original contract amount, whichever is less, may be paid.

(4) When 50 percent of the original contract amount is earned, 100 percent of the amount bid for mobilization, or 10 percent of the original contract amount, whichever is less, may be paid.

(5) Upon completion of all work on the project, payment of any amount bid for mobilization in excess of 10 percent of the original contract amount will be paid.

The Contract lump sum price paid for mobilization shall include full compensation for establishing temporary construction storage locations, moving equipment to the project site for the establishment of facilities necessary for work on the project, applying for and obtaining all required permits, and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items, including all related administration throughout its duration, and demobilization.

The total price bid for mobilization shall include the cost of all mobilization, demobilization, and administration for the entire contract period.

The City shall make the final determination of the allowable percentage of completion for the payment of mobilization and shall approve the percentage paid based on the percent of contract amount actually earned which will be based upon actual work completed.

10.26 VIDEO SEWER AND STORM DRAIN INSPECTION

The contractor shall furnish closed circuit television equipment for an interior inspection of the existing sewer and storm drain mains located within the roadway reconstruction limits. The first video inspection to document the existing condition of the sewer and storm drain mains shall be conducted no more than 14 days prior to the removal of the existing roadway. The second video inspection to demonstrate the Contractor did not cause any damage to the sewer or storm drain mains shall be conducted within 24 hours of completing final compaction of the subgrade, or micro-cracking of the FDR-C section. An electronic copy of the video inspection (standard DVD or Mpeg file format) shall be provided to the City within 24 hours of each inspection at no additional cost to the City. With the copy of the video, the Contractor shall certify, in writing, there is no damage to the inspected sewer and storm drain mains. If there is damage, the Contractor shall indicate in writing, the specific damage and location. The certification must be submitted to and authorized by the Engineer prior to placing HMA pavement.

The requirements for the sewer and storm drain video inspections include:

1. The Video Inspection Company is to certify as to their ability to adequately perform the video inspection.
2. Contractor will provide the City 48-hour notice of inspection schedule so the City inspector may be present to monitor the inspection.
3. A flush truck will be required to be on-site to aid in the video inspection.
4. A copy of the video inspection shall be submitted to the City as proof of inspection along with a certification letter stating no damage to the inspected sewer and storm drain lines has occurred.
5. Sewer lateral lines are to be documented by stationing distance from center line of manhole and the inspection form shall provide a map of the inspected lines.
6. Storm drain lateral lines to and between catch basins shall be video inspected as storm drain mains.

7. To facilitate review, a log of the inspections performed shall correlate with the manholes, stationing, etc., shown on the project plans and the video inspection produced.
8. Joints shall have a view perspective, and have each joint inspected by turning the camera 90 degrees to the joint inspecting all 360 degrees of the connection.
9. Sewer laterals shall have a perspective view identifying clock position to the main and a view into the lateral to identify any damage at the lateral connection.
10. If debris are found during the inspection, the inspection must be terminated and restarted once the debris has been removed and more water flushed through the main.
11. Video Inspection shall be performed in the direction of flow.

The payment for sewer and storm drain video inspection including all labor, material, tools, equipment and incidentals, and for doing all the work involved in the sewer and storm drain video inspection shall be included in Contract lump sum price paid for Video Sewer and Storm Drain.

SECTION 11 (BLANK)

SECTION 12 (BLANK)

SECTION 13 (BLANK)

SECTION 14 (BLANK)

APPENDIX A: PAVEMENT DESIGN REPORT

DRAFT PAVEMENT REPORT

Turlock Pavement Rehabilitation
Location 1 – N. Johnson Road, Arbor Way, and Zinfandel Lane/Charles Place Neighborhood
Turlock, California

Prepared by:

Crawford & Associates, Inc.
4701 Freeport Boulevard
Sacramento, CA 95822

July 3, 2024

Prepared for:

Mark Thomas
2833 Junction Avenue, Suite 110
San Jose, CA 95134

Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services

Sacramento
Eureka
Modesto
Pleasanton
Santa Rosa
Seattle
Ukiah

July 3, 2024
Crawford File No. 23-931.3

Mr. Ed Noriega, PE
Mark Thomas
2833 Junction Avenue, Suite 110
San Jose, CA 95134

Subject: **City of Turlock 2024 Multiple Roads Rehabilitation**
Location 1
DRAFT Pavement Design Report
Turlock, California

Dear Mr. Noriega,

Crawford & Associates, Inc. (Crawford) is pleased to submit this DRAFT Pavement Design Report for Location 1 (within the N. Johnson Road, Arbor Way, and Zinfandel Lane/Charles Place neighborhood) as part of the City of Turlock Pavement Rehabilitation efforts in Turlock, California. We prepared this report in accordance with our February 27, 2024 agreement associated with City Contract No 2023-109. A separate report will be prepared for Location 2 (also included in City Contract No 2023-109). The purpose of this report is to provide pavement recommendations for consideration by the City of Turlock and the design team.

Thank you for selecting Crawford to be on your design team. Please call if you have questions or require additional information.

Sincerely,

Crawford & Associates, Inc.,

Reviewed By,

Carmelo Pagan
Staff Engineer

Benjamin Crawford, PE, GE
Principal

Amando Castro, PE
Project Manager

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Laboratory Test Results

1 INTRODUCTION

Crawford & Associates, Inc. (Crawford) is pleased to submit this DRAFT Pavement Design Report for Location 1 (generally within the N. Johnson Road, Arbor Avenue and Zinfandel Lane/Charles Place Neighborhood) as part of the City of Turlock Pavement Rehabilitation efforts in Turlock, California. We prepared this report in accordance with our February 27, 2024 agreement associated with City Contract No 2023-109. A separate report will be prepared for Location 2 (also included in City Contract No 2023-109). The purpose of this report is to support the City of Turlock (City) and the design team during project design, plan, and specification development.

A final report will be submitted after comments have been received and addressed.

1.1 SCOPE OF SERVICES

To prepare this report, Crawford:

- Discussed the proposed improvements with Mr. Ed Noriega, PE and Ms. Cynthia Horner, PE, with Mark Thomas, and Mr. Fred Pezeshk, PE with the City;
- Conducted a site visit and marked USA on April 8, 2024;
- Conducted a pavement conditions assessment on April 19, 2024;
- Performed pavement coring and subsurface soil sampling between April 26 and May 8, 2024;
- Performed laboratory testing (R-values) on representative subgrade samples; and
- Performed calculations and engineering analysis.

2 PROJECT DESCRIPTION

We understand that this project is a part of the City of Turlock's larger CIP to improve the pavement condition index throughout the City. Based on our conversations with the design team and the City, the primary purpose of this project is to rehabilitate and repair 32 residential roadways (approximately 4 miles total) within the eastern portion of the City (within the N. Johnson Road, Arbor Way, and Zinfandel Lane/Charles Place neighborhood). The City desires the following design traffic index (TI) for this project, for local roads a TI of 6 (7 at intersections), for minor and major collectors a TI of 8 (9 at intersections), and for major and principal arterials a TI of 10 (11 at intersections).

Location 1, as defined in City Contract 2023-109, includes rehabilitating the following roadways as part of this project:

- North Johnson Road between East Hawkeye Avenue and East Tuolumne Avenue;
- Hammond Drive between N Johnson Road and N Johnson Road;
- Stuart Place between the South end and Hammond Drive;
- Ashley court between the West end and North Johnson Road;
- Jackson Court between the North end and North Johnson Road;
- Sconyers Court between the East end and North Johnson Road;
- North Quincy Avenue between Marie Drive and East Hawkeye Avenue;
- Linn Court between its North end and Mira Flores Drive;
- La Sombra Court between Mira Flores Drive and Mira Flores Drive;
- Novo Drive between East Canal Drive and Mira Flores Drive;

- Arbor Way between North Berkeley Avenue and North Quincy Road;
- Karen Way between Arbor Way and Christine Way;
- Christine Way between Karen Way and Heppner Way;
- Heppner Way between Arbor Way and Christine Way;
- California Avenue between North Berkeley Avenue and North Johnson Road;
- El Paseo Drive between East Canal Drive and Arbor Way;
- Linda Vista Drive between El Paseo Drive and North Johnson Road;
- Zinfandel Lane between North Johnson Road and Corello Street;
- Charles Place between Wallace Street and North Johnson Road;
- Wallace Street between E. Marshall Street and Charles Place;

3 HISTORICAL DATA

No as-built plans or maintenance reports were made available while this draft pavement report was being prepared.

According to information provided by the City, Pavement Condition Index (PCI) values were assigned to the streets included in this project. PCI is a scale to quantify the condition of a street based on the surface condition observed including crack size, quantity, and depth, raveling, and rutting. Generally, PCI values above 75 (fair to good condition) require preservation methods, between 75 and 50 (fair to poor condition) require resurfacing, and below 50 (poor to very poor condition) require rehabilitation or reconstruction. We supplement the PCI assigned to each street with our pavement condition assessment and describe our findings in the sections below.

4 FIELDWORK

Crawford evaluated the condition of the existing pavement by walking the roadway and reviewing the pavement surface conditions. Crawford cored the pavement at 42 locations to measure the existing structural sections (Hot Mix Asphalt (HMA) and Aggregate Base (AB) thicknesses), identify historical overlays, the presence of paving fabric, and collect subgrade samples for laboratory testing.

We provide the overall project alignment in Figure 1A and present the core locations in Figures 1B and 1C.

4.1 PAVEMENT CONDITION ASSESSMENT

During our pavement assessment, we walked the project alignment and noted the current pavement conditions including cracking, patching/potholes, and surface distress. Based on the observations, and the PCI, project alignment can generally be broken down into two sections as presented in Table 1 below.

Table 1: Turlock Pavement Condition Assessment Generalized Sections

Section	Roadway	PCI Assigned
1	Jackson Court	83
	Sconyers Court	68

Section	Roadway	PCI Assigned
1	Hammond Drive (1740 Hammond Drive to N Johnson Rd)	71
	La Sombra Court (Mira Flores Dr to La Sombra Ct)	63
	Karen Way	69
	Ashley Court	77
	Jackson Court	83
	Arbor Way (Heppner Wy. to N. Quincy Rd)	53
	Christine Way	56
	Heppner Way	82
2	North Johnson Road (E. Hawkeye to Hammond Dr)	5
	North Johnson Road (Hammond Dr to Sconyers Ct)	28
	Hammond Drive (N. Johnson Rd to 1740 Hammond)	0
	North Quincy Road	25
	Linn Court	27
	Stuart Place	13
	La Sombra Court (La Sombra Ct to La Sombra Ct)	37
	La Sombra Court (La Sombra Ct to Mira Flores Dr)	29
	Novo Drive	34
	Arbor Way (N. Berkley Ave to Edward Dr)	24
	Arbor Way (Edward Dr to N. Johnson Rd)	4
	Arbor Way (N. Johnson Rd to Karen Wy)	13
	Arbor Way (Karen Wy to Heppner Wy.)	20
	California Ave	41
	El Paseo Drive (E. Canal Dr to El Capitan Dr)	21

Section	Roadway	PCI Assigned
2	El Paseo Drive (El Capitan Dr to. Arbor Wy.)	34
	Linda Vista Drive	22
	Zinfandel Lane (N. Johnson Rd to Old Vineyard Rd)	14
	Zinfandel Lane (Old Vineyard Rd to N. Quincy Rd)	29
	Zinfandel Lane (N. Quincy Rd to Corrello St)	27
	Charles Place	33
	Wallace Street	15

The assessment of each section is discussed below.

4.1.1 SECTION 1

The streets included in this section were assigned a PCI above 50. This range of PCI correlates to pavement in generally fair to poor condition. The results of our pavement condition assessment generally agree with the assigned PCI values. We observed the streets in Section 1 to be in generally fair condition with low to moderate severity block cracks. Lack of maintenance was observed as vegetation was beginning to grow within the cracks and moderate to high severity raveling was present along all of the streets.

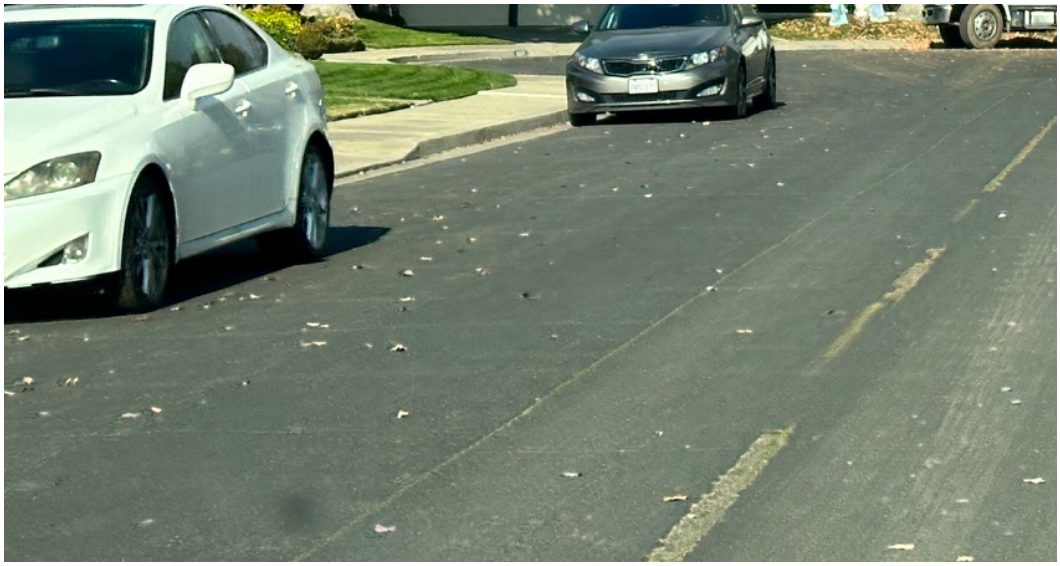


Photo 1: Section 1 Moderate Longitudinal Cracking

4.1.2 SECTION 2

Section 2 represents the heavily distressed roadways with PCI values ranging between 0 and 41. A PCI value below 50 typically indicates heavy distress features (like potholes, alligator cracks, rutting,… etc) and surface treatments will likely not produce the desired end product. Pavement failure in Section 2 is evidenced by the high-severity potholes and heavy alligator cracks we observed during our pavement condition assessment. The patch efforts and filled potholes have failed and are cracks intruding into the patches. Outside of the potholes, we observed high-severity alligator cracking, raveling and rutting (see Photo 2 below).

Photo 2: Section 2 Raveling, Alligator Cracks and Failed Patching

4.2 PAVEMENT CORES

We present the results of our pavement coring and R-value test results in Table 1 below.

Table 2: Pavement Core Results

Section	Core Number	Roadway	AC Thickness (ft)	AB Thickness (ft)	Subgrade Sample Depth (ft)	Existing TI Range	R-value Result
2	C-1	North Johnson Road	0.20	0.37	3.41	4-5	49
	C-2	North Johnson Road	0.16	0.33	2.25	3-4	
	C-3	North Johnson Road	0.16	0.33	4.5	3-4	
	C-4	North Johnson Road	0.16	0.50	4.33	4-5	49
	C-5	North Johnson Road	0.21	0.50	4.29	5-6	
	C-6	North Johnson Road	0.17	0.33	4.5	3-4	
	C-7	Sconyers Court	0.25	0.38	4.37	4-5	
1	C-8	Ashley Court	0.17	0.33	1.83	3-4	
	C-9[1]	Jackson Court	0.17	0.54	4.29	5-6	
	C-10	Hammond Drive	0.21	0.37	4.41	4-5	
	C-11	Hammond Drive	0.25	0.50	4.25	5-6	
2	C-12	Hammond Drive	0.16	0.50	4.33	4-5	

Section	Core Number	Roadway	AC Thickness (ft)	AB Thickness (ft)	Subgrade Sample Depth (ft)	Existing TI Range	R-value Result
	C-13	Stuart Place	0.20	0.37	4.41	4-5	
	C-14[1]	California Avenue	0.33	--	4.66	4-5	60
	C-15[1]	California Avenue	0.29	--	3.91	3-4	
	C-16[1]	California Avenue	0.16	0.37	2.91	7-8	
	C-17	Arbor Way	0.25	0.25	4.5	5-6	
	C-18	Arbor Way	0.16	--	4.83	2-3	
	C-19[1]	Arbor Way	0.20	0.45	4.33	6-7	
	C-20[1]	Arbor Way	0.25	0.25	2.08	5-6	
1	C-21	Arbor Way	0.16	0.50	3.33	6-7	
	C-22	Karen Way	0.22	0.33	4.43	5-6	
	C-23	Christine Way	0.16	0.33	3.16	6-7	
	C-24	Heppner Way	0.23	0.26	2.0	5-6	
2	C-25	North Quincy Road	0.16	0.33	4.5	4-5	
	C-26	North Quincy Road	0.37	0.16	3.79	5-6	
	C-27[1]	El Paseo Street	0.10	--	3.02	4-3	
	C-28	El Paseo Street	0.45	--	4.54	5-6	
	C-29[1]	El Paseo Street	0.08	--	2.58	5-6	
	C-30[1]	Linda Vista Street	0.29	--	4.70	3-4	
	C-31	La Sombra Court	0.25	0.33	1.08	5-6	
	C-32	La Sombra Court	0.25	0.16	2.25	4-5	
	C-33	Linn Court	0.20	0.29	2.5	4-5	
	C-34	Novo Drive	0.16	0.25	4.58	4-5	
	C-35	Novo Drive	0.12	--	4.87	1-2	
	C-36[1]	Wallace Street	0.45	--	3.37	3-4	23
	C-37[1]	Charles Place	0.41	--	3.91	2-3	
	C-38	Charles Place	0.33	--	3.37	2-3	
	C-39	Zinfandel Lane	0.08	0.16	3.66	1-2	
	C-40	Zinfandel Lane	0.16	0.16	2.5	1-2	
	C-41	Zinfandel Lane	0.20	0.12	3.16	1-2	
	C-42	Zinfandel Lane	0.16	0.25	4.08	2-3	
2	C-43	North Johnson Road	0.16	--	--	3-4	49
	C-44	North Johnson Road	0.16	0.41	--	4-5	
	C-45	Sconyers Court	0.16	0.41	--	4-5	
1	C-46	Ashley Court	0.13	0.47	--	3-4	
	C-47	Jackson Court	0.16	0.47	--	5-6	
2	C-48	Hammond Drive	0.16	0.54	--	4-5	
	C-49	Stuart Place	0.13	0.54	--	4-5	
	C-50	California Avenue	0.16	0.33	--	4-5	60
	C-51[1]	Arbor Way	0.08	--	--	4-5	
1	C-52	Karen Way	0.16	0.25	--	5-6	
	C-53	Christine Way	0.16	0.29	--	6-7	
	C-54	Heppner Way	0.13	5.5	--	5-6	
2	C-55	North Quincy Road	0.16	0.33	--	4-5	
	C-56[1]	El Paseo Street	0.16	--	--	5-6	
	C-57[1]	Linda Vista Street	0.13	--	--	3-4	

Section	Core Number	Roadway	AC Thickness (ft)	AB Thickness (ft)	Subgrade Sample Depth (ft)	Existing TI Range	R-value Result
	C-58	La Sombra Court	0.16	0.67	--	5-6	
	C-59	La Sombra Court	0.16	0.67	--	4-5	
	C-60	Linn Court	0.16	0.33	--	4-5	
	C-61	Novo Drive	0.16	0.42	--	4-5	
	C-62	Wallace Street	0.08	--	--	3-4	
	C-63	Charles Place	0.13	--	--	2-3	23
	C-64	Zinfandel Lane	0.16	0.46	--	1-2	

-- Not encountered.
[1] Oil Road Encountered

We used the Caltrans Highway Design Manual, Chapter 630 methodology to back-calculate the traffic index the existing pavement sections. We established in-place/aged gravel factors for the asphalt and aggregate base and used R-values obtained from our laboratory testing. The existing asphalt thickness was generally between 2 to 3 inches, however anomalies were encountered on Wallace Street, El Paseo Street, and Charles Place where approximately 5 inches of HMA was observed. No fabric was present in our cores and aggregate base thickness ranged between 1.5 and 6.5 inches. Oiled gravel/sand was encountered underneath cores 9, 14, 15, 16, 19, 20, 27, 29, 30, 36, and 37 and the thicknesses ranged between 1 to 7 inches.

4.3 SUBGRADE CONDITIONS

We visually classified the encountered subgrade as Poorly-graded Sand with Silt (SP-SM) to Silty Sand (SM). R-Value laboratory tests performed on three subgrade samples (C-5, C-30, and C-42) yielded results of 23, 49, and 60, respectively. We present the core logs with further subgrade descriptions in Appendix A, and laboratory results in Appendix B.

5 CONCLUSIONS AND RECOMMENDATIONS

The PCI for the pavement in Section 1 correlates with preservation-type treatments, like seals or micro-surfacing; however, the existing structural sections fail to support the desired design traffic index and the existing curb and gutter limit rehabilitation alternatives. The existing HMA sections encountered in all of our cores indicate an insufficiency in the structural sections eliminating the potential for a mill and overlay.

Our pavement condition assessment for Section 2 generally agrees with the PCI assigned to each street. The streets are in very poor condition and likely no longer supporting the traffic loading it is currently experiencing. Complete reconstruction or robust rehabilitation is warranted for the streets in Section 2.

We provide our recommended pavement strategies and options for the two sections below. It is our understanding that streets in this project are classified as local roads and minor collectors. Therefore, we provide pavement sections that satisfy a design TI ranging between 6 to 9. Below we provide a rehabilitation strategy that takes into consideration the current condition of the two sections, the existing pavement section thicknesses, and the design TI.

5.1 SECTION 1

Section 1 is fair to poor condition with moderate severity block cracks and fair condition patches. The existing section is significantly deficient when compared to the City's desired traffic index. The cracks present are exasperated by the high severity raveling. Many of the cracks show signs of water seepage, impacting the AB and subgrade.

The existing pavement thicknesses in Section 1 result in an average traffic index of 3 to 4, therefore, to achieve a traffic index of 6 (7 at intersections), an increase in the existing pavement sections would be required. An increase in the section thickness can be accomplished in three ways:

1) Remove the existing pavement section and replace it with a structurally adequate section using either full-depth HMA (recommendations in Section 5.4 of this report) or a traditional pavement section with HMA and AB (recommendations in Section 5.5 of this report).
2) Perform full-depth reclamation (FDR), which increases the section from the top down (recommendations in Section 5.3 of this report) and is typically more economical than a remove and replace (option 1 above).
3) Traditional remove and replace. This is the costliest option and we provide this as a reference for the City to compare to other rehabilitation options.

5.2 SECTION 2

Section 2 is in very poor condition and significant pavement failure was observed during our pavement assessment. To improve the PCI rating and meet the design traffic index, a significant rehabilitation strategy is required. This strategy includes:

1) Full Depth Reclamation (FDR). FDR is likely the most cost effective method of rehabilitation, and the minimum design sections can support TI's greater than the design TI.
2) Full Depth HMA. In lieu of a mill and overlay, complete removal of the HMA section, regrading to meet grade constraints, and placing a new HMA section to satisfy the design TI is an appropriate option for rehabilitation. This option is likely costlier than an FDR, however, still provides the support required to meet the design TI and not interfere with grade constraints.
3) While a mill and overlay (with a grade increase) could provide a sufficient HMA structural section to support the design TI, the remaining HMA (after milling) would be in very poor condition providing a base not conducive for an overlay (much of the remaining HMA would likely unravel during milling and cause constructability issues). The cracks would likely propagate to the surface within 5 years but a temporary increase in the PCI would occur. We do not recommend this option.

5.3 FULL DEPTH RECLAMATION (FDR)

FDR is the process of recycling the existing pavement section (HMA, AB, and subgrade) with cement and water. The FDR mix is then graded to meet the required grade constraints and compacted. Because FDR does not have the skid resistance or strength of HMA, a structural HMA wearing coarse is required.

In-Place Recycle rehabilitation should consist of thoroughly dismantling and mixing the existing (after milling) HMA, AB, and subgrade material with Portland cement (the amount will be

determined if this option is selected) and water to the required depth. Following mixing process, compact the recycled section to 95% relative compaction (ASTM D1557) at least 2% above optimum moisture content.

All exposed surfaces should be kept moist or bituminous cure sealed if exposure is expected to be greater than 3 days. We recommend microcracking the finished recycled section prior to HMA placement; this will help prevent shrinkage cracks from propagating through the HMA section. Finally, the In-Place Recycle section should be proof rolled for stability prior to placing HMA.

Table 3: Full Depth Recycled Sections

Roadway Section	Traffic Index	Thicknesses (ft)		
		HMA[2]	FDR[3,4]	Total Pavement Thickness
Local Road	6.0[1]	0.25	0.75	1.00
	7.0	0.25	1.00	1.25
Minor/Major Collector	8.0	0.30	1.15	1.45
	9.0	0.35	1.30	1.65

[1]Traffic Index is based on the required HMA section, however actual Traffic Index is slightly higher due to using a minimum FDR section.
[2]New HMA wearing coarse.
[3]The depth and location of existing utilities would need to be determined to confirm ability to recycle in-place.
[4]Full Depth Recycling method (G_f = 1.2) based on a minimum developed unconfined compressive strength of 300 psi (CTM 373). Minimum recommended FDR section is 0.70 feet

Full Depth Reclamation (FDR) is more cost effective and relatively fast as compared to remove and replace methods (traditional pavement sections or full depth HMA). If FDR is selected, we can complete mix design(s) at a range of appropriate cement contents for bidding purposes.

5.4 FULL DEPTH HMA

We provide full depth HMA structural sections as an alternative to meet the design TI for the project using a design R-value of 23. This alternative requires the removal of the existing HMA, moisture conditioning and recompacting the exposed subgrade prior to placement of the new HMA.

Table 4: Full Depth HMA Sections

Roadway Section	Traffic Index	Hot Mix Asphalt (ft)
Local Road	6.0	0.65
	7.0	0.75
Minor/Major Collector	8.0	0.85
	9.0	0.95

5.5 TRADITIONAL PAVEMENT SECTION

We provide traditional pavement structural sections as an alternative to meet the design TI for the project using a design R-value of 23.

Table 5: New Pavement Sections

Roadway Section	Traffic Index	Thicknesses (ft)		
		HMA	AB	Total Pavement Thickness
Local Road	6.0	0.25	0.80	1.05
	7.0	0.30	0.95	1.25
Minor/Major Collector	8.0	0.40	1.10	1.50
	9.0	0.45	1.25	1.75

6 CONSTRUCTION CONSIDERATIONS

During our fieldwork, underground utilities were marked and avoided. The presence of underground utilities could significantly impact the rehabilitation alternatives for this project. Should any form of bottom-up construction methods be selected (such as FDR), special attention to existing utilities should be given. The contractor should be responsible for locating any utility within the project limits. Based on our experience and discussion with contractors, a minimum separation/cover of 1.25 ft to 1.5 ft (depending on the type of utility) between the utility and the proposed scarification/recycled section should be used to reduce impacts to utilities.

7 RISK MANAGEMENT

Our experience, and that of our profession, clearly indicates that the risks of costly design, construction, and maintenance problems can be significantly lowered by retaining the Geotechnical Engineer of Record to provide additional services during design and construction. For this project, Crawford should be retained as the Geotechnical Engineer of Record to:

- Review and provide comments on the civil plans and specifications prior to construction;
- Monitor construction to check and document our report assumptions. At a minimum, Crawford should monitor grading, scarification and compaction of the roadway subgrade;
- Update this report if design changes occur, 2 years or more lapse between this report and construction, and/or site conditions have changed.

If we are not retained to perform the above applicable services, we are not responsible for any other party's interpretation of our report, and subsequent addendums, letters, and discussions.

8 LIMITATIONS

Crawford performed services in accordance with generally accepted geotechnical engineering principles and practices currently used in this area. Where referenced, we used ASTM or Caltrans standards as a general (not strict) *guideline* only. We do not warranty our services.

Crawford based this report on the current site conditions. We assume the soil, AB, and HMA conditions encountered during our fieldwork are representative of the subsurface and pavement conditions at the site. Actual conditions between core and boring locations can be different.

Our scope did not include evaluation of on-site hazardous materials, site geology, site seismicity, or flooding potential.

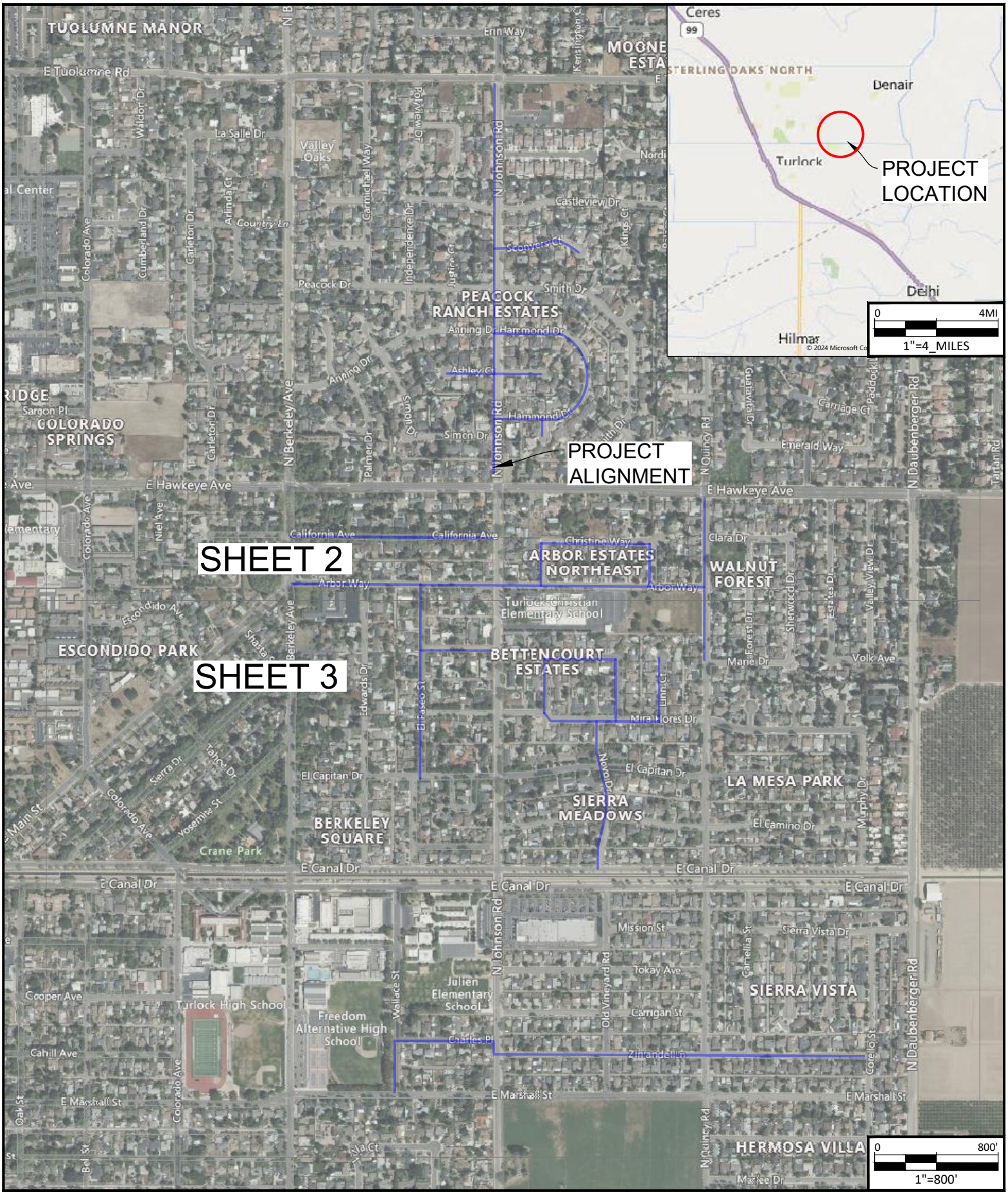
The pavement core locations shown in Figures 1A to 1D are based on visual comparisons made in the field between site features and features shown on aerial mapping, therefore they are approximate.

Modern design and construction are complex, with many regulatory restrictions, involved parties, and construction alternatives. It is common to experience changes and delays. The owner should set aside a reasonable contingency fund based on complexities and cost estimates to cover changes and delay

FIGURES

Figure 1 – Vicinity Map

Figures 2 – Exploration Maps



NORTH

Source:
Basemap: AutoCAD Civil3D Geolocation Tool, using Bing Maps

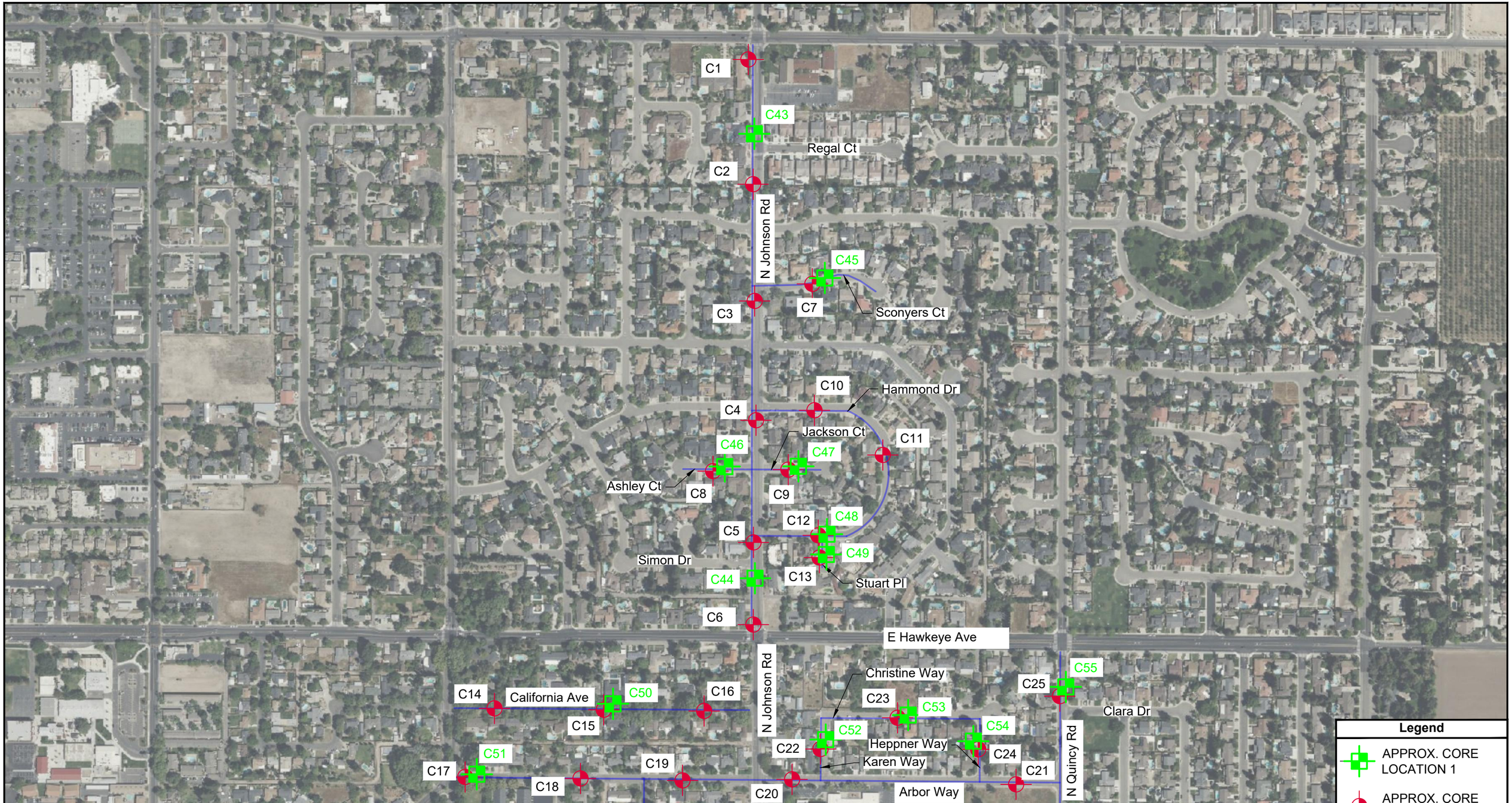
Crawford & Associates, Inc.
Geotechnical Engineering, Design and Construction Services

TURLOCK PAVEMENT REHABILITAION LOCATION 3

TURLOCK, CA

Figure 1
Vicinity Map

Prj. No: 23-931.3
Date: 06/04/2024



MATCHLINE- SEE SHEET 2 EXPLORATION MAP

NORTH

Source:
Basemap: AutoCAD Civil3D Geolocation Tool, using Bing Maps

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Geotechnical Engineering, Design and Construction Services

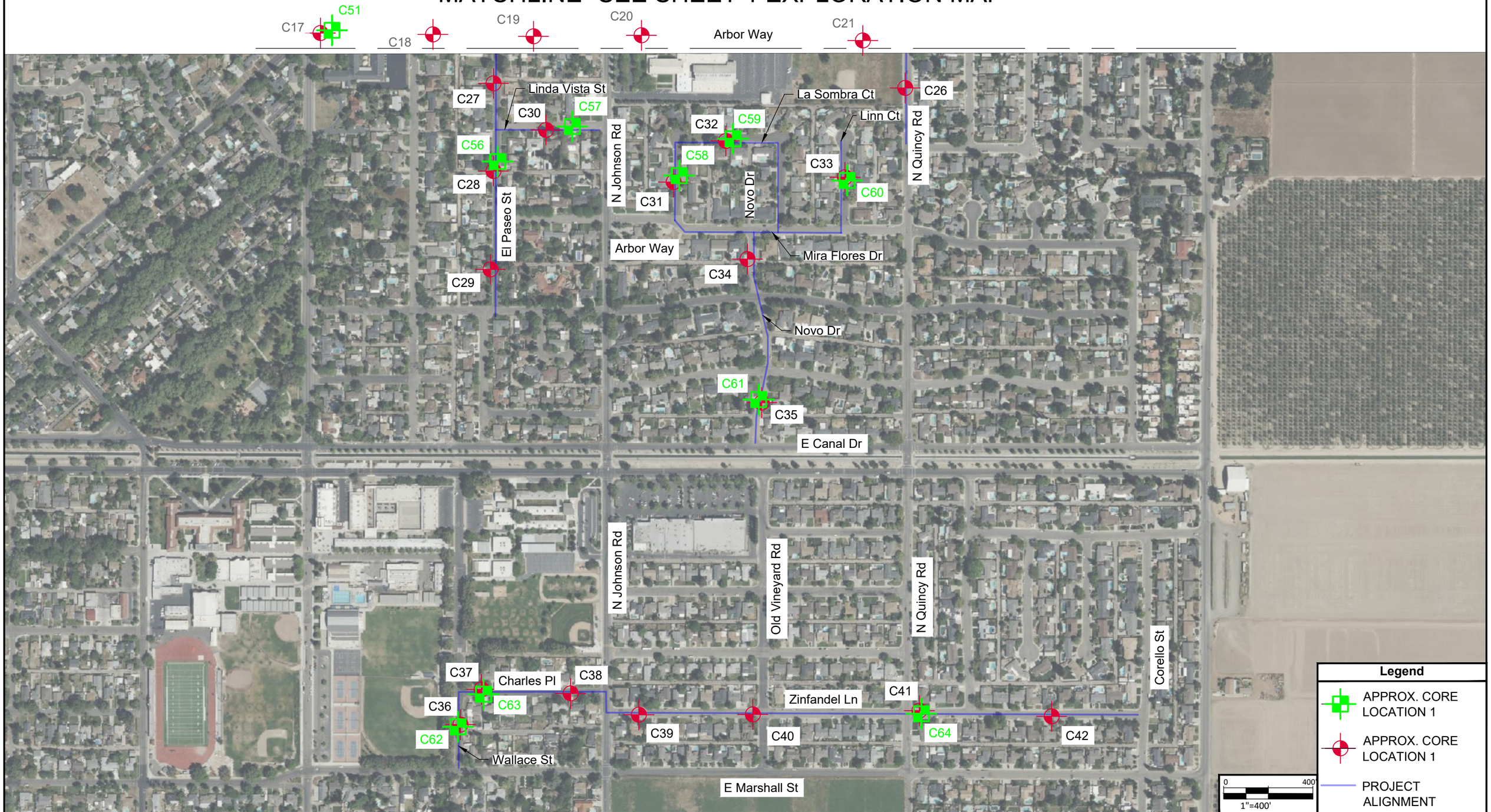
TURLOCK PAVEMENT REHABILITATION
LOCATION 1 & 3

TURLOCK, CA

Figure 2
Exploration Map 1 of 2

Prj. No: 23-931.3
Date: 07/04/2024

MATCHLINE- SEE SHEET 1 EXPLORATION MAP



NORTH

Source:
Basemap: AutoCAD Civil3D Geolocation Tool, using Bing Maps

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Geotechnical Engineering, Design and Construction Services

TURLOCK PAVEMENT REHABILITATION
LOCATION 1 & 3

TURLOCK, CA

Figure 2
Exploration Map 2 of 2

Prj. No: 23-931.3
Date: 07/04/2024

APPENDIX A

Core Logs

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-1	2.5	4.5	Silty Sand (SM)		
C-2	2	4	Silty Sand (SM)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-3	2	4	Silty Sand (SM)		
C-4	2	6	Silty Sand (SM)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-5	2.5	6	Silt with SAND (ML)		
C-6	2	4	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-7	3	4.5	Silty SAND (SM)		
C-8	2	4	Silty SAND (SM)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-9	2	6.5	Silt with SAND (ML)		
C-10	2.5	4.5	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-11	3	6	Silt with SAND (ML)		
C-12	2	6	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-13	2.5	4.5	Silt with SAND (ML)		
C-14	4	---	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-15	3.5	---	Silt with SAND (ML)		
C-16	2.5	4.5	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-17	3	3	Silt with SAND (ML)		
C-18	2	---	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-19	2.5	5.5	Silt with SAND (ML)		
C-20	3	3	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-21	2	6	Sandy Silt (ML)		
C-22	2.75	4	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-23	2	4	Sandy Silt (ML)		
C-24	3	3	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-25	2	4	Silt with SAND (ML)		
C-26	4.5	2	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-27	6	---	Sandy Silt (ML)		
C-28	5.5	---	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-29	8	---	Sandy Silt (ML)		
C-30	3.5	---	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-31	3	4	Sandy Silt (ML)		
C-32	3	2	Sandy Silt (ML)		

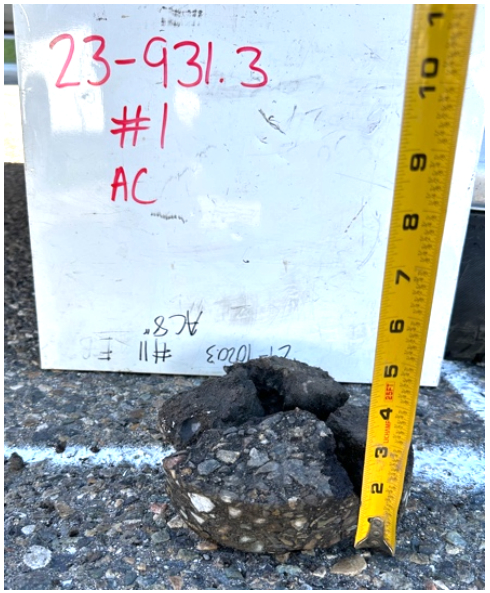
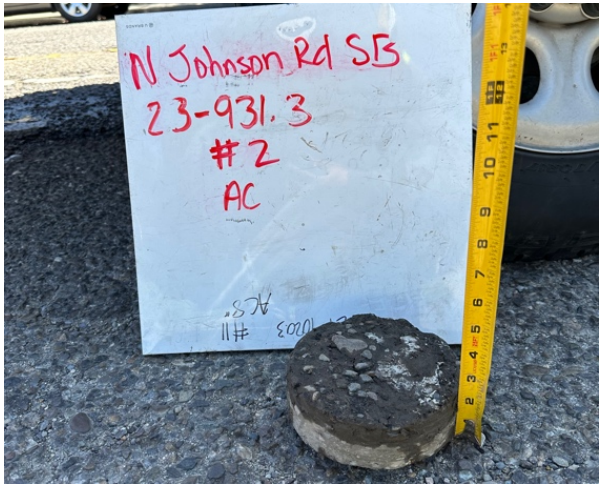
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-33	2.5	3.5	Sandy Silt (ML)		
C-34	2	3	Sandy Silt (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-35	1.5	---	Sandy Silt (ML)		
C-36	5.5	---	Sandy Silt (ML)		

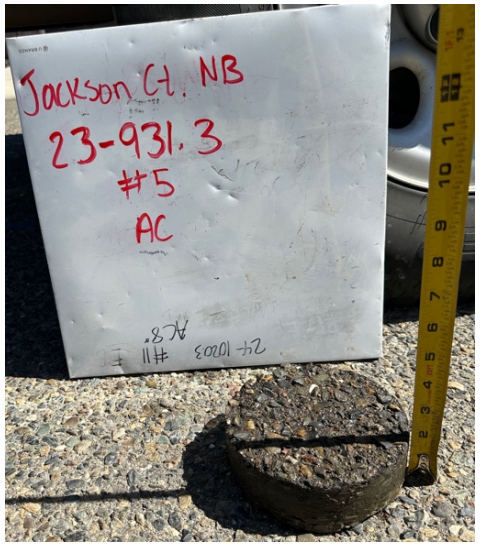
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-37	5	---	Sandy Silt (ML)		
C-38	4	---	Sandy Silt (ML)		

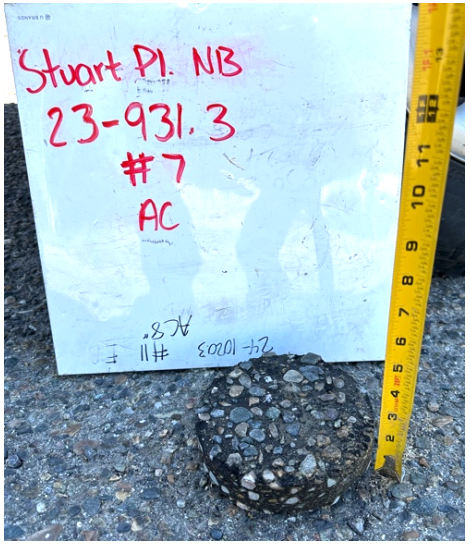
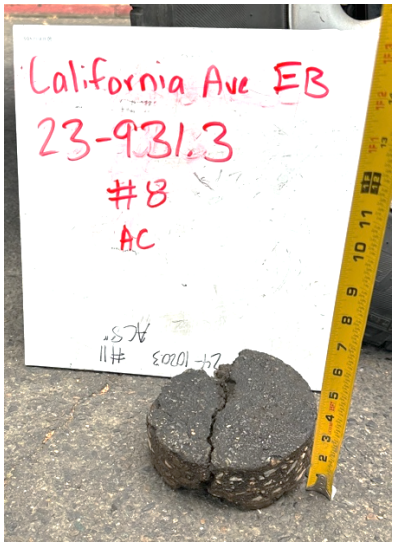
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-39	1	2	Silt with SAND (ML)		
C-40	2	2	Silt with SAND (ML)		

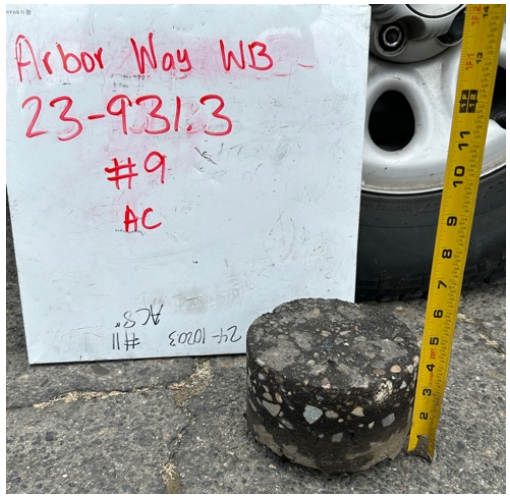
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-41	2.5	1.5	SANDY Silt (ML)		
C-42	2	3	Silt with SAND (ML)		

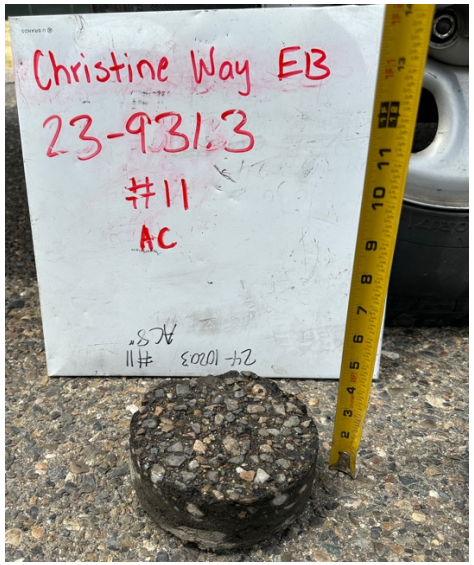
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-43	2	-	Silty SAND (ML)		
C-44	2	5	Silty SAND (ML)		

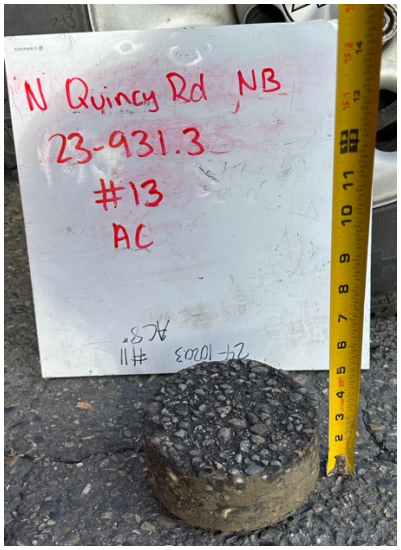
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-45	2	5	Silty SAND (ML)		
C-46	1.5	5.5	Silty SAND (ML)		

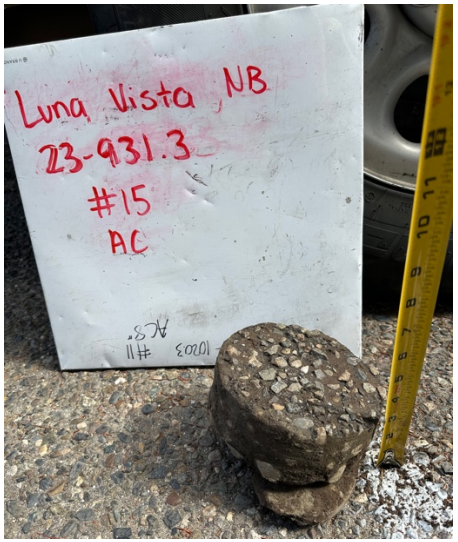
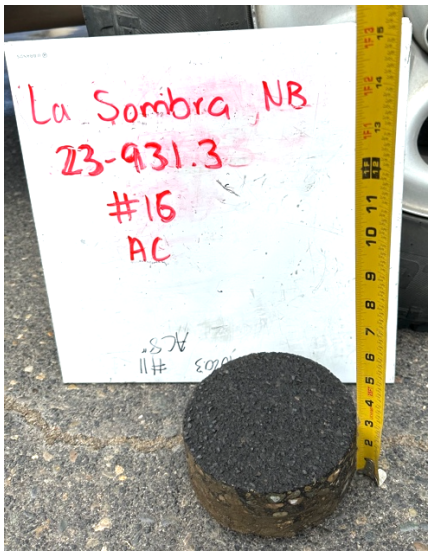
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-47	2	5.5	Silt with SAND (ML)		
C-48	2	6.5	Sandy SILT (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-49	1.5	6.5	Silty SAND (ML)		
C-50	2	4	Silty SAND (ML)		

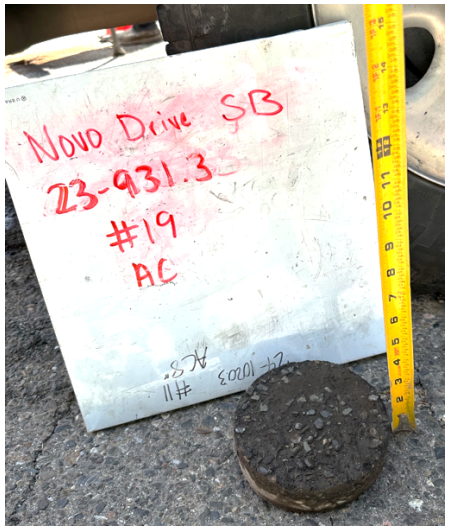
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-51	1	-	Silt with SAND (ML)	2.5” of oil road	
C-52	2	3	Silt with SAND (ML)		

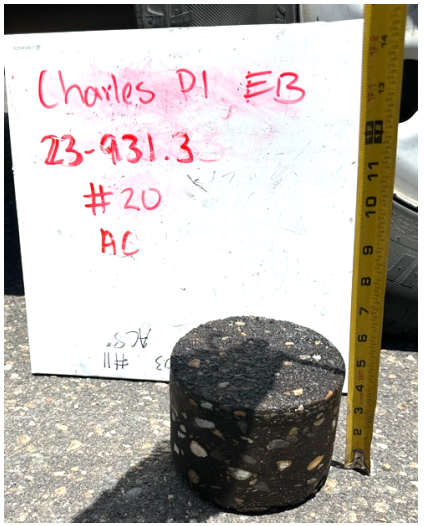
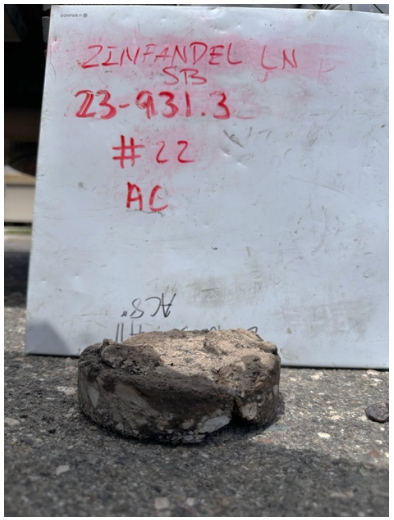
Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-53	2	3.5	Silt with SAND (ML)		
C-54	1.5	5.5	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-55	2	4	Silt with SAND (ML)		
C-56	2		Silt with SAND (ML)	5” of oil road	

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-57	1.5	-	Silt with SAND (ML)	3.5” of oil road	
C-58	2	6	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-59	2	8	Silt with SAND (ML)		
C-60	2	4	Silt with SAND (ML)		

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-61	2	5	Silt with SAND (ML)		
C-62	4	-	Sandy SILT (ML)	3” of oil road	

Core No.	AC (in)	AB (in)	Subgrade	Additional Notes	Photo
C-63 (Says #20 but correct location is #21)	1.5	-	Sandy SILT (ML)	3.25" of oil road	
C-64	1.5	5.5	Sandy SILT (ML)		

APPENDIX B

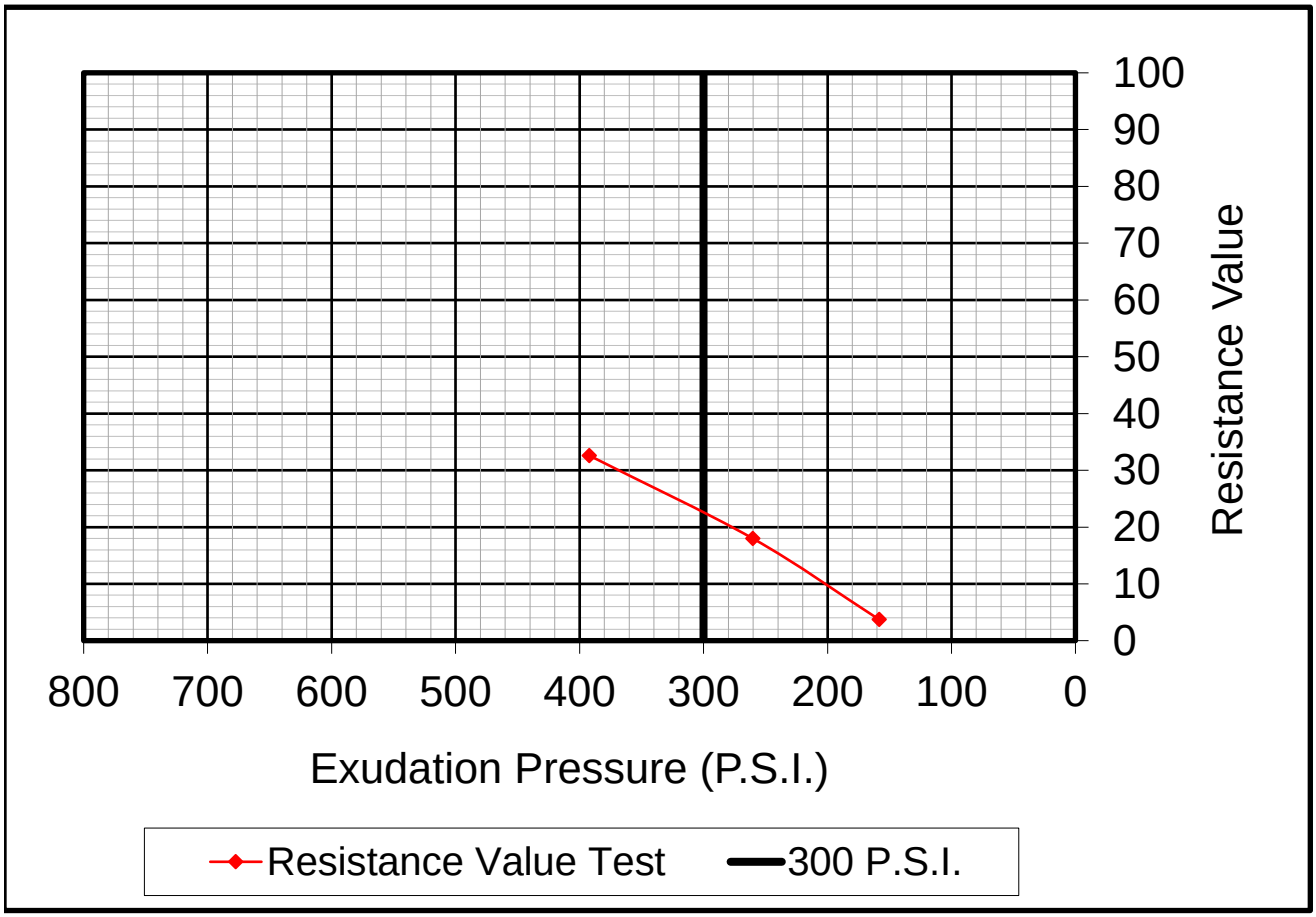
Laboratory Test Results

Pavement Engineering Inc.
Redding • Sacramento • San Luis Obispo
Concord • Santa Clarita

RESISTANCE (R) VALUE TEST

California Test 301

Laboratory No.: L241037
Project No.: 240017 (Crawford & Associates Project: 23-931.3)
Sample Date: April 26, 2024
Report Date: May 20, 2024
Client: Crawford & Associates, Inc.
Project Name: 2024 Laboratory Testing - Turlock Pavement Rehabilitation
Sample Description: Brown Clayey Silt
Sample Location: C41 @ 4"-34"



Specimen No.	1	2	3
Moisture Content (%)	22.4	21.3	22.9
Dry Density (PCF)	110.7	112.6	110.1
Resistance Value (R)	18	33	4
Exudation Pressure (PSI)	260	392	158
Expansion Pressure	22	52	0
As Received Moisture Content (%)	22.4		

RESISTANCE VALUE AT 300 P.S.I. 23

AASHTO R18

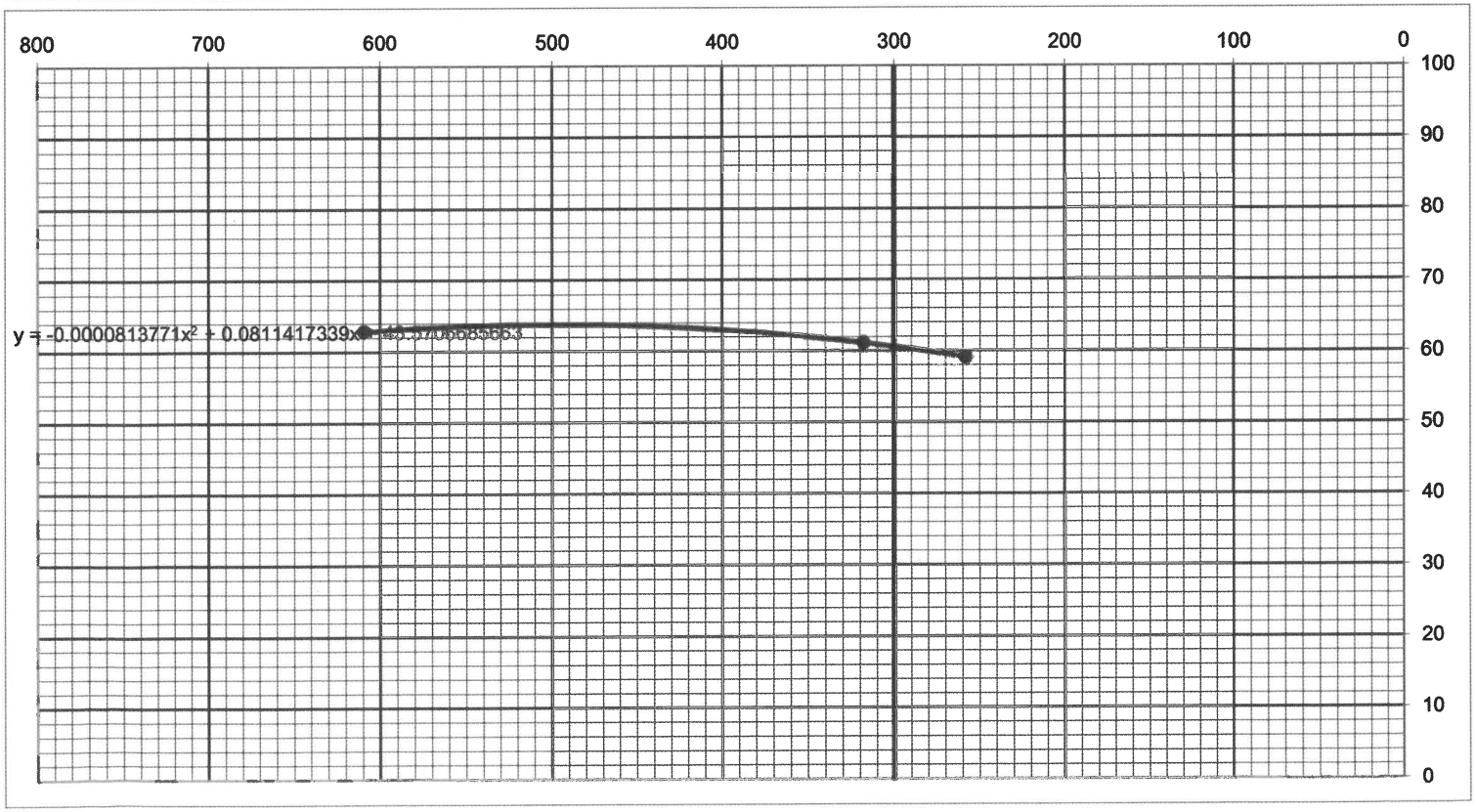
Reviewed By: _____

Brandon Rodebaugh
Materials Engineer

RESISTANCE VALUE

California Test Method No. 301

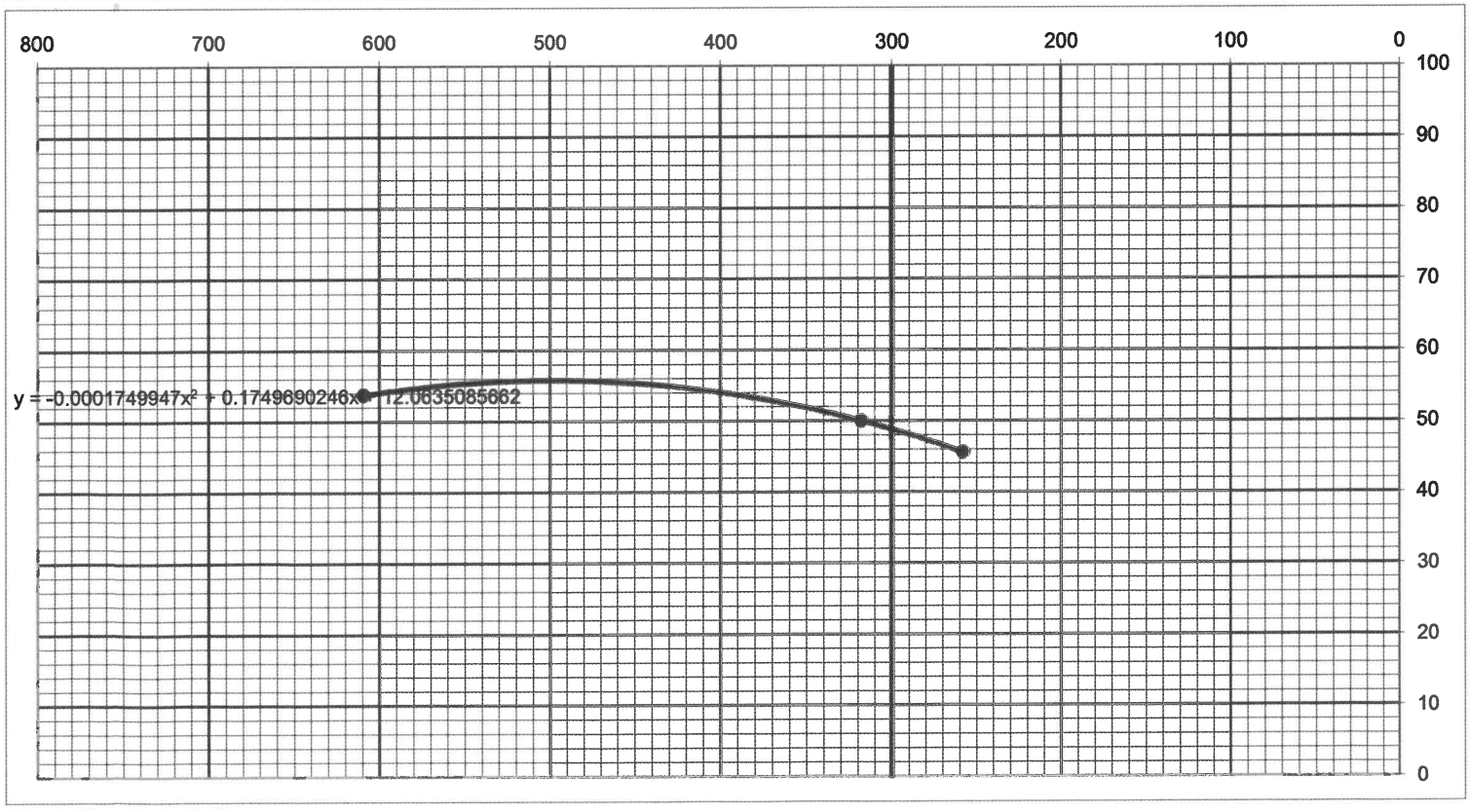
Job Number:	**23-931.3**	**Date Tested:** 5/24/2024		**R-value:**	**60**
Project:	Turlock Pavement Rahab			**Sample :**	**C30**
Classification of Material:	Sm, Silty Sand , Brown			**Technician:**	D.S.
Initial Sample Weight	1100	1100	1100		
Mold Number	D	F	E		
Air Pressure-PSI	100	75	60		
Initial Moisture %	5.2	5.2	5.2		
Water Added ml/g	50	55	60		
Water Added %	4.8	5.3	5.7		
Final Moist %	10.0	10.5	11.0		
Soil + Mold Weight-Grams	3203.5	3197.3	3162.8		
Mold Weight-Grams	2073	2067	2029		
Soil Weight-Grams	1130.5	1130.3	1133.8		
Height of Sample-Inches	2.55	2.55	2.54		
Density-PCF	122.1	121.6	121.9		
Dial Reading (x.0001 inches)	91	96	107		
Expansion Pressure (psf)	394	416	463		
Stabilometer at 1000 lbs.	24	26	28		
2000 lbs.	42	44	46		
Displacement	4.16	4.19	4.29		
Exudation Pressure-Lbs	7650	3990	3240		
Exudation-PSI	609	318	258		
R-Value Calculated	63	61	59		
Corrected R-Value	63	61	59		



RESISTANCE VALUE

California Test Method No. 301

Job Number:	**23-931.3**	**Date Tested:** 5/24/2024		**R-value:**	**49**
Project:	Turlock Pavement Rahab			**Sample :**	**C5**
Classification of Material:	Sm, Silty Sand , Brown			**Technician:**	D.S.
Initial Sample Weight	1105	1100	1100		
Mold Number	A	B	C		
Air Pressure-PSI	100	75	50		
Initial Moisture %	5.4	5.4	5.4		
Water Added ml/g	55	57	60		
Water Added %	5.2	5.5	5.7		
Final Moist %	10.6	10.8	11.1		
Soil + Mold Weight-Grams	3218.9	3212.4	3211.1		
Mold Weight-Grams	2086	2085	2083		
Soil Weight-Grams	1132.9	1127.4	1128.1		
Height of Sample-Inches	2.48	2.49	2.47		
Density-PCF	125.1	123.8	124.5		
Dial Reading (x.0001 inches)	78	89	99		
Expansion Pressure (psf)	338	385	429		
Stabilometer at 1000 lbs.	30	31	33		
2000 lbs.	49	54	60		
Displacement	4.88	4.91	4.98		
Exudation Pressure-Lbs	7650	3990	3240		
Exudation-PSI	609	318	258		
R-Value Calculated	54	50	46		
Corrected R-Value	54	50	46		



APPENDIX B: PROJECT VICINITY MAPS FOR COORDINATION

CITY OF TURLOCK

CONSTRUCTION PLANS FOR

ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT

CITY PROJECT NO. 23-031

PLAN PACKAGE 2

EL CAPITAN DR:	N BERKELEY AVE TO MURPHY DR
KENNETH DR:	N BERKELEY AVE TO EAST END
EL CAMINO DR:	EL PASEO DR TO N JOHNSON RD N JOHNSON RD TO MURPHY DR
LA LINDA CT:	EL CAPITAN DR TO EL CAPITAN DR
N QUINCY RD:	E CANAL DR TO MARIE DR
MURPHY DR:	E CANAL DR TO MIRA FLORES DR

SUPPLEMENTED BY CALTRANS STANDARD PLANS AND STANDARD SPECIFICATIONS DATED 2023 & CITY OF TURLOCK ENGINEERING DESIGN STANDARD SPECIFICATIONS AND DRAWINGS DATED 2016.

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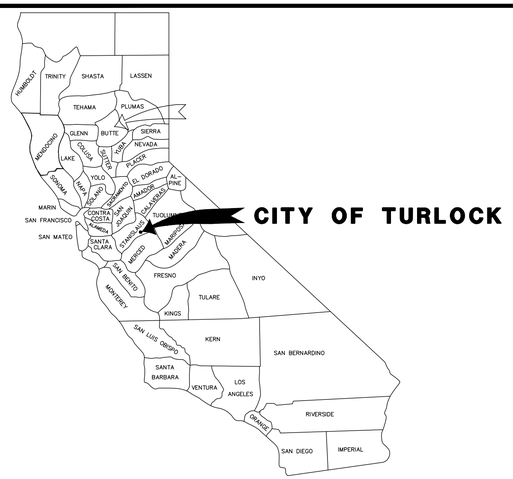
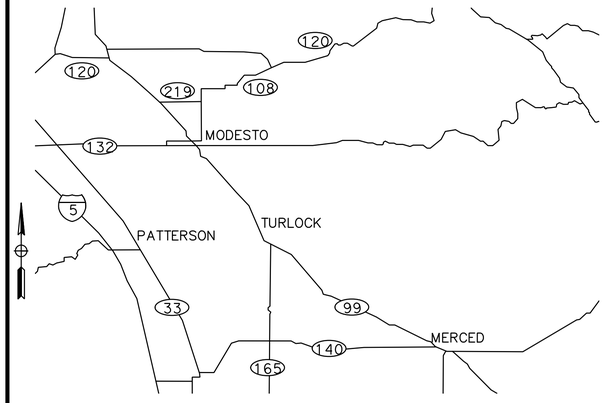
2-3	GN-1 TO GN-2	GENERAL NOTES
4	PC-1	PROJECT CONTROL
5	K-1	KEY MAP
6-7	X-1 TO X-2	TYPICAL SECTION
8-18	DM-1 TO DM-11	DEMOLITION PLANS
19-29	L-1 TO L-11	LAYOUTS
30-58	CD-1 TO CD-29	CONSTRUCTION DETAILS
59-83	G-1 TO G-25	GRADING PLANS
84-96	TH-1 TO TH-13	TRAFFIC HANDLING PLANS
97-107	SS-1 TO SS-11	SIGNING AND STRIPING



CALIFORNIA STATE MAP

NO SCALE

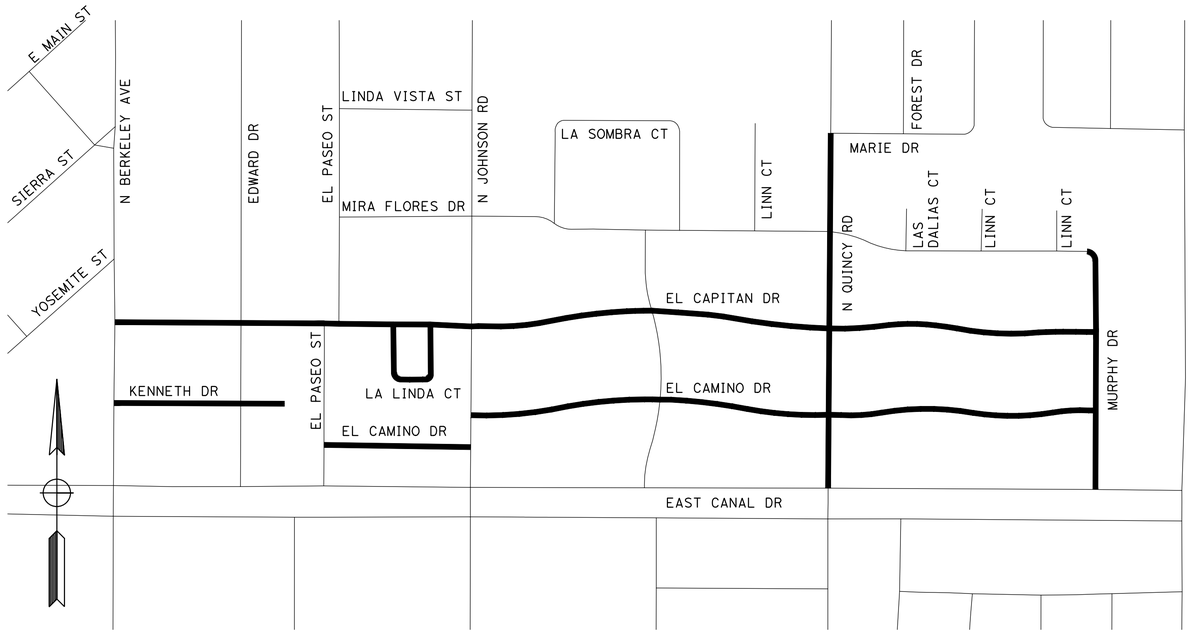


VICINITY MAP

NO SCALE

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL
"UNDERGROUND SERVICE ALERT" (USA)
AT 811 AT LEAST 2 WORKING DAYS
PRIOR TO PERFORMING ANY EXCAVATION



PROJECT LOCATION MAP

CITY OF TURLOCK APPROVAL

4/4/2024

WILLIAM D. MORRIS, P.E., P.L.S — DATE
CITY ENGINEER
PUBLIC WORKS DEPARTMENT

UTILITY CONTACTS

UTILITY	CONTACT	PHONE
AT&T	JIM JELLEY	(209) 507-1689
CHARTER COMMUNICATIONS	MITCHELL RODRIQUEZ	(408) 612-7569
TID ELECTRICAL	DAVID PORATH	(209) 605-0945
TID IRRIGATION	TODD TROGLIN	(209) 535-1882
CITY OF TURLOCK ELETRICAL	DOYLE PERRY	(209) 678-5823
CITY OF TURLOCK STORM AND SEWER	CARLOS GUERRERO	(209) 345-2169
CITY OF TURLOCK WATER	ORLANDO GUITERREZ	(209) 740-3868
PG&E	TRENT MILLSAP	(209) 561-6070

DESIGNED BY:	ANGEL P.
DRAWN BY:	ANGEL P.
CHECKED BY:	JON H.
SCALE:	AS SHOWN
DATE:	4/2/2024
JOB NO.:	23-00109

NOTE:
ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

USA NORTH 811 Call 811 Before You Dig

SCALE
20 0 20 40

REGISTERED PROFESSIONAL ENGINEER
JONATHAN VINCENT HERNANDEZ
No. 85662
Exp.10/31/24
CIVIL
STATE OF CALIFORNIA

MARK THOMAS
701 UNIVERSITY AVENUE, SUITE 200
SACRAMENTO, CALIFORNIA 95825
(916) 381-9100 FAX:(916)381-9180
markthomas.com

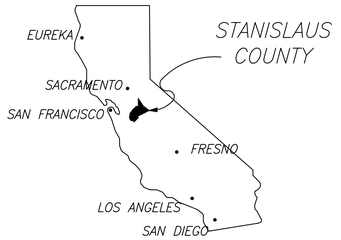
CITY OF TURLOCK
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY SUIT 150
(209) 668-5520

CITY OF TURLOCK INC. 1908

CITY OF TURLOCK
ROADS PROGRAM - CIP
TITLE

Sheet 1 of 107 Sheets

T-1



CITY OF TURLOCK

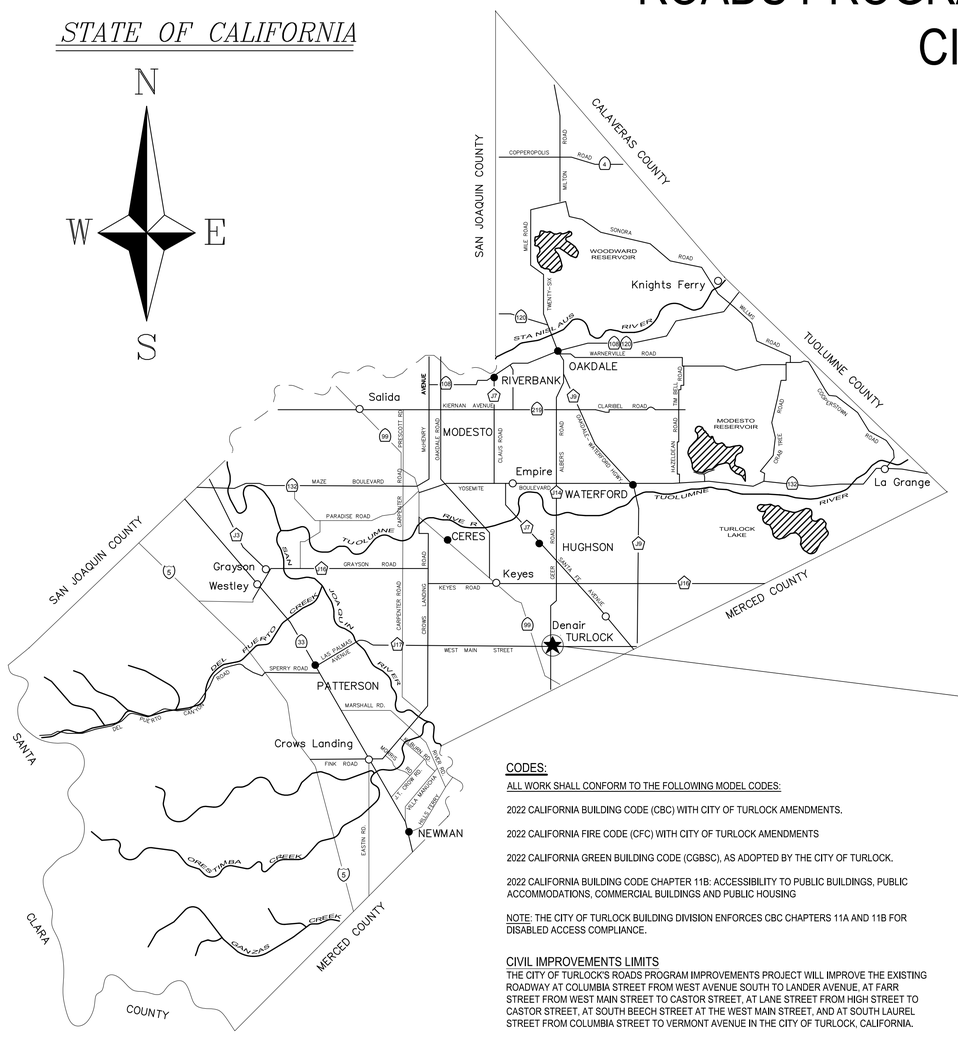
CONSTRUCTION PLANS FOR
ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT
CITY PROJECT NO. 23-069

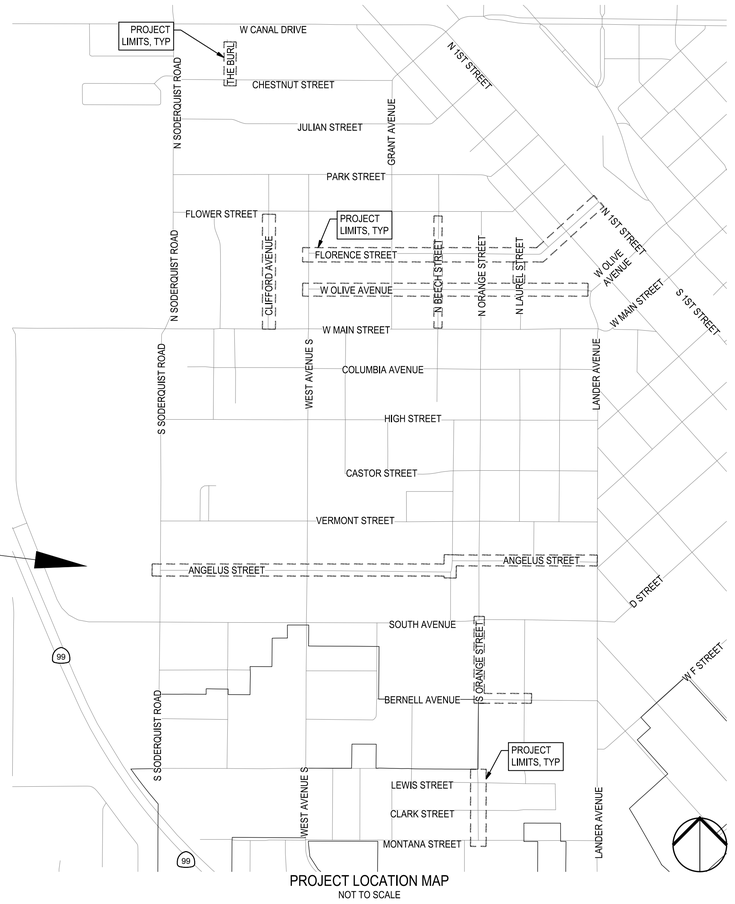
CITY OF TURLOCK APPROVAL

WILLIAM D. MORRIS, P.E., P.L.S
CITY ENGINEER
PUBLIC WORKS DEPARTMENT

DATE

STATE OF CALIFORNIA





PROJECT LOCATION MAP
NOT TO SCALE

CODES:

ALL WORK SHALL CONFORM TO THE FOLLOWING MODEL CODES:

2022 CALIFORNIA BUILDING CODE (CBC) WITH CITY OF TURLOCK AMENDMENTS.

2022 CALIFORNIA FIRE CODE (CFC) WITH CITY OF TURLOCK AMENDMENTS

2022 CALIFORNIA GREEN BUILDING CODE (CGBSC), AS ADOPTED BY THE CITY OF TURLOCK.

2022 CALIFORNIA BUILDING CODE CHAPTER 11B: ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

NOTE: THE CITY OF TURLOCK BUILDING DIVISION ENFORCES CBC CHAPTERS 11A AND 11B FOR DISABLED ACCESS COMPLIANCE.

CIVIL IMPROVEMENTS LIMITS

THE CITY OF TURLOCK'S ROADS PROGRAM IMPROVEMENTS PROJECT WILL IMPROVE THE EXISTING ROADWAY AT COLUMBIA STREET FROM WEST AVENUE SOUTH TO LANDER AVENUE, AT FARR STREET FROM WEST MAIN STREET TO CASTOR STREET, AT LANE STREET FROM HIGH STREET TO CASTOR STREET, AT SOUTH BEECH STREET AT THE WEST MAIN STREET, AND AT SOUTH LAUREL STREET FROM COLUMBIA STREET TO VERMONT AVENUE IN THE CITY OF TURLOCK, CALIFORNIA.

GOVERNING CODES AND ADOPTED STANDARDS

ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT CITY OF TURLOCK STANDARD SPECIFICATIONS AND DRAWINGS; THE LATEST EDITION OF THE AMERICANS WITH DISABILITIES ACT AND THE LATEST EDITION OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS. CITY OF TURLOCK STANDARD DRAWINGS ARE AVAILABLE AT THE OFFICE OF THE CITY ENGINEER.

STANISLAUS COUNTY

NO SCALE

SHEET INDEX

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02	GENERAL NOTES
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04	KEYMAP & SURVEY CONTROL POINTS PLAN II
05	IMPROVEMENTS PLAN - FLORENCE STREET I
06	IMPROVEMENTS PLAN - FLORENCE STREET II
07	IMPROVEMENTS PLAN - FLORENCE STREET III
08	IMPROVEMENTS PLAN - W OLIVE AVE I
09	IMPROVEMENTS PLAN - W OLIVE AVE II
10	IMPROVEMENTS PLAN - ANGELUS STREET I
11	IMPROVEMENTS PLAN - ANGELUS STREET II
12	IMPROVEMENTS PLAN - ANGELUS STREET III
13	IMPROVEMENTS PLAN - ANGELUS STREET IV
14	IMPROVEMENTS PLAN - N BEECH STREET I
15	IMPROVEMENTS PLAN - N BEECH STREET II
16	IMPROVEMENTS PLAN - CLIFFORD AVENUE I
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18	IMPROVEMENTS PLAN - THE BURL
19	IMPROVEMENTS PLAN - S ORANGE STREET & BERNELL AVENUE
20	IMPROVEMENTS PLAN - S ORANGE STREET II
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22	SIGNING AND STRIPING PLAN - FLORENCE STREET II
23	SIGNING AND STRIPING PLAN - FLORENCE STREET III
24	SIGNING AND STRIPING PLAN - W OLIVE AVE I
25	SIGNING AND STRIPING PLAN - W OLIVE AVE II
26	SIGNING AND STRIPING PLAN - ANGELUS STREET I
27	SIGNING AND STRIPING PLAN - ANGELUS STREET II
28	SIGNING AND STRIPING PLAN - ANGELUS STREET III
29	SIGNING AND STRIPING PLAN - ANGELUS STREET IV
30	SIGNING AND STRIPING PLAN - N BEECH STREET I
31	SIGNING AND STRIPING PLAN - N BEECH STREET II
32	SIGNING AND STRIPING PLAN - CLIFFORD AVENUE I
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34	SIGNING AND STRIPING PLAN - THE BURL
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39	CURB RAMP DETAILS - W OLIVE AVENUE I
40	CURB RAMP DETAILS - W OLIVE AVENUE II
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42	CURB RAMP DETAILS - ORANGE STREET I
43	CURB RAMP DETAILS - ORANGE STREET II
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52	GRADING PLAN - ANGELUS STREET III
53	GRADING PLAN - ANGELUS STREET IV
54	GRADING PLAN - N BEECH STREET I
55	GRADING PLAN - N BEECH STREET II
56	GRADING PLAN - CLIFFORD AVENUE I
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65	STORM DRAIN PROFILES - N BEECH STREET III
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87	TRAFFIC CONTROL - N LAUREL STREET STAGE 2
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89	TRAFFIC CONTROL - W OLIVE AVENUE STAGE 2
90	TRAFFIC CONTROL - ANGELUS STREET STAGE 1
91	TRAFFIC CONTROL - ANGELUS STREET STAGE 2
92	TRAFFIC CONTROL - N BEECH STREET STAGE 1
93	TRAFFIC CONTROL - N BEECH STREET STAGE 2
94	TRAFFIC CONTROL - CLIFFORD AVENUE STAGE 1
95	TRAFFIC CONTROL - CLIFFORD AVENUE STAGE 2
96	TRAFFIC CONTROL - THE BURL
97	TRAFFIC CONTROL - S ORANGE STREET I STAGE 1
98	TRAFFIC CONTROL - S ORANGE STREET I STAGE 2
99	TRAFFIC CONTROL - S ORANGE STREET II STAGE 1
100	TRAFFIC CONTROL - S ORANGE STREET II STAGE 2
101	TRAFFIC CONTROL - BERNELL STREET STAGE 1
102	TRAFFIC CONTROL - BERNELL STREET STAGE 2
103	CONSTRUCTION DETAILS I
104	CONSTRUCTION DETAILS II
105	CONSTRUCTION DETAILS III

811 Know what's below. Call before you dig.

NOTE:
ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK

REGISTERED PROFESSIONAL ENGINEER
ADAM K. MERRILL
No. 78826
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

DATE SIGNED: 10/02/24

SIEGFRIED
3428 Brookside Road
Stockton ,California 95219
209-943-2021
www.siegfriedeng.com
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CITY OF TURLOCK INC. 1908

CITY OF TURLOCK PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY,
SUITE 150
(209) 668-5520

COVER SHEET

CAPITAL PROJECT NO. 23-069
THE CITY OF TURLOCK ROADS PROGRAM

VERIFY SCALE
0 1"

DRAWN BY: JR	DRAWING NO.
REV. BY: ARM	01
CH. BY: AKM	
DATE: 10/2/2024	SHEET:
SCALE: SEE SHEET	01 OF 105
SEI PROJ NO: 22157	

DATE & TIME PLOTTED: 10/02/24 1:52 PM
FILE: F:\22projects\22157 City of Turlock Road CIP\TO#2\Plans and Graphics\Improvement Plans\22157 C-01 COVER SHEET.dwg

STREET REHABILITATION - CITY OF TURLOCK:

TURLOCK CITY PROJECT No.: 20-002
SOUTHWEST QUADRANT ROAD REHAB

TURLOCK, CALIFORNIA

SPECIFICATIONS

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF TURLOCK ENGINEERING DIVISION AND ALL OTHER CODES OR REGULATIONS IN FORCE BY APPLICABLE GOVERNING AGENCIES.
2. WHERE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS, IT IS UNDERSTOOD THAT ONLY FIRST QUALITY WORKMANSHIP AND MATERIALS ARE TO BE USED.
3. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING CONSTRUCTION, INCLUDING JOB SITE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO WORKING HOURS.
4. THE EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY AND ARE BASED UPON INFORMATION PROVIDED BY UTILITY COMPANIES AND BY MEASUREMENT OF SURFACE FEATURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND FACILITIES AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO FAILURE TO LOCATE AND PRESERVE SUCH UTILITIES.
5. CAUTION: CALL BEFORE YOU DIG. CALL UNDERGROUND SERVICE ALERT (USA) PRIOR TO TRENCHING, GRADING, EXCAVATION, DRILLING, BORING, SETTING POSTS, PLANTING TREES, ETC. USA WILL PROVIDE INFORMATION OR LOCATE AND MARK ANY UNDERGROUND UTILITIES. CALL USA, TOLL FREE AT 1 (800) 227-2600.
6. CONTRACTOR SHALL LOCATE AND PRESERVE ALL FACILITES INCLUDING GAS, WATER, IRRIGATION, SEWER, POWER, STREET LIGHTS, TELEPHONE, AND OTHERS WHICH MAY BE IN THE AREA OF CONSTRUCTION. RESPECTIVE UTILITY COMPANIES SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF WORK.
7. ALL MANHOLE, LAMPHOLE, AND WATER AND GAS VALVE CASTINGS AND COVERS, UTILITY BOX FRAMES & COVERS, MONUMENT WELL COVERS, ETC. SHALL BE ADJUSTED TO FINISH GRADE BY THE PAVING CONTRACTOR AFTER STREET IMPROVEMENTS ARE COMPLETE.
8. A NO-FEE ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE CITY OF TURLOCK BEFORE BEGINNING WORK.
9. LINES AND GRADES : ALL DISTANCES AND MEASUREMENTS ARE GIVEN AND WILL BE MADE IN A HORIZONTAL PLANE. GRADES ARE GIVEN FROM THE TOP OF STAKES OR NAILS, UNLESS OTHERWISE NOTED.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL STAKES AND CONTROL POINTS PROVIDED FOR PROJECT CONSTRUCTION. EXPENSES INCURRED FOR THE REPLACEMENT OF SUCH STAKES OR CONTROL POINTS SHALL BE BORN BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL PROVIDE, AT HIS EXPENSE, APPROPRIATE DUST CONTROL AS REQUIRED FOR THE PREVENTION AND/OR ALLEVIATION OF DUST NUISANCE DURING THE COURSE OF PROJECT CONSTRUCTION.
13. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL SAFETY REGULATIONS PERTAINING TO HIS OPERATIONS. HE SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG MEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY. THE CONTRACTOR'S ATTENTION IS CALLED TO THE REQUIREMENTS OF TITLE 8, CALIFORNIA ADMINISTRATIVE CODE, SUBCHAPTER 4, ARTICLE 6, "EXCAVATIONS, TRENCHES, EARTHWORK".
14. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 9, SECTION 6705, 6706 AND 6707 OF THE STATE LABOR CODE. THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL, A DETAILED PLAN SHOWING DESIGN OF ALL SHORING, BRACING, SLOPE CUTS AND OTHER PROVISIONS FOR WORKER PROTECTION IN AREAS OF EXCAVATION EXCEEDING FIVE FEET IN DEPTH. IF SUCH PLAN VARIES FROM SHORING SYSTEM STANDARDS, THE PLANS SHALL BE PREPARED BY A REGISTERED CIVIL OR STRUCTURAL ENGINEER.
15. WARNING: UNAUTHORIZED USES OR CHANGES HAWKINS & ASSOCIATES ENGINEERING WILL NOT BE RESPONSIBLE, OR LIABLE FOR UNAUTHORIZED USES OR CHANGES TO THESE PLANS AND SPECIFICATIONS. ONLY A SIGNED AND APPROVED HARD COPY OF THESE PLANS SHALL BE USED FOR CONSTRUCTION. ANY CHANGES TO THESE PLANS MUST BE IN WRITING AND APPROVED BY HAWKINS & ASSOCIATES ENGINEERING.

OVERLAY NOTES

1. CONTRACTOR SHALL PREPARE EXISTING SURFACE INCLUDING PLAINING, REMOVAL OF EXISTING STRIPING, CLEANING FOR THE INSTALLATION OF AC OVERLAY AS SHOWN WITHIN THE LIMITS OF GRINDING AS DEPICTED ON THESE PLANS.
2. ALL STRUCTURES WITHIN THE LIMITS OF THE OVERLAY (MANHOLES, VALVES, ETC.) SHALL BE ADJUSTED TO FINISH GRADE AFTER OVERLAY.
3. ALL RAISED PAVEMENT MARKERS TO BE REMOVED AND THERMOPLASTIC STRIPING WITHIN THE LIMITS OF THE OVERLAY SHALL BE GROUND AND REMOVED PRIOR TO BEGINNING THE APPLICATION OF OVERLAY.
4. TYPE A HMA CONSTRUCTION PROCESS SHALL BE STANDARD. THE AGGREGATE GRADATION SHALL BE ½". THE BINDER SHALL BE PG 64-10.
5. SECTION 39-1.12C "PROFILOGRAPH" OF THE CALTRANS STANDARD SPECIFICATIONS SHALL NOT APPLY.
6. CONTRACTOR SHALL TACK COAT ALL SURFACES TO RECEIVE HMA AND SHALL CONFORM TO THE CALTRANS STANDARD SPECIFICATIONS SECTION 39, "HOT MIX ASPHALT."

TRAFFIC SIGNAL DETECTOR LOOPS

1. ALL TRAFFIC DETECTOR LOOPS WITHIN THE PROJECT LIMITS SHALL BE REPLACED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

INDEX

C1 - COVER SHEET
C2 - EXISTING TOPOGRAPHY - ALASKA STREET
C3 - EXISTING TOPOGRAPHY - FLORENCE STREET
C4 - EXISTING TOPOGRAPHY WEST AVENUE N
C5 - EXISTING TOPOGRAPHY S ORANGE STREET
C6 - EXISTING TOPOGRAPHY SUNNYSIDE DRIVE
C7 - ALASKA STREET
C8 - FLORENCE STREET
C9 - WEST AVENUE N
C10 - WEST AVENUE N
C11 - S ORANGE STREET
C12 - S ORANGE STREET
C13 - SUNNYSIDE DRIVE
C14 - ALASKA STREET STRIPING & SIGNAGE
C15 - FLORENCE STREET STRIPING & SIGNAGE
C16 - WEST AVENUE N STRIPING & SIGNAGE
C17 - S ORANGE STREET STRIPING & SIGNAGE
C18 - SUNNYSIDE DRIVE STRIPING & SIGNAGE
C19 - CONSTRUCTION DETAILS SHEET
C20 - CONSTRUCTION DETAILS SHEET

REGISTERED PROFESSIONAL ENGINEER
NANDA K. GOTTIPARTHY
C-52308
CIVIL
STATE OF CALIFORNIA

CITY OF TURLOCK APPROVAL

CITY ENGINEER — DATE: 4/18/2023

USA NORTH 811 Call 811 Before You Dig
WWW.USANORTH811.ORG

NOTE: ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENETION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

RODRICK H. HAWKINS
R.C.E. 50188

2022-07-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — RODRICK H. HAWKINS — No. 50188 — CIVIL — STATE OF CALIFORNIA

HAWKINS & ASSOCIATES ENGINEERING, INC.
436 MITCHELL ROAD
MODESTO, CA. 95354
PH: (209) 575 - 4295
FX: (209) 578 - 4295

CITY OF TURLOCK
DEVELOPMENT SERVICES
ENGINEERING DIVISION 156
S. BROADWAY, STE 150
(209) 668-5520

COVER SHEET

CAPITAL PROJECT NO. 20-002
SOUTHWEST QUADRANT ROAD REHABILITATION
VARIOUS LOCATIONS

VERIFY SCALE
BAR IS 1" ON ORIGINAL DRAWING
0 1/4" 3/4" 1" 1/2"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

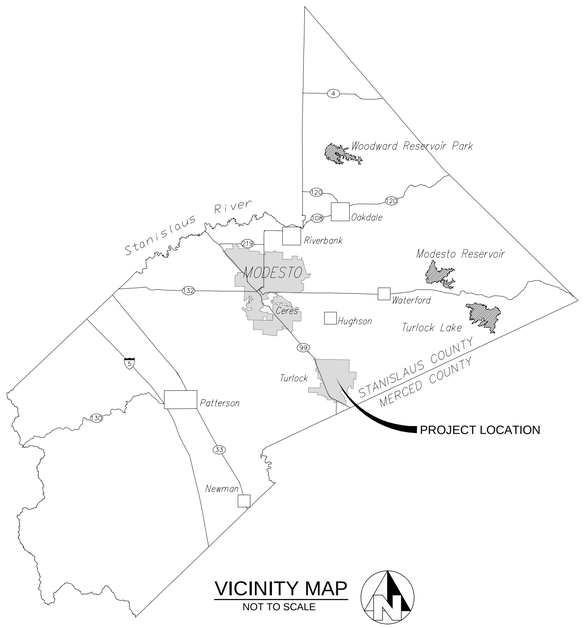
DRAWN BY:	M.SASSER
REV. BY:	--
CH. BY:	R.HAWKINS
DATE:	2022/07/15
SCALE:	NTS
	COVER SHEET

SHEET C1 OF 22

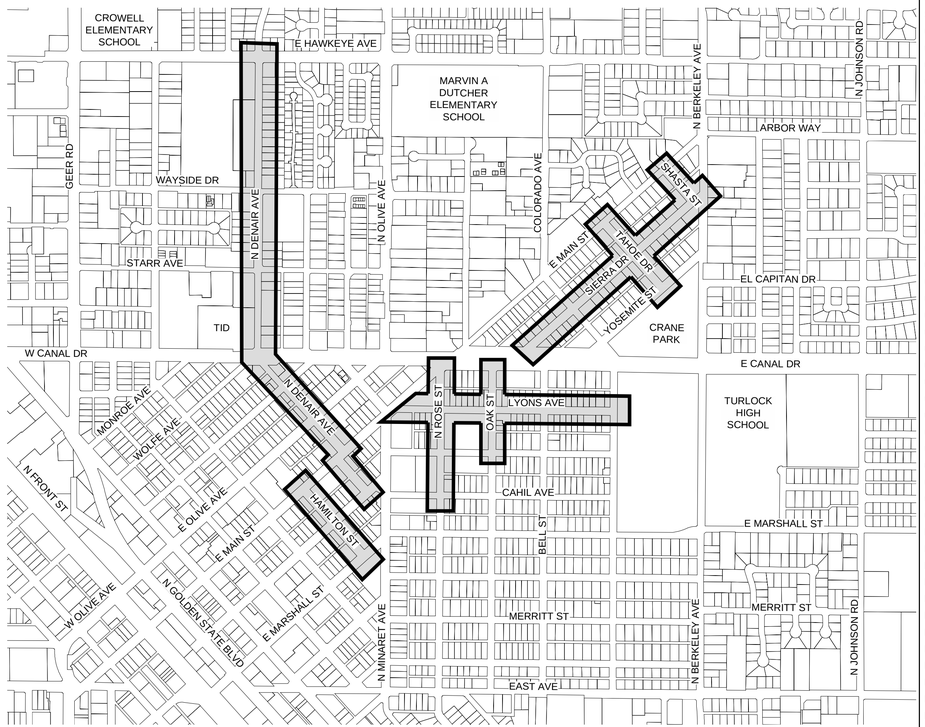
811 Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT
CITY PROJECT NO. 23-068 PACKAGE 2



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

SPECIAL NOTE

WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES 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, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL OF THE STRUCTURES WHICH MAY BE ENCOUNTERED.

SITE SAFETY AND PROTECTION NOTES

THE DUTY OF THE ENGINEER, OWNER OR ITS AGENTS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE AND THE UNDERTAKING OF INSPECTIONS OR THE GIVING OF INSTRUCTIONS AS AUTHORIZED HEREIN IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF THE ACTUAL CONSTRUCTION NOR MAKE THE ENGINEER, OWNER OR ITS AGENTS RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, OR SUPPLIERS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL OR OCCUPANCY BY ANY PERSON.

THE CONTRACTOR SHALL HAVE AT THE WORK SITE, COPIES OR SUITABLE EXTRACTS OF CONSTRUCTION SAFETY ORDERS, ISSUED BY CAL-OSHA. CONTRACTOR SHALL COMPLY WITH PROVISIONS OF THESE AND ALL OTHER APPLICABLE LAWS, ORDINANCES AND REGULATIONS. THE CONTRACTOR MUST COMPLY WITH PROVISIONS OF THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, PROMULGATED BY THE SECRETARY OF LABOR UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS SET FORTH IN TITLE 29 C.F.R.

TO PROTECT THE LIVES AND HEALTH OF CONTRACTOR'S EMPLOYEES UNDER THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC., AND SHALL MAINTAIN AN ACCURATE RECORD OF ALL CASES OF DEATH, OCCUPATIONAL DISEASE, AND INJURY REQUIRING MEDICAL ATTENTION OR CAUSING LOSS OF TIME FROM WORK, ARISING OUT OF AND IN THE COURSE OF EMPLOYMENT OR WORK UNDER THE CONTRACT.

THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF CONTRACTOR'S FACILITIES, APPLIANCES, AND METHODS AND FOR ANY DAMAGE, WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE OR OPERATION.

THE CONTRACTOR AGREES THAT IT SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, PROVOST & PRITCHARD CONSULTING GROUP, AND THEIR RESPECTIVE AGENTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER, ENGINEER, OR THEIR RESPECTIVE AGENTS.

THE OWNER AND ITS AGENTS' SITE RESPONSIBILITIES ARE LIMITED SOLELY TO THE ACTIVITIES OF THEIR EMPLOYEES ON SITE. THESE RESPONSIBILITIES SHALL NOT BE INFERRED BY ANY PARTY TO MEAN THAT THE OWNER OR ITS AGENTS HAVE RESPONSIBILITY FOR SITE SAFETY. SAFETY IN, ON, OR ABOUT THE SITE IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR ALONE. THE CONTRACTOR'S METHODS OF WORK PERFORMANCE, SUPERINTENDENCE AND THE CONTRACTOR'S EMPLOYEES, AND SEQUENCING OF CONSTRUCTION ARE ALSO THE SOLE AND EXCLUSIVE RESPONSIBILITIES OF THE CONTRACTOR ALONE.

GENERAL NOTES

1. CITY OF TURLOCK (209-668-5520) SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK ON OR NEAR EXISTING DISTRICT FACILITIES.
2. USED MATERIAL, REJECTS, MISFITS, OR SECONDS, ETC. ARE NOT ACCEPTABLE FOR USE ON CITY OF TURLOCK FACILITIES.
3. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THESE PLANS, PROJECT SPECIFICATIONS AND CITY OF TURLOCK SPECIFICATIONS.
4. CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING FACILITIES PRIOR TO COMMENCING WORK. CALL UNDERGROUND SERVICE ALERT (USA) AT 8-1-1. CONTRACTOR SHALL MAKE ENGINEER AWARE OF ANY DISCREPANCIES.
5. ALL CAST-IN-PLACE CONCRETE STRUCTURES SHALL BE FORMED INSIDE AND OUT AND CONCRETE VIBRATED SUFFICIENTLY TO PROVIDE FOR SMOOTH SURFACED WALLS/FLOORS WITHOUT VOIDS AND HONEYCOMBS.
6. CITY OF TURLOCK SHALL INSPECT ALL WORK PHASES ON CONCRETE FACILITIES FOR CONFORMANCE TO CITY OF TURLOCK SPECIFICATIONS. REINFORCING SHALL NOT BE ENCASED IN CONCRETE WITHOUT PRIOR CITY OF TURLOCK INSPECTIONS. LIKEWISE, CONCRETE SHALL NOT BE COVERED WITH EARTH PRIOR TO CITY OF TURLOCK INSPECTION.
7. CONCRETE DESIGN MIX SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL CONCRETE SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE SPECIFIED.
8. ALL STEEL PIPE AND FITTINGS SHALL BE FURNISHED WITH A SHOP APPLIED HIGH SOLIDS EPOXY COATING ON THE INTERIOR AND EXTERIOR, UNLESS OTHERWISE INDICATED. ALL OTHER EXPOSED STEEL SHALL BE PAINTED WITH A PRE-TREATMENT PRIMER, AN UNDERCOAT AND A FINAL COAT OF PAINT IN ACCORDANCE WITH CITY OF TURLOCK SPECIFICATIONS.
9. ALL NUTS, BOLTS, AND WASHERS USED TO SECURE UNDERGROUND FITTINGS SHALL BE STAINLESS STEEL. AFTER INSTALLATION, ALL STEEL HARDWARE SHALL BE COATED WITH A RUST PREVENTATIVE, WRAPPED WITH 4 MIL POLYETHYLENE SHEETING, AND SECURE WITH PVC TAPE.
10. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS OF THE STATE OF CALIFORNIA AND CAL/OSHA STANDARDS.
11. TRENCH BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AND THE GEOTECHNICAL REPORT CONTAINED IN THE SPECIFICATIONS.
12. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ALL PIPELINE CRACKS, WHICH DEVELOP DURING CONSTRUCTION OF IMPROVEMENTS AFFECTING EXISTING FACILITIES.
13. CONCRETE VAULTS AND BOXES MAY BE PURCHASED FROM A PRECAST MANUFACTURER OR CONTRACTOR MAY CONSTRUCT THE STRUCTURES IF STRUCTURAL CALCULATIONS AND DESIGN IS APPROVED BY THE CITY OF TURLOCK AND THE ENGINEER.
14. ALL EXCESS MATERIAL AND/OR DEBRIS SHALL BE REMOVED UPON COMPLETION OF INSTALLATION.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DUST CONTROL AT ALL TIMES.

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C2	4	HAMILTON ST STA 14+00 - 18+28.32
C3	5	DENAIR AVE STA 21+22.46 - 25+00
C4	6	DENAIR AVE STA 25+00 - 28+00
C5	7	DENAIR AVE STA 28+00 - 32+00
C6	8	DENAIR AVE STA 32+00 - 36+25
C7	9	DENAIR AVE STA 36+25 - 41+00
C8	10	DENAIR AVE STA 41+00 - 45+00
C9	11	DENAIR AVE STA 45+00 - 49+00
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C16	18	LYONS AVE STA 95+00 - 98+50
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C23	25	SIERRA DR STA 135+00 - 139+00
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C27	29	TAHOE STA 150+50 - 154+25
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D18	50	SITE DETAILS
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D20	52	SITE DETAILS
D21	53	SITE DETAILS
D22	54	SITE DETAILS
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D24	56	SITE DETAILS
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D30	62	SITE DETAILS
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D32	64	SITE DETAILS
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TH4	73	TRAFFIC HANDLING
TH5	74	TRAFFIC HANDLING
TH6	75	TRAFFIC HANDLING
TH7	76	TRAFFIC HANDLING
TH8	77	TRAFFIC HANDLING
STRIPING		
S-1	78	HAMILTON ST STA 11+00 - 18+00
S-2	79	DENAIR AVE STA 20+50 - 28+00
S-3	80	DENAIR AVE STA 28+00 - 36+25
S-4	81	DENAIR AVE STA 36+25 - 45+00
S-5	82	DENAIR AVE STA 45+00 - 53+00
S-6	83	DENAIR AVE STA 53+00 - 59+80
S-7	84	LYONS AVE STA 80+50 - 90+00
S-8	85	LYONS AVE STA 90+00 - 98+50
S-9	86	ROSE ST STA 100+00 - 108+00
S-10	87	ROSE ST STA 108+00 - 111+00
S-11	88	OAK ST STA 120+00 - 127+00
S-12	89	SIERRA DR STA 131+50 - 139+00
S-13	90	SIERRA DR STA 139+00 - 147+00
S-14	91	SIERRA DR STA 147+00 - 151+50

APPROVALS

WILLIAM D. MORRIS, P.E., P.L.S. DATE
CITY ENGINEER
PUBLIC WORKS DEPARTMENT

CITY OF TURLOCK
MUNICIPAL SERVICE DEPARTMENT
ROADS DIVISION
156 S. BROADWAY, SUITE 150
(209) 668-5520

PRELIMINARY
NOT FOR CONSTRUCTION
OCTOBER 2024

No.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER JEFFREY D. DORN 76749 STATE OF CALIFORNIA
DATE SIGNED: 10/29/24

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM
CAPITAL IMPROVEMENT PROJECT
CITY PROJECT No. 23-068
GENERAL
COVER SHEET

PROVOST & PRITCHARD
455 W FIR AVENUE
CLOVIS, CA. 93611-9166
PHONE (559) 449-2700
FAX (559) 449-2715
www.provostandpritchard.com

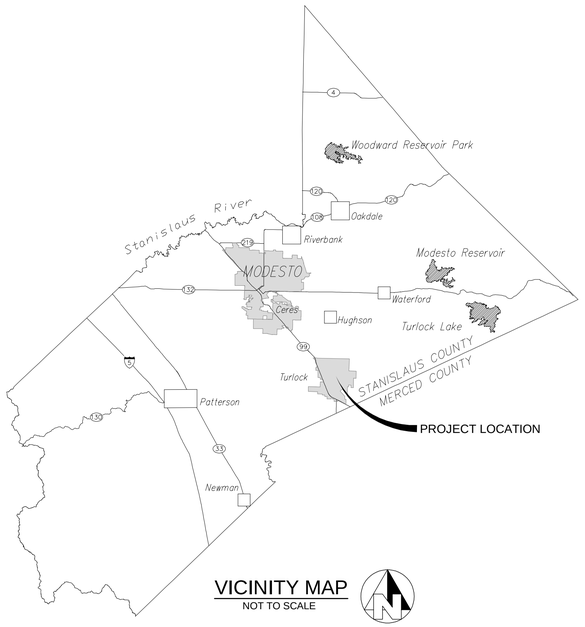
DESIGN ENGINEER: JEFF DORN
LICENSE NO: 76,749
DRAFTED BY: AR
CHECKED BY: JD
DATE: OCT 2024
JOB NO: 229224001
PROJECT NO: 229224001
PHASE: 2

0 1"
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

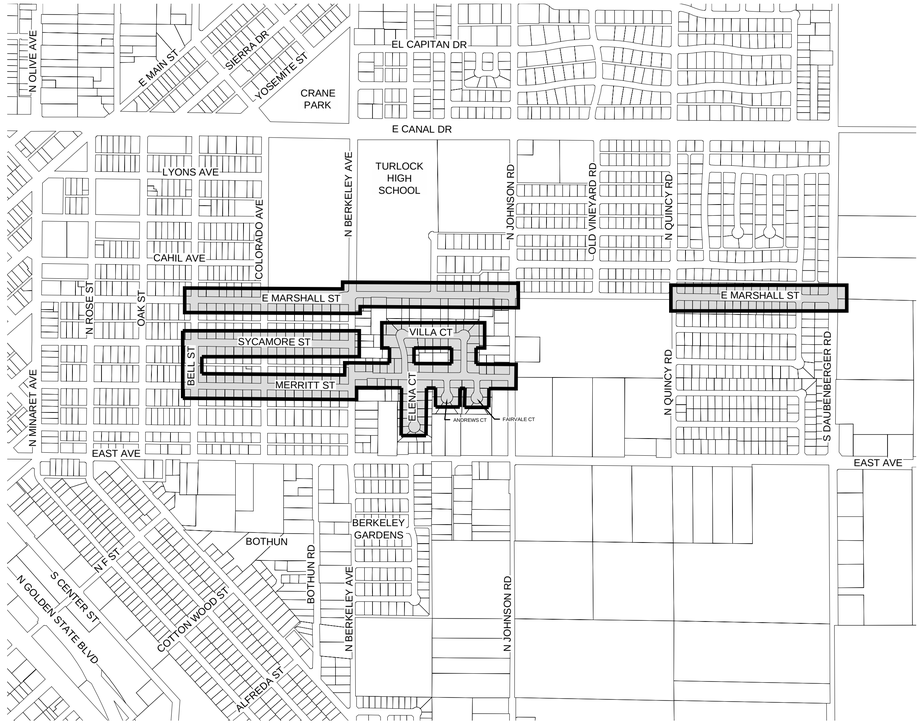
SHEET G1
1 OF 91

10/29/2024 3:24 PM G:\Turlock_City of-229292292240\01-2024 Road Rehab\300 CAD\342 Sheet Sets\01_General\G1 COVER SHEET.dwg Abby Roque

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT
CITY PROJECT NO. 23-068 - PACKAGE 3



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

SHEET INDEX		
SHEET NO.	SEQ. SHEET NO.	DESCRIPTION
GENERAL		
G1	1	COVER SHEET
G2	2	LEGEND & ABBREVIATIONS
STREET PLAN		
C1	3	MARSHALL ST STA 10+50 - 15+00
C2	4	MARSHALL ST STA 15+00 - 20+00
C3	5	MARSHALL ST STA 20+00 - 24+00
C4	6	MARSHALL ST STA 24+00 - 28+00
C5	7	MARSHALL ST STA 28+00 - 33+00
C6	8	MARSHALL ST STA 33+00 - 38+00
C7	9	MARSHALL ST STA 51+00 - 56+00
C8	10	MARSHALL ST STA 56+00 - 61+00
C9	11	MARSHALL ST STA 61+00 - 64+53
C10	12	SYCAMORE ST STA 71+00 - 76+00
C11	13	SYCAMORE ST STA 76+00 - 80+00
C12	14	SYCAMORE ST STA 80+00 - 84+20
C13	15	MERRITT ST STA 91+00 - 96+00
C14	16	MERRITT ST STA 96+00 - 100+00
C15	17	MERRITT ST STA 100+00 - 104+10
C16	18	MERRITT ST STA 104+10 - 113+00
C17	19	MERRITT ST STA113+00 - 117+00
C18	20	VILLA CT ST STA 125+00 - 132+00
C19	21	VILLA CT STA 120+00 TO 124+70 AND 135+00 TO 139+50
C20	22	ELENA CR ANDREWS CT AND FAIRVALE CT
C21	23	BELL ST STA 171+00 TO 175+00
DETAILS		
D1	24	STANDARD DETAILS
D2	25	STANDARD DETAILS
D3	26	STANDARD DETAILS
D4	27	STANDARD DETAILS
D5	28	CIVIL DETAILS
D6	29	CIVIL DETAILS
D7	30	SITE DETAILS
D8	31	SITE DETAILS
D9	32	SITE DETAILS
D10	33	SITE DETAILS
D11	34	SITE DETAILS
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D13	36	SITE DETAILS
D14	37	SITE DETAILS

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D16	39	SITE DETAILS
D17	40	SITE DETAILS
D18	41	SITE DETAILS
D19	42	SITE DETAILS
D20	43	SITE DETAILS
D21	44	SITE DETAILS
D22	45	SITE DETAILS
D23	46	SITE DETAILS
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TH4	54	TRAFFIC HANDLING
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TH10	60	TRAFFIC HANDLING
STRIPING		
S-1	61	MARSHALL ST STA 10+50 - 20+00
S-2	62	MARSHALL ST STA 20+00 - 24+30
S-3	63	MARSHALL ST STA 28+00 - 38+00
S-4	64	MARSHALL ST STA 51+00 - 56+00
S-5	65	MARSHALL ST STA 61+00 - 64+53
S-6	66	SYCAMORE ST STA 71+00 - 76+00
S-7	67	SYCAMORE ST STA 76+00 - 80+00
S-8	68	MERRIT ST STA 91+00 - 100+00
S-9	69	MERRIT ST STA 100+00 - 108+00
S-10	70	MERRIT ST STA 108+00 - 117+00
S-11	71	VILLA CT STA 125+00 - 132+00
S-12	72	VILLA CT STA 120+00 - 124+70 AND 135+00 TO 139+50
S-13	73	SELENA CR ANDREWS CT AND FAIRVALE CT
S-14	74	BELL ST STA 171+00 - 175+00

SPECIAL NOTE

WHERE UNDERGROUND AND SURFACE STRUCTURES ARE SHOWN ON THE PLANS, THE LOCATIONS, DEPTH AND DIMENSIONS OF STRUCTURES 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, IN ALL CASES, BE FOUND WHERE SHOWN, OR THAT THEY REPRESENT ALL OF THE STRUCTURES WHICH MAY BE ENCOUNTERED.

SITE SAFETY AND PROTECTION NOTES

THE DUTY OF THE ENGINEER, OWNER OR ITS AGENTS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE AND THE UNDERTAKING OF INSPECTIONS OR THE GIVING OF INSTRUCTIONS AS AUTHORIZED HEREIN IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE AND SHALL NOT BE CONSTRUED AS SUPERVISION OF THE ACTUAL CONSTRUCTION NOR MAKE THE ENGINEER, OWNER OR ITS AGENTS RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, OR SUPPLIERS, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL OR OCCUPANCY BY ANY PERSON.

THE CONTRACTOR SHALL HAVE AT THE WORK SITE, COPIES OR SUITABLE EXTRACTS OF CONSTRUCTION SAFETY ORDERS, ISSUED BY CAL-OSHA. CONTRACTOR SHALL COMPLY WITH PROVISIONS OF THESE AND ALL OTHER APPLICABLE LAWS, ORDINANCES AND REGULATIONS. THE CONTRACTOR MUST COMPLY WITH PROVISIONS OF THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, PROMULGATED BY THE SECRETARY OF LABOR UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS SET FORTH IN TITLE 29 C.F.R.

TO PROTECT THE LIVES AND HEALTH OF CONTRACTOR'S EMPLOYEES UNDER THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC., AND SHALL MAINTAIN AN ACCURATE RECORD OF ALL CASES OF DEATH, OCCUPATIONAL DISEASE, AND INJURY REQUIRING MEDICAL ATTENTION OR CAUSING LOSS OF TIME FROM WORK, ARISING OUT OF AND IN THE COURSE OF EMPLOYMENT OR WORK UNDER THE CONTRACT.

THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF CONTRACTOR'S FACILITIES, APPLIANCES, AND METHODS AND FOR ANY DAMAGE, WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE OR OPERATION.

THE CONTRACTOR AGREES THAT IT SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, PROVOST & PRITCHARD CONSULTING GROUP, AND THEIR RESPECTIVE AGENTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER, ENGINEER, OR THEIR RESPECTIVE AGENTS.

THE OWNER AND ITS AGENTS' SITE RESPONSIBILITIES ARE LIMITED SOLELY TO THE ACTIVITIES OF THEIR EMPLOYEES ON SITE. THESE RESPONSIBILITIES SHALL NOT BE INFERRED BY ANY PARTY TO MEAN THAT THE OWNER OR ITS AGENTS HAVE RESPONSIBILITY FOR SITE SAFETY. SAFETY IN, ON, OR ABOUT THE SITE IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR ALONE. THE CONTRACTOR'S METHODS OF WORK PERFORMANCE, SUPERINTENDENCE AND THE CONTRACTOR'S EMPLOYEES, AND SEQUENCING OF CONSTRUCTION ARE ALSO THE SOLE AND EXCLUSIVE RESPONSIBILITIES OF THE CONTRACTOR ALONE.

GENERAL NOTES

1. CITY OF TURLOCK (209-668-5520) SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK ON OR NEAR EXISTING DISTRICT FACILITIES.
2. USED MATERIAL, REJECTS, MISFITS, OR SECONDS, ETC. ARE NOT ACCEPTABLE FOR USE ON CITY OF TURLOCK FACILITIES.
3. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THESE PLANS, PROJECT SPECIFICATIONS AND CITY OF TURLOCK SPECIFICATIONS.
4. CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING FACILITIES PRIOR TO COMMENCING WORK. CALL UNDERGROUND SERVICE ALERT (USA) AT 8-1-1. CONTRACTOR SHALL MAKE ENGINEER AWARE OF ANY DISCREPANCIES.
5. ALL CAST-IN-PLACE CONCRETE STRUCTURES SHALL BE FORMED INSIDE AND OUT AND CONCRETE VIBRATED SUFFICIENTLY TO PROVIDE FOR SMOOTH SURFACED WALLS/FLOORS WITHOUT VOIDS AND HONEYCOMBS.
6. CITY OF TURLOCK SHALL INSPECT ALL WORK PHASES ON CONCRETE FACILITIES FOR CONFORMANCE TO CITY OF TURLOCK SPECIFICATIONS. REINFORCING SHALL NOT BE ENCASED IN CONCRETE WITHOUT PRIOR CITY OF TURLOCK INSPECTIONS. LIKEWISE, CONCRETE SHALL NOT BE COVERED WITH EARTH PRIOR TO CITY OF TURLOCK INSPECTION.
7. CONCRETE DESIGN MIX SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL CONCRETE SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE SPECIFIED.
8. ALL STEEL PIPE AND FITTINGS SHALL BE FURNISHED WITH A SHOP APPLIED HIGH SOLIDS EPOXY COATING ON THE INTERIOR AND EXTERIOR, UNLESS OTHERWISE INDICATED. ALL OTHER EXPOSED STEEL SHALL BE PAINTED WITH A PRE-TREATMENT PRIMER, AN UNDERCOAT AND A FINAL COAT OF PAINT IN ACCORDANCE WITH CITY OF TURLOCK SPECIFICATIONS.
9. ALL NUTS, BOLTS, AND WASHERS USED TO SECURE UNDERGROUND FITTINGS SHALL BE STAINLESS STEEL. AFTER INSTALLATION, ALL STEEL HARDWARE SHALL BE COATED WITH A RUST PREVENTATIVE, WRAPPED WITH 4 MIL POLYETHYLENE SHEETING, AND SECURE WITH PVC TAPE.
10. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS OF THE STATE OF CALIFORNIA AND CAL/OSHA STANDARDS.
11. TRENCH BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AND THE GEOTECHNICAL REPORT CONTAINED IN THE SPECIFICATIONS.
12. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ALL PIPELINE CRACKS, WHICH DEVELOP DURING CONSTRUCTION OF IMPROVEMENTS AFFECTING EXISTING FACILITIES.
13. CONCRETE VAULTS AND BOXES MAY BE PURCHASED FROM A PRECAST MANUFACTURER OR CONTRACTOR MAY CONSTRUCT THE STRUCTURES IF STRUCTURAL CALCULATIONS AND DESIGN IS APPROVED BY THE CITY OF TURLOCK AND THE ENGINEER.
14. ALL EXCESS MATERIAL AND/OR DEBRIS SHALL BE REMOVED UPON COMPLETION OF INSTALLATION.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DUST CONTROL AT ALL TIMES.

APPROVALS

WILLIAM D. MORRIS, P.E., P.L.S. DATE
CITY ENGINEER
PUBLIC WORKS DEPARTMENT

CITY OF TURLOCK
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY, SUITE 150
(209) 668-5520

PRELIMINARY
NOT FOR CONSTRUCTION
OCTOBER 2024

No.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER ★ VINCENT ★ LOW ★ STATE OF CALIFORNIA
DATE SIGNED:

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM
CAPITAL IMPROVEMENT PROJECT
CITY PROJECT No. 23-068

GENERAL

COVER SHEET

PROVOST & PRITCHARD
455 W FIR AVENUE
CLOVIS, CA 93611-0166
PHONE (559) 449-2700
FAX (559) 449-2715
www.provostandpritchard.com

DESIGN ENGINEER: JD
LICENSE NO: 76,749
DRAFTED BY: AR
CHECKED BY: JD
DATE: OCT 2024
JOB NO: 229224001
PROJECT NO: 229224001
PHASE: 3

0 1"
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

SHEET G1
1 OF 74

10/29/2024 2:34 PM G:\Turlock_City of-229222\229224001-2024 Road Rehab\300 CAD\343 Sheet Sets\01_General\G1 COVER SHEET.dwg -Kylie Maness

CITY OF TURLOCK

CONSTRUCTION PLANS FOR

ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT

CITY PROJECT NO. 23-031

PLAN PACKAGE 1

MISSION ST: N QUINCY RD TO OLD VINEYARD RD

TOKAY AVE: N QUINCY RD TO N JOHNSON RD

N QUINCY RD: E MARSHALL ST TO E CANAL DR

SUPPLEMENTED BY CALTRANS STANDARD PLANS AND STANDARD SPECIFICATIONS DATED 2023 & CITY OF TURLOCK ENGINEERING DESIGN STANDARD SPECIFICATIONS AND DRAWINGS DATED 2016.

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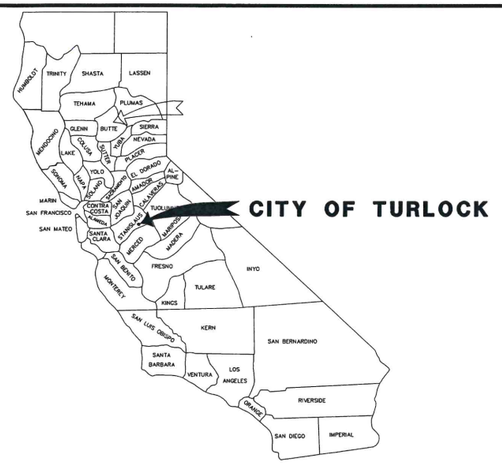
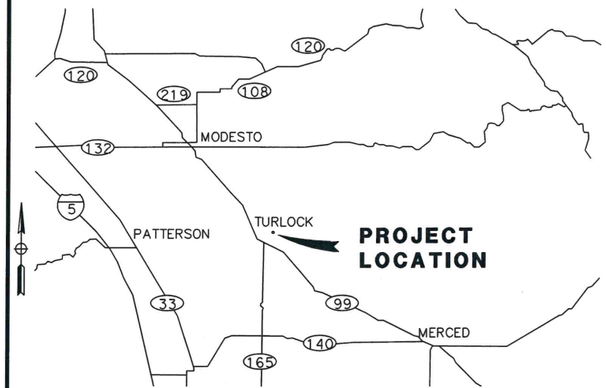
6	X-1	TYPICAL SECTION
7-11	DM-1 TO DM-5	DEMOLITION PLANS
12-16	L-1 TO L-5	LAYOUTS
17-31	CD-1 TO CD-15	CONSTRUCTION DETAILS
32-41	G-1 TO G-10	GRADING PLANS
42-49	TH-1 TO TH-8	TRAFFIC HANDLING PLANS
50-54	SS-1 TO SS-5	SIGNING AND STRIPING



CALIFORNIA STATE MAP

NO SCALE

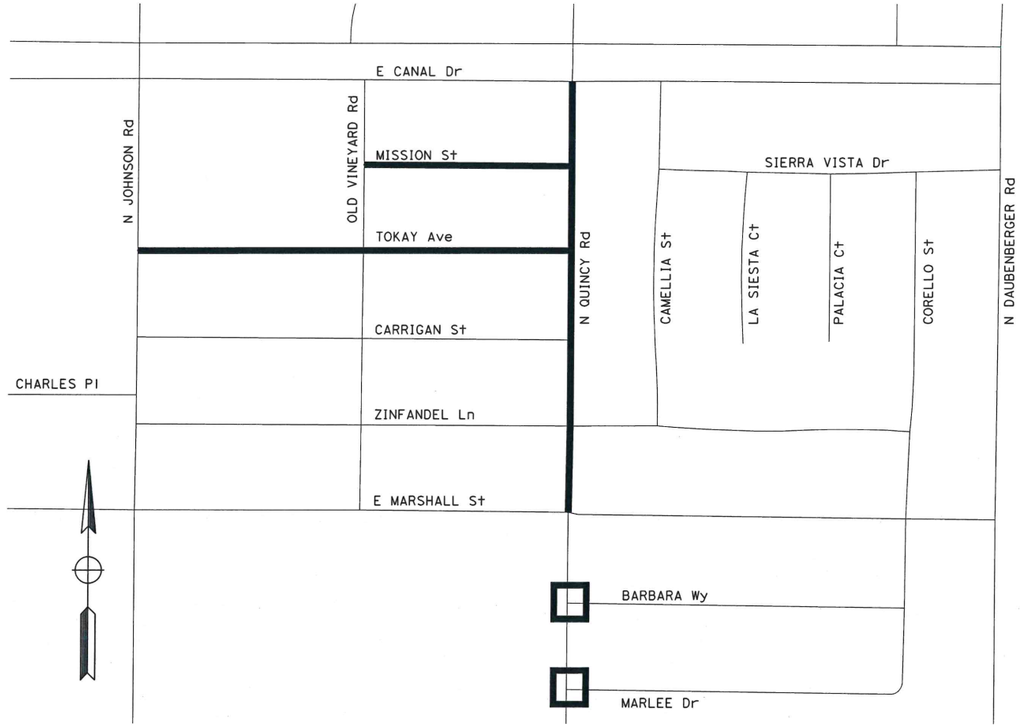


VICINITY MAP

NO SCALE

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" (USA) AT 811 AT LEAST 2 WORKING DAYS PRIOR TO PERFORMING ANY EXCAVATION



PROJECT LOCATION MAP

CITY OF TURLOCK APPROVAL

4/2/2024

WILLIAM D. MORRIS, P.E., P.L.S — DATE
CITY ENGINEER
PUBLIC WORKS DEPARTMENT

UTILITY CONTACTS

UTILITY	CONTACT	PHONE
AT&T	JIM JELLEY	(209) 507-1689
CHARTER COMMUNICATIONS	MITCHELL RODRIQUEZ	(408) 612-7569
TID ELECTRICAL	DAVID PORATH	(209) 605-0945
TID IRRIGATION	TODD TROGLIN	(209) 535-1882
CITY OF TURLOCK ELETRICAL	DOYLE PERRY	(209) 678-5823
CITY OF TURLOCK STORM AND SEWER	CARLOS GUERRERO	(209) 345-2169
CITY OF TURLOCK WATER	ORLANDO GUITERREZ	(209) 740-3868
PG&E	TRENT MILLSAP	(209) 561-6070

DESIGNED BY:	ANGEL P.
DRAWN BY:	ANGEL P.
CHECKED BY:	JON H.
SCALE:	AS SHOWN
DATE:	3/26/2024
JOB NO.:	23-00109

NOTE:
ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

USA NORTH 811 Call 811 Before You Dig

SCALE 20 0 20 40

REGISTERED PROFESSIONAL ENGINEER — JONATHAN VINCENT HERNANDEZ — No. 85502 — Exp. 10/31/24 — CIVIL — STATE OF CALIFORNIA

MARK THOMAS
701 UNIVERSITY AVENUE, SUITE 200
SACRAMENTO, CALIFORNIA 95825
(916) 381-9100 FAX:(916)381-9180
markthomas.com

CITY OF TURLOCK
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY SUIT 150
(209) 668-5520

CITY OF TURLOCK INC. 1908

CITY OF TURLOCK
ROADS PROGRAM - CIP
TITLE SHEET

Sheet 1 of 54 Sheets

T-1

CITY OF TURLOCK

CONSTRUCTION PLANS FOR

ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT

CITY PROJECT NO. 23-067 PACKAGE #1

ANDRE LN: W TOULUMNE RD TO W MONTE VISTA AVE; TROY CT, YVONNE CT, TORRE CT, DELTA CT, CURT CT, LEDWTIH CT

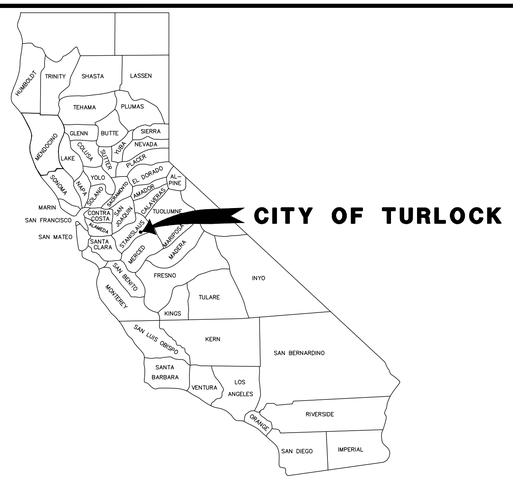
GETTYSBURG ST: DELS LN TO ANDRE LN; HUGHES CT

TAMPA ST: ANDRE LN TO NIAGRA ST

NIAGRA ST: W MONTE VISTA AVE TO REGIS ST

REGIST ST: NIAGRA ST TO GEER ST

SUPPLEMENTED BY CALTRANS STANDARD PLANS AND STANDARD SPECIFICATIONS DATED 2023 & CITY OF TURLOCK ENGINEERING DESIGN STANDARD SPECIFICATIONS AND DRAWINGS DATED 2016.



CALIFORNIA STATE MAP

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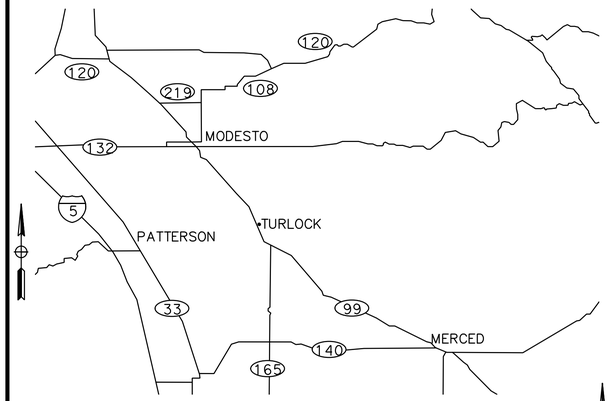
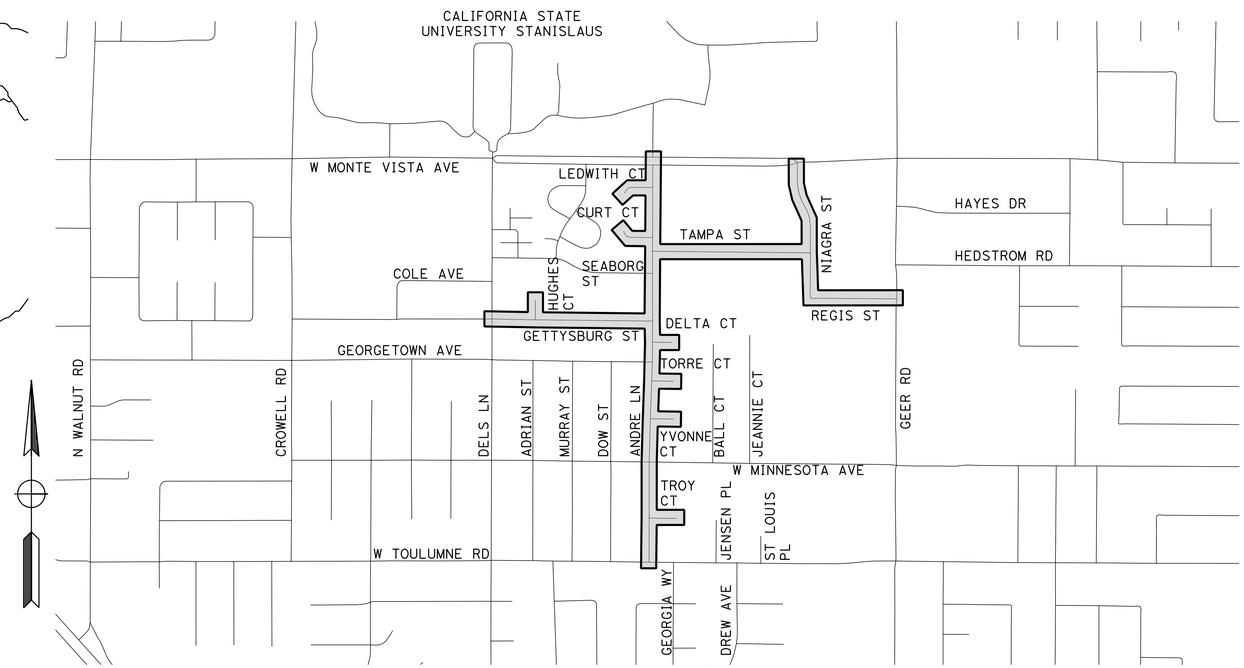


VICINITY MAP

NO SCALE



PROJECT LOCATION MAP

NO SCALE

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CITY OF TURLOCK APPROVAL

WILLIAM D. MORRIS, P.E., P.L.S — DATE
CITY ENGINEER
MUNICIPAL SERVICES DEPARTMENT

UTILITY CONTACTS

UTILITY	CONTACT	PHONE
AT&T	JIM JELLEY	(209) 507-1689
CHARTER COMMUNICATIONS	ABRAHAM ZAMORA	(209) 633-3303
TID ELECTRICAL	DAVID PORATH	(209) 605-0945
TID IRRIGATION	TODD TROGLIN	(209) 535-1882
CITY OF TURLOCK ELETRICAL	DOYLE PERRY	(209) 678-5823
CITY OF TURLOCK STORM AND SEWER	CARLOS GUERRERO	(209) 345-2169
CITY OF TURLOCK WATER	ORLANDO GUITERREZ	(209) 740-3868
PG&E GAS	TRENT MILLSAP	(209) 561-6070

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" (USA) AT 811 AT LEAST 2 WORKING DAYS PRIOR TO PERFORMING ANY EXCAVATION

100% PLANS

DESIGNED BY: LAPPEN E.
DRAWN BY: LAPPEN E.
CHECKED BY: BLOMQUIST D.
SCALE: AS SHOWN
DATE: 12/19/2024
JOB NO.: 23-067

NOTE:
ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

USA NORTH 811 Call 811 Before You Dig

SCALE

REGISTERED PROFESSIONAL ENGINEER — DANIEL THOMAS BLOMQUIST — No. 65875 — Exp.12/31/25 — CIVIL — STATE OF CALIFORNIA

MARK THOMAS
701 UNIVERSITY AVENUE, SUITE 200
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markthomas.com

CITY OF TURLOCK
MUNICIPAL SERVICES DEPARTMENT
156 S. BROADWAY
SUITE 150
(209) 668-5520

CITY OF TURLOCK INC. 1908

CITY OF TURLOCK
ROADS PROGRAM CIP
PROJECT 23-067 PACKAGE #1
TITLE SHEET

Sheet 1 of 91 Sheets

T-1

CITY OF TURLOCK

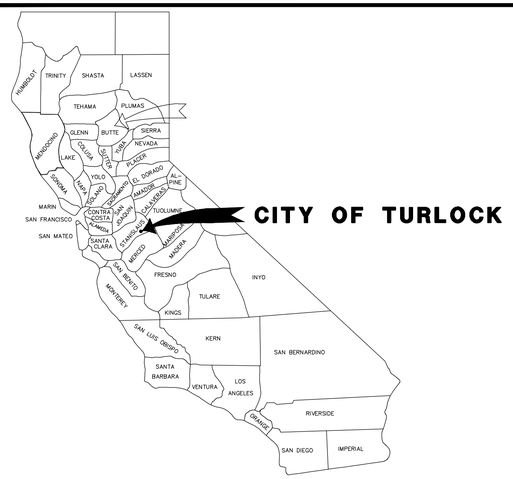
CONSTRUCTION PLANS FOR

ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT

CITY PROJECT NO. 23-067 PACKAGE #3

WALLACE ST:	EAST MARSHALL ST TO CARRIGAN ST
CHARLES PL:	WALLACE ST TO OLD VINEYARD RD
ZINFANDEL LN:	OLD VINEYARD RD TO CORELLO ST
EL PASEO ST:	EAST CANAL DR TO ARBOR WAY: LINDA VISTA ST
ARBOR WY:	NORTH BERKELEY AVE TO NORTH QUINCY RD; KAREN WY, CHRISTINE WY, HAPPNER WY
NORTH QUINCY RD:	MARIE DR TO EAST HAWKEYE AVE
NOVO DR:	EAST CANAL DR TO MIRA FLORES DR
MIRA FLORES DR:	LA SOMBRA CT, LINN CT
CALIFORNIA AVE:	NORTH BERKELEY AVE TO NORTH JOHNSON AVE

SUPPLEMENTED BY CALTRANS STANDARD PLANS AND STANDARD SPECIFICATIONS DATED 2023 & CITY OF TURLOCK ENGINEERING DESIGN STANDARD SPECIFICATIONS AND DRAWINGS DATED 2016.



CALIFORNIA STATE MAP

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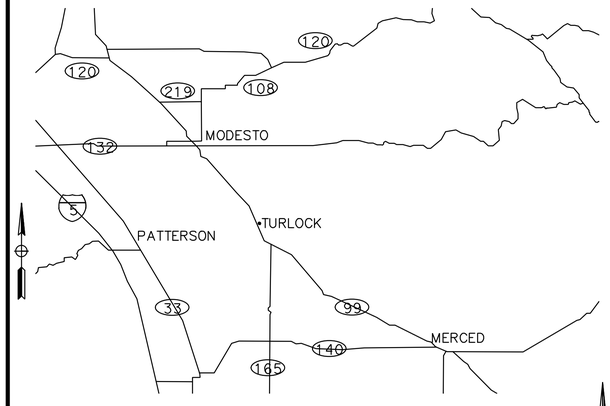
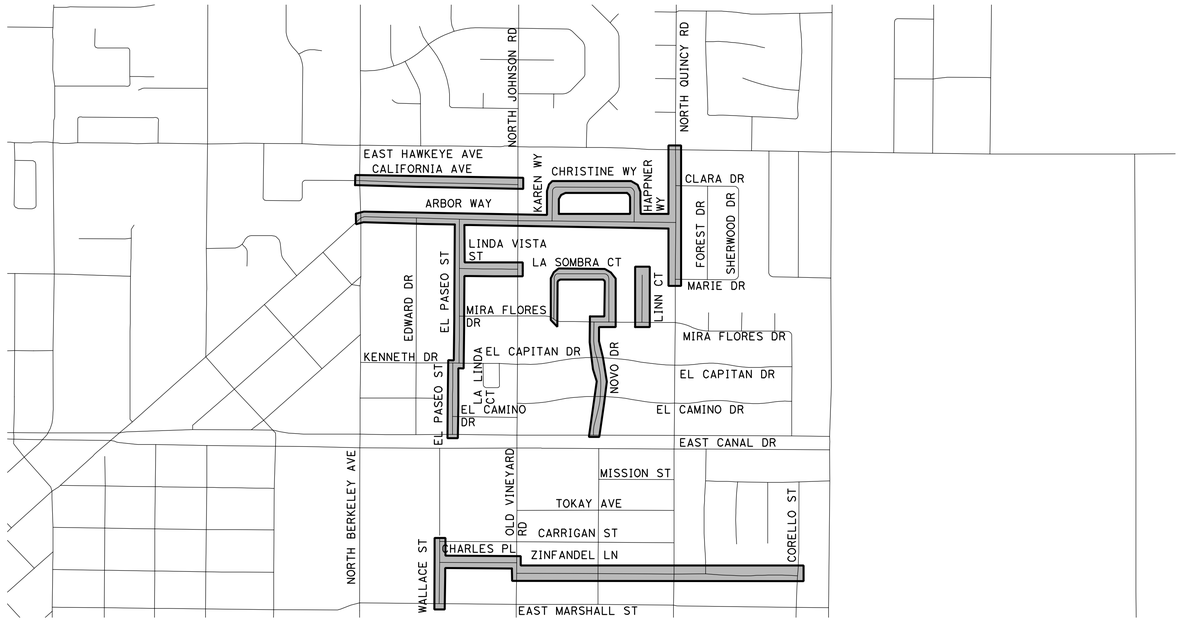


VICINITY MAP

NO SCALE



PROJECT LOCATION MAP

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102	DP-1	DRAINAGE PROFILE
103-111	TH-1 TO TH-9	TRAFFIC HANDLING PLANS
111-126	SS-1 TO SS-15	SIGNING AND STRIPING

CITY OF TURLOCK APPROVAL

WILLIAM D. MORRIS, P.E., P.L.S — DATE
CITY ENGINEER
MUNICIPAL SERVICES DEPARTMENT

UTILITY CONTACTS

UTILITY	CONTACT	PHONE
AT&T	JIM JELLEY	(209) 507-1689
CHARTER COMMUNICATIONS	MITCHELL RODRIQUEZ	(408) 612-7569
TID ELECTRICAL	DAVID PORATH	(209) 605-0945
TID IRRIGATION	BILL PENNEY	(209) 883-8385
CITY OF TURLOCK ELETRICAL	DOYLE PERRY	(209) 678-5823
CITY OF TURLOCK STORM AND SEWER	CARLOS GUERRERO	(209) 345-2169
CITY OF TURLOCK WATER	ORLANDO GUITERREZ	(209) 740-3868
PG&E GAS	TRENT MILLSAP	(209) 561-6070

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL
"UNDERGROUND SERVICE ALERT" (USA)
AT 811 AT LEAST 2 WORKING DAYS
PRIOR TO PERFORMING ANY EXCAVATION

100% PLANS

DESIGNED BY: POORE, B.
DRAWN BY: HAYNES, C.
CHECKED BY: HORNER, C.
SCALE: ~~NOT SHOWN~~ SCALE
DATE: 3/13/2025
JOB NO.: 24-00061

NOTE:
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USA NORTH 811 Call 811 Before You Dig

SCALE

REGISTERED PROFESSIONAL ENGINEER — CYNTHIA HORNER — No. 92276 — Exp. 6/30/25 — CIVIL — STATE OF CALIFORNIA

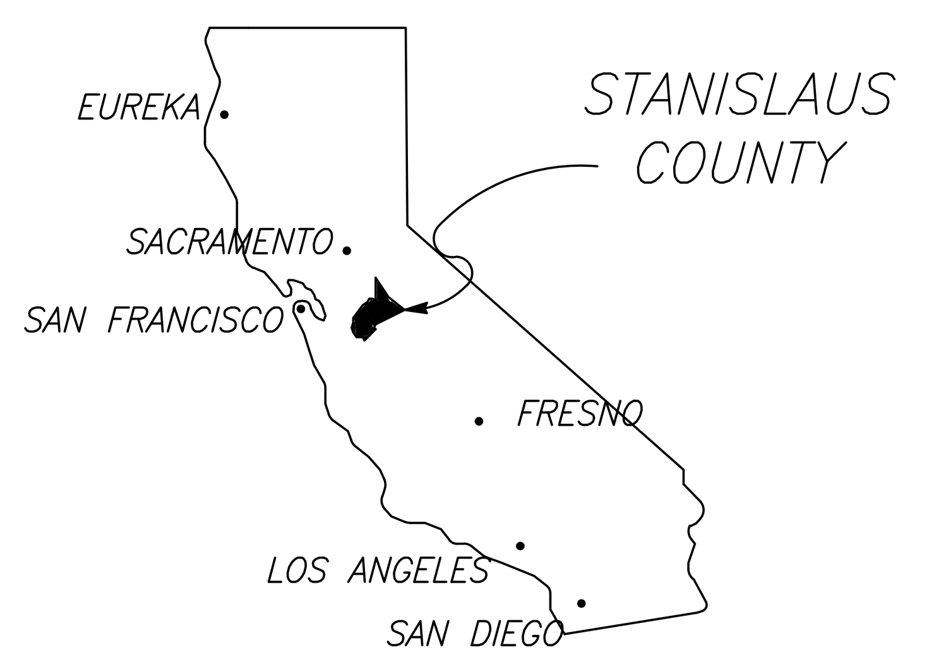
MARK THOMAS
701 UNIVERSITY AVENUE, SUITE 200
SACRAMENTO, CALIFORNIA 95825
(916) 381-9100 FAX:(916)381-9180
markthomas.com

CITY OF TURLOCK
MUNICIPAL SERVICES DEPARTMENT
156 S. BROADWAY
SUITE 150
(209)668-5520

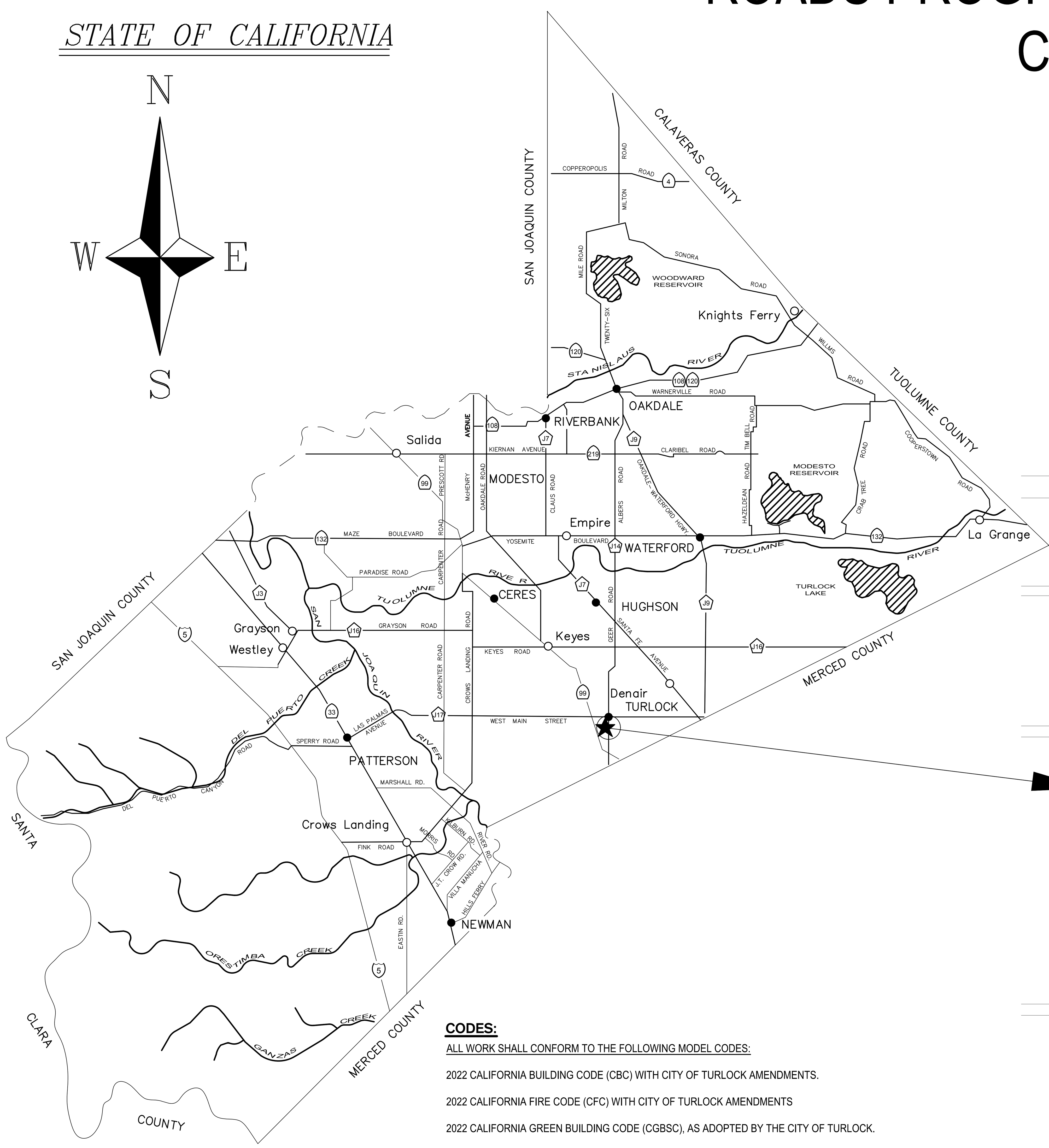
CITY OF TURLOCK INC. 1908

CITY OF TURLOCK
ROADS PROGRAM CIP
PROJECT 23-067 PACKAGE #3
TITLE SHEET

T-1



STATE OF CALIFORNIA

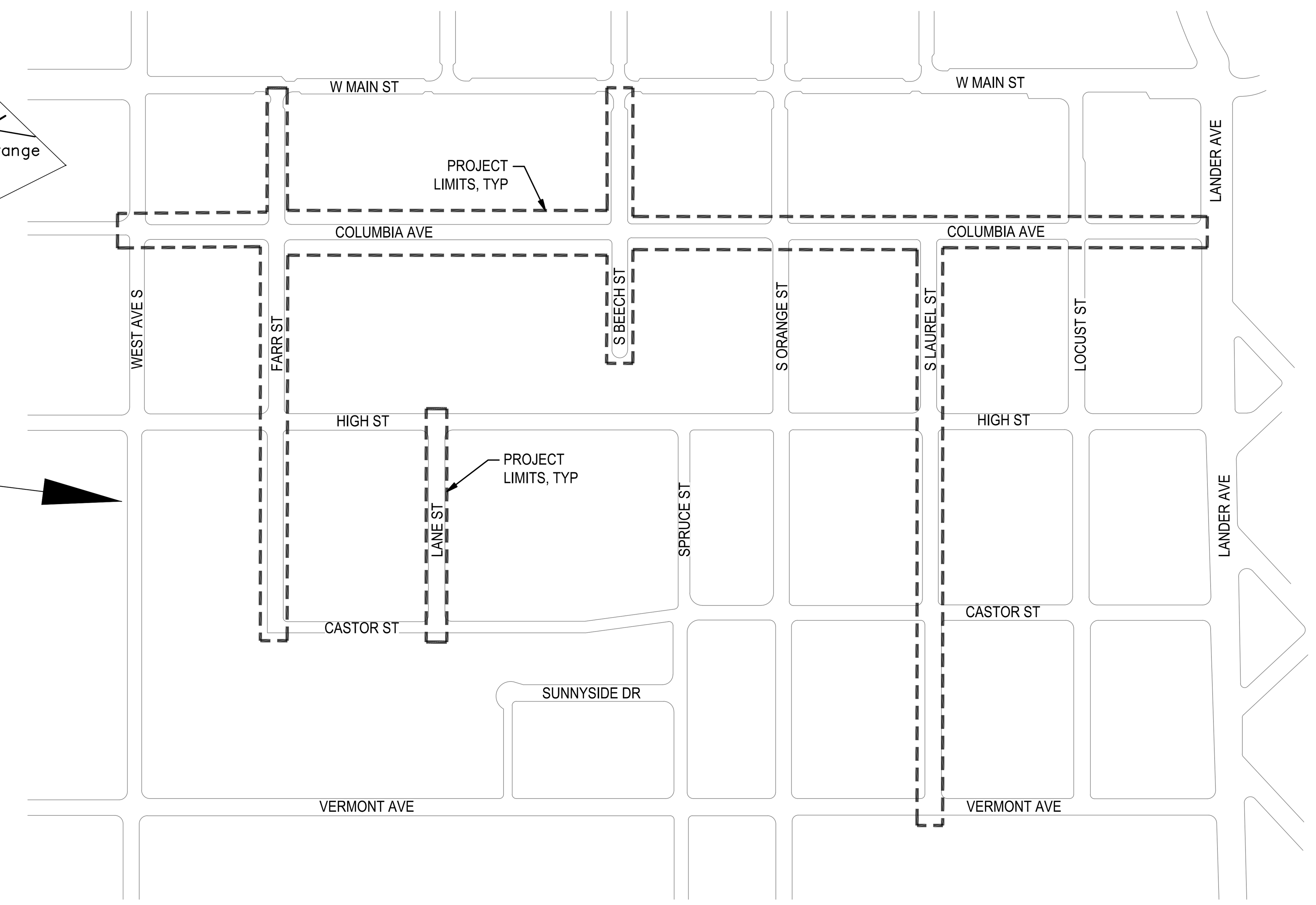


STANISLAUS COUNTY

NO SCALE

CITY OF TURLOCK

CONSTRUCTION PLANS FOR
ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT
CITY PROJECT NO. 23-033



PROJECT LOCATION MAP

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01	COVER SHEET
02	GENERAL NOTES
03	KEY MAP & SURVEY CONTROL POINTS
04	TEMPORARY CONSTRUCTION FUNDING SIGN OVERALL PLAN
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07	LANE AND S. BEECH TYPICAL CROSS SECTIONS
08	S. LAUREL ST TYPICAL CROSS SECTIONS
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11	FARR STREET IMPROVEMENTS
12	LANE STREET & S. BEECH STREET IMPROVEMENTS
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29	COLUMBIA AVENUE GRADING PLAN - STATION 1+00 TO 13+14.51
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32	LANE STREET & S. BEECH STREET GRADING PLAN
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45	S. BEECH STREET STAGE 2-TRAFFIC CONTROL
46	LANE STREET STAGE 1-TRAFFIC CONTROL
47	LANE STREET STAGE 2-TRAFFIC CONTROL
48	S. LAUREL STREET STAGE 1-TRAFFIC CONTROL
49	S. LAUREL STREET STAGE 2-TRAFFIC CONTROL

CONTACTS

CITY OF TURLOCK PUBLIC WORKS DEPARTMENT
(209) 668-5520, ENGINEERING@TURLOCK.CA.US

CITY OF TURLOCK ELECTRICAL
(209) 678-5823 DOYLE PERRY, DPERRY@TURLOCK.CA.US

CITY OF TURLOCK STORM AND SEWER
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CITY OF TURLOCK WATER
(209) 740-3868 ORLANDO GUTIERREZ, OGUTIERREZ@TURLOCK.CA.US

TURLOCK IRRIGATION DISTRICT (ELECTRICAL)
605-0945 DAVID PORATH, DNPORATH@TID.ORG

TURLOCK IRRIGATION DISTRICT (IRRIGATION)
535-1882 TODD TROGLIN, TRTROGLIN@TID.ORG

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AT&T
(209) 507-1689 JIM JELLY, JJ2163@ATT.COM

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(209) 668-5580

POLICE DEPARTMENT (NON-EMERGENCY)
(209) 668-1200

AMBULANCE
(209) 632-2271

TURLOCK SCAVENGER
(209) 668-7274

CODES:

ALL WORK SHALL CONFORM TO THE FOLLOWING MODEL CODES:

2022 CALIFORNIA BUILDING CODE (CBC) WITH CITY OF TURLOCK AMENDMENTS.

2022 CALIFORNIA FIRE CODE (CFC) WITH CITY OF TURLOCK AMENDMENTS

2022 CALIFORNIA GREEN BUILDING CODE (CGBSC), AS ADOPTED BY THE CITY OF TURLOCK.

2022 CALIFORNIA BUILDING CODE CHAPTER 11B: ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS, COMMERCIAL BUILDINGS AND PUBLIC HOUSING

NOTE: THE CITY OF TURLOCK BUILDING DIVISION ENFORCES CBC CHAPTERS 11A AND 11B FOR DISABLED ACCESS COMPLIANCE.

CIVIL IMPROVEMENTS LIMITS

THE CITY OF TURLOCK'S ROADS PROGRAM IMPROVEMENTS PROJECT WILL IMPROVE THE EXISTING ROADWAY AT COLUMBIA STREET FROM WEST AVENUE SOUTH TO LANDER AVENUE, AT FARR STREET FROM WEST MAIN STREET TO CASTOR STREET, AT LANE STREET FROM HIGH STREET TO CASTOR STREET, AT SOUTH BEECH STREET AT THE WEST MAIN STREET, AND AT SOUTH LAUREL STREET FROM COLUMBIA STREET TO VERMONT AVENUE IN THE CITY OF TURLOCK, CALIFORNIA.

GOVERNING CODES AND ADOPTED STANDARDS

ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT CITY OF TURLOCK STANDARD SPECIFICATIONS AND DRAWINGS; THE LATEST EDITION OF THE AMERICANS WITH DISABILITIES ACT AND THE LATEST EDITION OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS. CITY OF TURLOCK STANDARD DRAWINGS ARE AVAILABLE AT THE OFFICE OF THE CITY ENGINEER.

CITY OF TURLOCK APPROVAL

[signature] 4/8/2024
WILLIAM D. MORRIS, P.E., P.L.S
CITY ENGINEER
PUBLIC WORKS DEPARTMENT
DATE

811 Know what's below. Call before you dig.

NOTE:
ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK

REGISTERED PROFESSIONAL ENGINEER
ADAM K. MERRILL
No. 76826
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

DATE SIGNED: 04/02/24

SIEGFRIED
3428 Brookside Road
Stockton ,California 95219
209-943-2021
www.siegfriedeng.com
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CITY OF TURLOCK INC. 1908

CITY OF TURLOCK PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY,
SUITE 150
(209) 668-5520

COVER SHEET

CAPITAL PROJECT NO. 23-033
THE CITY OF TURLOCK ROADS PROGRAM

VERIFY SCALE 0 1"	DRAWN BY: JR
	REV. BY: ARM
	CH. BY: AKM
	DATE: 4/2/2024
	SCALE: SEE SHEET
	SEI PROJ NO: 22157

DRAWING NO. 01

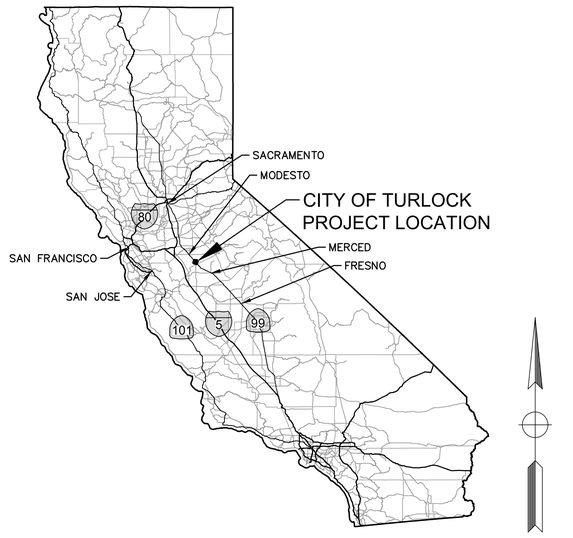
SHEET: 01 OF 49

FILE: F:\22projects\22157 City of Turlock Road CIP\Plans and Graphics\Improvement Plans\22157 C-01 COVER SHEET.dwg

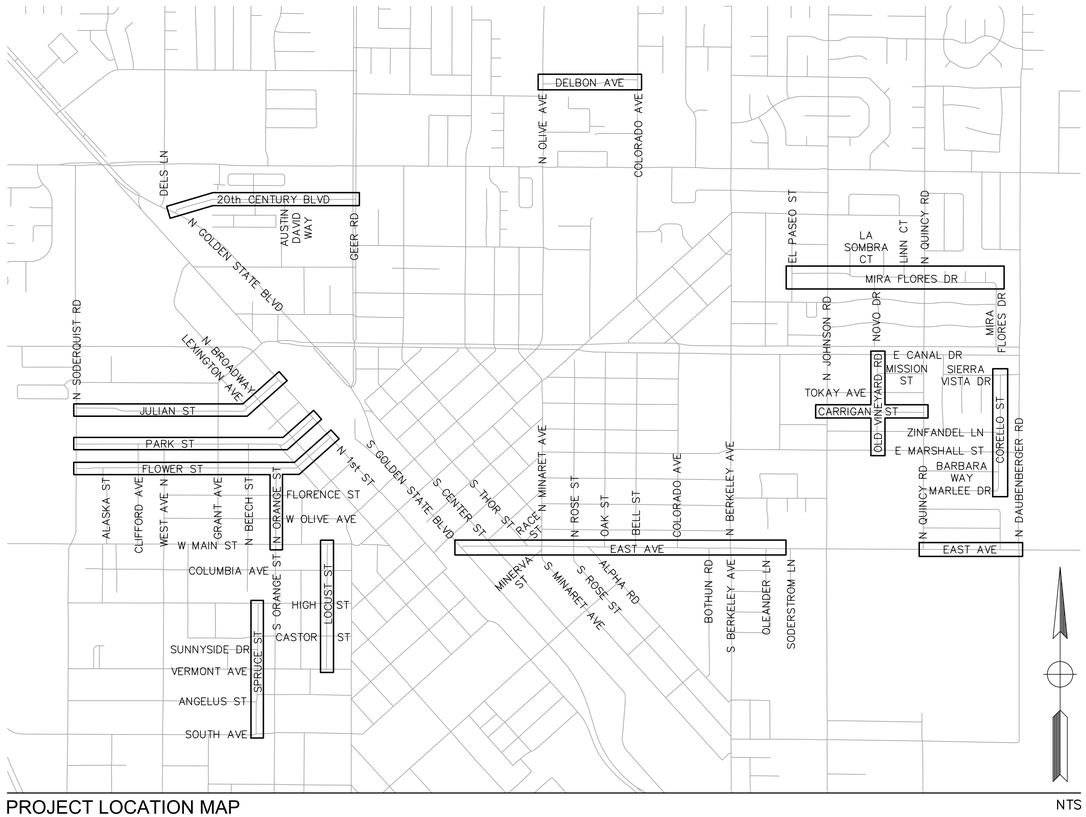
DATE & TIME PLOTTED: 4/02/24 3:14 PM

CITY OF TURLOCK

CAPITAL PROJECT No. 22-001
CITYWIDE STREET REHABILITATION AND IMPROVEMENT PROJECT
VARIOUS LOCATIONS
PACKAGE 1



VICINITY MAP NTS



PROJECT LOCATION MAP NTS

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3	PC–01	SURVEY BENCHMARKS AND CONTROL POINTS
4	PC–02	SURVEY CONTROL POINT LOCATIONS
5–10	X–01 – X–06	TYPICAL SECTIONS
11	K–01	KEY MAP
12–45	L–01 – L–34	PLAN
46–68	DU–01 – DU–23	DRAINAGE PLAN
69	DU–24	DRAINAGE DETAILS
70–79	TC–01 – TC–10	TRAFFIC CONTROL
80–105	TD–01 – TD–26	TRAFFIC DETOUR
106–124	SS–01 – SS–19	SIGNING AND STRIPING PLAN
125–129	CD–01 – CD–05	CONSTRUCTION DETAILS
N/A	CD–06	N/A OMITTED – SHEET NOT USED
130–135	CD–07 – CD–12	CONSTRUCTION DETAILS – CURB RAMP
N/A	CD–13 – CD–14	N/A OMITTED – SHEETS NOT USED
136–165	CD–15 – CD–44	CONSTRUCTION DETAILS – INTERSECTION
166	CD–45	CONSTRUCTION DETAILS
167–169	Q–01 – Q–03	SUMMARY OF QUANTITIES

CONTACTS

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POLICE DEPARTMENT (NON–EMERGENCY)
(209) 668–1200

AMBULANCE
(209) 632–2271

TURLOCK SCAVENGER
(209) 668–7274

CIVIL IMPROVEMENT LIMITS

THE CITY OF TURLOCK'S CITYWIDE STREET REHABILITATION AND IMPROVEMENT PROJECT WILL IMPROVE THE EXISTING ROADWAY SEGMENTS THROUGH VARIOUS PROCESSES AT SEVERAL LOCATIONS IN THE CITY OF TURLOCK, CALIFORNIA.

GOVERNING CODES AND ADOPTED STANDARDS

ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT CITY OF TURLOCK STANDARD SPECIFICATIONS AND DRAWINGS; THE LATEST EDITION OF THE AMERICANS WITH DISABILITIES ACT AND THE LATEST EDITION OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS. CITY OF TURLOCK STANDARD DRAWINGS ARE AVAILABLE AT THE OFFICE OF THE CITY ENGINEER.

CITY OF TURLOCK APPROVAL

NANDA K. GOTTIPARTHY, P.E.
CONTRACT CITY ENGINEER

DATE 3/6/2023

USA NORTH 811 Call 811 Before You Dig

NOTE:
ALL REFERENCES AND WRITTEN DIMENSIONS SHALL SUPERCEDE ALL SCALED DISTANCES AND SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

SULAIMAN ARAIN P.E.
LICENSE No. C78364

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
SULAIMAN ARAIN
No. C78364
Exp. 9/30/2023
CIVIL
STATE OF CALIFORNIA

Michael Baker INTERNATIONAL
500 YGNACIO VALLEY RD
SUITE 300
WALNUT CREEK, CA 94596
(925) 906–1460

CITY OF TURLOCK INC. 1908

CITY OF TURLOCK
PUBLIC WORKS
DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY,
SUITE 150
(209) 668–5520

COVER SHEET

CAPITAL PROJECT No. 22-001
CITYWIDE STREET REHABILITATION AND IMPROVEMENT PROJECT

VERIFY SCALE
BAR IS 1" ON ORIGINAL DRAWING
1/4" 3/4" 1" 1/2"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWN BY:	R. LIM
REV. BY:	
CH. BY:	S. ARAIN
DATE:	10/28/2022
SCALE:	AS SHOWN
MBI PROJECT No.	187020

DRAWING No. C-01

SHEET: 1 OF 169

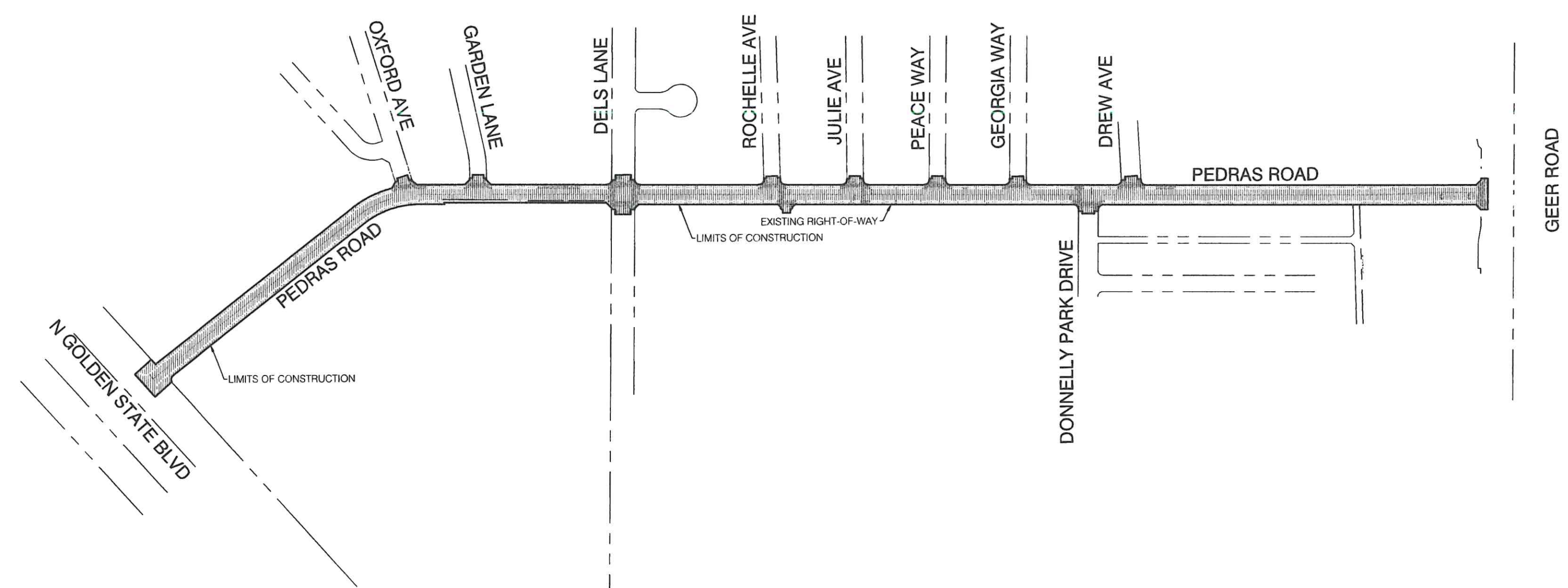
22–001–P1–01–C–01.dwg

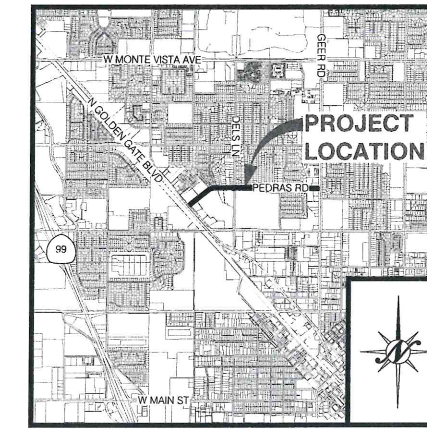
10/26/2022 4:36:47 PM

CIVIL IMPROVEMENT PLANS FOR
CITY OF TURLOCK PROJECT NO. 21-021 (099)
PEDRAS ROAD REHABILITATION
TURLOCK, CALIFORNIA

LEGEND

	EXISTING	PROPOSED
BOUNDARY LINE		
CENTERLINE		
RIGHT-OF-WAY		
PARCEL LINE		
MONUMENT	N/A	
SAWCUT	N/A	
CURB, GUTTER AND SIDEWALK		
EDGE OF PAVEMENT		
CONCRETE VALLEY GUTTER	N/A	
TRENCH DRAIN	N/A	
STORM DRAIN (MAIN)	Ex12"SD	12"SD
FORCE MAIN	Ex48"FM	48"FD
DRAINAGE SWALE		
STORM DRAIN MAINTENANCE HOLE	SD	SD
CURB INLET		
DRAIN INLET		
DRAIN INLET ON MAINTENANCE HOLE		
STORM DRAINAGE FILTER	N/A	
WATER (MAIN)	Ex8"W	8"W
WATER (SERVICE)	Ex8"W	8"W
WATER VALVE	WV	WV
WATER BLOW OFF VALVE	BO	BO
BACK FLOW PREVENTER	BFP	BFP
POST INDICATOR VALVE (SINGLE)	PIV	PIV
FIRE DEPARTMENT CONNECTION	FDC	FDC
FIRE HYDRANT		
FIRE SPRINKLER RISER	N/A	FSR
WATER METER	WM	WM
REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY	N/A	RPPA
SINGLE CHECK DETECTOR ASSEMBLY	N/A	SCDA
SERVICE STUB	N/A	
CLEANOUT		
SEWER MAINTENANCE HOLE	S	S
GREASE TRAP	N/A	
SEWER (MAIN)	Ex12"SS	12"SS
JOINT TRENCH (APPROX LOCATION)		N/A
TRANSFORMER (APPROX LOCATION)	N/A	
OVER HEAD ELECTRICAL		N/A
SERVICE POLE	SP	N/A
JOINT POLE	JP	N/A
JOINT POLE WITH LIGHT		N/A
POWER POLE	PP	N/A
TELEPHONE POLE	TP	N/A
GUY		N/A
ELECTRICAL MANHOLE		N/A
ELECTROLIER		
UTILITY BOX		
GAS LINE	G	N/A
GAS VALVE	GV	N/A
FINISH FLOOR ELEVATION (PROPOSED)	N/A	FF=0000.00
BUILDING PAD	N/A	10.0
TOP OF CURB ELEVATION	68.34 TC	68.34 TC
ORIGINAL GROUND	106.82	N/A
DIRECTION OF FLOW	3.0%	3.0%
CONTOURS	32	32
WALL (SEE LABEL FOR TYPE)		
FENCE (CHAINLINK OR VINYL)		
FENCE (WIRE OR HOGWIRE)		
FENCE (WOOD OR WROUGHT IRON)		
FENCE (SPLIT RAIL)		
TREE OR SHRUB		N/A
TREE STUMP		N/A
IRRIGATION LINE	Ex48"IRR	
IRRIGATION VALVE	ICV	N/A
IRRIGATION PRESSURE MANHOLE/VENT		
SIGN		
PERCOLATION TEST LOCATION	N/A	P-X
R-VALUE SAMPLE LOCATION	N/A	RV-X
CORE SAMPLE LOCATION	PDX	N/A
KEYNOTE SYMBOL	X	X





VICINITY MAP
NTS

250 125 0 250
1" = 250'

ABBREVIATIONS

±	PLUS OR MINUS (NOT EXACT)
@	AT
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACC	ACCESSIBLE
ADTT	AVERAGE DAILY TRUCK TRAFFIC
AG	ATRIUM GRATE
ALT	ALTERNATE
APN	ASSESSORS PARCEL NUMBER
ASR	AUTOMATIC SPRINKLER RISER
AVE	AVENUE
BC	BEGIN CURVE
BDRY	BOUNDARY
BFP	BACK FLOW PREVENTOR
BK	BOOK
BM	BENCH MARK
BW	BACK OF WALK
BSL	BUILDING SETBACK LINE
BVC	BEGIN VERTICAL CURVE
CC	CONCRETE
C&G OR C.G.	CURB AND GUTTER
CB	CATCH BASIN
CDS	CONTINUOUS DEFLECTION SEPARATORS
CIP	CAST IRON PIPE
℄ OR CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COMP.	COMPACTION
CONC OR CC	CONCRETE
C.O.T	CITY OF TURLOCK
CR	CURB RETURN
CT.	COURT
CV	CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE
DI	DRAIN INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
(DOM)	DOMESTIC
DR	DRIVE
DW	DRIVEWAY
E	EAST
EC	END OF CURVE
EM	ELECTRIC METER
ELC	ELECTROLIER
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ER	END OF RETURN
ESMT OR EASE	EASEMENT
EX OR EXIST	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FES	FLARED END SECTION
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FM	FORCE MAIN
FS	FIRE SERVICE
FSR	FIRE SPRINKLER RISER
GB	GRADE BREAK
GR	GRATE, GRADE, OR GROUND
GS	GROUND SHOT ELEVATION
GS@W	GROUND SHOT AT WALL
GV	GATE VALVE
HORIZ	HORIZONTAL
HP	HIGH POINT
HPS	HIGH PRESSURE SODIUM
HT	HEIGHT
HWY	HIGHWAY
ID	INSIDE DIAMETER
INV	INVERT
IRR	IRRIGATION
LF	LINEAL FEET OR LINEAR FEET
LN	LANE
LP	LOW POINT
LT	LEFT
JT	JOINT TRENCH
MAX	MAXIMUM
MH	MAINTENANCE HOLE
MIN	MINIMUM
N	NORTH
NDS	NDS INC. (MANUFACTURER)
NIC	NOT INCLUDED
NSE	NORTHSTAR ENGINEERING
NTS	NOT TO SCALE
OC	ON CENTER
OF	OFFSET
OG	ORIGINAL GROUND / GRADE
OHE	OVER HEAD ELECTRIC
P OR PAV	PAVEMENT
PCC	POINT OF COMPOUND CURVE OR PORTLAND CEMENT CONCRETE
PG	PAGE
PG&E	PACIFIC GAS AND ELECTRIC
PIV	PRESSURE INDICATOR VALVE
PL	PROPERTY LINE
PM	PARCEL MAP
POC	POINT OF CONNECTION
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PROF	PROFILE
PT	POINT
PTDF	PRESSURE TREATED DOUGLAS FIR
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
RW	RECLAIMED WATER
R/W	RIGHT-OF-WAY
R	RADIUS
RC	RELATIVE COMPACTION
RCP	REINFORCED CONCRETE PIPE
R.D.	RELATIVE DENSITY
RD	ROAD
RET	RETURN
RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY
RV	RESISTANCE VALUE
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
S	SLOPE OR SOUTH
SC	STANISLAUS COUNTY
SCDA	SINGLE CHECK DETECTOR ASSEMBLY
SD	STORM DRAIN
SG	SUB-GRADE
SHT	SHEET
SIM	SIMILAR
SNS	STREET NAME SIGN
ST	STREET
STL	STEEL
STA	STATION
STD	STANDARD
S/W OR SW	SIDEWALK
SS	SANITARY SEWER
TC	TOP OF CURB
TD	TRENCH DRAIN
TDC	TOP OF DRIVE OVER CURB
TEMP	TEMPORARY
TG	TOP OF GRATE
THRU	THROUGH
TI	TRAFFIC INDEX
TID	TURLOCK IRRIGATION DISTRICT
TW	TOP OF WALL
TPE	TREE PLANTING EASEMENT
TVC	TOP OF VERTICAL CURB
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
VCP	VITRIFIED CLAY PIPE
W	WATER OR WEST
WM	WATER METER
WS	WATER SERVICE
WY	WAY
W/	WITH
WWF	WELDED WIRE FABRIC

APPROVALS

APPROVED BY THE CITY OF TURLOCK.

WILLIAM D. MORRIS, RCE 55910 — 8/9/23
CITY ENGINEER — APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER WILLIAM D. MORRIS No. 55910 CIVIL STATE OF CALIFORNIA

PREPARED FOR

CLIENT:
CITY OF TURLOCK
156 S. BROADWAY, SUITE 150
TURLOCK, CA 92380
P: (209) 668-6021
CONTACT:
RANDALL JONES

PROJECT LOCATION

SITE ADDRESS
PEDRAS ROAD
TURLOCK, CA 95382

BENCHMARK

ELEVATION: 102.867'
BM
CITY OF TURLOCK BENCHMARK NO. 10-1-2, BRASS PLUG SE CORNER ON PEDRAS AT DONNELLY PARK DR.

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4. C1.4 DETAILS AND CROSS SECTIONS
5. C1.5 DETAILS AND CROSS SECTIONS
6. C1.6 DETAILS AND CROSS SECTIONS
7. C1.7 OVERALL KEY MAP

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9. C2.2 TOPOGRAPHIC AND DEMOLITION PLAN
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21. C4.4 GRADING AND DRAINAGE PLAN
22. C4.5 GRADING AND DRAINAGE PLAN
23. C5.1 COMPOSITE UTILITY PLAN
24. C5.2 COMPOSITE UTILITY PLAN
25. C5.3 COMPOSITE UTILITY PLAN
26. C5.4 COMPOSITE UTILITY PLAN
27. C6.1 EROSION CONTROL PLAN
28. C6.2 EROSION CONTROL NOTES AND DETAILS

CALL BEFORE YOU DIG U S A 800-227-2600

REGISTERED PROFESSIONAL ... 08/07/23 CIVIL STATE OF CALIFORNIA

REVISIONS			
NO.	DESCRIPTIONS	DATE	APPROVED

COVER SHEET

CIVIL IMPROVEMENT PLANS FOR
PEDRAS ROAD REHABILITATION
TURLOCK CALIFORNIA

NorthStar Engineering Group, Inc.
• CIVIL ENGINEERING • SURVEYING • PLANNING •
620 12th Street Modesto, CA 95354
(209) 524-3525 Phone (209) 524-3526 Fax

JOB #:	21-2896
DATE:	8/4/2023
SCALE:	AS SHOWN
DRAWN:	FSE/NJM
DESIGN:	CRW
CHK'D:	JPE

SHEET NUMBER
C1.1

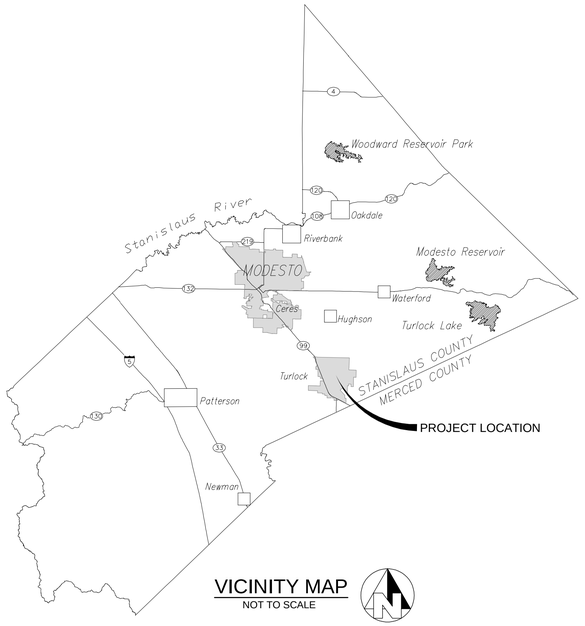
PLOTTED: 08/04/2023 16:12 PLOTTED BY: NIarsson
DWGNAME: F:\21-2896 Pedras Road Rehabilitation\Civil\Imp Plans\C1.1 C/R.dwg

811 Know what's below. Call before you dig.

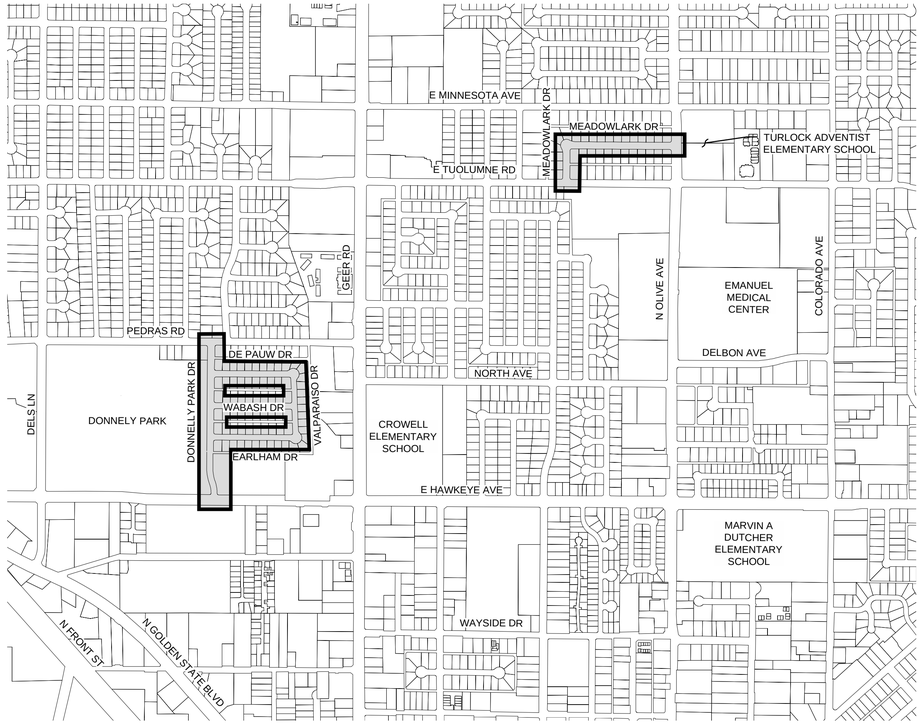
WARNING
POWER LINES OVERHEAD

CITY OF TURLOCK CONSTRUCTION PLANS FOR ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT

CITY PROJECT NO. 23-068 - PACKAGE 1



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

SPECIAL NOTE

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SITE SAFETY AND PROTECTION NOTES

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THE CONTRACTOR SHALL HAVE AT THE WORK SITE, COPIES OR SUITABLE EXTRACTS OF CONSTRUCTION SAFETY ORDERS, ISSUED BY CAL-OSHA. CONTRACTOR SHALL COMPLY WITH PROVISIONS OF THESE AND ALL OTHER APPLICABLE LAWS, ORDINANCES AND REGULATIONS. THE CONTRACTOR MUST COMPLY WITH PROVISIONS OF THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION, PROMULGATED BY THE SECRETARY OF LABOR UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS SET FORTH IN TITLE 29 C.F.R.

TO PROTECT THE LIVES AND HEALTH OF CONTRACTOR'S EMPLOYEES UNDER THE CONTRACT, THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC., AND SHALL MAINTAIN AN ACCURATE RECORD OF ALL CASES OF DEATH, OCCUPATIONAL DISEASE, AND INJURY REQUIRING MEDICAL ATTENTION OR CAUSING LOSS OF TIME FROM WORK, ARISING OUT OF AND IN THE COURSE OF EMPLOYMENT OR WORK UNDER THE CONTRACT.

THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR THE SAFETY, EFFICIENCY, AND ADEQUACY OF CONTRACTOR'S FACILITIES, APPLIANCES, AND METHODS AND FOR ANY DAMAGE, WHICH MAY RESULT FROM THEIR FAILURE OR THEIR IMPROPER CONSTRUCTION, MAINTENANCE OR OPERATION.

THE CONTRACTOR AGREES THAT IT SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, PROVOST & PRITCHARD CONSULTING GROUP, AND THEIR RESPECTIVE AGENTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF OWNER, ENGINEER, OR THEIR RESPECTIVE AGENTS.

THE OWNER AND ITS AGENTS' SITE RESPONSIBILITIES ARE LIMITED SOLELY TO THE ACTIVITIES OF THEIR EMPLOYEES ON SITE. THESE RESPONSIBILITIES SHALL NOT BE INFERRED BY ANY PARTY TO MEAN THAT THE OWNER OR ITS AGENTS HAVE RESPONSIBILITY FOR SITE SAFETY. SAFETY IN, ON, OR ABOUT THE SITE IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR ALONE. THE CONTRACTOR'S METHODS OF WORK PERFORMANCE, SUPERINTENDENCE AND THE CONTRACTOR'S EMPLOYEES, AND SEQUENCING OF CONSTRUCTION ARE ALSO THE SOLE AND EXCLUSIVE RESPONSIBILITIES OF THE CONTRACTOR ALONE.

TOPOGRAPHY NOTE

TOPOGRAPHY SHOWN WAS COLLECTED BY PROVOST & PRITCHARD CONSULTING GROUP DURING A FIELD SURVEY CONDUCTED IN MARCH OF 2024.

BOUNDARY NOTE

THE BOUNDARY/EASEMENT INFORMATION SHOWN ON THESE PLANS IS BASED UPON RECORD INFORMATION TIED TO PHYSICAL MONUMENTS, AND WAS PREPARED UNDER THE DIRECTION OF BRYAN W. BOWERS, PLS 8469.

PRIMARY BENCHMARK

POINT 1000: A FOUND REBAR AND CAP MARKED CONTROL
LIST ELEVATION:105.949
NOTE: THIS CONTROL WAS ESTABLISHED BY SURVEYS CONDUCTED BY SOMEONE OTHER THAN PROVOST AND PRITCHARD.

PROFESSIONAL LAND SURVEYOR
BRYAN W. BOWERS
No. 8469
STATE OF CALIFORNIA

DATE SIGNED: NOV 2024

APPROVALS

WILLIAM D. MORRIS, P.E., P.L.S. — DATE
CITY ENGINEER
CITY OF TURLOCK

GENERAL NOTES

1. CITY OF TURLOCK (209-668-5520) SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK ON OR NEAR EXISTING DISTRICT FACILITIES.
2. USED MATERIAL, REJECTS, MISFITS, OR SECONDS, ETC. ARE NOT ACCEPTABLE FOR USE ON CITY OF TURLOCK FACILITIES.
3. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH THESE PLANS, PROJECT SPECIFICATIONS AND CITY OF TURLOCK SPECIFICATIONS.
4. CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING FACILITIES PRIOR TO COMMENCING WORK. CALL UNDERGROUND SERVICE ALERT (USA) AT 8-1-1. CONTRACTOR SHALL MAKE ENGINEER AWARE OF ANY DISCREPANCIES.
5. ALL CAST-IN-PLACE CONCRETE STRUCTURES SHALL BE FORMED INSIDE AND OUT AND CONCRETE VIBRATED SUFFICIENTLY TO PROVIDE FOR SMOOTH SURFACED WALLS/FLOORS WITHOUT VOIDS AND HONEYCOMBS.
6. CITY OF TURLOCK SHALL INSPECT ALL WORK PHASES ON CONCRETE FACILITIES FOR CONFORMANCE TO CITY OF TURLOCK SPECIFICATIONS. REINFORCING SHALL NOT BE ENCASED IN CONCRETE WITHOUT PRIOR CITY OF TURLOCK INSPECTIONS. LIKEWISE, CONCRETE SHALL NOT BE COVERED WITH EARTH PRIOR TO CITY OF TURLOCK INSPECTION.
7. CONCRETE DESIGN MIX SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL CONCRETE SHALL HAVE A 28-DAY MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE SPECIFIED.
8. ALL STEEL PIPE AND FITTINGS SHALL BE FURNISHED WITH A SHOP APPLIED HIGH SOLIDS EPOXY COATING ON THE INTERIOR AND EXTERIOR, UNLESS OTHERWISE INDICATED. ALL OTHER EXPOSED STEEL SHALL BE PAINTED WITH A PRE-TREATMENT PRIMER, AN UNDERCOAT AND A FINAL COAT OF PAINT IN ACCORDANCE WITH CITY OF TURLOCK SPECIFICATIONS.
9. ALL NUTS, BOLTS, AND WASHERS USED TO SECURE UNDERGROUND FITTINGS SHALL BE STAINLESS STEEL. AFTER INSTALLATION, ALL STEEL HARDWARE SHALL BE COATED WITH A RUST PREVENTATIVE, WRAPPED WITH 4 MIL POLYETHYLENE SHEETING, AND SECURE WITH PVC TAPE.
10. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE HEALTH AND SAFETY LAWS OF THE STATE OF CALIFORNIA AND CAL/OSHA STANDARDS.
11. TRENCH BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AND THE GEOTECHNICAL REPORT CONTAINED IN THE SPECIFICATIONS.
12. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPAIR OF ALL PIPELINE CRACKS, WHICH DEVELOP DURING CONSTRUCTION OF IMPROVEMENTS AFFECTING EXISTING FACILITIES.
13. CONCRETE VAULTS AND BOXES MAY BE PURCHASED FROM A PRECAST MANUFACTURER OR CONTRACTOR MAY CONSTRUCT THE STRUCTURES IF STRUCTURAL CALCULATIONS AND DESIGN IS APPROVED BY THE CITY OF TURLOCK AND THE ENGINEER.
14. ALL EXCESS MATERIAL AND/OR DEBRIS SHALL BE REMOVED UPON COMPLETION OF INSTALLATION.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE DUST CONTROL AT ALL TIMES.

SHEET INDEX

SHEET NO.	SEQ. SHEET NO.	DESCRIPTION
GENERAL		
G1	1	COVER SHEET
G2	2	LEGEND & ABBREVIATIONS
G3	3	CONTROL POINTS
STREET PLAN		
C1	4	MEADOWLARK DR STA 10+00 - 13+75
C2	5	MEADOWLARK DR STA 14+00 - 24+00
C3	6	DONNELLY PARK DR STA 30+00 - 39+19.24
C4	7	DONNELLY PARK DR STA 39+19.24 - 43+08
C5	8	DE PAUW DR STA 50+00 - 57+50
C6	9	WABASH DR STA 60+00 - 67+02
C7	10	EARLHAM DR STA 70+00 - 77+75
C8	11	VALPARAISO DR STA 81+00 - 85+00
DETAILS		
D1	12	STANDARD DETAILS
D2	13	STANDARD DETAILS
D3	14	STANDARD DETAILS
D4	15	STANDARD DETAILS
D5	16	CIVIL DETAILS
D6	17	SITE DETAILS
D7	18	SITE DETAILS
D8	19	SITE DETAILS
D9	20	SITE DETAILS
D10	21	SITE DETAILS
D11	22	SITE DETAILS
D12	23	CIVIL DETAILS
TRAFFIC HANDLING		
TH1	24	LEGEND
TH2	25	DETAILS
TH3	26	TRAFFIC HANDLING
TH4	27	TRAFFIC HANDLING
TH5	28	TRAFFIC HANDLING
TH6	29	TRAFFIC HANDLING
TH7	30	TRAFFIC HANDLING
STRIPING		
S1	31	MEADOWLARK DR
S2	32	MEADOWLARK DR
S3	33	DONNELLY PARK DR
S4	34	DONNELLY PARK DR
S5	35	DE PAUW DR
S6	36	WABASH DR
S7	37	EARLHAM DR
S8	38	VALPARAISO DR

CITY OF TURLOCK
MUNICIPAL SERVICES DEPARTMENT
156 S. BROADWAY, SUITE 150
(209) 668-5520

OCTOBER 2024

No.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER
WILLIAM D. MORRIS
No. 76749
CIVIL
STATE OF CALIFORNIA

DATE SIGNED: ____

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM
CAPITAL IMPROVEMENT PROJECT
CITY PROJECT No. 23-068 - PACKAGE 1
GENERAL
COVER SHEET

PROVOST & PRITCHARD
455 W FIR AVENUE
CLOVIS, CA 93611-9166
PHONE (559) 449-2700
FAX (559) 449-2715
www.provostandpritchard.com

DESIGN ENGINEER: JD
LICENSE NO: 76749
DRAFTED BY: AR | CHECKED BY: JD
DATE: NOV 2024
JOB NO: 229224001
PROJECT NO: 229224001
PHASE:

0 1"
ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

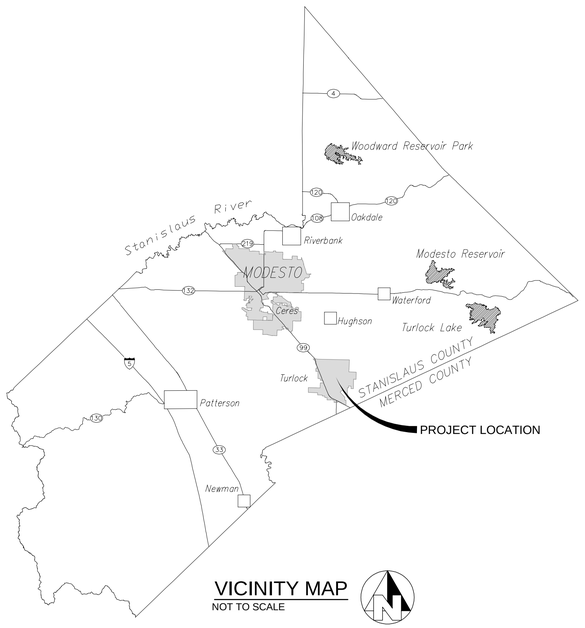
SHEET G1
1 OF 38

11/1/2024 1:45 PM G:\Turlock_City of 229223\229224001-2024 Road Rehab\300 CAD\341 Sheet Sets\01_General\G1 COVER SHEET.dwg -Abby Roque

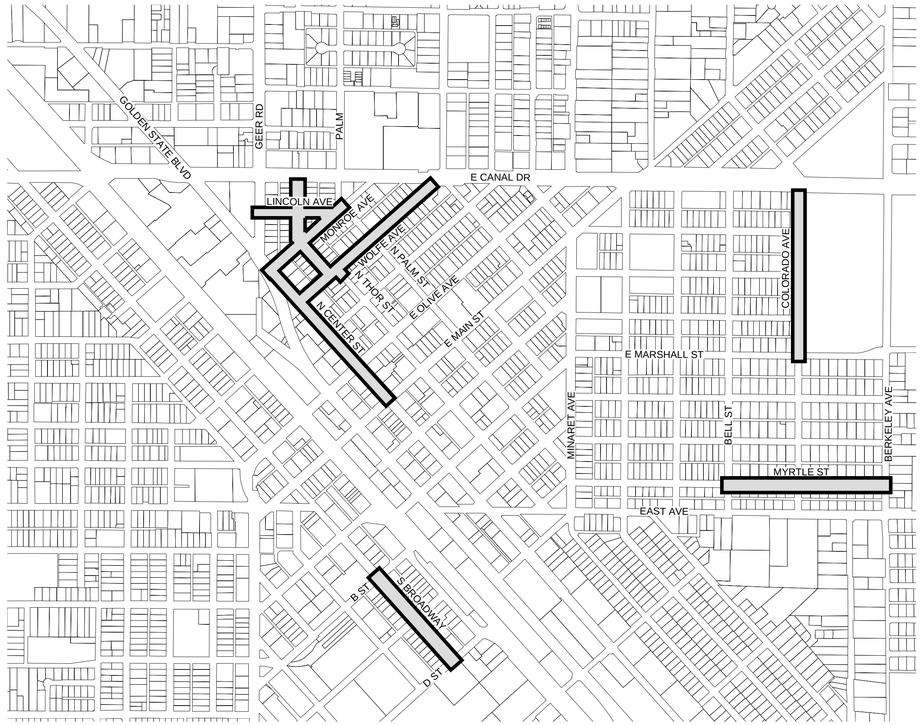
811 Know what's below. Call before you dig.

WARNING
POWER LINES OVERHEAD

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT
CITY PROJECT NO. 23-032



VICINITY MAP
NOT TO SCALE



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NOT TO SCALE

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PRIMARY BENCHMARK

THE POINT SHOWN HEREON AS POINT 2523, A FOUND MAG NAIL PROVIDED BY AN OUTSIDE SURVEY, WAS HELD FOR VERTICAL CONTROL
RECORD ELEVATION: 101.457'

APPROVALS

4/10/2024
WILLIAM D. MORRIS, P.E., P.L.S. — DATE
CITY ENGINEER
PUBLIC WORKS DEPARTMENT

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G3	3	CONTROL POINTS
STREET PLAN & PROFILE		
C1	4	LINCOLN AVE STA 100+00 - 103+50
C2	5	LINCOLN AVE STA 103+00 - 106+08
C3	6	THOR ST STA 100+00 - 103+50
C4	7	THOR ST STA 200+00 - 202+75
C5	8	THOR ST 202+75 - 206+00
C6	9	MONROE AVE STA 300+00 - 304+00
C7	10	MONROE AVE STA 304+00 - 308+50
C8	11	WOLFE AVE STA 400+00 - 403+00
C9	12	WOLFE AVE STA 403+00 - 407+50
C10	13	WOLFE AVE STA 407+50 - 411+50
C11	14	WOLFE AVE STA 411+50 - 415+00
C12	15	CENTER ST STA 500+00 - 505+00
C13	16	CENTER ST STA 505+00 - 510+00
C14	17	CENTER ST STA 510+00 - 514+50
C15	18	BROADWAY ST STA 600+00 - 604+50
C16	19	BROADWAY ST STA 604+50 - 609+30
C17	20	COLORADO AVE 700+00 - 705+00
C18	21	COLORADO AVE 705+00 - 710+00
C19	22	COLORADO AVE 710+00 - 714+50
C20	23	MYRTLE AVE 800+00 - 805+00
C21	24	MYRTLE AVE 805+00 - 810+00
C22	25	MYRTLE AVE 810+00 - 813+00
C23	26	PALM AVE STA 900+00 - 901+60
DETAILS		
D1	27	STANDARD DETAILS
D2	28	STANDARD DETAILS
D3	29	STANDARD DETAILS
D4	30	STANDARD DETAILS
D5	31	CIVIL DETAILS
D6	32	CIVIL DETAILS
D7	33	SITE DETAILS
D8	34	SITE DETAILS
D9	35	SITE DETAILS
D10	36	SITE DETAILS
D11	37	SITE DETAILS
D12	38	SITE DETAILS
D13	39	SITE DETAILS
D14	40	SITE DETAILS
D15	41	SITE DETAILS
D16	42	SITE DETAILS
D17	43	SITE DETAILS
D18	44	SITE DETAILS
D19	45	SITE DETAILS
D20	46	SITE DETAILS

SHEET INDEX

SHEET NO.	SEQ. SHEET NO.	DESCRIPTION
D21	47	SITE DETAILS
D22	48	SITE DETAILS
D23	49	SITE DETAILS
D24	50	SITE DETAILS
D25	51	SITE DETAILS
STORM DRAIN		
U1	52	CENTER ST STA 507+25 - 512+00
U2	53	DETAILS
U3	54	DETAILS
U4	55	DETAILS
TRAFFIC HANDLING		
TH1	56	TRAFFIC HANDLING
TH2	57	TRAFFIC HANDLING
TH3	58	TRAFFIC HANDLING
TH4	59	TRAFFIC HANDLING
TH5	60	TRAFFIC HANDLING
TH6	61	TRAFFIC HANDLING
TH7	62	TRAFFIC HANDLING
TH8	63	TRAFFIC HANDLING
TH9	64	TRAFFIC HANDLING
TH10	65	TRAFFIC HANDLING
STRIPING		
S1	66	LINCOLN AVE
S2	67	THOR ST
S3	68	THOR ST
S4	69	MONROE AVE
S5	70	WOLFE AVE
S6	71	WOLFE AVE
S7	72	CENTER ST
S8	73	CENTER ST
S9	74	BROADWAY ST
S10	75	COLORADO AVE
S11	76	COLORADO AVE
S12	77	MYRTLE AVE
S13	78	MYRTLE AVE

CITY OF TURLOCK
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
156 S. BROADWAY, SUITE 150
(209) 668-5520

APRIL 2024

No.	REVISION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER WILLIAM D. MORRIS No. 70,749 STATE OF CALIFORNIA CIVIL
DATE SIGNED: ____

CITY OF TURLOCK
CONSTRUCTION PLANS FOR ROADS PROGRAM CAPITAL IMPROVEMENT PROJECT
CITY PROJECT No. 23-032
GENERAL
COVER SHEET

PROVOST & PRITCHARD
455 W FIR AVENUE
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DATE: APRIL 2024
JOB NO: 229223002
PROJECT NO: 229223002
PHASE:

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ORIGINAL SCALE SHOWN IS ONE INCH. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.

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APPENDIX C: QUALITY ASSURANCE PLAN

QUALITY ASSURANCE PROGRAM

CITY OF TURLOCK

156 S BROADWAY ST
TURLOCK, CA 95380

Prepared By:

Stephen R. Fremming, PE
Principal Civil Engineer

LICENSED PROFESSIONAL ENGINEER
STEPHEN R. FREMMING
C 80224
Exp. 9/30/2022
CIVIL
STATE OF CALIFORNIA

Approved By:

Nathan B. Bray, PE
Interim Development Services Director / City Engineer

REGISTERED PROFESSIONAL ENGINEER
NATHAN B. BRAY
C 76642
Exp: 12/31/2022
CIVIL
STATE OF CALIFORNIA

Date: July 30, 2021

QUALITY ASSURANCE PROGRAM

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156 S BROADWAY ST
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Date: July 30, 2021

1.0 PURPOSE

The purpose of this program is to provide assurance that the materials incorporated into construction projects are in conformance with the contract specifications. To accomplish this purpose, the following terms and definitions will be used:

DEFINITION OF TERMS

- Acceptance Testing (AT) – Sampling and testing, or inspection, to determine the degree of compliance with contract requirements.
- Independent Assurance Program (IAP) – Verification that AT is being performed correctly by qualified testers and laboratories.
- Quality Assurance Program (QAP) - A sampling and testing program that will provide assurance that the materials and workmanship incorporated into the construction contract are in conformance with the contract specifications. The main elements of a QAP are the AT and IAP.
- Source Inspection – AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.

This QAP applies to both local projects not located on the National Highway System (NHS) or the State Highway System (SHS), as well as projects located on the NHS and SHS. Said projects are referred to as "Non-NHS" and "Non-SHS". For projects located on the NHS and SHS, the City of Turlock adopts the Caltrans QAP Sampling and Testing Frequency Tables located in Appendix 1 and as detailed in the following Caltrans documents: Construction Manual, Construction Manual Supplement for Local Agency REs, Local Assistance Structure Representative Guidelines, and Independent Assurance Manual. For Non-NHS and non-SHS projects that receive federal funds, the City of Turlock utilizes the Sampling and Testing Frequency Tables located in Appendix 2.

2.0 MATERIALS LABORATORY

The City of Turlock will use a private consultant materials laboratory to perform AT on Federal-aid and other designated projects. The materials laboratory shall be under the responsible management of a California Registered Engineer with experience in sampling, inspection and testing of construction materials. The Engineer shall certify the results of all test performed by laboratory personnel under the Engineer's supervision. The materials laboratory shall contain certified test equipment capable of performing the test conforming to the provisions of this QAP.

The materials laboratory used shall provide documentation that the laboratory complies with the following procedures:

1. Correlation Testing Program – The materials laboratory shall be a participant in one or more of the following testing programs:

a. AASHTO Materials Reference Laboratory (AMRL)
b. Cement and Concrete Reference Laboratory (CCRL)
c. Caltrans' Reference Samples Program (RSP)

2. Certification of Personnel – The materials laboratory shall employ personnel who are certified by one or more of the following:

a. Caltrans District Materials Engineer
b. Nationally recognized non-Caltrans organizations such as the American Concrete Institute, Asphalt Institute, National Institute of Certification of Engineering Technologies, etc.
c. Other recognized organizations approved by the State of California and/or recognized by local governments or private associations.

3. Laboratory and Testing Equipment – The materials laboratory shall only use laboratory and testing equipment that is in good working order. All such equipment shall be calibrated at least once each year. All testing equipment must be calibrated by impartial means using devices of accuracy traceable to the National Institute of Standards and Technology. A decal shall be firmly affixed to each piece of equipment showing the date of the last calibration. All testing equipment calibration decals shall be checked as part of the IAP.

3.0 ACCEPTANCE TESTING (AT)

AT will be preformed by a materials laboratory certified to perform the required tests. The tests results will be used to ensure that all materials incorporated into the project are in compliance with the contract specifications.

Testing methods will be in accordance with the California Test Methods or a national recognized standard (i.e., AASHTO, ASTM, etc.) as specified in this QAP.

Sample locations, number of samples, sampling, and testfrequencies shall be in accordance with the contract specifications, though shall not be less stringent than that shown in Appendix 1 to this QAP.

4.0 INDEPENDENT ASSURANCE PROGRAM (IAP)

IAP shall be provided by personnel from an independent materials laboratory chosen the City of Turlock. IAP will be used to verify that the sampling and testing procedures are being performed properly and that all testing equipment is in good working condition and properly calibrated.

IAP personnel shall be certified in all required testing procedures, as part of IAP, and shall not be involved in any aspect of AT.

IAP shall be performed on every type of materials test required for the project. Proficiency tests shall be performed on Sieve Analysis, Sand Equivalent, and Cleanness Value tests. All other types of IAP shall be witness tests.

Poor correlation between acceptance tester's results and other test results may indicate probable deficiencies with the acceptance sampling and testing procedures. In cases of unresolved discrepancies, a complete review of AT shall be performed by IAP personnel. IAP samples and tests are not to be used for determining compliance with contract requirements. Compliance with contract requirements is determined only by AT.

5.0 REPORTING ACCEPTANCE TESTING RESULTS

The following are time periods for reporting material test results to the Resident Engineer:

- When the aggregate is sampled at material plants, test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 24 hours after sampling.
- When materials are sampled at the job site, test results for compaction and maximum density should be submitted to the Resident Engineer within 24 hours after sampling.
- When soils and aggregates are sampled at the job site:
    - Test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 72 hours after sampling.
    - Test results for "R" Value and asphalt concrete extraction should be submitted to the Resident Engineer within 96 hours after sampling.

When sampling products such as Portland Cement Concrete (PCC), cement-treated base (CTB), hot mix asphalt (HMA), and other such materials; the time of such sampling shall be varied with respect to the time of the day insofar as possible; in order to avoid a predictable sampling routine. The reporting of AT results shall be done on an expedited basis such as by fax or email.

6.0 TESTING OF MANUFACTURED MATERIALS

During the Design phase of the project, the Project Engineer may submit a "Source Inspection Request" to the consultant for inspection and testing of manufactured and prefabricated materials by their materials laboratory. A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Appendix 2. All certificates of compliance shall conform to the requirements of the contract specifications.

7.0 PROJECT CERTIFICATION

Upon completion of a Federal-aid project, a "Materials Certificate" shall be completed by the Resident Engineer. The City shall include a "Materials Certificate" in the Report of Expenditures submitted to the Caltrans Distract Director. A copy of the "Materials Certificate" shall also be

included in the City's construction records. The City Engineer in charge of the construction function for the City shall sign the certificate. All materials incorporated into the work which does not conform to specifications must be explained and justified on the "Materials Certificate".

8.0 RECORDS

All material records of samples and tests, material releases and certificates of compliance for the construction project shall be incorporated into the Resident Engineer's project file. If a Federal-aid Project, the project files shall be available for at least 3 years following the date of final project voucher.:

When two or more projects are being furnished identical materials simultaneously from the same plant, it is not necessary to take separate samples of perform separate test for each project; however copies of the test reports are to be provided for each of the projects to complete the records.

9.0 LIST OF APPENDICES

- Appendix 1 – Size, Frequency, and Location of Sampling and Testing (NHS and SHS projects)
- Appendix 2 - Size, Frequency, and Location of Sampling and Testing (non-NHS and non-SHS projects)
- Appendix 3 - Materials Typically Accepted by Certificate of Compliance

APPENDIX 1

Size, Frequency, and Location of Sampling and Testing (NHS and SHS projects)

Earthwork (*Standard Specifications* Section 19) (1 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
STRUCTURE BACKFILL (Section 19-3.02C)					
Sieve Analysis	California Test 202	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day
Sand Equivalent	California Test 217	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day
Relative Compaction	California Test 231	Sample for California Test 216	Project site in accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 8 in. of thickness	Relative compaction test is required at each location structure backfill is placed
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	Wet common-composite test maximum value may be used in accordance with California Test 231
PERVIOUS BACKFILL MATERIAL (Section 19-3.02D)					
Sieve Analysis	California Test 202	50 lb	Stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material within specification limits, test frequency may be decreased to 1 per day
COMPACTION (Section 19-5)					
R-Value	California Test 301	50 lb	Project site	Test to verify R-value if differing site conditions are encountered	If R-value testing in the materials report is incomplete because of preproject conditions, then test to verify design R-value
Relative Compaction	California Test 231	Sample for California Test 216	California Test 216	1 every 2,000 sq yd	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	

Earthwork (*Standard Specifications* Section 19) (2 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (See Note 1)	Acceptance Test Frequency	Remarks
EMBANKMENT CONSTRUCTION (Section 19-6)					
Relative Compaction	California Test 231	Sample for California Test 216	Project site in accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 8 in. of thickness	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	Wet common-composite test maximum value may be used in accordance with California Test 231
GEOSYNTHETIC REINFORCED EMBANKMENT (Section 19-6.02B)					
Plasticity Index	California Test 204	50 lb	Materials site or stockpile	1 per source before use	
pH	California Test 643	50 lb	Materials site or stockpile	1 per source before use	
Sieve Analysis	California Test 202	50 lb	Stockpile	Before use, 1 every 3,000 tons or 2,000 cu yd	If material is uniform and well within specification limits, the test frequency may be decreased to 1 per day
BORROW MATERIAL (Section 19-7)					
R-Value	California Test 301	50 lb	Import borrow source	1 per source	Test for R-value only when an R-value is specified for import borrow in the special provisions; if material at import borrow source is not uniform, increase testing frequency

Earthwork (*Standard Specifications* Section 19) (3 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
SHOULDER BACKING (Section 19-9)					
Crushed Particles	California Test 205	50 lb	Materials site or stockpile	1 per project before use	
Durability	California Test 229	50 lb	Materials site or stockpile	1 per project before use	
Unit Weight	California Test 212 Rodding Method	50 lb	Materials site or stockpile	1 per project before use	
Sieve Analysis	California Test 202	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day
Sand Equivalent	California Test 217	50 lb	Materials site or stockpile	1 every 3,000 tons or 2,000 cu yd	If uniform material is within specification limits, test frequency may be decreased to 1 per day

Note:

1. Refer to California Test 125 for sampling procedures.

Stabilized Soils (*Standard Specifications* Section 24) (1 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
LIME (Section 24-2.02)					
Various properties	See *Standard Specifications* Section 24-2.02	One 10-lb sample for each type and source of lime; use a 2-qt airtight container	Initial sample provided by contractor; subsequent sampling from mid-point of delivery	Each 100 tons of lime, 2 per day maximum	Must be on an Authorized Material List and certificate of compliance must accompany each shipment; recommend 1 acceptance test per 5 samples of lime
LIME TREATMENT					
DETERMINATION OF LIME APPLICATION RATE (Section 24-2.01D)					
Unconfined Compressive Strength	California Test 373	100 lb	Native soils; test each type of material to be treated	Before soil stabilization work and if source of lime changes	To determine appropriate lime content
Optimum Moisture Content	California Test 373	100 lb	Native soils; test each type of material to be treated	Before soil stabilization work	
VERIFICATION OF LIME APPLICATION RATE AND STABILIZED SOIL MIXTURE (Section 24-2.01D)					
Lime Application (Dry Form)	Calibrated tray method or equal	Building paper or pan of known area	Surface receiving lime	Each 40,000 sq ft, 2 per day minimum	To determine if application rate is within ± 5% of ordered application rate
Lime Application (Slurry Form)	Volumetric measurement that is then reduced to lime weight	Deter-mined over known area	Slurry holding tank	Each 40,000 sq ft, 2 per day minimum	To determine if application rate is within ± 5% of ordered application rate
Uniformity of Mixed Stabilized Soil	Phenolphthalein alcohol indicator solution spray	N/A	Representative areas	Each day at five separate locations	Taken after completion of initial mixing

Stabilized Soils (*Standard Specifications* Section 24) (2 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
VERIFICATION OF LIME APPLICATION RATE AND STABILIZED SOIL MIXTURE (Section 24-2.01D)					
Moisture Content of Mixed Stabilized Soil	California Test 226	0.25 lb each sample	Representa-tive areas at mid depth	Each day at five separate locations to verify contractor's quality control tests	Taken during mellowing period
Gradation of Mixed Stabilized Soil	California Test 202	25 lb	Representa-tive areas	1 every 4,000 sq yd, 1 per day minimum	Taken before compaction
MIXED STABILIZED SOIL (Sections 24-2.01 and 24-2.03)					
Relative Compaction	California Test 231	Sample for California Test 216	Project site in accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	1 every relative compaction test	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	Measurement	N/A	Random locations in place after compaction	As necessary for verification of stabilized soil thickness and surface grades	

Stabilized Soils (*Standard Specifications* Section 24) (3 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CURING SEAL-ASPHALTIC EMULSION (Section 24-1.02C)					
Various properties based on asphaltic emulsion type used	Based on asphaltic emulsion type used; see *Standard Specifications* Section 94	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Sampling line leading to the spray bar	1 each shipment	Each shipment must be accompanied by a certificate of compliance; recommend 1 random test from samples taken

Note:

1. Refer to California Test 125 for sampling procedures.

Aggregate Subbases (*Standard Specifications* Section 25)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE SUBBASE					
Gradation (Sieve Analysis)	California Test 202	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material is within specification limits, frequency may be decreased to 1 test per day
Sand Equivalent	California Test 217	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material within specification limits, frequency may be decreased to 1 test per day
R-Value	California Test 301	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd	R-value testing may be reduced to 1 acceptance test per project when test records demonstrate that comparable material from the same source meets minimum R-value requirements
Relative Compaction	California Test 231	Sample for California Test 216	Roadway in accordance with California Test 231	Every 2,000 sq yd	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	Every 2,000 sq yd	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of aggregate subbase

Notes:

1. Refer to California Test 125 for sampling procedures.
2. If material is outside the specification limits, sample and test representative material every 500 cu yd so that deductions may be taken for noncompliant material.

Aggregate Bases (*Standard Specifications* Section 26)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE BASES					
Gradation (Sieve Analysis)	California Test 202	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material is within specification limits, frequency may be decreased to 1 test per day
Sand Equivalent	California Test 217	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd (See Note 2)	If uniform material is within specification limits, frequency may be decreased to 1 test per day
Resistance Value (R-Value)	California Test 301	50 lb	Windrow or roadway	Every 3,000 tons or 2,000 cu yd	R-value testing may reduced to 1 acceptance test per project when test records demonstrate that comparable material from the same source meets minimum R-value requirements
Durability Index	California Test 229	50 lb	Windrow or roadway	1 per project	Durability test not required for Class 3 aggregate base
Moisture	California Test 226	25 lb	Materials site or stockpile	2 daily when aggregate base is paid for by weight	
Relative Compaction	California Test 231	Sample for California Test 216	Roadway in accordance with California Test 231	Every 2,000 sq yd	
Maximum Wet Density	California Test 216	35 lb	Relative compaction test site locations	Every 2,000 sq yd	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of aggregate base

Notes:

1. Refer to California Test 125 for sampling procedures.
2. If material is outside the specification limits, sample and test representative material every 500 cu yd so that deductions may be taken for noncompliant material.

Cement Treated Bases (*Standard Specifications* Section 27) (1 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CEMENT TREATED BASE Class A or Class B					
AGGREGATE					
Gradation (Sieve Analysis)	California Test 202, California Test 105	40 lb	Plant, truck, windrow, or roadway	1 every 3,000 tons or 2,000 cu yd, minimum 1 per day of production	
Sand Equivalent	California Test 217	40 lb	Plant, truck, windrow, or roadway	1 every 3,000 tons or 2,000 cu yd, minimum 1 per day of production	
AGGREGATE Class B					
R-Value (with and without cement)	California Test 301	100 lb for aggregate qualifica-tion	Windrow or roadway	Before production	
CEMENT Type II Portland Cement					
Various properties must comply with *Standard Specifications* Section 90-1.02B(2)	See *Standard Specifications* Section 90-1.02B(2)	8 lb	Cement treated base plant or cement spreader	1 each 100 tons of cement, 2 per day maximum	Recommend 1 acceptance test per project for cement from approved suppliers and certificate of compliance with each shipment
WATER					
Chlorides	California Test 422	Clean 2-qt plastic jug with lined, sealed lid	1 per source; at point of use		Water supplies for domestic use do not need to be tested

Cement Treated Bases (*Standard Specifications* Section 27) (2 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
WATER (Cont.)					
Sulfates	California Test 417	Clean 2-qt plastic jug with lined, sealed lid	1 per source; at point of use		Water supplies for domestic use do not need to be tested
COMPLETED MIX Class A					
Compressive Strength	California Test 312	See California Test 312, Part II	Windrow or roadway before compaction	1 per day	If first 3 days of production test records demonstrate materials are in compliance, recommend test every 5 days of production
COMPLETED MIX Class B					
R-Value	California Test 301	50 lb	Windrow or roadway before compaction	1 every 3,000 tons or 2,000 cu yd	Recommend R-value testing be reduced to 1 every 10,000 cu yd when test records demonstrate that material from the same source, and having comparable grading and sand equivalent values, meets the minimum R-value requirements

Cement Treated Bases (*Standard Specifications* Section 27) (3 of 3)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
COMPLETED MIX Class A and Class B					
Cement Content	California Test 338	See California Test 338, Part I	Windrow or roadway before compaction	1 every 1,500 tons or 1,000 cu yd, minimum 1 per day of production	
Optimum Moisture	California Test 312	See California Test 312	Windrow or roadway	Before production	
Moisture Content	California Test 226	10 lb in sealed container	Roadway before compaction	2 daily	
Relative Compaction	California Test 312 or 231	Sample for California Test 216	Roadway in accordance with California Test 231	1 every 2,000 sq yd	
Maximum Wet Density	California Test 216, California Test 312	35 lb	Relative compaction test site locations	1 every 2,000 sq yd	Wet common-composite test maximum value may be used in accordance with California Test 231
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of cement treated base

Note:

1. Refer to California Test 125 for sampling procedures.

Concrete Bases (*Standard Specifications* Section 28)
Lean Concrete Base

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
LEAN CONCRETE BASES					
Compressive strength (7-days)	ASTM C39	6 cylinders 6x12 in. - 3 tests	Concrete truck discharge chute	1,000 cu yd or 1 day's production if less than 1,000 cu yd	
Compressive strength (3-days)	ASTM C39	6 cylinders 6x12 in. - 3 tests	Concrete truck discharge chute	1,000 cu yd or 1 day's production if less than 1,000 cu yd	Optional test to qualify for a transverse contraction joint waiver
RAPID STRENGTH CONCRETE BASE					
Modulus of rupture (7-days)	California Test 524	3 beams - 6x6x20 inches	Concrete truck discharge chute	1 per 500 cu yd or 1 day's production if less than 500 cu yd	
LEAN CONCRETE BASE RAPID SETTING					
Compressive strength (7-days)	California Test 521	6 cylinders 6x12 in. - 3 tests	Concrete truck discharge chute	1 per 500 cu yd or 1 day's production if less than 500 cu yd	
CONCRETE BASE					
Modulus of rupture (7-days)	California Test 523	2 beams of 6x6x32 in. for centerpoint loading or 6x6x20 in. for third-point loading	Concrete truck discharge chute	1,000 cu yd or 1 day's production if less than 1,000 cu yd	
Dimensions	N/A	N/A	Random locations	As necessary for acceptance	Verify thickness of base

Note:

1. Refer to California Test 125 for sampling procedures.

Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (1 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE					
Percentage Crushed Particles	California Test 205	Combined two 40-lb canvas bags (See Note 2) or Batch 160 lb (proportioned per bin percentages)	Plant	Before production and minimum 1 random for every 50,000 tons or less of paving	
Los Angeles Rattler (at 500 revolutions)	California Test 211	Combined two 40-lb canvas bags (See Note 2) or Batch 160 lb (proportioned per bin percentages)	Plant	Before production and minimum 1 random for every 50,000 tons or less of paving	
Film Stripping	California Test 302	Combined two 40-lb canvas bags (See Note 2) or Batch 160 lb (proportioned per bin percentages)	Plant	Before production and minimum 1 random for every 50,000 tons or less of paving	
Gradation (Sieve Analysis)	California Test 202	Combined two 20-lb canvas bags (See Note 3) or Batch 40 lb (proportioned per bin percentages)	Plant	1 for every 4 hours of production	

Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (2 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE (Cont.)					
Cleanness Value	California Test 227	Combined two 20-lb canvas bags (See Note 3) or Batch 40 lb (proportioned per bin percentages)	Plant	1 for every 4 hours of production	Recommend 1 acceptance test per day if 3 consecutive results exceed 62
ASPHALT					
Various properties based on asphalt type used; see *Standard Specifications* Section 92	Based on asphalt type used; see *Standard Specifications* Section 92	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting plant storage tanks	1 per day	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, sample and test asphalt before use
COMPLETED MIX					
Asphalt Content	California Test 382	40 lb in metal containers	Plant, truck, windrow, or roadbed	1 for every 4 hours of production	
AGGREGATE					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	50 lb	Plant	Before production and minimum 1 random for every 25,000 cu yd	
Soundness	California Test 214	50 lb	Plant		
Sieve Analysis (Gradation)	California Test 202	40 lb	Plant	1 for every 4 hours of production; (See Note 4)	

Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (3 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (See Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE (Cont.)					
Cleanness Value	California Test 227				
CEMENT					
Cement, various properties; must comply with *Standard Specifications* Section 90-1.02B(2)	Must comply with *Standard Specifications* Section 90-1.02B(2)	8 lb	Concrete plant	1 for each 100 tons, 2 per day max	Recommend 1 acceptance test per project for cement from approved suppliers with certificate of compliance
WATER					
Chlorides	California Test 422	Clean 2-qt plastic jug with lined, sealed lid At point of use; see Remarks	1 per source		Water supplies for domestic use do not need to be tested
Sulfates	California Test 417	Clean 2-qt plastic jug with lined, sealed lid At point of use; see Remarks	1 per source		Water supplies for domestic use do not need to be tested
Setting Time	ASTM C 191 or ASTM C 266	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Mortar Compressive Strength	ASTM C109	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Coloring Agents	Must comply with *Standard Specifications* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested

Treated Permeable Bases (*Standard Specifications* Section 29)
Asphalt Treated Permeable Base (ATPB) (4 of 4)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
WATER					
Alkalis	Must comply with *Standard Specifications* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Specific Gravity	Must comply with *Standard Specifications* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested

Notes:

1. Refer to California Test 125 for sampling procedures.
2. Store one 40-lb canvas bag for dispute resolution.
3. Store one 20-lb. canvas bag for dispute resolution.
4. If test records determine that aggregate gradation or cleanness value is close to specification limit or outside the specification limits, sample and test concrete every 300 cu yd so that deductions may be taken for noncompliant material.

Reclaimed Pavement (*Standard Specifications* Section 30)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
PULVERIZED ROADBED (Section 30-2)					
Thickness	Thickness-Field Measurement	Field Measurement	Random location	3 per lot	
Relative Compaction (% min)	California Test 231	Sample for California Test 216	In accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	
FULL DEPTH RECLAMATION–FOAMED ASPHALT (Section 30-3)					
Relative Compaction (% min)	California Test 231	Sample for California Test 216	In accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	
Thickness	Thickness	California Test 531. 4- or 6-in.-diameter core, full thickness	3 random locations per lot	See Section 4-4004 of this manual	
FULL DEPTH RECLAMATION—Cement (Section 30-4)					
Thickness	Thickness-Core thickness measurement	California Test 531, 4- or 6-in.-diameter core, full thickness	3 random locations per lot	See Section 4-4004 of this manual	
Cement application rate	Calibrated tray or equal	Building paper or pan of known area	Surface receiving cement	Each 40,000 sq ft, 2 per day minimum	To determine if application rate is within ± 5% of mix design rate
Relative Compaction (% min)	California Test 231	Sample for California Test 216	In accordance with California Test 231	1 every 2,000 sq yd and test compaction at every 6 in. of thickness	

Notes:
1. Refer to California Test 125 for sampling procedures.

Bituminous Seals (*Standard Specifications* Section 37) (1 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
ASPHALTIC EMULSION AND ASPHALTIC EMULSION FOR FLUSH COAT					
Various properties in accordance with Section 37 of *Standard Specifications*	See Section 37-2.02A(4)(b)(ii) of *Standard Specifications*	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Asphaltic emulsion spread rate	CT 339	Per test method	Full width of boot truck	Once per project	
POLYMER MODIFIED ASPHALTIC EMULSION					
Viscosity	AASHTO T 59	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Sieve Test	AASHTO T 59	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Demulsibility	AASHTO T 59	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment

Bituminous Seals (*Standard Specifications* Section 37) (2 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
POLYMER MODIFIED ASPHALTIC EMULSION (Cont.)					
Torsional Recovery	California Test 332	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Penetration	AASHTO T 49	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment
Ring and Ball	AASHTO T 53	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Transport tanker	Each shipment	Certificate of compliance required with each shipment

Bituminous Seals (*Standard Specifications* Section 37) (3 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
ASPHALT MODIFIER FOR ASPHALT RUBBER BINDER					
Viscosity	ASTM D445	1-qt round wide-mouth can with friction top lid or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	1 random per project	
Flash Point	ASTM D92	1-qt round wide-mouth can with friction top lid or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	1 random per project	
Molecular Analysis	ASTM D2007	1-qt round wide-mouth can with friction top lid or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	1 random per project	
CRUMB RUBBER MODIFIER FOR ASPHALT RUBBER BINDER					
Wire in CRM (max %)	CT 385	CRM scrap tire: Two 2.5 lb in gallon zip-lock bags CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Minimum 1 random per project	

Bituminous Seals (*Standard Specifications* Section 37) (4 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CRUMB RUBBER MODIFIER FOR ASPHALT RUBBER BINDER (Cont.)					
Fabric in CRM (max %)	CT 385	CRM scrap tire: Two 2.5 lb in gallon zip-lock bags CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Minimum 1 random per project	
CRM particle length		CRM scrap tire: Two 2.5 lb in gallon zip-lock bags CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Minimum 1 random per project	
CRM specific gravity	CT 208				
Natural rubber content in high nature CRM (%)	ASTM D297				
ASPHALT RUBBER BINDER					
Cone Penetration		1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting to the HMA plant	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required with each shipment

Bituminous Seals (*Standard Specifications* Section 37) (5 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
ASPHALT RUBBER BINDER (Cont.)					
Resilience		1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting to the HMA plant	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required with each shipment
Softening point		1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting to the HMA plant	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required with each shipment
Asphalt Rubber Binder Viscosity	ASTM D7741	1 gal metal cylindrical shaped can with double-seal friction top	Asphalt storage tank	The greater of 1 every 5 lots or once a day	For safety, engineer may witness contractor perform test
Base Asphalt Binder Properties	See *Standard Specifications* Section 92	Five 1-qt double-seal friction-top metal cylindrical shaped can	Asphalt storage tank	The greater of 1 every 5 lots or once a day	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, test before use
SCREENINGS/AGGREGATE FOR CHIP SEALS					
LA Rattler	California Test 211	50 lb in canvas bags or 5-gal buckets	Stockpile	Once per project	
% Crushed Particles	AASHTO T 335	50 lb in canvas bags or 5-gal buckets	Stockpile	Once per project	

Bituminous Seals (*Standard Specifications* Section 37) (6 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
SCREENINGS/AGGREGATE FOR CHIP SEALS					
Film Stripping	California Test 302	50 lb in canvas bags or 5-gal buckets	Stockpile	Once per project	
Sieve Analysis	California Test 202	30 lb	Stockpile	Twice daily	
Cleanness Value	California Test 227	30 lb	Stockpile	Once daily	
SAND FOR FLUSH COAT					
Sieve Analysis	California Test 202	25 lb	Stockpile	Once per project	
CRACK TREATMENTS					
Crack Treatment Material					
Softening point	ASTM D36	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of crack treatment material on the TL-0101
Cone penetration	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of crack treatment material on the TL-0101
Resilience	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of crack treatment material on the TL-0101

Bituminous Seals (*Standard Specifications* Section 37) (7 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CRACK TREATMENTS (Cont.)					
Crack Treatment Material					
Tensile adhesion	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Asphalt compatibility	ASTM D5329	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Flexibility	ASTM D3111	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Specific gravity	ASTM D70	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101
Sieve test	See note in Section 37-6.01D(3) "Department Acceptance" of the *Standard Specifications*	2 each 3-lb minimum samples in silicone release boxes	From crack treatment material dispensing wand	Once per project	Indicate the specified type of material on the TL-0101

Bituminous Seals (*Standard Specifications* Section 37) (8 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
SAND FOR CRACK TREATMENT					
Sieve Analysis	California Test 202	25 lb	Stockpile	Once per project	
SLURRY SEAL AGGREGATE					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	50 lb	Stockpile	Once per project	
Percentage of Crushed Particles	California Test 205	50 lb	Stockpile	Once per project	
Film Stripping	California Test 302	50 lb	Stockpile	Once per project	
Durability Index	California Test 229	50 lb	Stockpile	Once per project	
Sieve Analysis	California Test 202, California Test 105	30 lb	Stockpile	Once daily	
Sand Equivalent	California Test 217	30 lb	Stockpile	Once daily	
MICRO-SURFACING AGGREGATES					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	50 lb	Stockpile	Once per project	
Percentage of Crushed Particles	California Test 205	50 lb	Stockpile	Once per project	
Durability Index	California Test 302	50 lb	Stockpile	Once per project	

Bituminous Seals (*Standard Specifications* Section 37) (9 of 9)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
MICRO-SURFACING AGGREGATES (Cont.)					
Sieve Analysis	California Test 202	30 lb	Stockpile	Once daily	
Sand Equivalent	California Test 217	30 lb	Stockpile	Once daily	

Note:

1. Refer to California Test 125 for sampling procedures.

Asphalt Concrete (*Standard Specifications* Section 39) (1 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
AGGREGATE: All Types of HMA						
Gradation (Sieve Analysis) (See Note 2)	AASHTO T 27, California Test 105, California Test 384	Combined six 20-lb canvas bags (see See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant	For standard process, 1 for each 750 tons, 1 per day minimum For statistical pay factor (SPF) process, per stratified random sampling plan (See Notes 10 and 11)	Production start-up evaluation. For standard process, minimum 1 per day of paving For SPF process, test per stratified random sampling plan (See Note 14)	
Sand Equivalent	AASHTO T 176	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	For standard process, 1 for each 750 tons, 1 per day minimum, For SPF process, same frequency as gradations	Production start-up evaluation. For standard process, minimum 1 per day of paving For SPF process, test with gradation samples	Not required for OGFC (open graded friction course)

Asphalt Concrete (*Standard Specifications* Section 39) (2 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
AGGREGATE: All Types of HMA						
Percent Crushed Particles (Coarse)	AASHTO T 335	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 25,000 tons or less of paving For the SPF process, see Note 17	
Percent Crushed Particles (Fine)	AASHTO T 335	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 25,000 tons or less of paving For the SPF process, see Note 17	
LA Rattler (500 Revolutions)	AASHTO T 96	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	

Asphalt Concrete (*Standard Specifications* Section 39) (3 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
AGGREGATE: All Types of HMA (Cont.)						
LA Rattler (100 Revolutions)	AASHTO T 96	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	
Fine Aggregate Angularity	AASHTO T 304, Method A	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	Not required for OGFC or Minor HMA
Flat and Elongated Particles	ASTM D4791	Combined six 20-lb canvas bags (See Note 3) or Batch 30 lb (proportioned per bin percentages)	HMA plant or before lime treatment	1 for each 750 tons, 1 per day minimum For the SPF process, see Note 17	Production start-up evaluation, and minimum 1 random for every 50,000 tons or less of paving For the SPF process, see Note 17	Not required for Minor HMA

Asphalt Concrete (*Standard Specifications* Section 39) (4 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
ASPHALT BINDER						
Various properties based on asphalt type used (see *Standard Specifications* Section 92)	See *Standard Specifications* Section 92	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt feed line connecting the plant storage tanks	1 per day of HMA production	1 random for every 5 samples	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, sample and test asphalt before use
ASPHALT RUBBER BINDER						
Asphalt Rubber Binder Properties	See *Standard Specifications* Section 39-2.03A(4)(e)(ii)	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt rubber feed line from the HMA plant	1 every lot	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required for each lot
Asphalt Rubber Binder Viscosity	ASTM D7741	1 gal double-seal friction-top metal cylindrical shaped can	Asphalt rubber feed line connecting to the HMA plant	1 every lot	1 every lot	For safety, engineer may witness contractor perform test

Asphalt Concrete (*Standard Specifications* Section 39) (5 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
ASPHALT RUBBER BINDER (Cont.)						
Base Asphalt Binder Properties	See *Standard Specifications* Section 92	1-qt double-seal friction-top metal cylindrical shaped can	Asphalt storage tank	Each shipment	Production start-up evaluation and 1 random per 5 samples	Certificate of compliance required for each shipment; if asphalt binder source is not on approved list, sample and test asphalt before use
Asphalt Modifier Properties	ASTM D445 ASTM D92 ASTM D2007	1-qt double-seal friction-top metal cylindrical shaped can or 1-qt rectangular can with screw-on lid	Sample port on tanker truck	Each shipment	1 random per project	
Crumb Rubber Modifier (CRM) Properties	California Test 208, California Test 385, ASTM D297	CRM scrap tire: Two 2.5 lb in gallon zip-lock bags; CRM high natural: Two 2.5 lb in gallon zip-lock bags	CRM bulk bag	Each shipment	1 random per project	

Asphalt Concrete (*Standard Specifications* Section 39) (6 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
HOT MIX ASPHALT: Type A						
Moisture Content	AASHTO T 329	10 lb, sealed metal container	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Test within 1 hour of sampling
Asphalt Binder Content	AASHTO T 308, Method A	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes) (See Notes 5 and 18)	Loose mix from behind the paver (See Note 4)	For standard process, 1 for each 750 tons, 1 per day minimum. For SPF process, per stratified random sampling plan (See Notes 10 and 11)	Production start-up evaluation; For standard process, minimum 1 per day of paving For SPF process, per stratified random sampling plan (See Note 14)	
Maximum Theoretical Density	AASHTO T 209	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes) (See Notes 5 and 18)	Loose mix from behind the paver (See Note 4)	For standard process, 1 for each 750 tons, 1 per day minimum For SPF process, two samples per shift with verification density cores (See Notes 10 and 13)	Production start-up evaluation. For standard process, 1 random test per day of paving For SPF process, per stratified random sampling plan	

Asphalt Concrete (*Standard Specifications* Section 39) (7 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (See Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
HOT MIX ASPHALT: Type A (Cont.)						
Air Void Content	AASHTO T 269	100 lb (See Note 5) (8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving. For HMA placed using SPF, see Notes 10 and 11	Production start-up evaluation, and minimum 1 random for every 25,000 tons of paving, except for HMA placed using SPF, see Note 14	
Voids in Mineral Aggregate	SP-2 Asphalt Mixture Volumetrics	100 lb (See Note 5) (8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random for every 25,000 tons of paving	
Dust Proportion	SP-2 Asphalt Mixture Volumetrics	100 lb (See Note 5) (8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random for every 25,000 tons of paving	

Asphalt Concrete (*Standard Specifications* Section 39) (8 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
HOT MIX ASPHALT: Type A (Cont.)						
Hamburg Wheel Track	California Test 389	70 lb (See Notes 5 and 18) (8x8x4=7 boxes, 8½x8½x4½=6 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation, 1 every 10,000 tons of paving For SPF process, see Note 16	Production start-up evaluation, and minimum 1 random for every 10,000 tons or less of paving For SPF process, see Note 16	Not required for Minor HMA
Moisture Susceptibility	AASHTO T 283	140 lb (See Notes 5, 6 and 18) (8x8x4=15 boxes, 8½x8½x4½=12 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation, 1 every 50,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 50,000 tons of paving	Test for dry strength and wet strength; not required for Minor HMA
HOT MIX ASPHALT: With RAP/RAS						
Binder Recovery	AASHTO T 164 ASTM D1856	10 lb (8x8x4=1 box, 8½x8½x4½=1 box) (See Note 18)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	1 random for every 25,000 tons or less of paving	

Asphalt Concrete (*Standard Specifications* Section 39) (9 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
RUBBERIZED HOT MIX ASPHALT: Gap Graded						
Moisture Content	AASHTO T 329	10 lb, sealed metal container	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Test within 1 hour of sampling
Asphalt Binder Content	AASHTO T 308, Method A	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes)	Loose mix from behind the paver (See Note 4)	1 for each 750 tons, 1 per day minimum. For HMA placed using SPF, see Notes 10 and 11	Production start-up evaluation; 1 random test per day of paving. For HMA placed using SPF, see Note 10	
Maximum Theoretical Density	AASHTO T 209	60 lb (See Notes 5 and 18) (8x8x4=6 boxes, 8½x8½x4½=4 boxes)	Loose mix from behind the paver (See Note 4)	1 for each 750 tons, 1 per day minimum. For HMA placed using SPF, see Notes 11 and 13	Production start-up evaluation; minimum 1 per day of paving, except for HMA placed using SPF, see Notes 10 and 13	

Asphalt Concrete (*Standard Specifications* Section 39) (10 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
RUBBERIZED HOT MIX ASPHALT: Gap Graded (Cont.)						
Air Void Content	AASHTO T 269	100 lb (See Notes 5 and 18) (8x8x4= 10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving. For HMA placed using SPF, see notes 10 and 11	Production start-up evaluation, and minimum 1 random test for every 25,000 tons of paving For SPF process, test per stratified random sampling plan. See note 14	
Voids in Mineral Aggregate	SP-2 Asphalt Mixture Volumetrics	100 lb (See Notes 5 and 18) (8x8x4= 10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 25,000 tons of paving	
Dust Proportion	SP-2 Asphalt Mixture Volumetrics	100 lb (See Notes 5 and 18) (boxes, 8x8x4=10 boxes, 8½x8½x4½=8 boxes)	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, 1 every 25,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 25,000 tons of paving	

Asphalt Concrete (*Standard Specifications* Section 39) (11 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
RUBBERIZED HOT MIX ASPHALT: Gap Graded (Cont.)						
Hamburg Wheel Track	California Test 389	75 lb (See Notes 5 and 18) (8x8x4=7 boxes, 8½x8½x4½=6 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation 1 every 10,000 tons of paving For SPF process, see Note 16	Production start-up evaluation, and minimum 1 random test for every 10,000 tons or less of paving For SPF process, see Note 16	
Moisture Susceptibility	AASHTO T 283	75 lb (See Notes 5, 6 and 18) (8x8x4= 15 boxes, 8½x8½x4½=12 boxes)	Loose mix at plant, truck, or windrow	Production start-up evaluation, 1 every 50,000 tons of paving	Production start-up evaluation, and minimum 1 random test for every 50,000 tons of paving	Test for dry strength and wet strength
OPEN GRADED FRICTION COURSE (OGFC)						
Asphalt Binder Content	AASHTO T 308, Method A	20 lb (See Note 5) 4, 1-gal metal containers with friction lids	Loose mix from behind the paver (See Note 4)	1 for each 750 tons, 1 per day minimum	Production start-up evaluation; minimum 1 per day of paving	

Asphalt Concrete (*Standard Specifications* Section 39) (12 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
OPEN GRADED FRICTION COURSE (OGFC) (Cont.)						
Moisture Content	AASHTO T 329	10 lb, sealed metal container	Loose mix from behind the paver (See Note 4)	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Test within 1 hour of sampling
BONDED WEARING COURSE: Gap Graded (BWC-G) (See Note 7)						
Asphalt Binder Content	AASHTO T 308, Method A	20 lb (See Note 5) 4, 1-gal metal containers with friction lids	Loose mix at plant	1 for each 750 tons, 1 per day minimum	Production start-up evaluation. Minimum 1 per day of paving	
Moisture Content	AASHTO T 329	10 lb sealed metal container	Loose mix at plant	Production start-up evaluation, and minimum 1 per project	Production start-up evaluation, and minimum 1 per project during paving	Samples should be tested within 1 hour of sampling
PAVEMENT DENSITY						
Density of cores (% of maximum theoretical density) (See Note 8)	California Test 375	4- or 6–in cores	Final layer, cored to the specified total paved thickness	For the standard process, 1 for each 250 tons For the SPF process, see Note 12	For the standard process, 1 for each 250 tons For SPF process, test per stratified random sampling plan. See Note 14	Density applies to HMA thickness of 0.15 ft or greater

Asphalt Concrete (*Standard Specifications* Section 39) (13 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (See Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
PAVEMENT SMOOTHNESS						
Straightedge	N/A	N/A	Pavement surface (See Note 9)	Entire final surface	Entire final surface	Areas exempt from Inertial Profiler
Inertial Profiler for Mean Roughness Index and Areas of Localized Roughness	California Test 387 AASHTO R 56 & AASHTO R 57	Each 0.1 mile	Pavement surface	Entire final surface	Entire final surface	Entire final surface excluding areas requiring straightedge; use contractor-furnished profiles for IRI values within 10% of Caltrans' IRI values
TACK COAT						
Asphalt Binder	Based on asphalt type used (see *Standard Specifi-cations* Section 92)	1-qt double-seal friction-top metal cylindrical shaped can	Spray bar on asphalt distributor truck	Each truckload	1 random per project	

Asphalt Concrete (*Standard Specifications* Section 39) (14 of 14)

Test	Test Method	Sample Size & Container Type	Sampling Location (See Note 1)	Sampling Frequency	Acceptance Test Frequency	Remarks
TACK COAT (Cont.)						
Spread Rate	California Test 339	N/A	Pavement	N/A	As necessary for verification of tack coat spread rate	Verify tack coat spray rate is sufficient to meet the minimum specified residual rate. (See example in Section 4-9403, "During the Course of Work," in this manual)
Asphaltic Emulsion	Based on emulsion type used (see *Standard Specifi-cations* Section 94)	1 liter (or 1 qt) wide-mouth plastic bottle with screw on lids that are sealed with tape	Spray bar on emulsion distributor truck	Each truckload	1 random per project	

Notes:

1. Refer to California Test 125 for sampling procedures.
2. When using RAP, RAS, or RAP/RAS, adjust gradation by the correction factor determined under California Test 384.
3. Store three 20-lb canvas bags for dispute resolution.
4. Sampling HMA behind the paver is the preferred location. You may also take samples from the windrow, production plant, or truck.
5. Sample sizes are based on split samples—one sample for acceptance testing, and one for dispute resolution. Store one-half of the boxes or cans for dispute resolution.

6. Contractor ships directly to district material laboratory.
7. For bonded wearing course using RHMA-G, RHMA-O, or HMA-O, sampling and testing must comply with requirements for RHMA-G, RHMA-O, or HMA-O.
8. Determine percent of maximum theoretical density under California Test 375, except use AASHTO T 275 to determine in-place density of each core and AASHTO T 209, Method A to determine maximum theoretical density instead of calculating maximum density.
9. May use Inertial Profiler data and ProVAL Rolling Straightedge module to assist in determining where to check with 12-foot straightedge.
10. For the statistical pay factor (SPF) process, and for each lot, prepare a stratified random sampling plan for the following pay factor quality characteristic: aggregate gradations, binder content, air voids, and percent of maximum theoretical density. Sample at milestones identified in the stratified random sampling plan. Do not share the verification sampling time or location with the contractor until immediately before sampling. Do not share the stratified random sampling plan with the contractor until completion of the lot. For guidance on developing the engineer's stratified random sampling plans, refer to section 4-3902K, "Stratified Random Sampling Plan" of this manual.
11. Obtain enough material to split each sample into four parts. Perform verification testing on one part, provide one part to the contractor, hold one part for dispute resolution testing, and reserve the fourth part for additional verification testing in the event the lot runs short and you do not have at least the 3 tests needed for verification.
12. To determine in-place density, obtain verification density cores from the contractor's sublot identified in the engineer's stratified random sampling plan. Break the identified sublot into three equal parts, and randomly determine the coring location of each part. At each location, core three samples aligned longitudinally within 1 to 2 feet of the center core. Retain the center core for verification testing, and randomly determine which of the two remaining cores will be provided to the contractor and which will be retained by the engineer.
13. To determine the paving shift's maximum theoretical density value used for verification of percent in-place density, obtain two samples of HMA from each paving shift the verification density cores are obtained from. Determine the shift's maximum theoretical density value used for the verification by averaging the test results of the two samples. The two samples must be obtained randomly from the first and last half of the paving shift, or from a split of a single sample pulled within the sublot the density cores are obtained from.
14. Do not share the test results of pay factor quality characteristics with the contractor until completion of the lot.
15. For HMA placed using SPF, during production, sample non-pay factor items at the frequency determined by the engineer. Notify the contractor of your intent to sample, and obtain enough material to split into four parts. Test one part, provide one part to the contractor, and retain one part for independent third party testing. When sampling for non-pay factors, except sand equivalent testing, pull two samples from two consecutive sublots. If the first sample fails, immediately test the second sample. Refer to Section 4-3904A(5), "Monitoring Non-Pay Factor Quality Characteristics using Statistical Pay Factor Specifications" of this manual for guidance related to non-pay factor testing.
16. For HMA placed using SPF, when sampling for Hamburg Wheel Track, pull one additional sample for testing from the contractor's next sublot. Test this second sample if the first sample fails.
17. For HMA placed using SPF, sample at same frequency as aggregate gradations, except pull two samples and test the second sample if the first sample fails.
18. Box quantities indicated represent recommended amounts for each individual test. Use CT 125 Appendix B Table 1 for more comprehensive quantities or suites of tests.

Concrete Pavement (*Standard Specifications* Section 40) (1 of 2)
See Table 6-1.17 for concrete materials

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CONCRETE					
Modulus of Rupture (Open to Traffic)	California Test 523 (Field Curing)	3 beams of 6x6x20 in. for third-point loading	Concrete truck discharge chute	1 set for the last pavement section placed before opening to traffic	Not used for acceptance, only to verify that pavement can be opened to traffic
Modulus of Rupture (28-days)	California Test 523	3 beams of 6x6x20 in. for third-point loading	Concrete truck discharge chute	1 set per age for each 1,000 cu yd, 1 per day minimum (See Note 2)	Recommend frequency of every 2,000 cu yd if after 10 sets all tests are in compliance
Air Content	California Test 504	See test method	Concrete truck discharge chute	1 every day of production	Only test when air entrainment is specified
PAVEMENT					
Thickness	California Test 531	4-in. diameter core, full thickness of pavement	See Section 4-4004, "Level of Inspection," of this manual	1 every 1,200 sq yd	
Dowel Bar Alignment and Concrete Consolidation	Measurement and Inspection	4-in. diameter core size	Transverse pavement joints	1 test every 700 sq yd	Each test consists of 2 cores, one on each end of dowel bar
Tie Bar Alignment and Concrete Consolidation	Measurement and Inspection	4-in. diameter core size	Longitudinal pavement joints	1 test every 4,000 sq yd	Each test consists of 2 cores, one on each end of tie bar
Coefficient of Friction	California Test 342	N/A	Pavement surface	1 test for each day of paving	Each test consists of 5 measurements
Smoothness - Straightedge	Measurement with 12-ft straightedge	N/A	Pavement surface	Entire final surface requiring straightedge	

Concrete Pavement (*Standard Specifications* Section 40) (2 of 2)
See Table 6-1.17 for concrete materials

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
PAVEMENT (Cont.)					
Smoothness - Inertial Profiler for Mean Roughness Index and Areas of Localized Roughness	AASHTO R 56, AASHTO R 57, and California Test 387	0.1 mile	Pavement surface	Entire final surface	Entire final surface excluding specified areas

Notes:

1. Refer to California Test 125 for sampling procedures.
2. If concrete modulus of rupture is close to specification limit or outside the specification limits, sample and test concrete every 1,000 cu yd so that deductions may be taken for noncompliant material.

Existing Concrete Pavement (*Standard Specifications* Section 41)

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
INDIVIDUAL SLAB REPLACEMENT WITH RAPID STRENGTH CONCRETE (Section 41-9)					
Coefficient of Friction	California Test 342	N/A	Pavement surface	1 every 1,200 sq yd	Each test consists of 5 measurements
Smoothness - Straightedge	Measurement with 12-ft straightedge	N/A	Pavement surface	Entire final surface	Areas exempt from Inertial Profiler
Modulus of rupture (3-days)	California Test 524	3 beams of 6x6x20 inches	Concrete truck discharge chute	1 per shift	

Notes:

1. Refer to California Test 125 for sampling procedures.

Concrete Structures (*Standard Specifications* Section 51)
See Table 6-1.17 for concrete materials

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
JOINT SEALS TYPE B (Section 51-2.02C)					
Various properties; must comply with *Standard Specifications* Section 51-2.02C(2)	See *Standard Specifications* Section 51-2.02C(2)	1 piece, 3 ft	Job site	Each lot	Certificate of compliance and certified test report required for each lot; test report must include the seal movement rating, manufacturer minimum uncompressed width and test results; submit samples at least 30 days before use
JOINT SEALS Type A and Type AL (Section 51-2.02B)					
	Use Authorized Material List at: https://dot.ca.gov/programs/engineering-services/product-evaluation-program	1 qt of each component and primer	Job site	1 sample from each component of each batch	Certificate of compliance required for each batch of sealant; submit samples at least 30 days before use

Notes:

1. Refer to California Test 125 for sampling procedures.

Concrete (*Standard Specifications* Section 90) (1 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE: Coarse Aggregate					
Los Angeles Rattler (loss at 500 revolutions)	California Test 211	See Note 2	Stockpile	Before production and minimum 1 random test for every 25,000 cu yd	1 for every 4,000 cu yd, if initial test shows abrasion loss greater than 40%
Cleanness Value	California Test 227	25 lb	Stockpile	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results exceed 80; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization
Sieve Analysis	California Test 202	50 lb	Belt Feed	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results are within operating range; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization
AGGREGATE: Fine Aggregate					
Organic Impurities	California Test 213	See Note 2	Stockpile	Before production or when contamination is suspected	
Durability	California Test 229	See Note 2	Stockpile	Before production	
Sand Equivalent	California Test 217	25 lb	Stockpile	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results exceed 80; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization

Concrete (*Standard Specifications* Section 90) (2 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
AGGREGATE: Fine Aggregate					
Sieve Analysis	California Test 202	50 lb	Belt feed	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results are within operating range; increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization
AGGREGATE: Coarse & Fine Aggregate					
Specific Gravity and Absorption	California Test 206, California Test 207	See Note 2	Stockpile	Before production and when aggregate source changes	
Soundness	California Test 214	See Note 2	Stockpile	Before production	Soundness for fine aggregate waived if durability is ≥ 60
Sieve Analysis (combined gradation determined with fine and coarse aggregate sieve analyses)	California Test 202		N/A	Before production and minimum 1 for every 600 cu yd, 1 per day minimum	Recommend 1 acceptance test per day if 3 consecutive results are within operating range. Increase sampling to 1 for every 300 cu yd (deductive lot) with engineer's authorization

Concrete (*Standard Specifications* Section 90) (3 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CEMENTITIOUS MATERIALS					
Cement, various properties; must comply with *Standard Specifications* Section 90-1.02B(2)	See *Standard Specifications* Section 90-1.02B(2)	8 lb	Concrete plant	Sample each 100 tons of cement, 2 per day maximum	Cement must be on Authorized Material List; cement accepted based on certificate of compliance with each shipment; recommend 1 verification test per 5 samples
Supplementary Cementitious Materials (SCM), various properties; must comply with *Standard Specifications* Section 90-1.02B(3)	See *Standard Specifications* Section 90-1.02B(3)	8 lb	Concrete plant	Sample each 100 tons of SCM, 2 per day maximum	SCM must be on Authorized Materials List; SCM accepted based on certificate of compliance with each shipment; recommend 1 verification test per 5 samples
WATER					
Chlorides	California Test 422	Clean 2-qt plastic jug with lined, sealed lid	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Sulfates	California Test 417	Clean 2-qt plastic jug with lined, sealed lid	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Setting Time	ASTM C 191 or ASTM C 266	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested

Concrete (Standard Specifications Section 90) (4 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
WATER (Cont.)					
Mortar Compressive Strength	ASTM C109	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Coloring Agents	Must comply with *Standard Specifi-cations* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Alkalis	Must comply with *Standard Specifi-cations* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
Specific Gravity	Must comply with *Standard Specifi-cations* Section 90-1.02D	Contact METS for required quantity of water sample	At point of use	1 per source	Water supplies for domestic use do not need to be tested
ADMIXTURES: Air Entraining Agent					
Air entraining properties Must comply with *Standard Specifications* Section 90-1.02E	See *Standard Specifi-cations* Section 90-1.02E	1-qt can or plastic bottle of liquid, 2 lb of powder	Concrete plant	Sample each shipment	Must be on Authorized Materials List and certificate of compliance must accompany each shipment; recommend 1 verification test per 5 samples

Concrete (*Standard Specifications* Section 90) (5 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CHEMICAL ADMIXTURE: Water Reducers or Set Retarders					
Claimed properties, chloride identification	ASTM C494 Type A, B, D, F or Type G California Test 415	1-qt can of liquid, 2 lb of powder	Concrete plant	Sample each shipment	Must be on Authorized Materials List and certificate of compliance must accompany each shipment; recommend 1 verification test per 5 samples
CONCRETE for Pavement and Structures					
Shrinkage	AASHTO T 160 Modified See *Standard Specifications* Section 90-1.01D(3)	Set of three: 4x4x11¼ in.	During mix design process	Before production	Engineer may use contractor-provided test result for acceptance; test results must be within 3 years of contract authorization date
CONCRETE Designated Compressive Strength 3600 psi or Greater					
Yield	California Test 518	See test method	Concrete truck discharge chute; (See Note 3)	As necessary to assure accuracy of mix design; minimum 2 per each mix design	No deductions for cement content will be made based on the results of California Test 518
Concrete Uniformity	ASTM C143, California Test 533	See test method	Concrete truck discharge chute (See Note 3)	When compressive test specimen is fabricated and when consistency or uniformity is questionable, minimum 2 per day	

Concrete (*Standard Specifications* Section 90) (6 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location See Note 1)	Acceptance Test Frequency	Remarks
CONCRETE Designated Compressive Strength 3600 psi or Greater (Cont.)					
Concrete Uniformity	California Test 529	100 lb	Concrete truck discharge chute (See Note 3)	When uniformity is questionable	
Compressive Strength	ASTM C172, California Test 540	1 set of 2 cylinders 6x12 in. or 1 set of 3 cylinders 4x8 in. for each test	Concrete truck discharge chute (See Note 3)	1 set per age for every 300 cu yd concrete or as required for acceptance, minimum 1 set per project	For trial batches, see *Standard Specifications* or job special provisions and Section 6-3, "Field Tests," of this manual
Air Content	California Test 504	See test method	Concrete truck discharge chute (See Note 3)	1 every 4 hours of production and when test specimens are fabricated	Where air is specified for freeze-thaw resistance, a minimum of 1 every 30 cu yd
CONCRETE WITH COMPRESSIVE STRENGTH LESS THAN 3,600 psi					
Concrete Uniformity	ASTM C143, California Test 533	See test method	Concrete truck discharge chute (See Note 3)	When compressive test specimen is fabricated and when uniformity is questionable	

Concrete (*Standard Specifications* Section 90) (7 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CONCRETE WITH COMPRESSIVE STRENGTH LESS THAN 3,600 psi					
Concrete Uniformity	California Test 529	100 lb	Concrete truck discharge chute (See Note 3)	When uniformity is questionable	
Compressive Strength	California Test 540, California Test 521	1 set of 2 cylinders, 6x12 in. or 1 set of 3 cylinders 4x8 in. for each test	Concrete truck discharge chute (See Note 3)	1 set per age for every 300 cu yd, minimum 1 set per project	
Air Content	California Test 504	See test method	Concrete truck discharge chute (See Note 3)	When compressive test specimens are fabricated	Where air is specified for freeze-thaw resistance, a minimum of 1 every 100 cu yd
CURING COMPOUND					
Curing Compound; must comply with *Standard Specifications* Section 90-1.03B(3)	ASTM C309	1-qt can	At time of use (See Note 1)	1 every shipment	Each shipment must have certificate of compliance that includes: 1. Test results for tests specified in Section 90-1.01D(6) of *Standard Specifications* 2. Certification that material was tested within 12 months before use

Concrete (*Standard Specifications* Section 90) (8 of 9)
Concrete, Except Minor Concrete and Rapid Strength Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location (Note 1)	Acceptance Test Frequency	Remarks
CEMENTITIOUS MATERIALS					
Cement, various properties; must comply with *Standard Specifications* Section 90-1.02B(2)	See *Standard Specifications* Section 90-1.02B(2)	8 lb	Concrete plant	Sample and test if cement quality is questionable	Cement source must be shown on Authorized Materials List; certificate of compliance must accompany each cement shipment
Supplementary cementitious materials (SCM), various properties; must comply with *Standard Specifications* Section 90-1.02B(3)	See *Standard Specifications* Section 90-1.02B(3)	8 lb	Concrete plant	Sample and test if SCM quality is questionable	SCM source must be shown on Authorized Materials List; certificate of compliance must accompany each SCM shipment
ADMIXTURES: Air Entraining Agent					
Air entraining properties; must comply with *Standard Specifications* Section 90-1.02E	See *Standard Specifications* Section 90-1.02E	N/A	N/A		Must be on Authorized Materials List and certificate of compliance must accompany each shipment
CHEMICAL ADMIXTURES: Water Reducers or Set Retarders					
Claimed properties, chloride identification	ASTM C494 Type A, B, D, F or Type G California Test 415	N/A	N/A		Must be on Authorized Materials List and certificate of compliance must accompany each shipment

Concrete (*Standard Specifications* Section 90) (9 of 9)
Minor Concrete

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
CONCRETE					
Yield	California Test 518	See test method	Concrete truck discharge chute (See Note 3)	As necessary to assure accuracy of mix design; minimum 1 per each mix design	No deductions for cement content will be made based on the results of California Test 518
Com-pressive Strength	California Test 540, California Test 521	1 set of 2 cylinders 6x12 in. or 1 set of 3 cylinders 4x8 in. for each test	Concrete truck discharge chute (See Note 3)	Sample and test if concrete quality is questionable; minimum 1 per mix design	Minor concrete must have the strength described or 2,500 psi, whichever is greater; see *Standard Specifications* Section 90-1.02A
Air Content	California Test 504	See test method	Concrete truck discharge chute (See Note 3)	Where air is specified for freeze-thaw resistance, a minimum of 1 every 100 cu yd	
CURING COMPOUND					
Curing Compound; must comply with *Standard Specifi-cations* Section 90-1.03B(3)	ASTM C309	1-qt can	At time of use; (See Note 1)	1 every shipment	Each shipment must have certificate of compliance that includes: 1. Results for tests specified in Section 90-1.01D(6) of *Standard Specifications* 2. Certification that material was tested within 12 months before use

Notes:

1. Refer to California Test 125 for sampling procedures.
2. For initial testing, provide 100 lb of 1-1/2 in. x 3/4 in., 75 lb of 3/4 in. x No. 4, 75 lb of pea gravel, and 50 lb of sand. Use this material for California Test 202, 206, 207, 211, 213, 214, 217, 227 and 229.
3. Refer to California Test 539 for method of sampling fresh concrete.

Miscellaneous Materials (1 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
BARBED WIRE AND WIRE MESH FENCES (Section 80-2)					
Barbed Wire, various properties; must comply with *Standard Specifications* Section 80-2.02D	ASTM A121	1 yd length	Job site	As necessary for verification if quality is questionable	
BOLTS AND HARDWARE (Section 75)					
		2 samples each diameter		Each lot	Sample and test if not previously inspected at the source
CHAIN LINK FENCES (Section 80-3)					
Wire Mesh, various properties; must comply with *Standard Specifications* Section 80	ASTM A116, Class 1	2 ft width	Job site	Each lot for verification if quality is questionable	Certificate of compliance required for vinyl clad fencing
CONCRETE PIPE (Section 65)					
Compliance with specifications		Contact METS for instructions		Contact METS for instructions	Sample and test if not previously inspected at source
CONDUIT (Section 86-1.02B)					
Conduit, various properties; must comply with *Standard Specifications* Section 86-1.02B	See *Standard Specifications* Section 86-1.02B	2 ft. long from center of length, 2 samples each size	Job site	As necessary for verification if quality is questionable	

Miscellaneous Materials (2 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
ELECTRICAL CONDUCTORS AND CABLES (Section 86-1.02F)					
Electrical conductors and cables, various properties; must comply with *Standard Specifications* Section 86-1.02F	See *Standard Specifications* Section 86	2 ft. long, include markings, 2 samples per gauge	Job site	Each lot for verification if quality is questionable	
EXPANSION JOINT FILLER					
Compliance with specifications		6 in. long, full width of sheet		Each 1,000 sq ft not less than 2 per shipment	
GEOSYNTHETICS (Section 96)					
Various properties; must comply with *Standard Specifications* Section 96	See *Standard Specifications* Section 96	1 piece, 3 ft x full width of roll	Job site	Each lot for verification if quality is questionable. See Remarks	Certificate of compliance required for each lot; unroll at least 1 circumference before sampling
PAINT (Section 91)					
Paint, various properties; must comply with *Standard Specifications* Section 91	See *Standard Specifications* Section 91	For miscellaneous painting, 1 qt (see Section 6-2 of this manual)	Job site	Each batch	If less than 20 gallons, testing not required and resident engineer must field release. Zinc-rich primer must be on the Authorized Materials List
PAVEMENT MARKERS (Section 81-3)					
Pavement Markers, various properties; must comply with *Standard Specifications* Section 81-3	See *Standard Specifications* Section 81-3	20 markers	Job site	As necessary for verification if quality is questionable	Each shipment must have certificate of compliance

Miscellaneous Materials (3 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
PERMEABLE MATERIALS: (Section 68-2.02F)					
Durability Index	California Test 229	50 lb	Stockpile	Before use	
Sieve Analysis	California Test 202	50 lb	Stockpile	Before use,1 every day	
PERMEABLE MATERIALS: Class 3 (Section 68-2.02F)					
Crushed Faces	California Test 205	50 lb	Stockpile	Before use	
PRESTRESSED TENDON GROUT (Section 50)					
Efflux time	California Test 541	One 6x12 in. cylinder mold can	From batch immediately after mixing for prequalification, thereafter from outlet end of tendon, storage tank, or both	At the start of each day's work, and thereafter 1 test per each 5% of ducts; see Remarks	Repeat acceptance tests whenever source of material is changed
RAISED BARS (PRECAST)					
Compliance with specifications		1 unit or full size bar		Each lot	Sample and test if not previously inspected at the source
REINFORCING STEEL (Section 52)					
Reinforcing Steel, various properties	See *Standard Specifi-cations* Section 52	2 samples, 30 in., except 40 in. for No. 14 and No. 18	Job site	As necessary for verification if quality is questionable	Each shipment must be accompanied by a certificate of compliance
SLOPE PROTECTION (Section 72)					
Size	N/A		Quarry or stockpile	As required for acceptance	Adequate size of slope protection documented by measuring or weighing the material
Apparent Specific Gravity	California Test 206	75 lb	Quarry or stockpile	Before use	

Miscellaneous Materials (4 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
SLOPE PROTECTION (Section 72) (Cont.)					
Absorption	California Test 206	75 lb	Quarry or stockpile	Before use	
Durability Index	California Test 229	75 lb	Quarry or stockpile	Before use	
STEEL PRODUCTS					
		Contact METS for instructions		Contact METS for instructions	
STRUCTURAL STEEL AND MISCELLANEOUS METAL (Sections 55 & 75)					
		2 samples, 30-in., cut parallel to direction of rolling		Each heat or melt or 10 tons or fraction	Sample and test if not previously inspected at the source
STRUCTURAL STEEL COATINGS (Section 59)					
Paint, various properties; must comply with *Standard Specifications* Section 59	See *Standard Specifi-cations* Section 59	For bridge or major structure, send an unopened 5-gal can	Job site	Each batch; see Remarks	Unused portion of 5-gal sample will be returned to job; see Section 6-2, "Acceptance of Manufactured or Fabricated Materials and Products," of this manual
WATER-PROOFING MATERIALS (Section 54)					
Glass Fiber	ASTM D1668, Type 1	9 sq ft of asphalt saturated cotton fabric	Job site	1 sample from each lot	
Asphalt	ASTM D449	5 lb of asphalt	Job site	1 sample from each lot	
Primer	ASTM D41	1 qt of asphalt primer	Job site	1 sample from each lot	

Miscellaneous Materials (5 of 5)

Test	Test Method	Sample Size & Container Size	Sampling Location	Acceptance Test Frequency	Remarks
WELDED WIRE REINFORCEMENT (Section 52-1.02C)					
Welded Wire Reinforcing Steel, must comply with *Standard Specifi-cations* Section 52-1.02C	ASTM A 1064/A 1064M	9 sq ft	Job site	As necessary for verification if quality is questionable	Each shipment must be accompanied by a certificate of compliance

APPENDIX 2

Size, Frequency, and Location of Sampling and Testing (non-NHS and non-SHS projects)

Sampling and Testing Frequency Table

for projects OFF the SHS.

HOT MIX ASPHALT (HMA) / ASPHALT CONCRETE (AC)

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Aggregate Gradation (Sieve)	CT 202	1 Per 1000 Tons or Part Thereof ; Minimum 1 per day during production/placement of at least 300 tons per day.	At Plant Per CT 125 (a)
Sand Equivalent	CT 217		
Asphalt Binder Content	CT 382		Loose Mix Behind Paver Per CT 125
In-Place Density and Relative Compaction (Nuclear)	Nuclear (b)	1 Per 1000 Tons or Part Thereof ; Minimum 1 per day during production/placement of at least 300 tons per day. (b)	Random Locations Per CT 375 (c
	CT 375 or ASTM D2950 (c		
Theoretical Maximum Specific Gravity and Density (Rice)	CT 309	1 Per Day During Production/Placement of At Least 300 Tons Per Day	Loose Mix Behind Paver Per CT 125
HMA Moisture Content	CT 226 or CT 370		
Stabilometer Value (d)	CT 366		
Asphalt Binder	Sample per Section 92	Sample 1 min. per day for production over 300 tons per day; See (f) regarding testing.	At Plant Per CT 125
Smoothness	12-foot Straightedge	As necessary to confirm contract compliance.	Final Pavement Surface

(a) Exact tonnage of sample location to be determined by Random Sampling Plans

(b) Compaction determined by Neclear Density Device. Core testing required if compaction fails the neclear test

(c Correlation between core densities and nuclear device required only if compaction fails the nuclear test

(d) Report the average of 3 tested briquettes from a single split source

(e) Use CT 309 to determine maximum theoretical density in lieu of CT 367 calculated maximum theoretical density

(f) No testing required unless warranted by concern ; sample and store until completion of project

SUBGRADE (DISTURBED BASEMENT SOIL) OR EMBANKMENT

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Maximum Density and Relative Compaction	CT 216/CT 231	1 Min. Test per 5000 sq ft under vehicle traveled way and shoulder 1 Min. Test Per 300 linear foot under sidewalk	Random locations as determined by the Engineer in place after compaction.

AGGREGATE BASES AND SUBBASES, IMPORTED BORROW

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 Min. Test Per Material Source	Sample from site stockpile/plant prior to placement.
R-Value	CT 301		
Sand Equivalent	CT 217		
Maximum Density and Relative Compaction	CT 216/CT 231	1 Min. Test per 5000 sq ft	Random locations as determined by the Engineer in place after compaction.

STRUCTURE BACKFILL, SELECT BACKFILL

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 Min. Test Per Material Source	Sample from site stockpile/plant prior to placement
R-Value	CT 301		
Sand Equivalent	CT 217		
Maximum Density and Relative Compaction	CT 216/CT 231	1 Min. Test Per 2 Vertical Lifts of Placement	Random locations as determined by the Engineer in place after compaction.

PORTLAND CEMENT CONCRETE (PCC) - STRUCTURAL AND SIGNAL/LIGHTING FOUNDATIONS

COARSE AGGREGATE

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 min. test per 500 cu yds and per each material source ; 1 min. test on smaller projects; If bridge, 1 min. set per separate pour per abutment/pier/deck.	Sample from site stockpile/plant prior to placement
Cleanness Value	CT 227		

FINE AGGREGATE

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Sieve Analysis	CT 202	1 min. test per 500 cu yds and per each material source ; 1 min. test on smaller projects; If bridge, 1 min. set per separate pour per abutment/pier/deck.	Sample from site stockpile/plant prior to placement
Sand Equivalent	CT 217		

WET MIX

Quality Characteristic	Test Method	Minimum Sampling and Testing Frequency	Location/Time of Sampling
Slump/Penetration	CT 533	2 per day	Sample from truck/work site
Cylinders	CT 539/540	1 min. set of 3 per day; If bridge, 1 min. set per separate pour of abutment/pier/deck.	

APPENDIX 3

Materials Typically Accepted by Certificate of Compliance

Materials Typically Accepted by Certificate of Compliance

- Reinforcing Steel
- Treated Timber and Lumber
- Plastic Pipe
- Plastic Pipe Fittings
- Reinforced Concrete Pipe
- Corrugated Metal Pipe
- Drop Inlets
- Prefabricated Manhole Bases and Cones
- Thermoplastic Pavement Markings and Stripes
- Pavement Markers
- Conductors
- Conduit
- Electrical Components
- Pavement Reinforcing Fabric
- Portland Cement
- PCC Admixtures
- Minor concrete
- Asphalt (Oil)
- Liquid Asphalt
- Asphaltic Emulsion
- Epoxy
- Valve Boxes