

INVITATION FOR BIDS



FOR CONSTRUCTING

SONOMA AVE PAVEMENT REHABILITATION - E ST TO BOBELAINE DR

CONTRACT NUMBER

C02262

ISSUED BY

CAPITAL PROJECTS ENGINEERING DIVISION

CITY OF SANTA ROSA, CALIFORNIA

2023

ATTENTION
Prebid Conference
See Page 1



STATE OF CALIFORNIA

INVITATION FOR BIDS

CONTAINING:

NOTICE TO BIDDERS

SPECIAL PROVISIONS

BID FORMS

CONTRACT

FOR

**SONOMA AVE PAVEMENT REHABILITATION - E ST
TO BOBELAINE DR**

Contract No. C02262

SONOMA AVE PAVEMENT REHABILITATION - E ST TO BOBELAINE DR

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NOTICE TO BIDDERS

➤	For technical questions regarding this project, contact Greg Dwyer at (707) 543-3838.
➤	For direct access to plans, specifications and planholders' lists, go to www.srcity.org/bids and click on <u>Bid/Proposal Opportunities</u> or call (707) 543-3800.
➤	For direct access to bid results, go to www.srcity.org/bids . Under Link to Capital Projects, click on <u>Capital Projects Contracts</u> .

**- IMPORTANT -
REVISED BIDDING PROCEDURES**

All bids shall be submitted and opened according to the following procedure:

Bid Acceptance Deadline

Sealed bids will be accepted at the Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, California 95401 until 2:00 p.m., August 3, 2023, for Sonoma Ave Pavement Rehabilitation - E St to Bobelaine Dr, Contract No. C02262. (Engineer's Estimate: \$3,831,900)

Bids tendered after this deadline will not be accepted. The official time clock for accepting bids will be an electric date and time stamping clock, located in the Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, California. In order to be accepted, bids must be received prior to 2:00 p.m. Therefore, a bid stamped in at 1:59 p.m. will be accepted, but one delivered at or after 2:00 p.m. is late and will not be accepted.

Bid Opening

Prospective bidders, subcontractors, and materials suppliers are invited to attend the Bid opening via Zoom video/teleconference or in person at 69 Stony Circle, Santa Rosa, California. The bid opening is scheduled to be held at **2:00 p.m., August 3, 2023.**

The teleconference can be accessed at:

<https://srcity-org.zoom.us/j/87844997269?pwd=UDNIWWFsYlptSElySi9ETGowV2Z0UT09>

Phone: 1 669 219 2599

Meeting ID:878 4499 7269

Passcode: 971328

Find your local number: <https://srcity-org.zoom.us/u/kVg5wLbDs>

Project Description/Scope of Work

This rehabilitation project includes grinding out and/or overlaying approximately 0.9 center line miles of this roadway with hot mixed asphalt due to failing and deteriorating pavement conditions. Existing Class II bike lanes will be maintained, and pedestrian ramps will be reconstructed to current ADA standards. Approximately 75 Water services within the project limits will be replaced.

Pre-Bid Meeting Video Conference

Prospective bidders, subcontractors, and materials suppliers are invited to attend a pre-bid meeting via Zoom video/teleconference or in person at 69 Stony Circle, Santa Rosa, California. The pre-bid meeting is scheduled to be held at **8:30 a.m., July 27, 2023**.

The teleconference can be accessed at:

<https://srcity-org.zoom.us/j/87429957522?pwd=c3FlbnplWWhhaFR1dGhKV2JLcTYyZz09>

Phone: 1 669 219 2599

Meeting ID:874 2995 7522

Passcode: 501416

Find your local number: <https://srcity-org.zoom.us/u/kt2v49XPK>

Subcontractor Information; Department of Industrial Relations Registration

Bidders shall provide the names, business addresses and license numbers of all subcontractors listed on bidder's List of Subcontractors. No contractor or subcontractor may be listed on a bid for this public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for this public works project unless registered with the DIR pursuant to Labor Code section 1725.5. This public works project is subject to compliance monitoring and enforcement by the DIR.

Contract #: C02262

Project Title: SONOMA AVE PAVEMENT REHABILITATION – E ST TO BOBELAINE DR

Item No.	Description	Units	Quantity
1	TRAFFIC CONTROL	LS	1
2	WATER POLLUTION CONTROL	LS	1
3	LOWER MANHOLE FRAME AND COVER	EA	27
4	LOWER VALVE BOX OR MONUMENT BOX	EA	87
5	ADJUST MANHOLE FRAME AND COVER	EA	27
6	ADJUST VALVE BOX OR MONUMENT BOX	EA	87
7	RELOCATE TRAFFIC SIGNAL PULL BOX AT CURB RAMP	EA	7
8	ADJUST ELECTRICAL UTILITY VAULT TO GRADE AT CURB RAMP	EA	3
9	ADJUST TELECOM UTILITY VAULT TO GRADE AT CURB RAMP	EA	7
10	RELOCATE CABLE TV VAULT AT CURB RAMP	EA	1
11	UTILITY CLEARANCES	LS	1
12	GLASGRID PAVEMENT REINFORCEMENT	SY	26381
13	HOT MIX ASPHALT SURFACE OR LEVELLING COURSE (3 INCH DEPTH)	TON	6176
14	HOT MIX ASPHALT BASE COURSE (3 INCH DEPTH)	TON	2064
15	COLD MILL ASPHALT PAVEMENT (3 INCH DEPTH)	SY	11122
16	LONGITUDINAL CONFORM GRIND (6 FEET WIDE)	SF	50966
17	CONFORM GRIND (BEGIN AND END & SIDE STREETS)	SF	24724
18	PCC PAVEMENT (8-INCH DEPTH)	SF	507
19	PCC DRIVEWAY	SF	115
20	PCC CURB AND GUTTER	LF	205
21	PCC VALLEY GUTTER	SF	1726
22	PCC CURB RAMP	SF	9354
23	SALVAGE AND RELOCATE STREET SIGN AND POST	EA	12
24	SALVAGE AND RELOCATE SIGN	EA	1
25	REMOVE SIGN AND POST	EA	1
26	REMOVE SIGN	EA	2
27	INSTALL SIGN ON EXISTING POST	EA	3
28	INSTALL SIGN AND POST	EA	1
29	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 4	LF	37
30	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 9	LF	279
31	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 10	LF	37
32	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 22	LF	521

Item No.	Description	Units	Quantity
33	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 27C	LF	28
34	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 32	LF	4988
35	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 38	LF	447
36	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 39	LF	1699
37	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 39A	LF	425
38	THERMOPLASTIC TRAFFIC STRIPE - 4" WHITE	LF	6091
39	THERMOPLASTIC TRAFFIC STRIPE - 6" WHITE WITH TYPE G REFLECTORS	LF	100
40	BICYCLE BUFFER - PARKING PERMITTED	LF	4524
41	BICYCLE BUFFER - NO PARKING	LF	315
42	BICYCLE BUFFER - INTERSECTION LINE	LF	1145
43	THERMOPLASTIC LIMIT LINE	LF	158
44	THERMOPLASTIC BASIC CROSSWALK (WHITE OR YELLOW)	LF	1396
45	THERMOPLASTIC CONTINENTAL CROSSWALK (WHITE OR YELLOW)	LF	250
46	THERMOPLASTIC PAVEMENT MARKINGS	SF	1904
47	FIRE HYDRANT BLUE MARKER	EA	10
48	GREEN PREFORMED THERMOPLASTIC BIKE LANE MARKING	SF	432
49	RED, YELLOW OR WHITE CURB PAINT	LF	542
50	TRAFFIC SIGNAL DETECTOR LOOPS (TYPE A)	EA	38
51	TRAFFIC SIGNAL DETECTOR LOOPS (TYPE D)	EA	11
52	TRAFFIC SIGNAL DETECTOR LOOPS (MODIFIED TYPE D FOR BIKE LANE)	EA	5
53	TRAFFIC SIGNAL MODIFICATION (SOUTH E STREET)	LS	1
54	TRAFFIC SIGNAL MODIFICATION (BROOKWOOD AVENUE)	LS	1
55	TRAFFIC SIGNAL MODIFICATION (SCHOOL CROSSING)	LS	1
56	TRAFFIC SIGNAL INTERCONNECT SYSTEM	LS	1
57	4" WATER SERVICE LATERAL	LF	19
58	6" WATER SERVICE LATERAL	LF	63
59	8" WATER SERVICE LATERAL	LF	52
60	1" SINGLE WATER SERVICE	EA	58
61	1-1/2" DUAL WATER SERVICE	EA	6
62	1-1/2" WATER SERVICE	EA	5
63	2" WATER SERVICE	EA	4
64	2" WATER SERVICE (LATERAL & VALVE ONLY)	EA	1
65	3" WATER SERVICE (LATERAL & VALVE ONLY)	EA	1
66	4" GATE VALVE	EA	1
67	6" GATE VALVE	EA	3

Item No.	Description	Units	Quantity
68	8" GATE VALVE	EA	2
69	REPLACE SERVICE SADDLE AT MAIN	EA	3
70	12" DUCTILE IRON PIPE WATER MAIN	LF	34
71	BACKFLOW DEVICE RE-CERTIFICATION	EA	19
72	TEMPORARY BLOW-OFF	EA	7
73	WATER MAIN TIE-IN	EA	11
74	ABANDON OR REMOVE EXISTING WATER SYSTEM COMPONENTS	LS	1
75	TRENCH BRACING AND SHORING	LS	1

The foregoing quantities are approximate only, being given as a basis for the comparison of bids, and the City of Santa Rosa does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, as may be deemed necessary or expedient by the Engineer.

Bids shall be made in accordance with the prevailing hourly rate of per diem wages for this locality and project as determined by the Director of the DIR pursuant to Labor Code sections 1770 *et seq.*

Contractor shall be responsible for compliance with the Immigration Reform Control Act of 1986.

If the project requires the employment of workers in any apprenticeable craft or trade, once awarded, Contractor and subcontractors must apply to the Joint Apprenticeship Council unless already covered by local apprentice standards (see Labor Code section 1777.5).

All bids are to be compared on the basis of the Engineer's estimate of the quantities of work to be performed. No bid will be awarded to a contractor who is not licensed in accordance with the provisions of Chapter 9 of Division 3 of the Business and Professions Code. Contractor must hold a Class A license for this project.


Project plans, bid and contract forms for C02262 Sonoma Ave Pavement Rehabilitation - E St to Bobelaine Dr may be obtained through PlanetBids at www.srcity.org/bids. These documents can no longer be obtained at the Transportation and Public Works Department.

No bid will be accepted unless it is made on the contract bid forms furnished by the Transportation and Public Works Department through PlanetBids. The original of the completed bid forms bearing original signatures must be submitted. A bid will not be accepted unless the bidder registers as a vendor through PlanetBids at www.srcity.org/bids, downloads documents/attachments, and is added to the prospective bidders list for this project. If there is an addendum, bidders must log into PlanetBids and acknowledge the addendum to be eligible for bidding.

The successful bidder will be required to hold a current City of Santa Rosa business tax certificate issued pursuant to Chapter 6.04 of the Santa Rosa City Code before commencing work on this project. For information regarding the business tax, contact Revenue and Collections at (707) 543-3170.

For any moneys earned by Contractor and withheld by the City of Santa Rosa to ensure the performance of the Contract, Contractor may, at its request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Section 22300 of the California Public Contract Code.

The City of Santa Rosa reserves the right to reject any or all bids and the right to waive minor irregularities or informalities in any bid or bonds.


Tracy Duenas (Jun 28, 2023 08:55 PDT)

Jun 28, 2023

TRACY DUENAS
Supervising Engineer

Date

SPECIAL PROVISIONS

General Specifications

CITY OF SANTA ROSA, CALIFORNIA

SONOMA AVE PAVEMENT REHABILITATION - E ST TO BOBELAINE DR

1 GENERAL

The work described herein shall be done in accordance with the "Contract Documents," which are the:

1. Special Provisions
2. Project Plans, consisting of 31 sheets entitled Sonoma Ave Pavement Rehabilitation - E St to Bobelaine Dr, 2023-0012
3. City of Santa Rosa Design and Construction Standards (City Standards)
4. City of Santa Rosa Construction Specifications for Public improvements (City Specifications)
5. State of California Department of Transportation Standard Specifications 2010 (Standard Specifications), and
6. State of California Department of Transportation Standard Plans 2010 (Standard Plans).

In the event of a conflict in any of these documents, the order of precedence shall be determined by Section 5-1.02 of these Special Provisions.

Whenever the Standard Specifications use the terms State of California, Department of Transportation, Director, Engineer, or Laboratory, the following terms shall be substituted therefor, and any reference to any of the foregoing terms shall be understood and interpreted to mean and refer to such substituted terms as follows:

For State of California - the City of Santa Rosa;

For Department - the City of Santa Rosa Department of Transportation and Public Works or the City of Santa Rosa Water Department;

For Director - the City Engineer of the City of Santa Rosa;

For Engineer - the City Engineer of the City of Santa Rosa or the City Engineer's authorized agents;

For Laboratory – Materials Engineering of the City of Santa Rosa Transportation and Public Works Department, or such other laboratory as may be authorized by the City.

Unless otherwise provided, whenever in these Special Provisions attention is directed to specific provisions in the Standard Specifications, such direction shall not be interpreted as excluding other applicable provisions of the Standard Specifications.

Unless otherwise provided, when sections and subsections of the Standard Specifications are used in these Special Provisions, such use is not exclusive and shall not be interpreted as excluding other applicable provisions of said sections and subsections but is only intended to add to or modify such sections or subsections.

Unless otherwise provided, full compensation for compliance with these Special Provisions is included in the contract price and no additional allowance will be made to Contractor therefor. The Standard Specifications are hereby modified to delete any reference or incorporation of provisions providing for or requiring arbitration of any and all claims and disputes arising under this contract.

2 BIDDING

2-1.06 Bid Documents: Prospective bidders will be furnished with an Invitation for Bids which will state the location and description of the contemplated public works project and will show the approximate estimate of the various quantities and kinds of work to be performed and materials to be furnished with a schedule of items for which unit prices are requested.

2-1.07 Approximate Estimate: The quantities given in the Contract Documents are approximate only, being given as a basis for the comparison of bids, and the City does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or part of the work or to omit parts of the work, as may be deemed necessary or advisable by the Engineer.

2-1.31 Examination of Project Plans, Specifications, City Standards, Invitation for Bids and Work Site: Prior to submitting a bid, the bidder shall carefully examine the Project Plans, Invitation for Bids, City Standards and the proposed work site. If any person contemplating submitting a bid for this public works project is in doubt as to the meaning of any part of the Contract Documents, or finds discrepancies in or omissions from the Contract Documents, he or she may submit a written request for interpretation or correction to the Engineer. The written request must be received by the Engineer a minimum of 96 hours prior to bid opening. Any interpretation or correction of the Contract Documents prior to bid opening will be made only by written addendum issued by the City. A copy of such addendum will be mailed or faxed to each Planholder. The City will not be bound by any other explanations or interpretations of the Contract Documents.

2-1.33 Bid Document Completion: Any references to Opt Out of Payment Adjustments for Price Index Fluctuations in the Standard Specifications are deleted in their entirety.

2-1.33A Bid Forms: All bids shall be made on bid forms obtained from PlanetBids at www.srcity.org/bids. The bidder shall submit its bid on the original bid forms furnished by the City. Bids submitted on forms other than the forms furnished to the bidder by the City will not be considered.

The bid forms to be submitted at the time of and with the bid are:

1. Unit Price Schedule
2. List of Subcontractors
3. List of Previous Similar Jobs
4. Noncollusion Declaration
5. Bid Guaranty Information and Bidder's Information and Signature
6. Bid Guaranty (Bid Bond or alternate security)

All bids shall give the proposed prices and must bear the original signature of the bidder. Bidders shall fill in all blanks on the bid forms where required. A bid will not be accepted unless the bidder registers as a vendor through PlanetBids at www.srcity.org/bids, downloads documents/attachments, and is added to the prospective bidders list for this project. If there is an addendum, bidders must log into PlanetBids and acknowledge the addendum to be eligible for bidding.

2-1.33B Registration with DIR: No contractor or subcontractor may be listed on a bid for this public works project unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5. No contractor or subcontractor may be awarded a contract for this public works project unless registered with the DIR pursuant to Labor Code section 1725.5. This public works project is subject to compliance monitoring and enforcement by the DIR.

2-1.33C Subcontractors: The Subletting and Subcontracting Fair Practices Act, Public Contract Code sections 4100-4113, inclusive (the "Act") shall apply to all subcontracts in excess of one-half of one percent of the total amount of a bid. The Act requires subcontractors, if used for such work, to be listed in the contractor's bid and prohibits the substitution of subcontractors, except as authorized by the Act. Each bidder shall, with respect to the work of any subcontractor in excess of one-half of one percent of the total amount of the bid, include as part of the bid on the bid form provided:

1. The name, business address and DIR registration number of each subcontractor who will perform work or labor or render services to the Contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Project Plans or other Contract Documents in an amount in excess of one-half of one percent of the Contractor's total bid; and
2. The portion of the work that will be done by each subcontractor. Only one subcontractor shall be listed for each portion.

The purchase of sand, gravel, crushed rock, batched concrete, aggregate, ready-mixed concrete, and/or any other materials produced and furnished by established and recognized commercial plants, together with the delivery of such materials to the work site by the source of the materials or by recognized commercial hauling companies, is not considered as subcontracting under this section.

2-1.33E Rejection of Bids Containing Alterations, Erasures or Irregularities: Bids may be rejected if they show any alterations of forms, additions not called for, conditional bids, incomplete bids, erasures or irregularities of any kind.

2-1.34 Bid Guaranty: All bids shall be presented under sealed cover and shall be accompanied by cash, cashier's or certified check, or by a bidder's bond made payable to the City of Santa Rosa and executed as surety by a corporate surety authorized and admitted to transact a surety business in the State of California in an amount equal to ten percent of the amount of the bid. No bid shall be considered unless such cash, cashiers or certified check, or bidder's bond is enclosed with the bid. Any bidder's bond shall contain provisions for forfeiture consistent with California Public Contract Code section 20172.

2-1.40 Withdrawal of Bid: A bid may be withdrawn prior to, but not after, the hour fixed in the public notice for the opening of bids, provided that a written request to withdraw the bid, executed by the bidder or the bidder's authorized representative, is filed with the Engineer before this deadline. The withdrawal of a bid shall not prejudice the right of a bidder to submit a new bid.

2-1.43 Public Opening of Bids: Bids will be opened and read publicly at the time and place indicated in the Notice to Bidders. Bidders or their authorized agents are invited to be present.

2-1.46 Disqualification of Bidders: Serial bids from the same bidder will not be accepted. This section shall not be interpreted to mean that the same contractor may not be the contractor in one bid and listed as a subcontractor in another bid, provided that no collusion exists.

2-1.48 Competency of Bidders: No bid will be accepted from or contract awarded to a contractor that is not licensed in accordance with the law, that does not hold a license qualifying it to perform work under this contract, to whom a bid form has not been issued by the Engineer, or that has not successfully completed projects of similar character, scope and cost to the proposed project. Bidders will be required to provide a list of previous similar jobs with their bids.

3 CONTRACT AWARD AND EXECUTION

3-1.04 Contract Award: The City reserves the right to reject any or all bids. Bids are required for the entire work described herein. All bids will be compared with the Engineer's estimate of the quantities of work to be completed. Contract award, if any, will be made to the lowest responsible bidder within sixty days from the date bids are opened.

3-1.05 Contract Bonds: Within ten days after receipt of the Notice of Award, the successful bidder shall provide the following bonds to the City:

- a. Performance Bond: A performance bond to guarantee the faithful performance of the terms and conditions of the Contract by Contractor, which shall be executed in a sum of not less than one-half of the Contract price;
- b. Labor and Materials Bond: A labor and materials bond (payment bond) in accordance with Part 6 of Division 4, sections 8000 *et seq.* of the California Civil Code, to guarantee against any and all claims of subcontractors or other third parties furnishing labor, materials, or supplies for the Contract, which shall be executed in a sum of 100% of the Contract price; and
- c. Material Guaranty Bond: A material guaranty bond (warranty bond) to serve as surety for the guarantee requirements outlined in Section 6-3.01B, which shall be executed in a sum of not less than one-half of the Contract price.

The bond(s) shall be provided in a form acceptable to the City and issued by a corporate surety in good financial standing and authorized and admitted to transact a surety business in the state of California for the purposes and in the amount(s) stated above.

Whenever the financial or legal status of any surety on any such bond(s) is/are unacceptable to the City, it may make a demand to Contractor for further bond(s) or additional surety, not exceeding the sums originally required. Thereafter, no payment shall be made upon the Contract to Contractor or any assignees of Contractor until such bond(s) or additional surety has/have been provided to the City.

3-1.07 Indemnification and Insurance: Indemnification: Contractor shall defend, hold harmless and indemnify City, its officers, agents and employees, and each and every one of them, from and against any and all actions, damages, costs, liabilities, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonably incurred by City's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), including but not limited to Liabilities arising from personal injury or death; damage to personal, real or intellectual property or the environment; contractual or other economic damages, or regulatory penalties, arising out of or in any way connected with the performance of or the failure to perform the Contract by Contractor, any subcontractor or agent, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, whether or not such Liabilities are caused in part by a party indemnified hereunder, or such Liabilities are litigated, settled or reduced to judgment; provided, that the foregoing indemnity does not apply to liability for any damage or expense for death or bodily injury to persons or damage to property to the extent arising from (i) the sole negligence, or willful misconduct of, or defects in design furnished by City, its agents, servants, or independent contractors who are directly responsible to City (excluding Contractor), or (ii) the active negligence of City.

The existence of any of the insurance policies or coverages described in this Contract shall not affect or limit any of City's rights hereunder, nor shall the limits of such insurance limit Contractor's liability to the City hereunder. The provisions of this section shall survive any expiration or termination of the Contract.

Insurance: Contractor shall maintain in full force and effect all of the insurance coverage described in and in accordance with the insurance requirements set forth below. Maintenance of such insurance coverage during the entire performance of the Contract is a material element of the Contract. Failure by Contractor to (i) maintain or renew coverage, (ii) provide notice of any changes, modifications, or reductions in coverage, or (iii) provide evidence of renewal, if necessary, may be deemed a material breach of the Contract by Contractor, whereas the City shall be entitled to all rights and remedies at law or in equity. Notwithstanding the foregoing, any failure by Contractor to maintain required insurance coverage shall not excuse or alleviate Contractor from any of its other duties or obligations under the Contract. In the event Contractor retains or utilizes any subcontractors or sub-consultants in performance of the work, Contractor shall assure that any such subcontractor has first obtained, and shall maintain, all of the insurance coverage requirements herein set forth below.

Insurance Requirements:

A. Insurance Policies: Contractor shall maintain and keep in full force and effect, the following policies of insurance with minimum coverage as indicated below and issued by insurers with an AM Best rating of no less than A:VI or a rating otherwise acceptable to the City.

Insurance	Minimum Coverage Limits	Additional Coverage Requirements
1. Commercial general liability	\$5 million per occurrence \$5 million aggregate	Coverage must be at least as broad as ISO CG 00 01 and must include products liability and completed operations coverage which shall continue for a period of three years after acceptance of the work by the City. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. Coverage may be met by a combination of primary and umbrella or excess insurance, but umbrella and excess shall provide coverage at least as broad as specified for underlying coverage. Completed Operations Coverage can be provided in the form of an endorsement to Contractor's insurance (at least as broad as ISO Form CG 20 37 04 13. See endorsements below for other Additional Insured Requirements. Coverage shall not exclude subsidence.
2. Business auto coverage	\$3 million	Coverage at least as broad as ISO Form Number CA 00 01 covering any auto (Code 1). Insurance shall cover owned, non-owned and hired autos.
3. Workers' compensation and Employer's Liability	\$1 million	As required by the State of California, with Statutory Limits and Employer's Liability Insurance with limit of no less than \$1 million per accident for bodily injury or disease. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Contractor, its employees, agents and subcontractors.
5. Course of construction/builders' risk	Amount of completed value of project without co-insurance provisions	Required for construction projects over \$3 million. The City shall be named as loss payee.

B. Endorsements:

1. All policies shall provide or be endorsed to provide that coverage shall not be canceled by either party, except after prior written notice has been provided to the City in accordance with the policy provisions.
2. Liability policies shall provide or be endorsed to provide the following:
 - a. For any claims related to this Contract, Contractor's insurance coverage shall be primary, and any insurance or self-insurance maintained by City shall be in excess of Contractor's insurance and shall not contribute with it. Endorsements at least as broad as 20 01 04 13 or evidence of policy language will be required in non-ISO CGL policies.
 - b. **The City of Santa Rosa, its officers, agents and employees are to be covered as additional insureds on the CGL policy.** Additional Insured Endorsements at least as broad as 20 10 04 13 or 20 38 04 13 are required.

C. Verification of Coverage and Certificates of Insurance: Contractor shall furnish City with original certificates and endorsements effecting coverage required above. Certificates and endorsements shall make reference to policy numbers. All certificates and endorsements are to be received and approved by the City before work commences and must be in effect for the duration of the Contract. The City reserves the right to require complete copies of all required policies and endorsements during the duration of the Contract and for a period of three years following City's acceptance of the work.

D. Other Insurance Provisions:

1. No policy required by this Contract shall prohibit Contractor from waiving any right of recovery prior to loss. Contractor hereby waives such right with regard to the indemnitees.
2. All insurance coverage amounts provided by Contractor and available or applicable to this Contract are intended to apply to the full extent of the policies. Nothing contained in this Contract limits the application of such insurance coverage. Coverage for an additional insured shall NOT be limited to the insured's vicarious liability. Defense costs must be paid in addition to coverage amounts.
3. Self-insured retentions above \$10,000 must be approved by the City. At the City's option, Contractor may be required to provide financial guarantees.
4. City reserves the right to modify these insurance requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

3-1.18 Contract Execution: The fully executed Contract, original bonds and insurance certificates and endorsements required under the Contract shall be delivered to the City within ten calendar days of Contractor's receipt of the Notice of Award.

The Engineer will supply Contractor with up to ten sets of the Invitation for Bids and Project Plans. At least one complete set of the Invitation for Bids and Project Plans shall be kept at the construction site in good condition and made available to the Engineer at all times. Additional copies of the Invitation for Bids and Project Plans will be provided by the Engineer at Contractor's cost.

3-1.20 Failure to Execute Contract: Contractor's failure to deliver to the City the fully executed Contract within ten calendar days of Contractor's receipt of the Notice of Award shall be cause for the cancellation of the award and the forfeiture of the bid guaranty to the City. If the successful bidder refuses or fails to execute the Contract, the City may award the Contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the Contract, the City may award the Contract to the third lowest responsible bidder. The refusal or failure by the second or third lowest responsible bidder to deliver to the City the fully executed

Contract within ten calendar days of receipt of the Notice of Award to the respective bidder shall likewise be cause for the cancellation of the award and the forfeiture of the bid guaranty of the respective bidder. In its discretion, the City may then re-advertise the project or construct it by day labor.

3-1.21 Return of Bid Guarantees: Within ten days after the opening of bids, the City will return the bid guarantees to all bidders except the three lowest responsible bidders. The bid guarantees of the three lowest responsible bidders will be retained until the Contract has been fully executed. In the event all bids are rejected, all bid guarantees will be returned to the respective bidders.

3-1.22 Subcontractors: The successful bidder shall furnish a list of all subcontractors as required under Sections 2-1.33C. The list shall include the name, business address, DIR registration number and the state contractor's license number of each subcontractor on the list and the names of the responsible managing employees whose names appear on the subcontractors' licenses.

4 SCOPE OF WORK

4-1.05 Changes and Extra Work: All changes to the Contract shall be made by written change order only.

All extra work shall be recorded by Contractor on a daily report signed by both the City and Contractor. The “daily reports” shall thereafter be considered the true record of extra work performed. A copy of the daily reports will be furnished to Contractor. Contractor is directed to Section 9-1.04 of this Invitation for Bids.

4-1.05C Compensation for Altered Quantities: Payment and compensation for altered quantities shall conform to the provisions of Section 9-1.06 of the Standard Specifications, except as modified herein.

5 CONTROL OF WORK

5-1.02 Contractor's Copies of Contract Documents: In the event of a conflict in any of the Contract Documents, the order of precedence from highest to lowest shall be as follows:

1. Special Provisions
2. Project Plans, consisting of 31 sheets entitled Sonoma Ave Pavement Rehabilitation - E St to Bobelaine Dr, 2023-0012
3. City Standards
4. City Specifications
5. Standard Specifications
6. Standard Plans

5-1.05 Order of Work: The work as shown on the Project Plans and as specified in the Invitation for Bids shall be constructed in a sequence that is satisfactory to and approved by the Engineer.

Contractor shall prepare a work schedule per Section 8-1.02 of the Standard Specifications.

With the exception of trenching, all existing street, street light base, curb and gutter, storm drain, water line, and sewer line work shall be completed before any existing street paving is removed.

Full compensation for the conformance to the requirements of this section is included in the Contract price and no additional allowance will be made to Contractor for this work.

5-1.17 Character of Workers: Contractor is directed to Section 5-1.17 of the Standard Specifications which states:

"If any subcontractor or person employed by the Contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the request of the Engineer, and such person shall not again be employed on the work."

No additional compensation shall be granted to Contractor in the event City exercises any part of its rights under this section and any and all costs related to such exercise shall be borne by Contractor.

5-1.20 Cooperation with Other Entities: Attention is directed to Section 5-1.20 of the Standard Specifications.

Other construction including but not limited to utility, power, and pipe line relocation, may be in progress by other forces within and adjacent to the project area at the same time work is being performed under this Contract by Contractor.

Contractor shall cooperate with the forces performing other work, to the end that such forces may conduct their operations with as little inconvenience and delay as possible. Contractor shall grant such forces access to the project area as is reasonable and necessary to transport materials and equipment to the site of operations by the other forces.

5-1.20B(4)(a) Offsite Staging Areas and Construction Yards: Attention is directed to Santa Rosa City Code section 20-52.040, Temporary Use Permit.

A Temporary Use Permit shall be obtained for any offsite construction yard on private property to be used for any of the following:

- a. Stockpiling of equipment and/or materials;

- b. Staging of construction;
- c. Placement of work trailers or mobile offices;
- d. Storage of trench spoils; or
- e. Other construction related activities not specifically enumerated above.

5-1.26 Lines and Grades: Contractor shall carefully preserve all bench marks, grade stakes, and all other survey markers. In the case of willful or careless destruction, Contractor shall bear the cost of replacing the markers.

Contractor shall contact the Engineer directly for coordination of survey staking. Written staking requests must be submitted at least two working days in advance of the date and time stakes are needed.

5-1.27B Examination and Audit: Pursuant to California Government Code section 8546.7, any contract with the City involving expenditures in excess of \$10,000 shall be subject to the examination and audit of the California State Auditor for a period of three years after final payment is made to Contractor by City under this Contract. Any such examination and audit will be confined to those matters connected with the performance of this Contract.

5-1.30A Inspection: Contractor shall bear all costs associated with the re-inspection of any defective, rejected or unauthorized work as determined by the Engineer in Engineer's sole discretion. Such costs of re-inspection, including any costs incurred by the City for additional staff time or fees for third-party consultant inspectors, will be deducted from one or more progress payments hereunder.

5-1.36A Property and Facility Preservation: Attention is directed to Section 5-1.36 of the Standard Specifications.

At Contractor's sole expense, all fences, gates, landscaping, drainage ditches, sidewalks, irrigation systems, and any other improvements that are damaged, removed or destroyed because of Contractor's operations, shall be replaced in accordance with City Standards at a minimum and restored to the same or better condition. Concrete surface treatment and score marks shall match adjacent existing concrete improvements.

5-1.36E Obstructions: Attention is directed to Section 5-1.36 of the Standard Specifications and to the possible existence of underground gas mains, high voltage lines, telephone ducts, storm drains and water and sewers systems, the locations of which are not shown on the Project Plans. The determination of the location of these facilities and the cost of repair or replacement in the event of damage to such facilities are the sole responsibility of Contractor.

Should Contractor alter any public utility or private improvements to facilitate its operations or for its sole benefit, which alteration would not be otherwise required, Contractor shall make whatever arrangements are necessary with the owner or controlling authorities and shall bear all expenses in connection therewith. Any damages to any public utility or private improvement caused by Contractor shall be repaired by Contractor at its sole expense and to the full satisfaction of the Engineer or the controlling authority.

Any subsurface information and data furnished under any part of this Contract are not intended as a representation or warranty but are furnished for information only. It is expressly understood that the City will not be responsible for the accuracy thereof or for any deduction, interpretation or conclusion drawn therefrom by Contractor. The information is made available so that Contractor may have ready access to the same information available to the City and is not part of this Contract.

PRIOR TO STARTING ANY EXCAVATION, CONTRACTOR SHALL (AT LEAST TWO WORKING DAYS IN ADVANCE) CALL UNDERGROUND SERVICE ALERT (USA) toll free at (800) 227-2600

and provide USA with all necessary data relative to the proposed excavation. USA will accept calls and process information to participating agencies who have underground facilities in the area between the hours of 7:30 a.m. and 5:00 p.m. daily, except Saturdays, Sundays, and holidays. Between the hours of 5:00 p.m. and 7:30 a.m., calls will be recorded and then processed after 7:30 a.m. For emergency situations, after hours, and on Saturdays, Sundays and holidays, Contractor shall contact the owner of the affected facility.

Contractor shall coordinate all work with the appropriate City field personnel. When City work forces are required at the job site to perform Contract items of work, Contractor shall give a minimum of two working days advanced notification to the appropriate field office:

Water Division:	(707) 543-4200
Sewer Division:	(707) 543-4200
Street Division:	(707) 543-3880
Survey Division:	(707) 543-3834

5-1.43 Potential Claims and Dispute Resolution: "Claim" means a separate demand by Contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following: (A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by the City under the Contract; (B) Payment by the City of money or damages arising from work done by, or on behalf of, Contractor pursuant to the Contract and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled; or (C) Payment of an amount that is disputed by the City.

Upon receipt of a Claim, the City shall conduct a reasonable review of the Claim and, within a period not to exceed 45 days, shall provide Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed, provided, the parties may extend the 45 day time period by mutual agreement.

If the City needs approval from the City Council to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the Claim, and the Council does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a Claim, the City shall have up to three days following the next duly publicly noticed meeting of the City Council after the 45-day period, or extension expires to provide Contractor a written statement identifying the disputed portion and the undisputed portion.

Any payment due on an undisputed portion of the Claim shall be processed and made within 60 days after the City issues its written statement. If the City fails to issue a written statement, the Claim shall be deemed rejected in its entirety.

If a Contractor disputes the City's written response, or if the City fails to respond to a Claim within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the City shall conduct a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following the conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, the City shall provide the Contractor 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 60 days after the City issues its written statement. Any disputed portion of the Claim, as identified by Contractor in writing, shall be submitted to nonbinding mediation, with the City and the Contractor sharing the associated costs equally. The City and Contractor shall mutually agree to a mediator within 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.

6 CONTROL OF MATERIALS

6-2.01 Source of Supply and Quality of Materials: All materials required to complete the work under the Contract shall be furnished by Contractor and shall be free of hazardous substances.

6-3.01 General: Statistical means will not be used by the City for determination of Standard Specification compliance. Whenever both operating range test results and Contract compliance requirements are specified in these special provisions, the operating range requirements shall apply to the individual test results.

6-3.01A Material Submittals: Upon award of the Contract by City, Contractor shall submit to the Engineer a list of all materials proposed to be used on this project and any supporting documentation and/or samples required and source of supply.

For material listed on the "Engineer's List of Approved Items" which is located in the Sewer and Water sections only of the City Standards, the Engineer shall be provided with the name of the manufacturer and model/part number for all material proposed for this project, unless that item has been replaced as shown on the Project Plans or in the Invitation for Bids.

For all other materials used on this project, regardless of the type of work, Contractor shall provide to the Engineer the name of the manufacturer and model/part number along with supporting documentation and/or samples that will allow the Engineer to determine the material's acceptability.

The Engineer reserves the right to reject any proposed material, whether on the City's "Engineer's List of Approved Items" or not. If the City obtains information indicating that a listed item is not performing satisfactorily or is found to be defective, that item will be rejected and Contractor shall submit a replacement for review at no additional cost to the City.

6-3.01B Material Guarantee: Before any contract is awarded, the bidder may be required to furnish samples of materials and detailed descriptions of equipment to be used in the construction of the project. The materials samples may be subjected to the tests provided for in the Standard Specifications or in this Invitation for Bids to determine their quality and fitness for the project. The successful bidder shall unconditionally guarantee project materials and workmanship for a period of one year from the date of recording of the Notice of Completion. The guarantee shall cover 100% of all costs of repairs within the one year period, including all costs of labor, materials, equipment, and incidentals. Except as may be otherwise provided in Section 3-1.05, the successful bidder shall provide a surety bond executed by a corporate surety authorized and admitted to transact a surety business in the state of California in the minimum amount of one-half of the Contract price to cover this guarantee.

6-3.05 Quality Assurance: California Test 216 (Relative Compaction) testing will be modified as follows: A mechanical compactor (Ploog Engineering Co. Model M 100 or equivalent) with 10-pound hammer and split compaction molds shall be used in lieu of the specified manual compaction equipment.

California Test 231 (Nuclear Gage Determination of In-Place Density) will be modified as follows: In-place density and relative compaction may be determined on the basis of individual test sites in lieu of the area concept, at the discretion of the Engineer.

6-4 Water Utility

6-4.01A Construction Water: All water required for the performance of the work shall be provided by Contractor. Prior to obtaining water from the City's water system, Contractor shall obtain a Water

Use Permit from the City of Santa Rosa Water Department and rent a hydrant or bridge meter. Contractor is responsible for the cost of all water and the cost of all deposits, permits and fees.

Contractor is prohibited from operating gate valves or fire hydrants on the City system.

The acquisition of water from the City's water system through un-metered hydrants or other facilities is a violation of City ordinance and State law. The use of water from sources other than the City's water system must be approved by the Engineer in advance of the use.

Citations and fines will be levied for violation of these and other utility regulations and deductions will be made from payments consistent with Section 7-1.02A(1) of the Standard Specifications.

6-4.01B Water Utility Notification: Contractors or parties requiring work of any kind by the City of Santa Rosa Water Department forces shall request such services a minimum of 48 hours in advance of the time such services are desired. Work requests which will involve the City of Santa Rosa Water Department forces for more than eight hours or an extensive number of City parts shall be requested a minimum of seven calendar days in advance.

If it is necessary to terminate or disrupt utility service to any customer, Contractor shall make the request for such work by City forces an additional 72 hours (three additional working days for a total of five working days advance notice) in advance of the time such services are desired to allow affected customers a minimum of 72 hours' notice. Contractors who fail to keep field appointments will be billed for scheduled City of Santa Rosa Water Department crew standby time which was used and the Contractor shall bear the costs incurred by the City of Santa Rosa's Water Department for re-notification of customers.

City of Santa Rosa Water Department crews work a 9/80 schedule. This schedule may prohibit shutdowns for tie-ins on alternating Fridays. After hours work or weekend work may be performed if prior authorization from the Engineer is obtained.

Other than the hours specified in this Invitation for Bids, requests by Contractor for after hours or weekend work is to be avoided whenever possible. Any overtime costs incurred by City for such work shall be borne by Contractor.

Interruption of utilities service to commercial customers shall be coordinated with the customer to minimize disruption to the enterprise to the greatest extent practicable. After notification by the Contractor of the need, the City of Santa Rosa Water Department will contact all commercial customers and inform Contractor accordingly.

6-4.01C Water Facility Damage: All damage caused to the City's water system shall be immediately reported to the Engineer.

Damage caused to the City's water system by Contractor's operations shall be repaired by the Contractor at Contractor's sole expense in a manner satisfactory to the City of Santa Rosa Water Department. Such repairs shall not be charged to the City or any City project. All repair work shall be witnessed and approved by the City of Santa Rosa Water Department prior to backfilling the excavation. The City will require re-excavation if backfilling occurs prior to inspection, which costs shall be borne by Contractor.

Contractor is responsible for, at its sole cost and expense, the repair and remediation of damage to property and facilities caused by any of the following circumstances:

- a. Contractor fails to make a written request for a markout or begins excavation without providing the City of Santa Rosa Water Department a reasonable opportunity to mark facilities;

- b. Contractor destroys markouts;
- c. Contractor fails to perform hand digging or probing for utilities near markouts; or
- d. Contractor fails to use reasonable caution, regardless of whether markouts are present or clear. Reasonable caution includes any efforts to avoid damaging existing facilities, such as when excavating in the vicinity of water mains.

City may, in its discretion, opt to make the repairs for which Contractor is responsible with its own forces. In such cases, the repairs will be made at Contractor's expense in accordance with the emergency repair rate schedule of the City of Santa Rosa Water Department. The City may make repairs whenever restoration of service requires extraordinary speed or special equipment. Contractor will be billed accordingly and City shall have the right and option to withhold payment hereunder, or a portion thereof, for any such costs billed but not promptly paid by Contractor.

6-4.02 Salvage: All valves, hydrants, and other appurtenances of the water system that are the property of City and removed by Contractor shall be delivered to the City's Municipal Services Center (55 Stony Point Road) unless Contractor has obtained specific written approval from the City of Santa Rosa Water Department to otherwise dispose of the materials.

6-4.03 Trade Names and Alternatives: Unless otherwise specified, material and equipment specifications that identify a particular patent, trade name or manufacturer, may be satisfied through substitute materials and equipment accepted by the City. Contractor may offer substitute materials and equipment of equal or better quality to the City. Any such offer shall be made in writing to the Engineer at least four weeks in advance of the time Contractor wishes to order the materials or equipment. Contractor shall include sufficient data which, together with any other information the Engineer may require, will enable the Engineer to determine the acceptability of the materials and equipment. When the substitute materials or equipment necessitate changes to any part of the work, the information shall include drawings and details showing all such changes and Contractor shall perform these changes as a part of any acceptance of substitute materials or equipment. The use of substituted materials and equipment will be permitted only after written acceptance of the materials and equipment by the Engineer. Such acceptance shall not relieve the Contractor from full responsibility for the sufficiency, quality and performance of the substitute materials and equipment.

The City will not, under any circumstances, acknowledge or consider any offers to accept substitute materials or equipment between the dates of public notice of advertisement and the bid opening.

7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

7-1.02A(1) Forfeitures for Health and Safety Violations: Contractor shall comply with all applicable provisions of the Santa Rosa City Code and any failure to do so shall constitute a breach of the Contract. In the event of any violation of the Santa Rosa City Code that may impact public health and safety, including, but not limited to Chapter 17-12, "Storm Water" and Chapter 13-04, "Street Encroachments," City shall have the right to impose a charge against Contractor in an amount equal to \$500.00 per violation per day. Prior to the imposition of any charge hereunder, City shall first provide a written notice to Contractor of the violation and setting forth a reasonable period of time for Contractor to cure the violation(s). In the event Contractor fails to cure any such violation within the time provided, City shall have the right, in addition to all other rights and remedies available to City, to deduct and withhold as a permanent forfeiture by Contractor the appropriate amounts from any payment otherwise due Contractor under this Contract.

7-1.02K(2) Wages: Pursuant to Labor Code sections 1770 *et seq.*, each laborer or mechanic of Contractor or any subcontractor engaged in work on the project under this contract shall be paid not less than the hourly wage rate of per diem wages set forth in the prevailing wage rate schedule published by the Director of Industrial Relations, regardless of any contractual relationship which may be alleged to exist between Contractor or any subcontractor and such laborers and mechanics. A copy of the schedule of prevailing wage rates can be obtained online at www.dir.ca.gov or from the Department of Transportation and Public Works at 69 Stony Circle, Santa Rosa.

Any laborer or mechanic employed to perform work on the public works project under this Contract, which work is not covered by any of the foregoing classifications, shall be paid not less than the prevailing wage rate of per diem wages specified herein for the classification which most nearly corresponds to the work to be performed by the worker.

The foregoing specified prevailing wage rates are minimum rates only, and Contractor may pay any wage rate in excess of the applicable rate.

Pursuant to Labor Code Section 1775, Contractor as a penalty to the owner shall forfeit not more than \$200.00 for each calendar day, or a portion thereof, for each worker paid less than the prevailing wage rate established by the Department of Industrial Relations for such work or craft in which such worker is employed. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which the worker was paid less than the prevailing wage rate shall be paid to each worker by Contractor.

Contractor shall only provide prevailing wage reports upon written request from City. When requested, these prevailing wage reports must be redacted by the Contractor prior to providing them to City.

7-1.02K(4) Apprentices: Contractor agrees to comply with Chapter 1, Part 7, Division 2, sections 1777.5 *et seq.* of the California Labor Code. These sections require contractors and subcontractors to employ apprentices in apprenticeable occupations in a ratio of not less than one hour of apprentice work for each five hours of journeyman work (unless an exception is granted in accordance with Section 1777.5), and the contractors and subcontractors shall not discriminate among otherwise qualified employees as apprentices solely on the ground of sex, race, religion, creed, national origin, ancestry, or color. Only apprentices as defined in Labor Code section 3077, who are in training under apprenticeship standards and who have written apprentice agreements will be employed on public works in apprenticeable occupations. The responsibility for compliance with these provisions is fixed with the prime contractor for all apprenticeable occupations.

7-1.02K(6)(a)(1) Notice to Vendors: Attention is directed to the current OSHA Standards. All equipment, tools and materials which are furnished and/or installed as part of this Contract shall meet or exceed the aforementioned standards in order to be considered acceptable.

7-1.02K(6)(b) Excavation Safety: When the digging or excavation occurs during project construction, Contractor shall:

- a. Promptly notify City in writing of the following conditions before any such conditions are disturbed:
 1. Material that the Contractor believes may be hazardous waste as defined in Health and Safety Code section 25117 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 in the Invitation for Bids; and
 3. Physical conditions at the site of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in the type of work under the Contract.
- b. The City will investigate the conditions and will issue a change order under the terms of the Contract if it finds that the conditions warrant it.
- c. If a dispute arises between City and Contractor as to whether a change order is warranted, Contractor shall not be excused from any scheduled completion date provided for in the Contract but shall proceed with all work to be performed under the Contract.

7-1.02K(6)(b)(1) Trench Excavation Safety Plans: When the estimated cost for the excavation of any trench or trenches five feet or more in depth will exceed \$25,000.00, Contractor shall submit to the Engineer in advance of excavation a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards established by the construction safety orders, or if the trench is anticipated to be greater than 20 feet, the plan shall be prepared by a registered civil or structural engineer.

A permit to do the above described work shall be obtained from the State of California, Division of Industrial Safety. Proof of such permit shall be submitted to the Engineer prior to starting the trench work.

Full compensation for complying with the provisions of this section shall be considered as included in the Contract price and no additional allowance will be made for the work.

7-1.02K(6)(d) Confined Space Safety: Any confined space entry for this project, including but not limited to manhole or water storage tank entry, will require a confined space entry permit pursuant to Cal/OSHA regulations as set forth in title 8 California Code of Regulations (CCR) sections 5157 or 5158. Confined space entry shall have the meaning ascribed in title 8 CCR sections 5157 and 5158. For any confined space entry for construction operations regulated by title 8 CCR section 1502, Contractor shall comply with title 8 CCR section 5158, "Other Confined Space Operations." For any other confined space operations, Contractor shall comply with title 8 CCR section 5157, "Permit-Required Confined Spaces."

Attention is directed to the technical specifications in the Special Provisions for information regarding entry to any City maintained confined space. Pursuant to title 8 CCR section 5157, Contractor is required to obtain any available information regarding hazards and operations for any City maintained confined spaces. The City maintained Confined Space Entry Manual is available

for viewing at the City of Santa Rosa Water Department or Transportation and Public Works Department office at 69 Stony Circle, Santa Rosa.

Contractor shall immediately inform the Engineer of any previously unidentified hazards confronted or created during confined space entry.

7-1.02L(2)(a) Patents and Royalties: All fees, royalties, or claims for any patented invention, article, process or method that may be used upon or in any manner connected with the work under this Contract shall be paid by Contractor. Contractor and its sureties shall protect and hold harmless City and its officers, agents, and employees from any and all demands made for such fees royalties or claims brought or made by any third party, and before the final payment is made on the account of the Contract, Contractor shall, if requested by City, furnish acceptable proof of a proper release from all such claims and liabilities.

Should Contractor, its officers, agents, or employees, or any one of them be enjoined from furnishing or using any invention, article, material, or plans supplied or required to be supplied or used under the Contract, Contractor shall promptly substitute other articles, materials, or appliances in lieu thereof of equal efficiency, quality, finish, suitability, and market value, and satisfactory in all respects to the Engineer. In the event that the Engineer elects, in lieu of such substitution, to have supplied and to retain and use any such invention, article, materials, or plans as may be required to be supplied by the Contract, Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary for City, its officers, agents, and employees, or any one of them to use such invention, article, materials, or appliance without being disturbed or in any way interfered with by any proceeding in law of equity on account thereof. Should Contractor neglect or refuse to make the substitution promptly or to pay such royalties and secure such licenses as may be necessary, then in that event the Engineer shall have the right to make such substitutions or City may pay such royalties and secure such licenses and charge Contractor even though final payment under the Contract may have been made.

7-1.02M(3) Mined Materials: California Public Contract Code section 20676 prohibits surface mining operators which are subject to the Surface Mining and Reclamation Act of 1975 (SMARA) from selling California mined construction material to the City unless the operator is identified in a list referred as the **3098 List**. The List, which is maintained by the Department of Conservation's Office of Mine Reclamation (OMR), changes throughout the year and can be viewed at the OMR website: http://www.consrv.ca.gov/OMR/ab_3098_list/index.htm. To confirm whether or not a specific operator is on the List at any given time, Contractor shall call the OMR at (916)323-9198.

7-1.03A Maintaining Traffic: Attention is directed to Sections 7-1.04 of the Standard Specifications and to the following modifications thereof.

If construction is within City owned right-of-way, provisions shall be made for the safe passage of public traffic through the work site at all times consistent with the requirements of Santa Rosa City Code Chapter 13-04.

Except for projects to be performed under a minor contract, Contractor shall install and maintain project identification signs at each end of the project or as directed by the Engineer two weeks prior to any construction activity. City shall furnish the appropriate sign panels upon request from Contractor. To mount the sign panels, Contractor shall furnish and install 4" X 4" posts or mount by other appropriate methods as approved by the Engineer. These sign panels shall be returned to the City Corporation Yard at 55 Stony Point Road after completion of the project.

Two weeks prior to any construction activity, advance notice signs for road closures shall be furnished and installed by Contractor at each end of the project and shall remain in place throughout the duration of the subject closure. Details of panel construction and lettering shall be approved by the Engineer.

Contractor shall furnish, install, and maintain at its expense all barricades, signs, lights, and other devices necessary to adequately warn of any obstructions to the traveled and pedestrian way and provide flaggers as necessary for the safety of public traffic and pedestrians and to provide access to property adjacent to the work site and Contractor shall comply with the Americans with Disabilities Act of 1990 (42 U.S.C. 12101, *et seq.*) (ADA) and any regulations and guidelines issued pursuant to the ADA.

Contractor shall comply with the current edition of the California Manual of Uniform Traffic Control Devices (CA MUTCD) for all items related to traffic within the work site.

Rain and other occurrences that may cause the suspension or delay of the work shall in no way relieve Contractor of its responsibility to provide traffic control and public access through the work site as specified herein. At all times, Contractor shall keep at the work site such materials, forces and equipment as may be necessary to keep roads, streets, and driveways within the work site open to traffic and in good repair and shall expedite the passage of such traffic, using such forces and equipment as may be necessary.

Should Contractor fail, in the opinion of the Engineer, to provide all the materials, forces and equipment necessary to maintain traffic through the work site as set forth herein, City may take steps necessary to remedy any such failure, including but not limited to causing such work to be performed and/or suspending any further work under the Contract. Any such remedial cost and expense incurred by the City, plus an administrative charge of 15%, shall be immediately due and payable by Contractor and may be deducted from any amounts owed to Contractor hereunder. In the event there are insufficient sums owed to Contractor hereunder to cover the foregoing costs and charges, City shall have the right to pursue any other remedy to recover the same, including but not limited to, proceeding against any surety or bond in favor of City. City's rights under Section 7-1.02 are intended to be in addition to and not in lieu of any charges imposed by City against Contractor under Section 7-1.02A(1) above for violations of the Santa Rosa City Code.

Contractor shall be responsible for informing emergency response agencies operating within the area of the work of obstructions to either public or private roads caused by reason of Contractor's operations hereunder.

Contractor shall make provisions for the safe passage of pedestrians around the project work site at all times.

8 PROSECUTION AND PROGRESS

8-1.01A Assignments: Once awarded, this Contract shall not be transferred, assigned, or sub-contracted, except as herein expressly provided without the prior written consent of the City in the City's sole and absolute discretion. See Section 5-1.12 of the Standard Specifications.

8-1.04B Standard Start: Contractor shall begin work within ten calendar days after the date authorized in the Notice to Proceed and shall diligently prosecute the Contract to completion before the expiration of:

60 WORKING DAYS

8-1.05 Time: Working days will be counted beginning with the day the Contractor begins work or with the tenth day after the date authorized in the Notice to Proceed, whichever occurs first.

Unless otherwise directed by Engineer, Contractor shall not conduct any activities that generate noise earlier than 7:00 a.m. or later than 7:00 p.m.

8-1.10 Liquidated Damages: Contractor hereby agrees that Contractor shall pay to the City liquidated damages for each and every calendar day delay over and above the number of working days prescribed above for finishing the work in the amount shown in Section 8-1.10 of the Standard Specifications.

9 MEASUREMENT AND PAYMENT

9-1.04 Force Account Work: All work done on a force account basis shall be recorded daily on report sheets prepared by Contractor and signed by both the Engineer and Contractor. Such reports shall thereafter be considered the true record of force account work performed during the project. Such reports shall be furnished to the Engineer and a copy retained by Contractor.

All extensions of labor, equipment, and material costs shall be completed by Contractor and submitted to the Engineer within 30 days of the completion of the extra work. Completed and extended extra work reports received later than the times herein prescribed may be deemed invalid and rejected without payment at the discretion of the Engineer.

9-1.07 Payment Adjustments For Price Index Fluctuations: Any references to Opt Out of Payment Adjustments for Price Index Fluctuations in the Standard Specifications are deleted in their entirety.

9-1.16 Progress Payments: Once each month for progress pay purposes, the City will prepare a written estimate of the total amount of completed work and accepted materials purchased by Contractor but not installed. The City shall retain five percent of such estimated value of the completed work and the unused materials and pay Contractor the balance after deducting all previous payments and all sums to be retained under the provisions of the Contract. No such estimate or payment shall be required to be made when, in the judgment of the Engineer, the work is not proceeding in accordance with the provisions of the Contract or when, in the Engineer's judgment, the total value of the completed work since the last estimate is less than \$500.00. No such estimate or payment shall be construed to be an acceptance of any defective work or improper materials.

After Contract acceptance, the Engineer will prepare a written proposed final estimate of the proposed final quantities of work completed under the Contract and the value of such work and will submit such estimate to Contractor. The City shall retain five percent of such estimated value of the work done and shall pay to Contractor the balance after deducting all amounts to be retained under the provisions of the Contract.

The City may, at its option and at any time, retain out of any amounts due Contractor sums sufficient to cover any unpaid claims of City or others, provided that sworn statements of all non-City claims shall have been filed with the Director of Finance.

9-1.16E(6) Substitution of Securities for Withheld Amounts: Pursuant to Public Contract Code section 22300, securities may be substituted for any moneys withheld by City to ensure performance under this Contract, provided that substitution of securities provisions shall not be required in contracts in which there will be financing provided by the Farmer's Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 USC sections 1921 *et seq.*), and where federal regulations or policies or both do not allow the substitution of securities. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the City, or with a state or federally chartered bank as the escrow agent, which shall then pay such moneys to Contractor. The Director of Finance is authorized to execute substitution of securities agreements on behalf of the City. The City will return the securities to Contractor upon satisfactory completion of the Contract as determined by City in its sole discretion and the resolution of all outstanding claims against the securities. Contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon.

Securities eligible for investment under this section shall include those listed in Government Code section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit or any other security mutually agreed to by Contractor and the

City, provided that the substituted security is equal to or not less than five percent of the Contract amount.

Security substitutions must be submitted by Contractor and approved by City prior to the time of the first progress payment to be made under the Contract. No other method of substituting securities for retention will be accepted. The security substitution shall be done only upon execution of an agreement satisfactory to City which includes the following provisions:

- a. The amount of securities to be deposited;
- b. The terms and conditions of conversion to cash in case of the default of Contractor; and
- c. The procedure for return of securities upon completion of the Contract.

9-1.17D Final Payment and Claims: The processing of payment of the final estimate shall not be commenced less than 35 days after the date of recording of the Notice of Completion with the County Recorder's Office. Contractor is advised that it takes approximately ten days for a check to be issued following a request for payment.

Contractor shall submit its written statement of all claims for additional compensation under the Contract to the Engineer within 15 days after submission to Contractor of the proposed final estimate.

If Contractor does not file a claim within the 15 day period, or upon Contractor's approval, the Engineer will issue a final written estimate and the City shall pay to Contractor the entire sum due after deducting all previous payments, if any, and all amounts to be retained under the provisions of the Contract.

If Contractor files a claim within the 15 day period, the Engineer will furnish a semi-final estimate and pay the amount due under the semi-final estimate within 30 days. The semi-final estimate is conclusive as to the amount payable except as may be affected by claims and any amount retained. The Engineer shall then consider and investigate such claim and shall make such revision in the final quantities as the Engineer may find to be due and shall then make and issue a final written estimate. The City will pay the amount due, after deducting all previous payments, if any, and amounts to be retained under the provisions of the Contract.

Any and all prior partial estimates and payments shall be subject to correction in the final estimate and payment.

The final estimate shall be conclusive and binding against both parties to the Contract on all questions relating to the performance of the Contract and the amount of work done thereunder and compensation therefor, except in the case of gross error.

9-1.17D(3) Final Determination of Claims: Claims filed by Contractor shall be in sufficient detail to enable the Engineer to determine the basis and amount of the Claims. Contractor shall also furnish reasonable documentation to the City to support Claims. If additional information is required by the Engineer, Contractor shall provide such information to the Engineer no later than the 15th day after receipt of the written request from the Engineer. If the 15th day falls on a weekend, holiday, or day City offices are closed, then the information shall be provided to the Engineer no later than close of the next business day. Failure to submit the requested information to the Engineer within the time specified will be sufficient cause for denying the Claim.

Contractor shall keep full and complete records of the costs and additional time incurred for any work for which a claim for additional compensation is made. The Engineer or any designated Claim investigator or auditor shall have access to those records and any other records as may be reasonably required by the Engineer to determine the facts or contentions in each Claim. Failure to grant access to such records shall be sufficient cause for denying the Claims.

9-1.22 Arbitration: Any references to Arbitration in the Standard Specifications are deleted in their entirety.

Claims submitted by Contractor shall be accompanied by a notarized certificate containing the following language:

Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code sections 12650 *et seq.*, the undersigned,

(Name)

_____ of
(Title)

(Contractor)

hereby certifies that the claim for additional compensation made herein is supported by a true statement of the actual costs incurred and time expended on this project and is fully documented by records maintained by Contractor.

Dated _____

/s/ _____

Subscribed and sworn before me this _____ day of

Notary Public

My Commission Expires _____

Failure to submit the notarized certificate will be sufficient cause for denying the claim.

Any claim for overhead expenses, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant. Any such overhead claim shall also be subject to audit by the City at its discretion.

Any costs or expenses incurred by the City in reviewing or auditing any claims that are not supported by Contractor's cost accounting or other records shall be deemed to be damages incurred by the City within the meaning of the California False Claims Act.

TECHNICAL SPECIFICATIONS
FOR

SONOMA AVENUE E STREET TO BOBELAINE DRIVE
PAVEMENT REHABILITATION (CONTRACT NO. C02262)

Specifications contained herein have been prepared by or under the direct supervision of the following Registered Persons. Section 87 Electrical Systems was prepared by or under the direct supervision of Geoff Rubendall, Section 132 Water Distribution System was prepared by or under the direction supervision of Heidi Utterback, all other Sections of these Technical Provisions were prepared by or under the direct supervision of Jim Bui.



06/20/2023

Jim Bui
Registered Civil Engineer, No. 86467
NCE

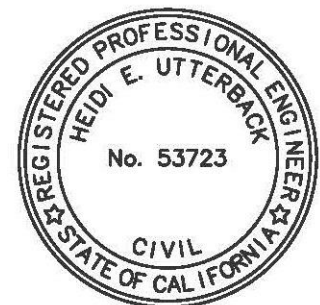
Date



06/20/2023

Geoff Rubendall
Geoff Rubendall
Registered Civil Engineer, No. 71946
Fehr & Peers

Date



06/20/23

Heidi E. Utterback
Heidi Utterback
Registered Civil Engineer, No. 53723
Coastland

Date

10 GENERAL CONSTRUCTION

10-3 MOBILIZATION

10-3.01 General: Mobilization shall conform to the Standard Specifications, and any modifications herein.

Mobilization shall include the obtaining of all permits; moving onto the site with all equipment; and other construction facilities as required for the proper performance and completion of the work. Mobilization shall include demobilization as defined herein.

Your Mobilization shall include but not be limited to the following principal items:

1. Preparation of Contract.
2. Completion of all tasks and submittal of all documents (bonds, insurance, schedule, etc.) required as conditions of issuing the Notice to Proceed.
3. Obtaining all required permits.
4. Installation of project identification signs per Section 7-1.03A of these Special Provisions. You shall consult with the Engineer for placement.
5. Installing temporary construction water supply, power, wiring, and lighting facilities, as required.
6. Providing your own field office trailers if needed.
7. Moving onto the site(s) all your equipment required for operations.
8. Having all OSHA required notices and establishment of safety programs.
9. Attendance at Pre-Construction Conference with your principal construction personnel.

Demobilization shall include, but not limited to, removal of all equipment, unused materials, all temporary utilities, job trailers and all temporary communication facilities.

10-5 DUST CONTROL

10-5.01 General: Sweeping, covering stockpiles, applying water, and/or dust palliative, to control dust caused by public traffic is not change order work.

All dust producing work and unpaved construction sites shall require a minimum watering in the middle and ending of each workday. The frequency of watering shall increase if dust is airborne. Watering shall not produce runoff.

You shall maintain dust control to the satisfaction of the Engineer, 7 days a week, 24 hours per day.

At the end of each workday, you shall thoroughly sweep all streets effected by the project to minimize airborne dust.

At the end of each work week, you shall sweep all streets in the work zone with a commercial street sweeping truck equipped with a rear pick up broom.

At the Engineer's discretion additional sweeping or watering may be required, including the use of a commercial street sweeping truck equipped with a rear pick up broom, at any time or place.

10-5.02 Payment: Full compensation for conforming to the provisions 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 therefor.

12 TEMPORARY TRAFFIC CONTROL

12-1 GENERAL

12-1.01 General: Construction area traffic control devices shall be installed and maintained in accordance with the applicable sections of these Special Provisions, the Standard Specifications, the current Edition of the California Manual on Uniform Traffic Control Devices (CA MUTCD), the Americans with Disabilities Act (ADA) and as directed by the Engineer.

12-1.04 Payment: Payment for **Traffic Control** shall be per the **lump sum** (LS) as stated in the Bid Schedule. The contract lump sum price shall include, but not be limited to, preparation and implementation of a traffic and pedestrian control and construction phasing plan, and travel (haul) route plans, temporary striping and markers and temporary asphalt work as required by the Engineer to maintain driveway access, flaggers, lights, channelizers, temporary railing, temporary striping, barriers, portable changeable message signs, portable flashing lights, flashing arrow signs, including notification of residents and business and the preparation of the paving schedule, and all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

Furnishing flaggers shall be considered as included in the contract lump sum price paid for Traffic Control.

12-3 Traffic-Handling Equipment and Devices

12-3.01 General: Prior to commencing construction which will affect existing vehicular and pedestrian traffic, you shall submit for review by the Engineer, Traffic Control Plans on 11" x 17" sheets of paper which contains only information specifically related to work zone vehicular and pedestrian traffic control. Traffic Control Plans shall be prepared, sealed, and signed by a Professional Engineer registered in the State of California. If you propose to use the current edition of the CA MUTCD published by Caltrans in lieu of a traffic control plan, in specific work operations, they shall submit in writing for consideration which Typical Application Diagram will be used and how it will be applied for each work operation. Traffic Control Plans or proposals shall be submitted for review at least two weeks prior to implementation.

Traffic Control Plans shall contain a title block which contains your name, address, phone number, project superintendent's name, contract name, dates and hours traffic control will be in effect, and a space for review acknowledgment.

The content of the Traffic Control Plan shall include, but is not limited to, the following:

1. Show location and limits of the work zone.
2. Give dimensions of lanes affected by traffic control that will be open to traffic.
3. Indicate signing, cone placement, and other methods of delineation and reference to appropriate City or Caltrans Standards.
4. Dimension location of signs and cone tapers.
5. Identify side streets and driveways affected by construction and show how they will be handled.
6. Show how pedestrian traffic will be handled through the construction site. Pedestrian pathways through the work zone shall be in compliance with the requirements of ADA during and after work hours.
7. Identify message board locations. A minimum of 3 changeable message boards shall be required. Location to be determined by Engineer.
8. Demonstrate how two-way traffic will be maintained.

No work except for installation of project identification signs will be allowed to commence prior to approval of the Work Zone Traffic Control Plans.

12-4 Maintaining Traffic

12-4.01A General

1. The full width of the traveled way shall be open for use by public traffic on Saturday, Sundays and City-designated legal holiday(s), after 4:00 p.m. on Fridays and the day preceding City-designated legal holidays, and when construction operations are not actively in progress; unless work has specifically been authorized by the Engineer.
2. The location of traffic control signing, barricades, and other facilities shall be monitored frequently (four to five times per day) by you to verify their proper location. All traffic signal and other traffic control devices shall be maintained at all times.
3. You shall conduct these operations so as to cause the minimum obstruction and inconvenience to traffic and to places of business, multiple dwelling units and residences adjacent to the work. You shall notify the Engineer of his planned work and utility service interruption at least five working days in advance to allow time to notify residents and businesses.
4. When construction activities will prevent vehicle access to individual driveways you shall notify and receive permission from the affected businesses and residents. Attention is directed to Section 7-1.03, "Public Convenience". **Full access shall be provided to all driveways during non-working hours.**
5. At locations where traffic is routed perpendicular to trench excavation, the excavation shall be conducted in a manner to provide a surface reasonably satisfactory for traffic at all times. Substructure installation or construction shall be conducted on only one-half the width of the roadway at a time, and that portion of the roadway being used by traffic shall be kept open and unobstructed until the opposite side of the roadway is ready for use. Upon completion of the rough grading, the surface of the roadbed shall be brought to a smooth, even condition free from humps and depressions and made satisfactory for traffic.

You shall submit a trucking route along with the traffic controls plans for approval by the Engineer. The route must minimize traffic on residential streets that are not part of the project.

Existing pavement damaged by your operations and not shown to be replaced shall be replaced at your expense, per City Standards and to the satisfaction of the Engineer.

12-4.02 Closure Requirements: Attention is directed to Section 7-1.03, "Public Convenience", and to Section 5-1.05, "Order of Work," of these Special Provisions.

Exact locations of Project Identification signs and Advance Notice signs (Section 7-1.03, "Public Convenience") shall be determined in the field by the Engineer.

Lane closures will be permitted between the hours of 8:30 a.m. and 4:00 p.m. only. Only one lane at a time may be closed and no lanes shall be closed at any other hours unless specifically approved by the Engineer. You shall maintain vehicle access to homes and other properties at all times while work is in progress.

You shall not park construction vehicles, contractor employee vehicles, stage materials or stockpiles in front of any business or residential driveway access and you shall maintain access to private parking lots within the block where work is in progress. Construction vehicles shall not be left running for any length of time if parked in front of a business or residential unit.

On identified local/residential streets you will normally be allowed use of each block (between nearest intersections) for their sole use, without the need to provide 2-way traffic through that block. You will be required to maintain vehicle access to homes and other properties within the block where work is in progress.

You shall keep the City of Santa Rosa Fire Department informed regarding the closure of any traveled way. At a minimum, you shall call the Fire Department at (707) 543-3535 **and** the

Communications Center at (707) 543-3666 **daily** to report any traveled way closure. This means immediately upon closure for that day and again immediately after removal of the closure. For closures over multiple days, the daily notification still applies. This requirement does not apply for single lane closures on multiple lane streets.

You shall notify Sonoma County Transit at (707) 585-7516, Superintendent of Golden Gate Transit at (415) 257-4442, Santa Rosa City Bus at (707) 543-3922, Sonoma County Airport Express at (707) 837-8700, the local Postal Service at (707) 528-2209 (730 2nd Street) and (707) 275-8777 (707 Hahman Drive) and Recology at (800) 243-0291 5 calendar days prior to any lane closures or restrictions in turning movements.

If you have been given an approved Traffic Control Plan that includes road closures, they shall maintain vehicular access to homes and other properties where work is in progress within the closure area.

Where necessary, and only after receiving written approval from the Engineer, you may temporarily suspend curb side parking in their immediate work zone. Notification to businesses and residents shall be hand delivered at least 72 hours prior to construction in the affected areas.

Notification shall be as follows:

1. A notice placed on the front door of each home or business where curb side parking will be suspended and attempt made to notify each business or resident verbally that work will be underway within the block and that curb side parking will be suspended during stated working hours and request that vehicles be parked out of the roadway by 8:00 a.m. Service of notice shall not bar use of cars within the block, as individual plans change and emergencies arise.
2. Type 1 barricades every 100 feet adjacent to the curb where parking will be suspended with a notice posted on the barricade stating specific dates and times that curb side parking will be temporarily suspended. If work will not take place in the posted area, then you shall remove "No Parking" notices.

You shall maintain vehicle access to all homes and other properties along the work zone. During paving operations, you will be allowed to temporarily suspend vehicle access to a limited number of driveways when approved by the Engineer. When approved by the Engineer and at least 72 hours prior to suspending access to any driveway, you shall give both written and verbal notice to the affected businesses and residents and place barricades adjacent to the driveways with posted notices stating the specific dates and times of the suspension for that area. The notice shall also indicate an alternate parking location. Suspension of access to driveway will be permitted only as approved by the Engineer and only between the hours of 8:00 am and 4:30 pm.

Cross streets will require maintenance of at least one-half (1/2) width of each street for traffic purposes, unless a parallel route is approved by the Engineer. Flagging will only be allowed between the hours of 8:30 am and 4:00 pm.

Barricades and flaggers shall be positioned to allow safe turns at intersections and curves.

You shall maintain traffic control as necessary and as directed by the Engineer for "cat-tracking" operations by City Forces. Flaggers, barricades, signing, etc., shall remain in place for protection of City personnel until such time as all temporary lane delineation is complete.

12-4.04 Temporary Pedestrian Access Routes

12-4.04A(1) Summary: You are directed to Chapter 6D, Pedestrian and Worker Safety, in the CA MUTCD, the improvement plans and these Special Provisions.

Pedestrians shall be provided with a safe convenient and accessible path that, at a minimum, replicates the most desirable characteristics of the existing sidewalk, path or footpath. At no point along the road shall the sidewalks on both sides of the road be closed at the same time.

You shall construct and maintain temporary pedestrian pathways through the work zone, where required, that shall be in compliance with the requirements of the Americans with Disabilities Act (ADA), and the CA MUTCD.

Pedestrian routes shall not be impacted for the purposes of any non-construction activities such as parking of vehicles or equipment, or stock piling of materials. Pedestrians shall not be led into conflicts with work site vehicles, equipment or operations.

Pedestrian routes shall be open and accessible at the end of the workday unless an alternate ADA compliant route has been approved by the Engineer. The construction of curb ramps and/or long sections of sidewalk do not alleviate you from this requirement.

13 WATER POLLUTION CONTROL

13-1 GENERAL

13-1.01 General

13-1.01A Summary: Water Pollution Control shall be performed in accordance with Section 13, Water Pollution Control, of the Standard Specifications and these technical specifications. In addition, construction activities shall comply with:

The current California Water Quality Control Board, North Coast Region Order No. National Pollutant Discharge Elimination System Municipal Storm Water Permit, commonly referred to as the "Storm Water Permit". A copy of the Storm Water Permit is available for review at the City of Santa Rosa Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, CA, and at www.srcity.org/stormwaterpermit.

The California Stormwater Quality Association Storm Water BMP Handbook for Construction (CASQA Handbook). BMPs shall be selected, installed and maintained in accordance with the latest edition. A copy of the handbook can be viewed at the City of Santa Rosa Department of Transportation and Public Works office at 69 Stony Circle or downloaded from CASQA, <http://www.casqa.org/>.

In this technical specification the CASQA Handbook BMP numbers are appended to the associated Standard Specification sections. If a conflict occurs the CASQA Handbook BMP's shall govern.

13-1.01B Definitions: Construction phase: The construction phase starts at the start of job site activities and ends at Contract acceptance.

13-1.01C Submittals

13-1.01C(4)(c) Water Quality Monitoring Reports: If the project is less than 1 acre you shall complete and sign the Storm Water Correction Notices (below) with the City as part of the Storm Water Permit.

13-1.04 Payment: Payment for **Water Pollution Control** shall be made per the **lump sum** (LS) stated in the Bid Schedule. The contract lump sum price shall include, but not be limited to, implementation of temporary construction best management practices (BMP's) per the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook, latest edition, in compliance with all applicable local permits and regulations including furnishing, installation, and maintenance and inspection of BMP's including and all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

STORM WATER CORRECTION NOTICE

FAILURE TO CORRECT BY DUE DATE MAY RESULT IN STOP WORK NOTICE!

PROJECT NAME: _____
JOB ADDRESS: _____
PROJECT / PERMIT #: _____ DATE: _____

No storm water deficiencies identified.

I HAVE INSPECTED THIS PROJECT SITE. THE FOLLOWING ISSUES AND DEFICIENCIES HAVE BEEN IDENTIFIED AND REQUIRE CORRECTIVE ACTION:

STORMWATER BMPs:

- | | | | | |
|--------------------------|--------------------------------|--|---------------------------|-------------------------|
| <input type="checkbox"/> | Storm Drain Protection: | Install | Maintain | Replace |
| <input type="checkbox"/> | Perimeter Controls: | Install | Maintain | Replace |
| <input type="checkbox"/> | Housekeeping: | Sweep | Clean | Remove Garbage & Debris |
| <input type="checkbox"/> | Stockpiles: | Cover | Perimeter Controls | Remove |
| <input type="checkbox"/> | Debris Bins: | Cover | Perimeter Controls | |
| <input type="checkbox"/> | Tracking: | Clean-Up | Install Tracking Controls | |
| <input type="checkbox"/> | Portable Toilet: | Secondary Containment Required | | |
| <input type="checkbox"/> | Concrete: | Install BMPs for Pumper or Concrete Truck | | |
| | | Cover / Maintain Concrete Washout Containers | | |
| <input type="checkbox"/> | Sediment & Erosion: | Install Appropriate Controls | Dust Controls | |
| <input type="checkbox"/> | Other: | | | |

***ALL DEFICIENCIES MUST BE CORRECTED PRIOR TO NEXT RAIN EVENT OR NO LATER THAN DUE DATE, WHICHEVER IS SOONER.**

DATE REQUIRED (SEE NOTE*): _____

INSPECTOR: _____ PH #: () _____

CONTRACTOR SIGNATURE: _____ DATE: _____

- Inspection Type:**
- | | |
|--|--|
| <input type="checkbox"/> Monthly (Oct 1 st -April 30 th) | <input type="checkbox"/> Deficiency Re-Inspection |
| <input type="checkbox"/> Pre-Rain (Sept 1 st -Oct 1 st) | <input type="checkbox"/> Following First 0.25" Rain
(within 2 business days) |

13-2 WATER POLLUTION CONTROL PROGRAM

13-2.01C Submittals: The program to control water pollution required to be submitted under this section of the Standard Specifications shall include a spill contingency plan that establishes clean-up procedures that will be followed in the event of a spill of potentially hazardous, toxic, or polluting materials.

13-2.04 Payment: The Water Pollution Control Program shall be considered as included in the contract lump sum price paid for Water Pollution Control.

13-3 STORM WATER POLLUTION PREVENTION PLAN

13-3.01A Summary: This project is exempt from the State Water Resources Control Board General NPDES Permit for the Discharge of Storm Water related to Construction Activities (Construction General Permit), and not required to have a Storm Water Pollution Prevention Plan (SWPPP), therefore Section 13-3, Storm Water Pollution Prevention Plan, of the Standard Specifications does not apply to this project.

13-4 JOB SITE MANAGEMENT

13-4.03 Construction

13-4.03B: Spill Prevention and Control: You shall also comply with CASQA Spill Prevention and Control (BMP WM-4). If a spill occurs at the construction site and you do not take immediate and adequate steps to contain and clean up the spill, especially if rain is threatening or if a discharge to a storm drain or creek could occur, the City shall have the right, in its sole and absolute discretion, to clean up the spill using City forces or an independent contractor. The cost of any such cleanup, in addition to recovery of any penalty or fine imposed upon the City, plus an administrative charge of fifteen percent (15%) of the costs incurred by the City, shall be deducted from any amounts owed to you hereunder.

In the event there are insufficient amounts owed to you hereunder to cover the foregoing costs and charges, the City shall have the right to pursue any other remedy to recover same, including, but not limited to, proceeding against any surety or bond in favor of the City. The City's rights under this section are intended to be in addition to and not in lieu of any imposed by the City against Contractor for violations of City Code Chapter 17-12, "Storm Water".

13-4.03C Material Management

13-4.03C(3) Stockpile Management: You shall also comply with CASQA Stockpile Management (BMP WM-3). Do not block storm water flows.

13-4.03D Waste Management

13-4.03D(1) General: You shall also comply with Waste Management/CASQA Solid Waste Management (BMP WM-5). You shall dispose of all trash, rubbish, and waste materials of any kind generated by you, subcontractor, or any company hired by you on a daily basis.

13-4.03D(3) Concrete Waste: You shall also comply with CASQA Concrete Waste Management (BMP WM-8). Ensure the containment of concrete washout areas and other washout areas that may contain pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

13-4.03D(4) Sanitary and Septic Waste: You shall also comply with CASQA Sanitary and Septic Waste Management (BMP WM-9). Sanitation facilities must be maintained periodically by a licensed service to keep them in good working order and prevent overflows. Portable toilets are required to have secondary containment.

13-4.03D(5) Liquid Waste: Liquid waste includes water generated from excavation dewatering. Minimize transfer piping by locating containers near the excavation to be dewatered while protecting the containers from moving vehicles and equipment.

13-4.03E Non-stormwater Management

13-4.03E(1) Water Control and Conservation: You shall also comply with CASQA Water Conservation Practices (BMP NS-1 and NS-2).

13-4.03E(3) Vehicle and Equipment Cleaning: You shall also comply with CASQA Vehicle and Equipment Cleaning (BMP NS-8).

13-4.03E(4) Vehicle and Equipment Fueling and Maintenance: You shall also comply with CASQA Vehicle and Equipment Fueling (BMP NS-9), and CASQA Vehicle and Equipment Maintenance (BMP NS-10).

13-4.03E(7) Paving, Sealing, Saw cutting, Grooving, and Grinding Activities: As listed in Part 9, sections 4 and 5 of the Storm Water Permit, the following additional BMPs shall be implemented for street paving, repaving, reconstruction, patching, digouts or resurfacing.

1. Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall unless required by emergency conditions.
2. Install BMPs at all susceptible storm drain inlets and manholes to prevent paving products and tack coat from entering.
3. Prevent the discharge of release agents including soybean oil, other oils, or diesel to the storm water drainage system or watercourses.
4. Minimize non-storm water runoff from water use for the roller and for evaporative cooling of the asphalt.
5. Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.
6. Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled, or disposed of properly per Section 13-4.03D(5).
7. Collect solid waste by shoveling and vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled, or disposed of properly per Section 13-4.03D(5).
8. Cover "cold-mix" asphalt (i.e., pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm per Section 13-4.03C(3).
9. Cover loads with tarp before haul-off to a storage site, ensuring that trucks are not overloaded.
10. Minimize airborne dust by using water spray during grinding.
11. Protect stockpiles with a cover or sediment barriers during a rain event and.
12. Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near storm water drainage system or watercourses per Section 13-4.03C(1).

13-4.03F Sweeping

You shall also comply with CASQA Street Sweeping and Vacuuming (BMP SE-7).

13-4.04 Payment

Work for compliance with Job Site Management shall be considered as included in the contract lump sum price paid for **Water Pollution Control** which includes all maintenance costs.

13-6 TEMPORARY SEDIMENT CONTROL

13-6.03 CONSTRUCTION

13-6.03C Temporary Drainage Inlet Protection: You shall also comply with CASQA Storm Drain Inlet Protection (BMP SE-10).

13-6.04 Payment: Temporary Sediment Control shall be considered as included in the contract lump sum price paid for Water Pollution Control which includes all maintenance costs.

13-7 TEMPORARY TRACKING CONTROL

13-7.01A General: You shall also comply with Stabilized Construction Entrance and Exit (BMP TC-1), Entrance Outlet Tire Wash (BMP TC-3).

13-7.01C Construction: You shall also comply with CASQA Stabilized Construction Site Entrance / Exit (BMP TC-1).

13-7.03D Payment: The City does not pay you 1/2 of that cost for maintaining a temporary construction entrance or roadway under section 9-1.04. You will be responsible for the total cost of maintaining a temporary construction entrance or roadway. Maintaining a temporary construction entrance or roadway shall be considered as included in the contract lump sum price paid for [Bid Item 2] Water Pollution Control.

14 ENVIRONMENTAL STEWARDSHIP

14-10 Solid Waste Disposal and Recycling

14-10.01 General: You shall dispose of all portland cement concrete and asphalt concrete, generated from removal or demolition activities on the project, at a recycler for these materials.

All other excess materials from the project shall become your property and shall be properly disposed of by you, at your expense.

14-10.02 Solid Waste Disposal and Recycling Report: Submit a Solid Waste Disposal and Recycling Report prior to final acceptance of work performed under the Contract. Show the types and amounts of project-generated solid waste taken to or diverted from landfills or reused on the project.

Submit a Solid Waste Disposal and Recycling Report prior to Contract acceptance. Show the types and amounts of project-generated solid waste taken to or diverted from landfills or reused on the project.

You shall provide receipts verifying delivery and approximate quantity (in tons) of the material delivered to a material recycler.

14-10.03 Payment: Full compensation for conforming to the provisions 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 therefor.

15 EXISTING FACILITIES

15-1.03 Construction

15-1.03A General: Existing facilities disturbed by construction shall conform to the applicable provisions of Section 5-1.36. All existing active utilities found to reside in excavated areas shall be supported in place with service maintained during construction. You shall be responsible for any damage caused by your operations and any needed repairs shall be completed to the Engineer's satisfaction.

Existing storm drains found to reside in excavated areas shall be supported, removed, or replaced at your option and at no additional cost to the City. You shall be responsible for maintaining the existing line and grade of the storm drains. If you elect to remove and replace, it shall be done per applicable City Standards and Specifications.

Existing utility trenches and/or structures that are in close proximity to proposed trenches shall be safeguarded in an appropriate manner from damage.

15-2 Miscellaneous Facilities

15-2.02 REMOVE

15-2.02C Traffic Stripes and Pavement Markings: All traffic stripes, pavement markings or any other traffic markings shall be removed by you to the satisfaction of the Engineer and in accordance with Sections 84 of the Standards, and the Plans.

15-2.02D Pavement Markers: All raised pavement markers shall be removed by you to the satisfaction of the Engineer and in accordance with Sections 82 of the Standard Specifications, City Standards, and the Plans.

15-2.02N Asbestos Cement Pipe: You are advised that asbestos cement pipe (ACP), including an ACP water main, will likely be encountered on the project and must be cut, handled, and disposed of according to your State Licensing Law and all other applicable laws and regulations.

15-2.04G Reconstruct Sidewalk Drain: Reconstruct sidewalk drain shall be done in conformance with requirements of Section 73 of the City Specifications, City STD-406 and as directed by the Engineer.

You shall remove portions of existing curb, gutter, and sidewalk, and the existing sidewalk drain and install new sidewalk drain, curb, gutter and sidewalk at the location designated and as directed by the Engineer.

15-2.08 RESET

15-2.08A General: Reset existing City facility boxes and lids to grade. The City will furnish at no cost to you new material to replace existing boxes and lids that do not comply with current City Standards or damaged prior to your operations.

15-2.08B Adjust Frames, Covers, Grates, and Manholes: Existing manhole frames and covers, valve boxes, pull boxes, mainline cleanouts and monuments adjusted to grade shall conform to City Standards.

You shall accurately locate and record the location of existing and new manholes, valve boxes, mainline cleanouts, and monuments to be adjusted to grade and shall furnish the Engineer a copy of said record prior to starting construction.

All facilities on active systems shall be accessible at all times to City personnel unless otherwise stated in these Special Provisions or approved by the Engineer.

After placement of the finish course of asphalt concrete, you shall mark all overlaid manholes, valve boxes, mainline cleanouts and monuments, whether new or existing, with white paint by the end of that working day.

All new and existing manholes, valve boxes, mainline cleanouts and monuments shall be accessible within 48 hours after they are covered.

Final grade adjustments and installation of concrete collars shall be done on the same working day. Final paving around manholes, valve boxes, mainline cleanouts and monuments shall be completed the following working day.

All silt and debris shall be removed from finished structures. This shall include all existing silt and debris plus material caused by Your operation.

If new or existing water valve riser pipe needs to be extended after paving to conform to City STD-877, you shall use either a slip x slip glued PVC coupling or a transition coupling with sheer bands as directed by the Engineer. Upsizing the existing riser pipe to 8-inch will not be required unless otherwise directed by the Engineer. Any added extension must be a minimum of 12 inches. The lower section of riser pipe shall be adjusted to accommodate this requirement.

In the event that you encounter water valve boxes with round lids or sanitary sewer frame and covers with open pick holes which must be adjusted to grade. You are to provide a count to the Engineer a minimum of two days prior to paving to obtain replacements that complies with current City Standards. The City will provide replacements provided You are not required to replace them as part of the contract or due to damage by Your operations. Valve boxes and frames and covers on facilities to be abandoned shall not be included in the count provided to the Engineer. You shall be responsible for delivery of new frames, boxes, and covers from the City warehouse to the job site. Prior to removal of an existing manhole frame, a platform shall be constructed in the manhole above the top of the sewer to prevent any dirt or debris from falling into the sewer. The platform shall remain in place until all work on the manhole has been completed and the asphalt concrete has been placed around the manhole. Prior to the removal of the platform from the manhole, all dirt and debris shall be removed.

All grade rings shall be set in cement mortar the same day they are placed. All joints shall be smoothly plastered inside and out.

Existing grade rings removed in the adjustment of manhole frames shall become your property and if undamaged and thoroughly cleaned of mortar may be reused in the work. If not used, they shall be disposed of away from the site of work at your expense.

Manhole frames shall be reinstalled to align directly over the grade rings. Any frames misaligned by more than ½ inch shall be removed and reinstalled.

Existing Monuments adjusted shall conform to City Standards 280 to 284 and 78-2 Survey Monuments, of the specifications.

15-2.09 Payment: Lower Manhole Frame and Cover shall be made per the contract unit price per each (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, adjusting the manhole frame and cover per the utility owner standards during paving operations including lowering of the manhole frame and cover and necessary removal of riser rings prior to paving and installing a temporary traffic rated cover, as well as all asphalt or concrete work related to the lowering including all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

Lower Valve Box or Monument Box shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, coordination with the utility owner and City prior to and during execution of the work, adjusting the valve box or monument box per utility owner standards and City standards including protecting the utility valve or monument during paving operations and lowering the valve box or monument frame and cover prior to paving, as well as all asphalt or concrete work related to the adjustment including all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

Adjust Manhole Frame and Cover shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, adjusting the manhole frame and cover per the utility owner standards during paving operations including raising the manhole frame and cover to finished grade after completion of paving including replacement of riser rings as well as all asphalt or concrete work related to the adjustment including all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

Adjust Valve Box or Monument Box shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, coordination with the utility owner and City prior to and during execution of the work, adjusting the valve box or monument box per utility owner standards and City standards including protecting the utility valve or monument during paving operations and raising the valve box or monument frame and cover to finished grade after completion of paving and all asphalt or concrete work related to the adjustment including all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

Relocate Traffic Signal Pull Box at Curb Ramp shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, relocating the traffic signal box during curb ramp installation to be immediately outside of the proposed detectable warning surface (tile) and curb ramp grade breaks or relocating the traffic signal box immediately outside of the sidewalk grade break per City standards and as shown on the plans, including coordination with the City before and during the work, including furnishing and installing any necessary conduit, conductors, or traffic signal cables, splicing, compacting the base or subgrade as needed to match the new curb ramp grades and angles, and adjusting the traffic signal box to finished grade, including all labor, tools, equipment, materials, and incidentals required to complete the work. No additional compensation will be allowed therefor.

Adjust Electrical Utility Vault to Grade at Curb Ramp shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, adjusting the vault per the utility owner and City standards during concrete installation including coordination with the utility owner and City before and during the work, protection of the telecommunication or fiber optic conduit and cables during concrete demolition, compacting the base or subgrade as needed to match the new concrete grades and angles, and adjusting the vault frame and cover to finished grade, including all labor, tools, equipment, materials, and incidentals required to complete the work. No additional compensation will be allowed therefor.

Adjust Telecom Utility Vault to Grade at Curb Ramp shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, adjusting the vault per the utility owner and City standards during concrete installation including coordination with the utility owner and City before and during the work, protection of the telecommunication or fiber optic conduit and cables during concrete demolition, compacting the base or subgrade as needed to match the new concrete grades and angles, and adjusting the vault frame and cover to finished grade, including all labor, tools, equipment, materials, and incidentals required to complete the work. No additional compensation will be allowed therefor.

Relocate Cable TV vault at Curb Ramp shall be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, relocating the utility vault out of the curb ramp grade break or retaining curb per the City standards during concrete installation including coordination with the City before and during the work, protection of the traffic signal conduit, conductors, and signal cables during concrete demolition, compacting the base or subgrade as needed to match the new concrete grades and angles, and adjusting the box frame and cover to finished grade, including all labor, tools, equipment, materials, and incidentals required to complete the work. No additional compensation will be allowed therefor.

15-3.03 Construction: All removed concrete shall become your property and shall be immediately off hauled. None of the removed concrete shall be dumped or stockpiled on the work site. You shall properly dispose of all removed concrete at a recycler for this material. Burying of broken concrete within the limits of the project will not be allowed.

All concrete which is to be removed from sidewalk, curb, gutter and driveway areas shall be removed to the nearest score mark or construction joint as directed by the Engineer unless otherwise noted on Project Plans. The edge of existing concrete to remain shall be neat and free of defects. Saw cutting may be required to achieve this.

Concrete removal includes removal of any reinforcing steel embedded in the concrete and no additional allowance will be made for the removal of such steel.

Where new concrete is to join existing concrete, remove enough concrete to allow splicing of new reinforcement. Protect existing reinforcement to be incorporated into the new work from damage.

Irrigation facilities may be encountered during concrete removal and replacement. You shall exercise care in this area and repair any damage done by their operations at no additional cost to the City.

Landscaping and other surfaces or structures shall be restored to original condition at no additional cost to the City.

15-7 Utility Clearances

15-7.01 General: All items noted in this Section shall take place prior to any other construction activities.

Pothole information provided on the Project Plans shall be for reference use only and shall not be considered as accurate information for any other areas within the project limits.

You shall investigate, confirm and/or determine the exact locations of existing utilities, verify utility depths via potholing, and verify clearances between existing and proposed utilities at crossings and/or known potential conflicts. You shall determine elevations and alignments of existing utilities at connection points. **You are hereby advised that there at least 80 utility laterals shown on the Plans requiring utility clearance and potholing.** It is your responsibility to coordinate required utility-owner notification and clearance with Underground Service Alert (USA) prior to excavations or potholing.

You shall determine elevations and alignments of existing sewer laterals, at the back of sidewalk, if a new proposed sewer main is at a higher elevation than the existing sewer main.

You shall provide all relevant information in writing to the Engineer immediately upon discovery of any conflict. Any delay in notification to the Engineer may delay direction and/or corrective action and a delay claim due to this reason shall not be considered by the City. You shall not proceed with any work that is in conflict until direction is provided by the Engineer and shall redirect crews to other contract work. All the information required to be obtained per this Section and any other information not noted but relative to the project shall be provided to the Engineer on a set of Plans when the investigative effort is complete.

15-7.02 Payment: **Utility Clearances** will be made per the **lump sum** (LS) stated in the Bid Schedule. The contract lump sum price shall include, but not be limited to full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in verifying utility clearances, including but not limited to potholing to verify potential conflicts, grades and alignments of existing facilities to be connected to; excavation; backfill; notification; and coordination and redirection of crews to other contract work, as specified herein. No additional compensation will be allowed therefor.

15-8 Tree Root Pruning

15-8.01 General: All tree roots two inches and greater which are encountered during excavation must be pruned by hand. The root shall be cut cleanly with a saw to avoid splits. When digging within the drip line of trees, you shall exercise extreme caution to avoid pulling on roots with excavation equipment. Hand dig around all roots greater than one inch in diameter. You shall notify the Engineer when encountering roots within the drip line of trees which are greater than one inch. If the Engineer elects to get direction from an arborist You shall redirect crews to other contract work after safeguarding the area.

15-8.02 Payment: Full compensation for conforming to the provisions 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 therefor.

17 EARTHWORK AND LANDSCAPE

17-2 Clearing and Grubbing

17-2.01 General: Clearing, grubbing, and access shall be confined to the limits shown on the plans and shall not exceed the minimum necessary to complete operations.

You shall not remove any trees, brush, shrubs, or other natural objects outside the limits of construction as shown on the plans, unless directed by the Engineer.

Any trees, brush, shrubs, or other natural objects not ordered removed by the Engineer which have been removed, altered, or damaged shall be replaced in kind by you before completion of the project.

All unsuitable material shall be disposed of away from the site by you. You shall make all necessary arrangements for disposal of material.

17-2.03 Construction: The area to be cleared and grubbed shall be the area within the right-of-way shown on the plans, unless otherwise specified in the Special Provisions.

All stumps, large roots and other objectionable material shall be removed to a depth of three feet below finished grade in the area of construction. The resulting spaces shall be backfilled with material suitable for the planned use. Such suitable material shall be placed and compacted in layers as specified in Section 19-6 "Embankment Construction" of the Standard Specifications.

17-2.04 Payment: Full compensation for conforming to the provisions 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 therefor.

19 EARTHWORK

19-1 General

19-1.01 General

1. Non-contaminated site: See section 19-2.03B, Surplus Material, of these Technical Specifications.

19-1.01A Summary: Earthwork shall also include excavation for trenching.

19-1.03B Unsuitable Material: Stabilization of unsuitable material shall comply with the following provisions:

- A. Unsuitable material may be processed in place, may be excavated and placed on the grade or other locations suitable for further processing, or may be partially excavated and partially processed in place.
- B. Processing may consist of drying to provide a stable replacement material or mixing with lime per Section 24.
- C. Stabilized material shall be placed and compacted in layers as hereinafter specified for constructing embankments.

19-1.03B(1) Subgrade stabilization: Any area of the subgrade determined by the Engineer to be unsuitable shall be stabilized. Processing of unsuitable subgrade material is not allowed. The areas to be stabilized will be marked in the field by the Engineer after roadway excavation of the area is complete. Use of a pavement grinder shall be considered an acceptable method of excavation of areas requiring subgrade stabilization.

19-1.03 Construction

19-1.03C Grade Tolerance: When aggregate subbase or aggregate base are to be placed on the grading plane, the grading plane shall not vary more than 0.05' above or 0.1' below the grade established by the Engineer.

19-1.04 Payment: Full compensation for conforming to the provisions 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 therefor.

19-2 Roadway Excavation

19-2.03 Construction

19-2.03A General: The Engineer shall provide reference points and cut sheets for the excavation of the roadway. You shall furnish an excavation and paving plan and a qualified grade setter to ensure the subgrade conforms to the lines and grades established by the Engineer.

For roadway reconstruction, Roadway Excavation shall be performed with a pavement grinder. No other construction equipment including rubber-tired equipment shall be allowed on the subgrade.

Roadway excavation and asphalt concrete base paving shall be completed for half the street width before beginning excavation of the remaining street.

You shall note that there are street trees near areas intended for roadway excavation. Your operation, including the size of the grinding equipment, shall be such, so as to ensure that existing street trees are not damaged. Where limited clearance under the street trees prevents the use of a grinder, excavation shall be performed by an alternate method as approved by the Engineer.

Alternate methods may include jackhammering and removal of existing pavement and base materials by hand, or by use of smaller grinding equipment.

Where tree roots are encountered during roadway excavation, you shall cut the roots off six inches below the planned subgrade. Each cut shall be clean with no torn bark or splintered wood remaining on the root and shall be accomplished by use of a saw appropriate for the size of the root to be cut.

19-5 Compaction

19-5.03 Construction

19-5.03B Relative Compaction: Relative compaction of not less than 95 percent shall be obtained for a minimum depth of 0.5-foot below the grading plane for the full width of the planned pavement structural section, whether in excavation or embankment.

Relative compaction of not less than 95 percent shall be obtained for embankment under bridge and retaining wall footings without pile foundations within the limits established by inclined planes sloping 1.5:1 out and down from lines one foot outside the bottom edges of the footing.

26 AGGREGATE BASES

26-1.01 GENERAL

26-1.01A Summary: Aggregate base shall be Class 2 conforming to and placed in accordance with the requirements of Section 26 of the City Specifications.

Compacting shall commence immediately after spreading of the damp material and before the material has dried sufficiently to allow separation between the fine and coarse particles.

26-1.02 MATERIALS

26-1.02B Class 2 Aggregate Base: The minimum sand equivalent shall be 31 for any individual test.

26-1.03 CONSTRUCTION

26-1.03E Compacting: The surface of the finished aggregate base shall be firm and unyielding. Any visible movement vertically or horizontally of the aggregate base under the action of construction equipment or other maximum legal axle loads shall be considered as evidence that the aggregate base does not meet this requirement.

26.104 Payment: Full compensation for conforming to the provisions 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 therefor.

39 HOT MIX ASPHALT

39-1 GENERAL

39-1.02 MATERIALS

39-1.02B Tack Coat: Non-Tracking Tack Coat Shall Meet or Exceed the Following:

Test	Test Method	Specifications
Viscosity, @ 25 DC, SFS	ASTM D244	20-100
Residue, wt%	ASTM D244	60 Min.
Settlement, % Max. Diff	ASTM D244	5.0 Max.
Sieve, wt%	ASTM D244	0.1 Max.
Storage Stability, 24 hr, %	ASTM D244	0.1 Max.
*Demulsibility, %	AASHTO T59	80 Min.

Test on Residue

*Penetration @ 25°C, 100g, 5 sec	AASHTO T49	10 Min - 30 Max
Solubility, %W	AASHTO T44	97.5 Min.
Ductility @ 25°C, 5 cm/min, cm	AASHTO T51	40 cm/Min.
Specific Gravity @ 15.5° C	AASHTO T295	Report
Softening Point, °C	AASHTO T53	52 Min.

Tack coat shall be applied to all HMA and concrete surfaces and allowed to break immediately in advance of placing Pavement Reinforcing Grid and prior to all lifts of HMA. Tack coat shall also be applied to all vertical mating surfaces and conforms to existing pavement, curbs, gutters, and construction joints, and allowed to break immediately in advance of placing all lifts of HMA. The tack coat shall be reapplied 1) where it becomes contaminated, 2) where it is significantly tracked (removed) from the surface, and/or 3) as otherwise directed by the Engineer.

39-2 HOT MIX ASPHALT

39-2.01 GENERAL

39-2.01B Materials

39-2.01B(9) Geosynthetic Pavement Interlayer (GlasGrid): Materials used for geosynthetic pavement interlayer shall be a fiberglass reinforcement with modified polymer coating and pressure-sensitive adhesive backing GlasGrid 8511 Asphalt Reinforcement System by Tensar, or approved equal.

Asphalt binder for non-pressure sensitive geosynthetic pavement interlayer shall be PG 61-16 conforming to these Special Provisions.

GlasGrid 8511

Specification	Test Method	Requirement
Tensile Strength (width and length), minimum	ASTM D6637	571 x 571 lbs/in
Tensile Elongation, maximum	ASTM D6637	< 3%
Tensile Resistance @ 2% Strain (width and length), minimum	ASTM D6637	456 x 456 lbs/in
Unit Weight, minimum	ASTM D5261	12.0 oz/yd ³
Melting Point Coating, minimum	ASTM D276	> 450 °F
Melting Point Glass, minimum	ASTM C338	> 1508 °F
Grid Size (Center to Center of Strand)		1.0 x 1.0 in

You shall install geosynthetic pavement interlayer at the locations shown on the Plans and per the Plan details in conformance with the manufacturer's installation recommendations.

Transverse and longitudinal joint overlap shall be in accordance with the manufacturer's recommendations. You shall place the interlayer via mechanical means ("Fabric Tractor") to ensure proper adhesion, unless manual placement is approved by the Engineer. You shall utilize sufficient tension during application to avoid wrinkles. You shall coordinate for a manufacturer's representative to be present during placement of the grid and until all paving operations related to the grid are completed.

In advance of placing the interlayer, cracks shall be cleaned, and surface preparation measures shall be performed as per manufacturer's recommendations. Surface preparation shall provide a clean, smooth, dry surface which shall be free of but not limited to, foreign matter and surface contaminants, including but not limited to pavement markers and striping, paint, oil, rubber, vegetation and loose pavement.

A minimum 0.08 gal / square yard non-tracking asphalt tack coat (SS-1h or SS-1 emulsified asphalt) shall be applied prior to placement of the Geosynthetic Pavement Interlayer. You shall provide sufficient time for the tack coat to fully cure prior to paving. Turning of the paving machine or other vehicles should be gradual and shall be kept to a minimum to avoid damage to the membrane. Should equipment tires tend to stick to the material during pavement operations, small quantities of asphalt concrete shall be broadcast ahead of the paving operation to prevent sticking.

When Geosynthetic Pavement Interlayer is placed on pavement, which has been subject to traffic, pavement shall be cleaned by a mechanical device by sweeping or vacuuming, and as directed by the Engineer.

At each utility cover that will be covered with Geosynthetic Pavement Interlayer, the interlayer shall be neatly cut around the cover to allow for raising the cover to grade without disturbing the grid.

The interlayer shall be paved with the specified thickness of asphalt concrete as per the Plans and these Special Provisions the same day the grid is installed.

Emergency traffic may run on the grid after being placed. However, it must be ensured that damage is not caused by this traffic. Any damaged areas or areas where adhesion is not apparent on the grid must be fixed prior to paving.

You shall coordinate the approval of your installation method by a manufacturer's representative by preparation of a test strip prior to paving. You shall create a test strip of at least 1 yd² with your method of installation ensuring proper smoothness and adhesion is achieved. Generally, adhesion is achieved when more than 20 lbs of force is taken to vertically lift the test sample when using a handheld spring gauge. Generally, proper smoothness is achieved when little to no wrinkles are present. If the initial test strip fails approval by the manufacturer's representative, you shall modify your installation procedure to achieve test strip approval at no additional cost to the City.

If wrinkles do occur during the installation of the material, you shall remove the wrinkles by applying tension until the product surface is smooth. Failure to achieve a final smooth surface may require removal and replacement of the non-conforming section at the sole discretion of the Engineer. Compliance with final acceptance shall be at no additional cost to the City.

39-2.02 TYPE A HOT MIX ASPHALT

39-2.02A General

39-2.02A(1) Summary: Section 39 includes specific specifications for producing and placing Hot Mix Asphalt (HMA) by mixing aggregate and asphalt binder at a mixing plant and spreading and compacting the HMA mixture.

Asphalt concrete shall be placed in separate lifts as shown on the Project Plans. Roadway excavation and asphalt concrete base paving shall be completed for half the street width before beginning excavation of the remaining street.

All existing asphalt concrete that is adhered to the top of gutters shall be removed prior to placement of new asphalt concrete surface in a manner satisfactory to the Engineer and that does not damage the gutter.

Asphalt concrete base shall be placed on the same day the area is excavated so that all areas will either have existing asphalt surface or new asphalt concrete base by the end of each working day. No subgrade areas shall be exposed or open to traffic during non-working hours.

Asphalt concrete base paving shall be accomplished by use of a paving machine. The asphalt mix shall be transferred from the trucks to the hopper of the paving machine by means of a shoulder machine equipped with a side caster. Any equipment used to transfer asphalt concrete to the paving machine shall not exceed the load capacity of any surface it is driven over and shall not produce rutting or pumping of the existing roadway surface or newly placed asphalt concrete base at any time.

Construction vehicles/equipment shall not be allowed on the newly placed asphalt concrete base until the day after it is placed. Super Dumps or other trucks with liftable trailing load bearing axles shall not be allowed on the newly placed asphalt concrete base at any time. All trucks or other construction equipment to be driven on the newly placed asphalt concrete base shall not exceed the surface load bearing capacity and shall not produce rutting or pumping at any time.

All longitudinal surface paving joints shall fall on a lane line. Longitudinal Subsurface paving joints shall be offset by at least 6 inches.

No longitudinal vertical drop offs will be allowed between the lanes when the roadway is opened to traffic. Where a longitudinal vertical drop off occurs along the roadway crown between the existing street surface and the new asphalt concrete base, you shall grind a 10:1 taper in the existing surface to make a temporary conform to accommodate traffic. The temporary taper shall be ground after the asphalt concrete base paving has been completed each day.

Where a vertical drop off will occur between the top of the new asphalt concrete base and a valley gutter, driveway, or side street conform, you shall install a temporary 10:1 asphalt taper.

Where a vertical drop off would occur between the asphalt concrete base and a pedestrian ramp, you shall install a temporary 12:1 asphalt taper.

All ground edges adjacent to curb ramps and driveways shall have temporary asphalt concrete ramps (tapers) installed if the asphalt concrete surfacing cannot be placed back the same day the existing pavement is removed. Kraft paper or other bond breaker shall be placed under the conform ramps to facilitate removal when paving operations start.

Kraft paper or other bond inhibitor shall be placed under the temporary asphalt taper to facilitate removal when paving operations resume.

Temporary asphalt tapers and associated bond breaker material shall be removed prior to placement of the asphalt concrete surface lift. Where the bond breaker material adheres to the asphalt concrete base course it shall be fully removed with a method, approved by the Engineer that will in no way degrade the quality of the final product.

The Engineer shall provide reference points and cut sheets for the placing of asphalt concrete base and asphalt concrete surface.

You shall furnish an excavation and paving plan which shall include the following:

1. Requested location for survey staking of reference points
2. Asphalt plant supplying mix including aggregate source
3. Disposal site for spoils
4. Type of trucks and equipment to be used
5. Haul routes through adjacent residential streets
6. Staging locations
7. Sequencing
8. Taper grind locations

You shall set a string line based on the reference points to control the grade of the paving machine along the crown line. A rotary laser level may be used in lieu of a string line provided the level can be accurately set to the design centerline slope, and the detector is directly mounted to the paving machine screed to control the grade of the paving along the crown line. You shall also furnish a grade setter to ensure that the asphalt concrete base and asphalt concrete surface paving conforms to the lines and grades established by the Engineer.

A non-tracking tack coat shall be applied to all asphalt concrete and concrete surfaces and allowed to break immediately in advance of placing all lifts of asphalt concrete. Non-tracking tack shall be applied to horizontal surfaces shall be applied with a tack truck, at a minimum residual rate of 0.02 gal/sqyd. Unless otherwise shown on the Plans, tack coat shall also be applied to all vertical mating surfaces and conforms to existing pavement, curbs, gutters, and construction joints, and allowed to break immediately in advance of placing all lifts of asphalt concrete. The tack coat shall be reapplied 1) where it becomes contaminated, and 2) where it is significantly tracked (removed) from the surface.

The asphalt concrete base and asphalt concrete surface courses shall be allowed to cool to 160° F at mid depth before the roadway is opened to traffic each day.

At the end of each working day you shall place retro reflectorized signs and delineators, as required for night time use in accordance with the Standard Specifications and Section 12 of these Special Provisions to warn the public of the existing conditions.

At the end of each workday during paving operations the location of all valves, manholes, monuments and any other facility overlaid with asphalt concrete and required to be raised to grade shall be marked in white paint.

39-2.02A(2) Definitions: For these specifications, HMA and asphalt concrete shall be the same.

At your option, and at no additional expense to the City, a Caltrans approved Warm Mix Asphalt (WMA) technology may be added to the HMA. However, the asphalt concrete shall be manufactured at HMA temperatures (300F +/- 25F) at a dosage rate approved by the Engineer. All other HMA project specifications shall be adhered to.

Use Section 39-3 Method construction process of these specifications for HMA production and construction.

39-2.02B Materials

39-2.02B(3) Asphalt Binder: Asphalt binder in HMA must comply with the specifications for asphalts.

Asphalt binder to be mixed with aggregate for asphalt concrete surface, leveling and base shall be PG64-16 grade paving asphalt.

The amount of asphalt binder to be mixed with the aggregate shall be specified by the Engineer at the time of paving. Different asphalt binder content may be specified for each lift and each location. Liquid anti-stripping agent (LAS) shall be added to the asphalt binder at a rate of 0.5 to 1.0% by weight of asphalt binder as specified by the Engineer at the time of paving. The LAS shall be AD-here LOF 65-00 or equivalent, and shall be stored, measured, and blended with the asphalt binder in accordance with the anti-stripping agent manufacture’s recommended practice. The LAS can be added at the asphalt plant or at the refinery. When added at the asphalt plant, the equipment shall indicate and record the amount of LAS added. If added at the refinery, the shipping ticket from the refinery shall certify the type and amount of LAS added.

39-2.02B(4) Aggregates

39-2.02B(4)a General: The aggregate grading of the various types of asphalt concrete shall conform to one of the following as directed by the Engineer:

Surface or Leveling Course..... ½-inch Coarse HMA Type A
 Base Course.....¾-inch HMA Type A

Aggregates should be of high abrasion resistance and durability. Excessively soft and friable aggregates are not allowed.

The specified aggregate gradation must be determined before the addition of asphalt binder and includes supplemental fine aggregate.

Before the addition of asphalt binder and lime treatment, aggregate must have the values for the quality characteristics shown in the following table:

Quality characteristic	Test method	HMA Type A
Percent of crushed particles Coarse aggregate (% min.) One fractured face Two fractured faces	California Test 205	90
Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face		75
		70
Los Angeles Rattler (% max.) Loss at 100 rev. Loss at 500 rev.	California Test 211	10 45
Sand Equivalent (min.) ^a	California Test 217	50 ^b
Fine aggregate angularity (% min.)	California Test 234	45
Flat and elongated particles (% max. by weight @ 5:1)	California Test 235	10

^a Reported value must be the average of 3 tests from a single sample.

^b Minimum Sand Equivalent of 45 for asphalt concrete base.

39-2.02B(4)b Aggregate Gradations: The proposed aggregate gradation must be within the TV limits for the specified sieve sizes shown in the following tables:

**Aggregate Gradation
(Percentage Passing)
HMA Types A**

3/4-inch HMA Type A

Sieve sizes	TV limits	Allowable tolerance
1"	100	--
3/4"	95–100	TV ± 5
3/8"	65–80	TV ± 5
No. 4	49–54	TV ± 5
No. 8	36–40	TV ± 5
No. 30	18–21	TV ± 5
No. 200	2.0–8.0	--

1/2-inch Coarse HMA Type A

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	—
1/2"	94–100	--
3/8"	70–90	--
No. 4	55–61	TV ± 5
No. 8	40–45	TV ± 5
No. 30	20–25	TV ± 5
No. 200	2.0–8.0	--

39-2.02B(5) Reclaimed Asphalt Pavement: Reclaimed Asphalt Pavement (RAP) may be used at your option. If RAP is used, you shall provide the proposed mix design and the quality control for all HMA that includes RAP, in accordance with the following requirements:

1. You shall provide the Engineer with a mix design per California Test 384 for the proposed RAP HMA.
2. As part of the Engineer evaluation of RAP HMA, You and the Engineer shall perform bitumen ratio tests on at least six split samples of Contractor's RAP to establish correlation between respective binder ignition ovens.
3. RAP shall be processed from reclaimed Asphalt Concrete pavement only.
4. RAP pile(s) shall be separate from the stacker pile, not intermingled with other materials, and stored on smooth surfaces free from debris and organic material.
5. The project RAP pile shall be processed and mixed, identified, and of adequate quantity for the proposed project. "Live" piles shall not be permitted.
6. You shall sample the RAP pile and determine the bitumen ratio (using same binder ignition oven used in #2 above) and provide the test results to the City at least one week prior to producing RAP HMA.
7. A minimum of three samples shall be tested for bitumen ratio for RAP pile of 1500 tons, or portion thereof.
8. RAP pile shall be mixed such that individual bitumen ratio test results of RAP pile so not vary more than +/- 0.5%.
9. During RAP HMA production, RAP shall be sampled by you off of the belt (into the batch plant), per method established by the Engineer, and samples provided to the Engineer.
10. Bitumen ratio of RAP sampled off of the belt shall be 4.0% minimum, as determined by the Engineer binder ignition oven. City shall select binder content for RAP HMA mix per Specifications.
11. RAP content shall be no more than 20% by dry aggregate mass in the HMA. If proposing a change in the RAP content, you shall notify the Engineer. If the content changes more than 5%, you shall submit a new mix design.

12. Moisture content of RAP pile shall be 4.0% maximum and shall be tested the day prior to the day of paving and tested/monitored during each day of HMA production.
13. RAP pile(s) shall be protected from exposure to moisture.
14. RAP HMA shall comply with all the specifications for HMA.
15. If batch mixing is used, RAP shall be kept separate from the virgin aggregate until both ingredients enter the weigh hopper or pugmill. After introduction to the pugmill and before asphalt binder is added, the mixing time for the virgin aggregate and RAP shall not be less than five seconds. After asphalt binder is added, the mixing time shall not be less than 30 seconds.
16. If continuous mixing is used, the RAP shall be protected from direct contact with the burner flame with a device such as a shield, separator, or second drum.
17. If any of the above criteria are not satisfied, or if the RAP HMA test result determined by the Engineer are inconsistent, RAP HMA production shall stop for City projects until the issue(s) are corrected.

39-2.02B(6) Smoothness: Determine HMA smoothness with a straightedge or a profilograph. The completed surfacing shall be thoroughly compacted, smooth and free from ruts, humps, depressions or irregularities. Any ridges, indentations or other objectionable marks left in the surface of the asphalt concrete by blading or other equipment shall be eliminated by rolling or other means. The use of any equipment that leaves ridges, indentations or other objectionable marks in the asphalt concrete shall be discontinued, and acceptable equipment shall be furnished by you.

39-2.02B(6)(a) Straightedge: The HMA pavement top layer must not vary from the lower edge of a 12-foot long straightedge:

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

39-2.02B(6)(b) Profilograph: Under California Test 526, determine the zero (null) blanking band Profile Index (PI0) and must-grinds on the top layer of HMA Type A pavement. Take 2 profiles within each traffic lane, 3 feet from and parallel with the edge of each lane. A must-grind is a deviation of 0.3 inch or more in a length of 25 feet. You must correct must-grinds.

Profile pavement in the Engineer's presence. Choose the time of profiling. On tangents and horizontal curves with a centerline radius of curvature 2,000 feet or more, the PI0 must be at most 3 inches per 0.1-mile section. On horizontal curves with a centerline radius of curvature between 1,000 feet and 2,000 feet including pavement within the super elevation transitions, the PI0 must be at most 6 inches per 0.1-mile section.

Before the Engineer accepts HMA pavement for smoothness, submit written final profilograms. Submit 1 electronic copy of profile information in Microsoft Excel and 1 electronic copy of longitudinal pavement profiles in "erd" format or other ProVAL compatible format to the Engineer.

39-2.02B(6)(c) Smoothness Correction: If the top layer of HMA Type A pavement does not comply with the smoothness specifications, grind the pavement to within tolerances, remove and replace it, or place a layer of HMA. The Engineer must authorize your choice of correction before the work begins.

Corrected HMA pavement areas must be uniform rectangles with edges:

1. Parallel to the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

Measure the corrected HMA pavement surface with a profilograph or a 12-foot straightedge and correct the pavement to within specified tolerances. If a must-grind area or straight-edged

pavement cannot be corrected to within specified tolerances, remove and replace the pavement. On all ground areas, apply fog seal coat per Standard Specifications Section 37-1, "Seal Coats."

39-2.02B(7) Acceptance Criteria Testing: The acceptance testing requirement for Sand Equivalent shall be 50 (minimum) for asphalt concrete surface and 45 (minimum) for asphalt concrete base. HMA shall meet the following requirements.

Aggregate Micro-Deval (ASTM D6928-10) ¹	Tensile Strength Ratio, TSR (ASTM D7870) ²
≤16.0%	Not Required
16.1-18.0%	70 (minimum)
18.1-21.0%	80 (minimum)

¹ Asphalt concrete with an aggregate Micro-Deval loss greater than 21.0% shall be removed and replaced at your expense. In addition, no single source of asphalt concrete aggregate shall have a Micro-Deval loss greater than 21.0%.

² TSR testing shall be performed on re-compacted asphalt concrete (per ASTM D7870), obtained from field cores, and tested within 30 days of asphalt concrete placement. Specimens tested shall include 1 unconditioned sample, and 2 conditioned samples as follows:

- a) 20.0 hour Adhesion cycle @ 60° C
- b) 3500 cycles @ 40 psi and 60° C

A single TSR test shall not represent more than 750 tons of asphalt concrete.

Asphalt concrete not meeting the above requirements shall be removed and replaced at your expense.

Test sections shall be approved on the basis of the attainment of 93% relative compaction and a satisfactory surface condition following final rolling. The number of coverages required shall be the minimum number required to obtain 93% relative compaction. Relative density shall be the ratio of in-place density (ASTM Test Method D2950) to test maximum density (California Test 309, Method of Test for Determining Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt) determined during production paving.

The HMA may be cored during paving of the test sections, and the in-place density for each test section shall be the average of three core densities determined per California Test 308.

39-2.02D Payment: GlasGrid Pavement Reinforcement will be made per the contract unit price per **square yard (SY)** as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, furnishing and installing geosynthetic pavement interlayer (GlasGrid) per manufacturer recommendations, preparing the paved surface to receive the interlayer, placing the interlayer via mechanical means, cutting around ironwork, rubber tire rolling, application of tack coat, curing, and acceptance testing by a manufacturer's representative of the placed interlayer, including full compensation for furnishing all labor, materials, tools, equipment, and incidentals. No additional compensation will be allowed therefor.

Hot Mix Asphalt Surface or Levelling Course (3 inch depth) and Hot Mix Asphalt Base Course (3 inch depth) will be made per the contract unit price per the **ton (TON)** as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, furnishing, placing, rolling, and compacting hot mix asphalt pavement in lifts as specified and to the depth indicated on the Plans, including all required surface preparation, compaction testing and proof rolling, tack coat between lifts and adjacent vertical concrete surfaces, the installation and removal of temporary asphalt concrete ramps to provide public access to driveways and roadways, including all labor, tools, equipment, materials and incidentals required to complete the work. Measurement for payment will be based on weight tickets of delivered and placed material to be submitted to the Engineer. No additional compensation will be allowed therefor.

39-3 EXISTING ASPHALT CONCRETE

39-3.04 Cold Planing Asphalt Concrete Pavement

39-3.04D Payment: **Cold Mill Asphalt Pavement (3 inch depth)** will be made per the contract unit price per the **square yard (SY)** as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, cold milling and disposal of asphalt concrete (AC) pavement to the depth specified on the Plans, cleaning surfaces, layout work, profile milling and disposal of asphalt pavement at crosswalks to ensure a maximum 5% running slope for ADA compliance at crosswalks, and protection of any adjacent PCC pavement, curbs or gutters outside the paving limits including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

Longitudinal Conform Grind (6 Feet Wide) and Conform Grind (Begin and End & Side Streets) will be made per the contract unit price per the **square foot (SF)** as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, cold milling and disposal of asphalt concrete (AC) pavement to the depth and angles specified on the Plans, cleaning surfaces, layout work, and protection of any adjacent PCC pavement, curbs or gutters outside the paving limits including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

39A HOT MIX ASPHALT CONCRETE TRENCH PAVING

39A-1.01 Description: Hot mix asphalt concrete surfacing and asphalt concrete base and the placing thereof shall conform to the requirements of the Standard Specifications, Section 39 of the City Specifications and these Technical Specifications.

39A-2.01 Asphalts: Temporary paving on all utility trenches and any other excavated areas shall be ½-inch maximum, medium grade aggregate hot mix asphalt concrete installed a minimum of two inches thick placed each day over the work.

Temporary paving around edges of steel plates shall be a hot mix ½-inch maximum, medium graded aggregate.

The amount of asphalt binder to be mixed with the aggregate will be specified by the Engineer at the time of paving. Different asphalt binder content may be specified for each lift and each location. Asphalt concrete trench paving shall be per Section 39-1.02E for surface and base requirements.

Cutback shall not be stockpiled or used anywhere on the job site.

39A-5.01 Spreading Equipment: When trench width is three feet or less, the asphalt concrete used for trench paving may be deposited directly from the haul vehicle into the trench. The asphalt shall then be raked smooth prior to compaction.

39A-6.01 General Requirements: Areas outside of reconstruction or overlay limits shall receive permanent trench paving per City STD-215, the modified detail on the Plans or as specified herein.

Areas requiring permanent trench paving per City STD-215 shall have a minimum surface A.C. thickness of 0.45 feet and will use the 6" thick AC alternative in Note 1 of Standard 215.

The Contractor shall provide compaction of backfill and base material as the job progresses. All trench back-fill required per STD-215 on all trenches within the project shall use aggregate base class 2 material as required in Section 26. Temporary paving, as specified in Section 39A-2.01, shall be placed over the work each day, leaving not more than 25 feet unpaved. This temporary paving shall be removed for final street reconstruction and/or trench paving. The 25 feet of unpaved trench shall be covered with skid resistant steel plates (with a coefficient of friction of 0.35 or greater per CTM342), capable of sustaining normal (H2O) traffic loads without shifting or bouncing and shall be secured per Caltrans requirements. Plates that have areas where the skid resistant material is missing shall not be used and must be removed from the job site. Hot mix asphalt concrete shall be placed and compacted around all edges of steel plates with a sufficient width and gradual slope in order to provide a smooth transition to existing pavement. The Contractor shall only be allowed to plate three lateral trenches at a time.

Temporary and permanent asphalt trench paving shall be even and smooth riding.

The Contractor shall monitor and maintain all temporary paving to the satisfaction of the Engineer.

Asphalt concrete used for temporary trench paving shall be removed and disposed of in accordance with Section 124 "Material Recycling" of these Technical Specifications.

Any existing manholes or valves that are encountered within the trench paving limits must be adjusted to grade per the requirements of Section 15 of these Technical Specifications. The Contractor is responsible for all coordination with the various utility company owners and their representatives, as well as the cost to adjust the various utilities to grade.

39A-6.03 Compacting: Compaction shall be in accordance with Section 39-6.03 of the City Specifications, except as modified below.

The basis for approval shall be the attainment of 93% relative compaction and satisfactory surface condition following final rolling. The number of coverages required shall be the minimum number required to obtain 93% relative compaction, in accordance with Section 39-3.04 of these Technical Specifications.

39A-8.02 Payment: Full compensation for furnishing and installing temporary and permanent trench paving asphalt shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefor.

Asphalt concrete base used in the Permanent Trench Paving structural section is considered as included in the prices paid for various contract items of work and no additional allowance will be made therefore.

40 CONCRETE PAVEMENT

40-1 GENERAL

40-1.01 GENERAL

40-1.01A Summary: Portland cement concrete (P.C.C.) pavement shall be constructed in accordance with Section 40 of the Standard Specifications, the details shown on the plans, these Special Provisions, and as directed by the Engineer.

Traffic shall not be allowed on new P.C.C. streets until the P.C.C. has attained a minimum compressive strength of 3,500 pounds per square inch (psi). Compressive strength at 28 days shall be 4,000 psi minimum. Track-mounted construction equipment will not be allowed on the new P.C.C streets at any time.

All concrete to be removed shall be disposed by you, away from the site of work. All removed concrete shall become your property and shall be immediately off-hauled. None of the removed concrete shall be dumped or stockpiled on the work site. You shall dispose of all removed concrete at an appropriate recycler for this material. Your attention is directed to Section 124, Material Recycling, of these Special Provisions.

You shall furnish an excavation and paving plan which shall include the following:

Define each paving phase using a map showing what ½ width road sections will be demolished and repaved.

40-1.01B Definitions: The following definitions are added under this section of the Standard Specifications:

Contraction Joints: Joints constructed in concrete pavement by saw cutting to a specified depth at specific locations.

Isolation Joints: Joints constructed to isolate structures within or adjacent to the concrete pavement.

40-1.01C Submittals

40-1.01C(4) Mix Design: At least two weeks prior to the placement of the concrete, you shall submit for review and approval, a strength-maturity calibration curve per ASTM C1074 for all proposed mixtures and a copy of the mix design proportions and proposed admixture(s) for all proposed mixtures together with all supporting technical data. Submittal must be reviewed and approved by the City of Santa Rosa Material Lab before concrete can be placed.

All proposed concrete mixtures shall indicate proportions including all material weights, volumes, density (unit weight), water-to-cementitious materials ratio, and void content. The mix design shall specify an average compressive or flexural strength that meets or exceeds the acceptance criteria for the specified strength.

40-1.01C(7) Test Strips: A colored pigment designed for the integral coloring of concrete shall be added to the concrete mix to match the color of the existing concrete pavement, or as directed by the Engineer. The pigment shall contain pure concentrated mineral pigments specifically processed for mixing into concrete and complying with ASTM C979. The colored pigment shall be manufactured by Davis Colors, or an approved equal. You shall provide 1 to 2 lbs./cu. yd. of Davis color 880 (Pewter) added to the concrete mix to color new concrete. The specific color to

be used and the pigment dosage rate to be added to the mix may be adjusted as approved by the Engineer based on field poured test panels provided by you.

Two weeks prior to the start of work, you shall submit a color chart, or sample chip set, to the Engineer for determining the pigment color(s) to be used for the test panels. Within two weeks of start of work, and a minimum of three months prior to the start of P.C.C. construction, you shall pour the test panels using the pigment color(s) chosen from the submittals. The first test panel set shall consist of four (4) separate minimum size 2.5 x 2.5-foot panels with a minimum thickness of three inches.

The test panels shall be poured adjacent to one another at a location on the project chosen by the Engineer. The concrete mix used for the test panels shall be "ready mix" concrete from the same supplier and batch plant that will be used to supply concrete for P.C.C. pavement. Concrete from other suppliers or field mixed concrete will not be allowed for pouring test panels. The submitted pigment color shall be added to the concrete mix by the supplier at the batch plant for each test panel. The test panels shall have a medium broom finish and be cured with the same non-pigmented curing compound complying with ASTM C309, Type 1, Class B that will be used on the P.C.C. pavement. Do not cure with plastic sheeting, membrane paper, or intermittent wetting and drying.

The test panels shall be used to find a color for the finished concrete that matches the color of the existing concrete pavement. After a test panel is accepted by the Engineer, the pigment color, dosage rate and curing method used for that test panel shall be applied to all concrete mix for P.C.C. pavement.

40-1.01C(10) Construction Details: You shall submit project-specific plans and details, including placement of joints in paving, locations of utilities within paving limits, and joints between paving and adjacent work or existing facilities. Jointing details for intersections also shall be included in the construction details.

Maximum joint spacing shall be stated on the plans for all concrete construction shown on the plans. If these details are not furnished by the Engineer, you are to furnish construction details of concrete joints and end of work details for approval by the Engineer.

40-1.01C(12) Grade Tolerance: The aggregate base or asphalt concrete to receive P.C.C. pavement, immediately prior to placing, shall conform to the compaction and elevation tolerances specified, and shall be free of loose or extraneous material. Aggregate base or asphalt concrete shall be uniformly moist, and any excess water standing in pools or flowing on the surface shall be removed prior to placing concrete.

40-1.01D Quality Assurance

40-1.01D(8) Department Acceptance

40-1.01D(8)(c) Acceptance Testing

40-1.01D(8)(c)(iii) Smoothness

Pavement smoothness requirements specified in Section 40-1.01D(8)(c)(i) will not apply to the pavement surface unless otherwise specified.

If using a straightedge to measure smoothness, the surface must be within 0.02 foot of the straightedge's lower edge. As an alternative, the inertial profiler could be used.

When a straightedge 12-feet-long is laid on the finished surface and parallel with the centerline, the concrete surface shall not vary more than 0.01-foot from the lower edge of the straightedge.

The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02-foot are present when tested with a straightedge 12-feet-long laid in a direction transverse to the centerline and extending from edge to edge of a 12-foot lane.

Smoothness is often expected to fall out of compliance when matching existing infrastructure, meeting non-uniform grades, or promoting necessary drainage.

40-1.01D(8)(c)(iv) Thickness: Core pavement as directed by the Engineer for verifying P.C.C. pavement thickness, unless Engineer approves alternative method for verifying thickness.

The average P.C.C. pavement thickness must not be deficient by more than 0.02 foot with no individual thickness deficient by more than 0.05 foot. At least two thickness measurement will be made for each day's placement. The day's placement shall be removed and replaced if P.C.C. pavement thickness is deficient in any individual core by 0.10 foot or more.

Clean and dry core holes. Coat the core hole walls with epoxy adhesive conforming to section 95-1.02D of the Caltrans 2018 Standard Specifications. Fill core holes with non-shrink, hydraulic cement grout or concrete pavement mixture. Cores may be placed back in the original holes if coated with epoxy and approved by the Engineer.

40-1.02 MATERIALS

40-1.02A General: For streets and parking lot pavement the minimum allowable average strength of the concrete per ASTM C78, or California Test Method 523, is 550 psi at 28 days age. The average must be calculated using at least three replicate specimens.

Rapid strength concrete shall only be used for high early strength where specifically required by the Special Provisions or shown on the plans. Rapid strength concrete pavement shall be tested per California Test Method 524, and sampled per California Test Method 539. The rapid strength concrete must not have an opening modulus of rupture of less than 400 psi and a 3-day modulus of rupture of not less than 500 psi.

For streets and parking lot pavement, develop and provide a correlation curve between flexural strength and compressive strength using the same mix design, if a compressive strength is not already provided on the plans or these specifications.

40-1.02B Concrete

40-1.02B(2) Cementitious Material

All P.C.C. pavement shall be constructed conforming to the provisions in Section 90 of the Standard Specifications.

Cement shall be Portland cement Type II, Type III, or V conforming to ASTM C150 or Portland cement Type IP, IL, or IS conforming to ASTM C595.

40-1.02B(3) Aggregate: Aggregates used in the concrete mix shall conform with ASTM C33 Standard Specification for Concrete Aggregates and ASTM C1778-16 Standard Guide for Reducing the Risk of Deleterious Alkali-Aggregate Reaction in Concrete.

You shall submit the aggregate source in your mix design. If the aggregate source is on the Caltrans Innocuous Aggregates for Concrete List, no mitigation will be required. If the aggregate source is not on the Caltrans Innocuous Aggregates for Concrete List, then the aggregate sources should be tested in accordance with ASTM C1260 Standard Test Method for Potential Alkali Reactivity of Aggregates. If expansion in ASTM C1260 testing exceeds 0.10% in 14 days, ASTM C1567 Standard Test Method for Determining the Potential Alkali-Silica Reactivity of

Combinations of Cementitious Materials and Aggregate should be used to select the required supplementary cementitious material (SCM) dosage required to mitigate expansion.

40-1.02B(5) Supplementary Cementitious Materials: The following supplementary cementitious materials (SCM) listed below are permitted in the P.C.C. pavement mix. SCMs shall adhere to the following test methods and classifications listed below:

1. Fly Ash: ASTM C618 / AASHTO M 295, Class F.
2. Slag Cement: ASTM C989 / AASHTO M 302, Grade 100 or 120.
3. Raw or calcined natural pozzolans: AASHTO M 295, Class N.

If used, the percentage of SCM's allowed in the concrete mix shall adhere to the following ranges below based on the percentage of the ingredients by the total weight of cementitious material used in the batch for concrete:

1. Class F Fly Ash: 15% - 35%.
2. Slag Cement (GGBFS): 25% - 70%.
3. Natural Pozzolans: 5% - 15%.

40-1.02B(5) Chemical Admixtures: If used, chemical admixtures shall comply with ASTM C494. Additional Permitted admixtures include the following below:

1. Hydration Stabilizers: As required to extend working time.
2. Super-Absorbent Polymers (SAP): Allows for increased water-cement ratio to aid in workability and curing while eliminating need for water reducers and viscosity modifiers.
3. Air Entraining Admixtures: ASTM C260.
4. Pigment: ASTM C979.

40-1.02B(6) Water: Water used in the concrete mix shall conform with ASTM C1602 Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete.

40-1.02B(7) Curing Materials: Non-pigmented curing compound must comply with ASTM C309, Type 1, Class B.

40-1.02C Reinforcement, Bars, and Baskets

40-1.02C(1) General: Reinforcing materials shall be required as shown on the plans. Prior to use of additional reinforcing materials such as macro-fibers, tie bars, dowel bars, or plate dowels you shall first request approval from the Engineer. If used reinforcing materials must also conform to the following requirements below:

1. Macro-fibers: Per manufacturer's recommendations.
2. Reinforcing bars and wire mesh:
 - a. Distributed rebar/mid-panel reinforcement is not necessary when pavement is jointed to form short panel lengths. The use of distributed steel reinforcement will not add to the load-carrying capacity of the pavement and should not be used in anticipation of poor construction practices or soil conditions.
3. Tie bars shall be deformed steel bars conforming to ASTM A615, ASTM A616, or ASTM A617.
4. Dowels:
 - a. Dowel bars: Complying with ASTM A615, ASTM A616, or ASTM A617.
 - b. Plate dowels: Per manufacturer's recommendations, at the direction of the Engineer.

40-1.02E Joint Filler: Pre-molded joint filler or bituminous-type joint material used for isolation and/or expansion joints as shown on the plans. Isolation or Expansion Joint Material shall comply with ASTM D994, D1751, or D1752.

Joint Sealer for isolation and/or expansion joints must be on the Caltrans Authorized Materials List for silicone joint sealant.

Joint filler is not required for contraction and construction joints on this project.

You shall submit all joint fillers and sealers to the Engineer for review and approval.

40-1.02G Forms: Forms shall be comprised of steel or wood capable of resisting deformation during edge compaction and to maintain grade. Wood forms shall have a minimum nominal thickness of 2-inches.

Forms shall be clean and free of debris, rust, and hardened concrete.

Forms shall be treated with a bond breaker prior to use.

Forms shall be free from warp.

40-1.03 CONSTRUCTION

40-1.03A General

40-1.03A(1) Construction Equipment: Concrete pavement shall be spread, screeded, shaped, slip formed, and/or consolidated by one or more self-propelled machines. These machines shall perform in a manner so that the completed pavement will conform to the required cross section with a minimum amount of handwork. Consolidate the concrete with internal vibrators or other method authorized by the Engineer.

Self-propelled slip form paving machines shall be vibratory and shall be calibrated per the equipment manufacturer.

Each vibrator must have a vibration rate from 5,000 to 8,000 cycles per minute. The amplitude of vibration must cause perceptible concrete surface movement at least 1 foot from the vibrating element. Use a calibrated tachometer to measure the frequency of vibration.

40.1.03A(2) Quality Assurance and Weather Limitations: You shall have a subscription to a weather service to obtain forecasts for wind speed, ambient temperature, humidity, and cloud cover. You shall also maintain an on-site weather station with an anemometer, temperature, and humidity sensors for current site conditions.

Do not place concrete pavement when the ambient temperature is below 45°F, or is expected to fall below 32°F within 48 hours of placement, unless otherwise permitted in writing by the Engineer.

Do not place concrete pavement when the ambient temperature is above 95°F unless otherwise permitted in writing by the Engineer.

Do not place concrete pavement when the wind, heat or humidity do not allow enough time to place, properly joint, compact, edge, finish and cure before the surface dries.

40-1.03B Joints

40-1.03B(1) General: Joints shall be installed at locations and to depths shown on the Plans or your submitted construction details as approved by the Engineer.

Spacing between joints shall not exceed 15 feet unless approved by the Engineer.

Larger horizontal dimension of each slab panel shall not exceed 150 percent of smaller horizontal dimension, unless shown on the plans or approved by the Engineer.

Concrete pavement joints need to mesh with the traffic control plan and final pavement delineation for joints to be either coincidental with or split the middle of the final traffic lane lines to extent feasible.

Joints in newly placed P.C.C. pavement shall align with joints in older adjacent concrete to extent feasible. Joints abutting curbs and other fixed concrete shall be installed within 10 degrees of perpendicular to the older concrete, to extent feasible. If not feasible, efforts shall be made to ensure a sympathy crack does not form in the new plastic concrete at these locations through isolation and reinforcement.

40-1.03B(2) Construction Joints: Construction joints must be vertical.

Install transverse construction joints whenever placing is suspended for 30 minutes or whenever concrete is no longer workable.

Before placing fresh concrete against hardened concrete, existing concrete pavement, or structures, apply curing compound to the vertical surface and allow it to dry.

As shown on the plans, at joints between new P.C.C. pavement and asphalt concrete pavement, apply a tack coat to the vertical edge of the P.C.C. pavement prior to placing asphalt concrete pavement.

Use a metal or wooden bulkhead to form transverse construction joints. If dowels are described, the bulkhead must allow dowel installation.

40-1.03B(3) Contraction Joints: Spacing between contraction joints shall not exceed 15 feet unless approved by the Engineer. Larger horizontal dimension of each slab panel shall not exceed 150 percent of smaller horizontal dimension, unless shown on the plans or approved by the Engineer.

Contraction joints shall be saw cut and placed after concrete has hardened sufficiently to prevent extensive raveling, but before cracking occurs (including plastic shrinkage cracks that may not be immediately discoverable). The use of early-entry sawing is permitted with approval of the Engineer and verification that random cracking does not occur.

Contraction joint depth shall be a minimum of 33 percent of pavement thickness for conventional sawing or 2 inches for early-entry sawing.

40-1.03B(4) Isolation Joints: Use isolation joints when abutting fixed structures. Place isolation material before concrete is placed and to a minimum depth of the pavement section. Before placing concrete at isolation joints, saw cut the existing concrete face (where applicable) to make a clean, flat, vertical surface and secure the joint filler.

40-1.03D Dowel Bar Placement: Dowels or other load-transfer units of an approved type shall be placed across joints in the manner as shown on the plans. They shall be of the dimensions

and spacing as shown on the plans and constructed to the manufacturer's recommendations and accepted in the field by the Engineer.

You shall submit the proposed method of using wire basket supports including shop drawings with proposed method of anchoring the baskets for acceptance by the Engineer prior to placement. The proposed method of establishing the assembly locations on the subgrade shall be submitted for acceptance as well.

40-1.03F Placing Concrete

40-1.03F(1) General: Spreading, compacting and shaping shall also conform to the provisions in Section 40-1.03F of the Standard Specifications. Concrete can be placed with a laser screed with approval of Engineer.

Immediately in advance of placing concrete, side forms shall be trued and maintained to the required line and grade for a distance sufficient to prevent delay in placing concrete. However, the grade adjacent to the existing (or replaced) curb and gutter should not extend more than approximately 1/4-inch above the gutter lip after final finishing.

Verify surface elevations to ensure required thickness of concrete pavement. The base material must meet 0.02-foot tolerance of the grades shown on the plans.

Any changes of thicknesses must be approved by the Engineer.

40-1.03J Protecting Concrete Pavement: Maintain the concrete pavement temperature above freezing temperatures until the concrete compressive strength exceeds 3,000 psi.

Protect pavement surface from abrasion, discoloration, debris, and sediments.

Clean and repair pavement that has been damaged, soiled, discolored, or contaminated.

Construct crossings for traffic convenience. Rapid strength concrete may be used for crossings if authorized by the Engineer with an approved mix design.

Traffic may be allowed on the concrete pavement once the concrete has attained 3,500 psi compressive strength, verified through either breaking concrete specimens or based on maturity method.

40-1.03K Early Use of Concrete Pavement: You may request early traffic opening for residential light-duty vehicles when the concrete has attained a compressive strength of 2,500 psi with approval by the Engineer. This early opening must not damage the concrete pavement.

40-1.03N Correcting Noncompliant Pavement Work: Damaged pavement may be either repaired or removed and replaced at the discretion of the Engineer at your cost.

40-1.03H Finishing: In advance of curing operations, the pavement surface shall be finished to grade and cross section with a float and troweled smooth. Concrete adjacent to the joints and lip of gutter shall be finished with an edger tool.

The surface of the pavement shall be a brush or broom finish, applied when the water sheen can no longer be seen. Bleed water shall not be finished into the concrete surface. The equipment shall operate transversely across the pavement surface, providing corrugations that are uniform in appearance and approximately 1/16 of an inch in depth. The texturing equipment shall not tear or unduly roughen the pavement surface during the operation. Any imperfections resulting from the texturing operation shall be corrected.

Fixed forms shall not be removed in less than 12 hours after the finishing has been completed.

40-1.03I Curing: The concrete shall be cured using the same methods used during implementation of Section 40-1.01C(7) Test Strips of these Special Provisions using the same non-pigmented curing compound that complies with ASTM C309, Type 1, Class B. Apply curing compound with mechanical sprayers. Application shall provide uniform coverage without streaks or blotchiness. Reapply curing compound to saw cuts and disturbed areas.

The surface of the freshly placed P.C.C. pavement shall be kept damp until curing takes place. This may require water-fogging or misting if the evaporation rate, calculated in accordance with ACI 305.1 Specification for Hot Weather Concreting, exceeds 0.15 lbs/ft²/hr. Curing compound shall be applied immediately after the final finishing operation and must follow the Manufacturer's guidelines for both timing and dosage for a broomed finish. The P.C.C. pavement shall not be left exposed for more than 30 minutes during the curing period before a curing compound is applied. Cure the P.C.C. pavement exposed area using the curing compound method with non-pigmented curing compound that complies with ASTM C309, Type 1, Class B. If side forms are removed within 72 hours of the start of curing, then the pavement edges must also have curing compound applied, or be kept moist.

40-1.03P Operational Constraint: You shall complete each concrete installation location such that the concrete reaches 3,000 psi within 3 days (72 hours) and can be opened to residential traffic.

If the paving is not progressing at a rate that will permit the restoration of traffic within the specified time period, you shall take appropriate temporary measures, acceptable to the Engineer, to open the road to traffic. These temporary measures shall be at your expense.

40-1.04 Payment: PCC Pavement (8-inch depth) shall be made per the contract unit price per **square foot** (SF) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, furnishing, forming, placing and finishing concrete as specified and to a minimum depth to match the existing PCC pavement depth (assumed to be 8 inches for bidding purposes), including surface preparation, reinforcement, admixtures, concrete jointing, the installation and removal of temporary asphalt concrete ramps to provide public access to driveways and roadways, including all labor, tools, equipment, materials and incidentals required to complete the work. No additional compensation will be allowed therefor.

73 CONCRETE CURBS AND SIDEWALKS

73-1 GENERAL

73-1.01 General: This work shall consist of curbs, sidewalks, and their appurtenances, such as gutters, driveways, island paving, curb ramps, and gutter depressions.

73-1.02 MATERIALS

73-1.02D Color: A colored pigment designed for the integral coloring of concrete shall be added to the concrete mix. The pigment shall contain pure concentrated mineral pigments specifically processed for mixing into concrete and complying with ASTM C979. The colored pigment shall be Davis Colors color #860, applied in a dosage of 1/3 pound per 94-pound sack of cement (approximately 2 pounds per cubic yard of concrete for a 6 sack mix), or L. M. Scofield color #SG860 applied in a dosage to produce an equivalent color, or an approved equal.

73-2 CURBS

73-2.03 Construction: Curb construction shall be in accordance with Section 73-1.05 of the City Standards.

Curb and Gutter construction shall be in accordance with City STD-241.

Median curb construction shall be in accordance with City STD-242.

Concrete which is to be removed from curb, gutter, sidewalk and driveway areas shall be removed to the nearest construction joint or as directed by the Engineer.

Curb and gutter and median curb shall be cured in accordance with the requirements of Section 90-1.03B of the Standard Specifications except that you may substitute a pigmented sealer upon the approval in writing of such substituted sealer by the Engineer.

All oil, paint, tire marks, and other discoloring shall be removed from the curb and gutter by sandblasting prior to acceptance by the Engineer. Cement mortar will not be an acceptable substitute for sandblasting. Vandalism to uncured concrete surface shall be removed. If it cannot be removed from the surface, then the vandalized concrete shall be removed and replaced to the nearest score mark.

73-3 SIDEWALK, GUTTER DEPRESSION, ISLAND PAVING (MEDIAN CURB), CURB RAMP, AND DRIVEWAY

73-3.03 Construction: Sidewalk construction shall be in accordance with City STD-237.

Valley Gutter construction shall be in accordance with City STD-243.

Curb ramps shall be constructed in accordance with the details and at the locations shown on the Plans per Caltrans Standard Plan A88A, except the thickness of minor concrete shall be 4" minimum. As needed for curb ramp installation, you shall also install Back of Sidewalk Conforms City STD-233. You shall coordinate private property access as required with the City and Homeowner.

Driveways construction shall be in accordance with City STD-250A or STD-250B along with Driveway conform City STD-251.

Sidewalk, gutter depression, median curb, curb ramp, and driveway shall be constructed in accordance with per Section 73-1.07.

All concrete which is to be removed from sidewalk and driveway areas shall be removed to the nearest transverse score mark across the full width of sidewalk or construction joint or as directed by the Engineer.

Soft or spongy base or subgrade material shall be removed and replaced with suitable material as required by the Engineer.

Sidewalks, gutter depression, median curb, curb ramps, and driveways shall be cured in accordance with the requirements of Section 90-1.03B of the Standard Specifications except that you may substitute other than pigmented sealer upon approval in writing of such substituted sealer by the Engineer.

All oil, paint, tire marks, and other discoloring shall be removed from the Sidewalks, gutter depression, median curb, curb ramps, and driveways by sandblasting prior to acceptance by the Engineer. Cement mortar will not be an acceptable substitute for sandblasting. Vandalism to uncured concrete surface shall be removed. If it cannot be removed from the surface, then the vandalized concrete shall be removed and replaced to the nearest score mark.

73-3.04 Payment: **PCC Driveway** will be measured by the **square foot** (SF) as stated in the Bid Schedule, measured along the face of curb as installed.

PCC Curb and Gutter will be measured by the **linear foot** (LF) as stated in the Bid Schedule, measured along the face of curb as installed. No deduction in measured length of curb and gutter to be paid for will be made for curb ramps and driveways.

PCC Valley Gutter will be measured by the **square foot** (SF) as stated in the Bid Schedule, as measured in the field. This measurement includes the curb and gutter related to construction of the PCC Valley Gutter as shown on the Plans and Standard Plans.

PCC Curb Ramp will be measured by the **square foot** (SF) as stated in the Bid Schedule, as measured from between the outside borders of the curb ramp. This measurement includes necessary vertical curb, retaining curb, sidewalk conform panels, and detectable warning surfaces related to the curb ramp work. Measurement includes curb and gutter in front of the curb ramp and sidewalk conforms.

PCC Driveway, PCC Curb and Gutter, and PCC Valley Gutter will be paid per the contract unit price. The contract unit price shall include, but not be limited to, necessary removals and disposal, sawcutting of minor concrete and asphalt concrete, disposal of unsuitable base and subgrade, grading, preparing the subgrade, furnishing and compacting the aggregate base, formwork, doweling into the existing concrete, furnishing and placing minor concrete, furnishing and placing curing compound, asphalt concrete plugs, pavement conform grading, resetting of valve boxes or pull boxes to finished grade, and landscape/hardscape replacement as shown on the Plans and as directed by the Engineer including all labor, tools, equipment materials and incidentals. No additional compensation will be allowed therefor.

PCC Curb Ramp will be paid per the contract unit price. The contract unit price shall include, but not be limited to, necessary coordination with the City and Homeowner for private property access, necessary removals and disposal, sawcutting of minor concrete and asphalt concrete, disposal of unsuitable base and subgrade, grading, preparing the subgrade, furnishing and compacting the aggregate base, formwork, doweling into the existing concrete, furnishing and placing minor concrete, furnishing and placing curing compound, asphalt concrete plugs, pavement conform grading, furnishing and installing detectable warning surface, relocating stop sign and sign post outside the painted crosswalk per City Standards, resetting of valve boxes and pull boxes to finished grade that are not paid for under other Bid Items, resetting of sign posts to finished grade, landscape/hardscape replacement, and adjustment to homeowner improvements including walkways, fencing, or gates as shown on the Plans and as directed by the Engineer including all labor, tools, equipment materials and incidentals. No additional compensation will be allowed therefor.

78-2 SURVEY MONUMENTS

78-2.01 General: Survey monuments shall conform to City Standards 280 to 282. The exact location of the monument will be established by the Engineer. The monument will be approved after it is constructed then center point stamped by the Engineer.

Damaged Monuments will be replaced per City Standard and existing components of the damaged monument may not be allowed.

81 MISCELLANEOUS TRAFFIC CONTROL DEVICES

81-3.01 General: Raised pavement markers shall be placed at the locations shown on the Plans and in accordance with the applicable provisions of Section 81 of the Standard Specifications, these Special Provisions, and the City of Santa Rosa Traffic Standards. Attention is directed to Section 15 “Existing Facilities” of these Special Provisions.

81-3.02 Materials: All raised pavement markers (RPMs) shall conform to the most current State Specifications.

81-3.02B Nonreflective Pavement Markers: All non-reflective pavement markers shall be ceramic.

81-3.02C Retroreflective Pavement Markers: Blue reflective raised pavement markers are to be placed per City STD -857 for each fire hydrant within the construction limits of the project. Where a hydrant, whether existing or new, is located at the corner of two streets, a blue RPM shall be placed in each street.

81-3.03 Construction: Existing raised pavement markers to remain, which are damaged by you, shall be replaced as determined by the Engineer, at your expense. This includes areas outside the immediate project limits.

The exact locations and limits of raised pavement markers will be determined in the field by the Engineer.

You shall provide, install and maintain temporary markers on the same day that the existing permanent markers are removed, or as directed by the Engineer, and maintain this delineation until new permanent markers are in place. Temporary markers on non-ground surfaces shall be plastic adhesive retroreflective delineators.

Existing raised pavement markers conflicting with the proposed striping shall be removed immediately prior to placement of new markers.

Existing raised pavement markers to remain, which are damaged by you, shall be replaced.

Holes left in the pavement due to the removal of raised pavement markers shall be filled with enough adhesive to replace any asphalt which comes off with the removal of the pavement marker, leaving a level driving surface.

Permanent raised pavement markers shall be installed within 5 days following final pavement operations. Temporary markings shall be in place the same day of pavement operations.

Raised pavement markers shall be installed the day following pavement overlay.

82 SIGNS AND MARKERS

82-1.01 General: This work shall consist of installation, removal, and relocation of roadside signs as shown on the plans, where directed by the Engineer, and shall conform to the City Specifications.

Signs and hardware which are not to be mounted on traffic signal mastarms or poles shall be provided and installed by you at the locations shown on the plans per Part II of the City Traffic Standards.

Existing signs which are not on traffic signal mastarms or poles shall be relocated as shown on the plans by you.

New signs and brackets to be mounted on traffic signal mastarms and poles shall be provided and installed by the City.

Existing signs on traffic signal mast arms and poles will be relocated by the City.

Where signs are shown on the plans as relocated or removed, the sign post and foundation shall be removed if no longer in use. Existing sign posts removed from sidewalks shall be ground flush with the existing sidewalk surface, and the void filled with grout.

Salvaged signs shall be returned to the City of Santa Rosa Sign Shop at 55 Stony Point Road. All poles being removed and not relocated shall become your property.

82-2.04 Payment: **Salvage and Relocate Street Sign and Post** will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, removal and relocation of existing street signs and sign posts as shown on the Plans, restoration of existing sidewalk or landscaping where sign post was removed and, or disposal of signs and sign posts in unsuitable repair, including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

Salvage and Relocate Street Sign will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, removal of existing street signs as shown on the Plans, and, or disposal of signs and sign posts in unsuitable repair, including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

Remove Sign and Post will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, removal of existing street signs and sign posts as shown on the Plans, restoration of existing sidewalk or landscaping where sign post was removed, and either delivery and furnishing of salvageable signs and sign posts in good repair to the City's corporation yard, or disposal of signs and sign posts in unsuitable repair, including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

Remove Sign will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, removal of existing street signs as shown on the Plans, and either delivery and furnishing of salvageable signs in good repair to the City's corporation yard, or disposal of signs in unsuitable repair, including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

Install Sign on Existing Post will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, furnishing and installing street signs on existing posts as shown on the Plans in conformance with the CA MUTCD and City Standards, including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

Install Sign and Post will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. The contract unit price shall include, but not be limited to, furnishing and installing street signs and sign posts as shown on the Plans in conformance with the CA MUTCD and City Standards and minor concrete or landscaping work to install the sign post, including all labor, tools, equipment, materials and incidentals. No additional compensation will be allowed therefor.

84-2 TRAFFIC STRIPES AND PAVEMENT MARKINGS

84-2.01 General

84-2.01A Summary: Attention is directed to Section 12 “Temporary Traffic Control” and Section 15 “Existing Facilities” of these Special Provisions. Traffic stripes and pavement markings shall conform to the applicable provisions of Section 84 of the Standard Specifications, The City Traffic Standards, and these Special Provisions and shall be placed at the locations shown on the Plans.

You shall provide and install temporary retro-reflective pavement markings on the same day as the existing permanent markings are removed or destroyed, or as directed by the Engineer, and maintain them until the new permanent markings are in place.

Temporary striping on all ground surfaces shall be paint (white and/or yellow) with retro-reflective glass beads or an approved equivalent and shall be installed the same day as the existing permanent striping is removed, or as directed by the Engineer. Temporary striping shall be maintained until new permanent striping is in place.

Existing pavement markings, including crosswalks, disturbed by construction activities shall be replaced in their entirety.

All striping to be replaced shall match existing sections in kind unless approved by the Engineer.

You shall remove all existing traffic striping and pavement marking in conflict with proposed improvements, as shown on the Plans, and as directed by the Engineer, and shall be responsible for the proper disposal of their grindings away from site work.

Permanent traffic stripes and pavement markings shall be installed after all iron has been raised for that particular street section, but no more than five days after final paving for that section of roadway.

Existing stripes and pavement markings to remain, which are damaged by the work shall be replaced at your expense. This includes areas outside the immediate project limits.

Painted curbs which are damaged or replaced as part of the work shall be repainted to match existing conditions or repainted per the color indicated on the Plans.

84-2.02 MATERIALS

84-2.02I Green Preformed Thermoplastic Bike Lane Marking: Green Preformed Bike Lane Markings shall meet requirements of FHWA Interim Approval IA-14 and Chromaticity Requirements for Green-Colored Pavement as outlined in FHWA Interpretation Letter 9(09)-86(I). Green Bike Lane Markings shall have a minimum thickness of 90mil and skid resistance of greater than 45 BPN when tested according to ASTM E 303. Green Bike Lane Markings shall be installed in 6’ by 4’ rectangles, centered within the dashed bike lane markings, with the 6’ dimension perpendicular to the direction of travel and the 4’ dimension parallel to the direction of travel. Install Green Preformed Thermoplastic Bike Lane Marking per the manufacturer recommendations.

84-2.04A Measurement: Thermoplastic Traffic Stripe (Various Details as listed in the Bid Schedule) will be measured by the linear foot (LF) installed per the Standard Plan detail or Plan detail and accepted by Engineer. No deductions in length will be made for gaps in the details or patterns, except for gaps at intersection. For details or patterns with multiple stripes the length will be measured along the center of the pattern only. Measurement includes all raised plastic markers included in the striping detail.

Bicycle Buffer - (Parking Permitted, No Parking, and Intersection Line) will be measured by the linear foot (LF) installed per the Plan detail and accepted by Engineer. No deductions in length will be made for gaps in the details or patterns, except for gaps at intersection. For details or patterns with multiple stripes the length will be measured along the center of the pattern only. Measurement includes all raised plastic markers included in the striping detail.

Thermoplastic Limit Line will be measured by the linear foot (LF) installed and accepted by Engineer.

Thermoplastic Basic Crosswalk (White or Yellow) will be measured by the linear foot (LF) installed and accepted by Engineer. Measurements will be taken along each edge of a basic crosswalk.

Thermoplastic Continental Crosswalk (White or Yellow) will be measured by the linear foot (LF) installed per Plan detail and accepted by Engineer. Measurements will be taken along the center of the crosswalk in the direction of pedestrian travel only.

Thermoplastic Pavement Markings will be measured by the square foot (SF) installed per the Standard Plans as shown on the Plans and accepted by Engineer.

Fire Hydrant Blue Marker will be measured by each (EA) installed per the CA MUTCD as shown on the Plans and accepted by Engineer.

Green Preformed Thermoplastic Bike Lane Marking will be measured by the square foot (SF) installed as shown on the Plans and accepted by Engineer.

Red, Yellow or White Curb Paint shall be measured by the linear foot (LF) installed per the Plans and as measured along the curb face.

84-2.04B Payment: Thermoplastic Traffic Stripes (Various Details), Bicycle Buffer (Parking Permitted, No Parking, and Intersection Line), Thermoplastic Limit Line, Thermoplastic Basic Crosswalk (White or Yellow), and Thermoplastic Continental Crosswalk (White or Yellow) will be made per the contract unit price per **linear foot** (LF) as stated in the Bid Schedule. They shall include, but not be limited to, furnishing and installing thermoplastic pavement striping and raised plastic markers per the Standard Plans and as shown on the Plans, any temporary pavement striping, any necessary cat tracks, dribble lines and layout work, and preparing surfaces to receive stripes, including full compensation for furnishing all labor, materials, tools, equipment, and incidentals. No additional compensation will be allowed therefor.

Thermoplastic Pavement Markings will be made per the contract unit price per **square foot** (SF) as stated in the Bid Schedule. They shall include, but not be limited to, furnishing and installing thermoplastic pavement markings per the Standards Plans and as shown on the Plans, any temporary pavement markings, any necessary cat tracks, dribble lines and layout work, preparing surfaces to receive markings, including full compensation for furnishing all labor, materials, tools, equipment and incidentals. No additional compensation will be allowed therefor.

Fire Hydrant Blue Marker will be made per the contract unit price per **each** (EA) as stated in the Bid Schedule. They shall include, but not be limited to, furnishing and installing fire hydrant blue markers per the CA MUTCD and as shown on the Plans, any necessary cat tracks, dribble lines and layout work, and preparing surfaces to receive markers, including full compensation for furnishing all labor, materials, tools, equipment and incidentals. No additional compensation will be allowed therefor.

Green Preformed Thermoplastic Bike Lane Marking will be made per the contract unit price per **square foot** (SF) as stated in the Bid Schedule. They shall include, but not be limited to, furnishing and installing green preformed thermoplastic paint as shown on the Plans, any temporary pavement markings, any necessary cat tracks, dribble lines and layout work, preparing surfaces to receive markings, including full compensation for furnishing all labor, materials, tools, equipment and incidentals. No additional compensation will be allowed therefor.

Red, Yellow or White Curb Paint will be made per the contract unit price per **linear foot** (LF) as stated in the Bid Schedule. They shall include, but not be limited to, furnishing and installing red curb paint fire as shown on the Plans, any necessary layout work, preparing surfaces to receive curb paint, and restoration of any painted text or stencils in contrasting colors after curb painting, including full compensation for furnishing all labor, materials, tools, equipment and incidentals. No additional compensation will be allowed therefor.

87 ELECTRICAL SYSTEMS

87-1.01 General: All electrical and traffic signal work shall be performed in conformance with the provisions in Division X Electrical Work, including Section 86 "General" and Section 87 "Electrical Systems" of the Standard Specifications, and these Special Provisions.

Traffic Signal Modifications (Various Intersections) shall include all work and materials required to install the traffic signal modifications shown on the plans, including removal of existing equipment, preservation of existing, and installation of new traffic signal and electrical systems.

Signal Interconnect Modifications shall include all work and materials required to document existing connections, remove interconnect cables, store cables off-site, re-install back in existing conduits at a time approved by city engineer, including any conduit repairs and testing required to verify the interconnect system operates similarly to pre-construction activities. Not all existing wires or interconnect may be shown on the plans and may be shallow. Depths must be verified by you by means of potholing, as needed, prior to any work.

87-1.02 Documentation and Submittals: Complete specifications on all materials to be used shall be submitted to the Engineer for approval prior to start of construction, and shall include mechanical, electrical and physical drawings.

87-1.03 Department Acceptance: The functional test for each traffic signal system and lighting system shall consist of not less than 48 hours of continuous, satisfactory operation. If unsatisfactory performance of the system develops, the conditions shall be corrected, and the test shall be repeated until the 48 hours of continuous, satisfactory operation is obtained.

87-1.04 METHODS AND MATERIALS

87-1.04A Concrete Pads, Foundations, and Pedestals: The Contractor shall construct foundations for streetlights and traffic signal standards at the locations shown on the plans per City STD.-620A, the Caltrans Standard Specifications, Caltrans Standard Plans, and these special provisions.

Minor portland cement concrete shall be produced from commercial quality aggregates and cement and shall contain not less than six sacks of cement per cubic yard and with a minimum 28-day compressive strength of 3000 psi.

87-1.04B Pull Boxes: Pull boxes shall conform to STD 730 of the City Traffic Standards and these Special Provisions.

All existing pull boxes to receive new conductors and/or conduits shall be cleaned out, all existing grout removed, and the bottoms re-grouted with a drain hole or the boxes replaced to meet current City Standards.

Pull boxes shall be labeled depending on their purpose:

1. Service
2. Traffic Signal
3. Street Lights
4. Interconnect

87-1.04C Conductors and Cables: All conductors for traffic signal or street lighting systems shall conform to Part IV-G of the City Traffic Standards.

87-1.04D Detectors: Inductive loop detectors shall conform to Part IV-H of the City Traffic Standards.

Detector handholes shall be Type A installed per State STD.-ES-5D.

Any existing traffic signal detectors shown on the plans to remain that are damaged shall be replaced at the Contractor's expense within five working days or as directed by the Engineer.

87-1.04E Excavating and Backfill for Electrical Systems: Dispose of surplus excavated material from the work area as they are generated.

Native material shall not be used as trench backfill.

87-1.04F Traffic Signal Interconnect Systems: The Contractor shall disconnect, remove, store, re-install, and test traffic signal interconnect system during construction as shown on the plans and described herein.

Scheduling the Work. Prior to disconnection of existing traffic signal interconnect cable, Contractor shall coordinate with City Engineer 10 business days prior to planned disconnect.

Document Pre-Construction Configuration. Contractor shall document existing connections to verify locations for cables to be landed after roadway work has been completed.

Remove Cables. Contractor shall remove interconnect cables along Sonoma Avenue in all segments that include underground work as directed by City Engineer and as shown on the plans.

Store Cables. Contractor shall store interconnect cable in a secure location, either off-site or on-site in location approved by City Engineer.

Re-install Cables. Contractor shall reinstall cables into conduits to revert to pre-construction interconnect configuration. If any conduits are damaged during construction, contractor shall install new conduit at Contractor's expense prior to installation of existing cable.

Functional Testing. The functional test for each traffic signal interconnect system shall consist of not less than 48 hours of continuous, satisfactory operation. If unsatisfactory performance of the system develops, the conditions shall be corrected, and the test shall be repeated until the 48 hours of continuous, satisfactory operation is obtained.

87-1.05 Payment: **Traffic Signal Detector Loops (Type A), Traffic Signal Detector Loops (Type D), and Traffic Signal Detector Loops (Modified Type D for Bike Lane)** will be made per **each** (EA) as stated in the Bid Schedule. The contract unit price paid shall include, but not be limited to, removal and disposal of any existing loop detector wire or conduit, sawcutting asphalt pavement or PCC curb and gutter and installation of various Caltrans loop detectors per the Type and size shown on the Plans and per Caltrans Standard Plan ES-5B and ES-5D including furnishing and installing all necessary wiring, conductors, lead-in cable, conduit, sealant, and concrete work to connect to the traffic signal system, including all labor, tools, equipment, materials and incidentals.

You shall test proper compatibility, operation, and detection of the loop detectors with a test vehicle prior to completion of the work. If needed, you shall make adjustments to the existing traffic signal system for proper operation after coordination with the Engineer.

No additional compensation will be allowed therefor.

Traffic Signal Modifications (Various Intersections) will be made per the **lump sum** (LS) stated in the Bid Schedule. The contract lump sum price shall include, but not be limited to adjustment and relocation of pedestrian push buttons to be ADA compliant as shown on the Plans, furnishing and installing push button assembly (PBA) posts, furnishing and installing electrical conduit and conductors, installing new foundations for relocated poles, splicing conductors, removal of existing pull boxes, furnishing and installing new pull boxes, minor concrete work and includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals.

No additional compensation will be allowed therefor.

Traffic Signal Interconnect System will be made per the **lump sum** (LS) stated in the Bid Schedule. The contract lump sum price shall include, but not be limited to documenting existing cable configuration, disconnecting, removing, storing, re-installing, and testing traffic signal interconnect cables as shown on the Plans and described herein, and includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals.

No additional compensation will be allowed therefor.

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112 TREE PROTECTION

112-1.01 General: The following requirements shall apply to any contractor who works on any property upon which a protected tree is located.

Protected tree means any tree, including a Heritage tree, designated to be preserved on the plans, or as directed by the Engineer. Heritage tree is any of the trees listed under Section 17-24.010 of the City of Santa Rosa Tree Ordinance.

112-1.02 Scope: Before the start of any clearing, excavation, construction or other work on the site, every protected tree shall be securely fenced off at the protected perimeter. Protected perimeter shall be either the root zone or other limit as directed by the Engineer. Such fences shall remain continuously in place for the duration of all work undertaken in connection with this project. The area so fenced off shall not be used as a storage area, altered, or disturbed except as may be permitted under this section.

If any of the site work encroaches upon the protected perimeter of a protected tree, special measures shall be utilized as approved by the Engineer to ensure that the roots obtain oxygen, water, and nutrients as needed. Any excavation, cutting, filling, or compaction of the existing ground surface within the protected perimeter, if authorized by the Engineer, shall be minimized and subject to such conditions as may be imposed by the Engineer. No significant change in existing ground level shall be made within the drip line of the protected tree except as directed by the Engineer and as shown on the plans. No burning or use of equipment with an open flame shall occur near or within the protected perimeter. All brush, earth, and other debris shall be removed in a manner which prevents injury to the protected tree.

No oil, gas, chemicals, or other substances that may be harmful to trees shall be stored or dumped within the protected perimeter or any other location on the site from which such substances might enter the protected perimeter.

Underground trenching for utilities shall avoid major support and absorbing tree roots of protected trees. If avoidance is impracticable, tunnels shall be made below the roots. Trenches shall be consolidated to serve as many units as possible. Trench within the drip line of the tree shall be avoided and only be done at the approval and direction of the Engineer.

No concrete or asphalt paving shall be placed over the root zones of protected trees. No artificial irrigation shall occur within the root zone of oaks.

No compaction of the soil within the root zones of protected trees shall occur.

112-1.03 Payment: Full compensation for conforming to the provisions 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 therefor.

121 NOTIFICATION

121-1.01 General: You shall notify the Engineer of any work to be performed on any given workday either on the afternoon of the prior working day or before 8:30 a.m. on the given working day. Any work completed for which the Engineer has not received prior notification of its scheduling MAY NOT BE ACCEPTED FOR PAYMENT.

121-3.01 Payment: Full compensation for conforming to the provisions 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 therefor.

124 MATERIAL RECYCLING

124-1.01 Description: You shall dispose of all portland cement concrete and asphalt concrete, generated from removal or demolition activities on the project, at a recycler for these materials. You shall provide receipts verifying delivery and approximate quantity (in tons) of the material delivered to a material recycler.

All other excess materials from the project shall become your property and shall be disposed of by you, at your expense.

124-1.02 Payment: Full compensation for material recycling as specified herein shall be considered as included in the contract prices paid for various items of work, and no additional compensation will be allowed therefor.

132 WATER DISTRIBUTION SYSTEM

132-1.01 Description: Water Distribution System and related appurtenances shall conform to the requirements as specified in the City of Santa Rosa Water Distribution System Construction Standard Specifications Section 132, the Project Plans, and modifications herein.

132-1.03B Backflow Device Re-Certification: You shall coordinate their work to provide minimum out of service time to the customer.

After service installation, if existing backflow prevention device is present, device must be re-certified. Certifications shall be completed by a certified tester off the Approved List of Backflow Contractors herein. All necessary paperwork shall be completed by the Tester and one copy given to the property owner and one to the City within 72 hours after connection to the service line.

Submittals are required for all backflow device related materials.

132-1.11 Excavation, Backfill, and Resurfacing: You shall remove and replace curb and gutter, sidewalk and planter strips as required for all water work to the nearest transverse score mark on both sides and full sidewalk width. All areas of sidewalk removed for construction shall be backfilled and compacted level with temporary asphalt concrete or covered with 1-inch-thick plywood, laid flat with ADA compliant temporary asphalt concrete taper on both ends. Curb, gutter and sidewalk replacements shall conform to the requirements of Section 73 Concrete Curbs and Sidewalks of these Special Provisions.

132-1.12 Laying and Handling Pipe Materials: If you install a highpoint in the water system not shown on the Project Plans the Engineer may require the installation of a new combination air and vacuum valve, per City Standards, at no additional cost to the City.

After service installation, if existing backflow prevention device is present, device must be re-certified. Certifications shall be completed by a certified tester off the Approved List of Backflow Contractors herein. All necessary paperwork shall be completed by the Tester and one copy given to the property owner and one to the City within 72 hours after connection to the service line.

Submittals are required for all backflow device related materials.

132-1.15A Water Services: All existing meter box lids to be removed and that are in good condition shall be salvaged and delivered to the City's Corporation Yard located at 55 Stony Point Road.

New service laterals shall be installed with a minimum horizontal clearance of 3 feet from gas laterals and a minimum of 5 feet from sewer laterals. Water services shall be installed via 'open trench' construction methods only, unless otherwise specified herein.

132-1.17 Water Service Abandonments: It is anticipated that you will sequence their operations for multiple abandonments during a single system shutdown to minimize disruption to residents and businesses, coordination by you with the Engineer and the Water Department for this purpose is required.

132-1.30 Payment: 4", 6" and 8" Water Service Lateral shall be paid for at the contract price per **linear foot (LF)**, of the various sizes, (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all the work involved in water lateral, 4" and larger installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; dewatering and disposal of trench groundwater; contamination awareness; coordination, preparation and execution for connection to existing main by hot tap or cut in tee as specified, supporting or removal and disposal of existing utilities in the same trench

if required; water pipe and fittings as required; restrained joints, thrust blocking and harnesses as required; placing and compacting all required bedding and backfill including control density fill if required; trench plates as needed; temporary trench paving; curb and gutter as needed, construction water and all work involved in its obtainment, development and distribution; testing and chlorination of the new water system and appurtenances; purging lines prior to bacteria sampling; disposal of all chlorinated water by you; cleaning, swabbing and flushing of water lateral and appurtenances; as specified herein, and no additional allowance will be made therefor.

1" Single Water Service shall be paid for at the contract price **each** (EA) for the specified sizes, which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in water service installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; hot tap coordination and preparation (City to perform actual hot tap); saddle, valve and necessary fittings on existing main; proper size penetration in main; water service tubing and fittings *as required*; meter box and lid to grade; meter shut off valves; tie-in at back of sidewalk; meter transfer; abandoning old water service, including removing meter boxes; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and no additional allowance will be made therefor.

1-1/2" Dual Water Service shall be paid for at the contract price **each** (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in dual water service installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; hot tap coordination and preparation (City to perform actual hot tap); saddle, valve and necessary fittings on existing main; proper size penetration in main; water service tubing and fittings *as required*; manifold; meter boxes and lids to grade; meter shut off valves; tie-ins at back of sidewalk; meter transfers; abandoning old water service, including removing meter boxes; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and no additional allowance will be made therefor.

1-1/2" or 2" Water Services shall be paid for at the contract price **each** (EA) for the specified sizes, which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in water service installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; hot tap coordination and preparation (City to perform actual hot tap); saddle, valve and necessary fittings on existing main; proper size penetration in main; water service tubing and fittings *as required*; manifold; meter boxes and lids to grade; meter shut off valves; tie-ins at back of sidewalk; meter transfers; abandoning old water service, including removing meter boxes; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and no additional allowance will be made therefor.

2-inch Water Service (lateral and valve only) shall be paid for at the contract price **each** (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in water service installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; hot tap coordination and preparation (City to perform actual hot tap); saddle, valve and necessary fittings on existing main; proper size penetration in main; water service tubing and fittings *as required*; manifold; tie-ins to existing lateral; abandoning old water service, placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and no additional allowance will be made therefor.

3-inch Water Service (lateral and valve only) shall be paid for at the contract price **each** (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in water service installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; hot tap coordination and preparation (City to perform actual hot tap); saddle, valve and necessary fittings on existing main; proper size penetration in main; water service tubing and fittings *as required*; manifold; tie-ins to existing lateral; abandoning old water service, placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and no additional allowance will be made therefor.

4", 6", and 8" Gate Valve installed on a new main or as part of a cut-in tee or cross assembly will be paid for at the contract unit price per **each** (EA) for the specified sizes, which price will include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in gate valve installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; valve; valve box and riser set to grade; concrete collar; valve stem riser if required; pier blocks; placing and compacting all required bedding and backfill including control density fill if required; trench plates as needed; testing and chlorination; temporary trench paving; as specified herein, and no additional allowance will be made therefor.

Replace Service Saddle at Main shall be paid for at the contract price **each** (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in replacing the service saddle at the existing main installation, including but not limited to: excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; placing and compacting all required bedding and backfill including control density fill if required; trench plates as needed; testing and chlorination; temporary trench paving; as specified herein, and no additional allowance will be made therefor.

12" Ductile Iron Pipe Water Main shall be paid for at the contract price per **linear foot (LF)**, (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all the work involved in water main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging if needed; root pruning; dewatering and disposal of trench groundwater; contamination awareness; supporting or removal and disposal of existing utilities in the same trench if required; water main and fittings as required; restrained joints, thrust blocking and harnesses as required; placing and compacting all required bedding and backfill including control density fill; trench plates as needed; temporary trench paving; construction water and all work involved in its obtainment, development and distribution; testing and chlorination of the new water system and appurtenances; purging lines prior to bacteria sampling; disposal of all chlorinated water by you; cleaning, swabbing and flushing of water main and appurtenances; as specified herein, and no additional allowance will be made therefor.

Backflow Device Re-certification shall be paid for at the contract price **each** (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved to perform backflow device testing, including but not limited to: coordination, notification, preparatory work, testing, and all paperwork as specified herein, and no additional allowance will be made therefor.

Temporary Blow-off will be paid for at the contract unit price per **each** (EA), which price will include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all work involved in temporary blow installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness;

pipe; fittings as required; valve box; trench plates as needed; temporary trench paving; as specified herein, and no additional allowance will be made therefor.

Water Main Tie-in will be paid for at the contract price **each** (EA), which price shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and doing all the work involved in water main tie-in installation, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; dewatering and disposal of trench groundwater; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings, including tee, ell, reducers and couplings, *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; partial water main lowering at tie-in locations; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; temporary trench paving; as specified herein, and no additional allowance will be made therefor.

Work under water main tie-ins excludes that portion of pipe paid for as under the Water Laterals 4-inch and larger pay item.

Abandon or Remove Existing Water System Components shall be paid for at the contract **lump sum** (LS) price, including furnishing all labor, materials, tools and equipment, incidentals, and doing all work involved in abandoning and/or removal of water system components, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; dewatering and disposal of trench groundwater; contamination awareness; abandonment and/or removal and disposal of old sections of main and fittings; abandonment of pipe ends 2-inch and larger; removal and/or abandonment of valves; removal of old tees and installing like size ductile iron pipe with couplers when water main is to remain active; removal of valve boxes and risers; removal of thrust blocks; removal and disposal of abandoned blow offs and appurtenances; abandoning unused or replaced water services on existing main; removing and disposing of meter boxes and lids, valves, saddles, curb stops and installing a full circle clamp; installing blind flanges *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation and fencing *as needed*; as specified herein, and no additional allowance will be made therefor.

Trench Bracing and Shoring-Water will be paid for at the contract **lump sum** (LS) price, which price will include full compensation for furnishing all labor, materials, tools, equipment, incidentals, Trench Bracing and Shoring Plan and any other work involved in trench bracing and shoring, as specified herein, and no additional allowance will be made therefor.

**APPROVED LIST OF BACKFLOW CONTRACTORS
INSTALLATION, TESTING & REPAIR**

<p>ALL OUT PLUMBERS/C. CROSS P.O. BOX 599 CLOVERDALE, CA 95425 PHONE: (707) 894-8434 LICENSE #: 812540</p>	<p>ALL PRO BACKFLOW/J.LOTITO P.O. BOX 2193 FOLSOM, CA 95763 PHONE: (916) 276-7162 LICENSE #: 934557</p>	<p>APB BACKFLOW, INC. 1599 FELTA RIDGE ROAD HEALDSBURG, CA 95448 PHONE: (888) 356-7761 LICENSE: 1032328</p>
<p>BRODERICK GENERAL ENG. 21750 8TH ST., EAST, SUITE B SONOMA, CA 95476 PHONE: (707) 996-7809 LICENSE #: 750809</p>	<p>CAGWIN & DORWARD P.O. BOX 1600 NOVATO, CA 94948-1600 PHONE: (800) 891-7710 LICENSE #: 202399</p>	<p>CHECKRITE BACKFLOW SERV. 3618 CHANATE RD. SANTA ROSA, CA 95404 PHONE: (707) 575-5296 LICENSE #: 836022</p>
<p>DEVOTO PLUMBING* 1345 TRIPLE OAK WAY FULTON, CA 95439 PHONE: (707) 545-0734 LICENSE #: 824608</p>	<p>ECONOMY PLUMBING 1058 N. DUTTON AVE. SANTA ROSA, CA 95401 PHONE: (707) 545-4455 LICENSE #: 748220</p>	<p>GAC COMPANY P.O. BOX 5511 SANTA ROSA, CA 95402 PHONE: (707) 538-8000 LICENSE #: 927846</p>
<p>GROUND HOG CONSTRUCTION 5353 HESSEL RD. SEBASTOPOL, CA 95472 PHONE: (707) 529-2085 LICENSE #: 723766</p>	<p>JV PLUMBING & BACKFLOW* 2911 MONTECITO AVE. SANTA ROSA, CA 95404 PHONE: (707) 799-2692 LICENSE #: 955698</p>	<p>MAPLES PLUMBING & HEATING 280 CASTRO COURT #407 SANTA ROSA, CA 95407 PHONE: (707) 585-9979 LICENSE #: 1048751</p>
<p>NORTHBAY BACKFLOW P.O. BOX 2765 PETALUMA, CA 94953 PHONE: (707) 484-3949 LICENSE #: 878332</p>	<p>NORTHWOOD BACKFLOW 2261 ATHENS AVE. REDDING, CA 96001 PHONE: (800) 750-4547 LICENSE #: 749187</p>	<p>ONGARO AND SONS PLUMBING 2995 DUTTON AVE. SANTA ROSA, CA 95407 PHONE: (707) 579-3511 LICENSE #: 215233</p>
<p>PACIFIC PLUMBING & FIRE PROT 2360 MENDOCINO AVE., A2-289 SANTA ROSA, CA 95403 PHONE: (707) 486-4054 LICENSE #: 1018110</p>	<p>PUMPMAN NORCAL 4000 S. MOORLAND AVE. SANTA ROSA, CA 95407 PHONE: (707) 584-9191 LICENSE: 200068</p>	<p>RH & SONS WATER SERVICES 225 GOLDEN RIDGE AVE. SEBASTOPOL, CA 95472 PHONE: (800) 675-3569 LICENSE #: 698774</p>
<p>ROBERTS MECHANICAL ELECTRICAL, INC. 39 LARK CENTER DR. SANTA ROSA, CA 95403 PHONE: (707) 584-5880 LICENSE #: 556014</p>	<p>ROBERTSON'S BACKFLOW 3170 DEEP HAVEN RD. POLLACK PINES, CA 95726 PHONE: (530) 306-1056 LICENSE #: 972547</p>	<p>SCOTT CRAMER PLUMBING P.O. BOX 750084 PETALUMA, CA 94975 PHONE: (707) 778-8789 LICENSE #: 889152</p>
<p>STEAD BACKFLOW PREVENTION 2715 W. KETTLEMAN LN., #203-321 LODI, CA 95242 PHONE: (209) 327-3900 LICENSE #: 848490</p>	<p>SUPER SERVICE PLUMBING P.O. BOX 11157 SANTA ROSA, CA 95406 PHONE: (707) 544-6444 LICENSE #: 651401</p>	<p>VALLEY COMFORT HEAT & AIR 1813 FERDINAND COURT SANTA ROSA, CA 95404 PHONE: (707) 523-1244 LICENSE #: 376838</p>

NOTE: These contractors have a C-16 or C-36 State Contractor's License or an A-General Engineering License. They are licensed and certified to test, repair, and install any type of backflow device. They are also licensed to work on fire protection backflow devices or fire protection systems. When installing a backflow device, a City Plumbing Permit is required, and if working in the City right-of-way, an Encroachment Permit is needed. All testers are required to have a City Business License.

**Spanish speaking*

(Updated List Only:1/9/2023)

BID FORMS

CITY OF SANTA ROSA

STATE OF CALIFORNIA

SONOMA AVE PAVEMENT REHABILITATION - E ST TO BOBELAINE DR

The work to be performed and referred to herein is in the City of Santa Rosa, California and consists of improvements to be constructed in accordance with the provisions of the Invitation for Bids, containing the Notice to Bidders, the Special Provisions, the Project Plan(s), the Bid Forms and the Contract, all of which are by reference incorporated herein, and each Addendum, if any is issued, to any of the above which is also incorporated by reference herein.

TO THE AWARD AUTHORITY OF THE CITY OF SANTA ROSA

The undersigned, as bidder, declares that the only person or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any other person, firm, or corporation; that Contractor has carefully examined the Project Plans, Invitation for Bids and conditions therefor, and is familiar with all bid requirements, that Contractor has examined this Contract and the provisions incorporated by reference herein, and Contractor hereby proposes, and agrees that if its bid is accepted by the City, Contractor will provide all necessary machinery, tools, apparatuses, and other means of construction, and to do all the work and furnish all the materials and services required to complete the construction in accordance with the Contract, the Special Provisions, the Project Plan(s), and Addenda to any of the above as incorporated by reference, in the time stated herein, for the unit prices and/or lump sum prices as follows:

NAME OF BIDDER: _____

Contract #: C02262

Project Title: SONOMA AVE PAVEMENT REHABILITATION – E ST TO BOBELAINE DR

Item No.	Description	Quantity	Units	Unit Price	Total Price
1	TRAFFIC CONTROL	1	LS	\$ _____	\$ _____
2	WATER POLLUTION CONTROL	1	LS	\$ _____	\$ _____
3	LOWER MANHOLE FRAME AND COVER	27	EA	\$ _____	\$ _____
4	LOWER VALVE BOX OR MONUMENT BOX	87	EA	\$ _____	\$ _____
5	ADJUST MANHOLE FRAME AND COVER	27	EA	\$ _____	\$ _____
6	ADJUST VALVE BOX OR MONUMENT BOX	87	EA	\$ _____	\$ _____
7	RELOCATE TRAFFIC SIGNAL PULL BOX AT CURB RAMP	7	EA	\$ _____	\$ _____
8	ADJUST ELECTRICAL UTILITY VAULT TO GRADE AT CURB RAMP	3	EA	\$ _____	\$ _____
9	ADJUST TELECOM UTILITY VAULT TO GRADE AT CURB RAMP	7	EA	\$ _____	\$ _____
10	RELOCATE CABLE TV VAULT AT CURB RAMP	1	EA	\$ _____	\$ _____
11	UTILITY CLEARANCES	1	LS	\$ _____	\$ _____
12	GLASGRID PAVEMENT REINFORCEMENT	26381	SY	\$ _____	\$ _____
13	HOT MIX ASPHALT SURFACE OR LEVELLING COURSE (3 INCH DEPTH)	6176	TON	\$ _____	\$ _____
14	HOT MIX ASPHALT BASE COURSE (3 INCH DEPTH)	2064	TON	\$ _____	\$ _____
15	COLD MILL ASPHALT PAVEMENT (3 INCH DEPTH)	11122	SY	\$ _____	\$ _____
16	LONGITUDINAL CONFORM GRIND (6 FEET WIDE)	50966	SF	\$ _____	\$ _____
17	CONFORM GRIND (BEGIN AND END & SIDE STREETS)	24724	SF	\$ _____	\$ _____
18	PCC PAVEMENT (8-INCH DEPTH)	507	SF	\$ _____	\$ _____
19	PCC DRIVEWAY	115	SF	\$ _____	\$ _____
20	PCC CURB AND GUTTER	205	LF	\$ _____	\$ _____
21	PCC VALLEY GUTTER	1726	SF	\$ _____	\$ _____
22	PCC CURB RAMP	9354	SF	\$ _____	\$ _____
23	SALVAGE AND RELOCATE STREET SIGN AND POST	12	EA	\$ _____	\$ _____

Item No.	Description	Quantity	Units	Unit Price	Total Price
24	SALVAGE AND RELOCATE SIGN	1	EA	\$ _____	\$ _____
25	REMOVE SIGN AND POST	1	EA	\$ _____	\$ _____
26	REMOVE SIGN	2	EA	\$ _____	\$ _____
27	INSTALL SIGN ON EXISTING POST	3	EA	\$ _____	\$ _____
28	INSTALL SIGN AND POST	1	EA	\$ _____	\$ _____
29	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 4	37	LF	\$ _____	\$ _____
30	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 9	279	LF	\$ _____	\$ _____
31	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 10	37	LF	\$ _____	\$ _____
32	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 22	521	LF	\$ _____	\$ _____
33	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 27C	28	LF	\$ _____	\$ _____
34	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 32	4988	LF	\$ _____	\$ _____
35	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 38	447	LF	\$ _____	\$ _____
36	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 39	1699	LF	\$ _____	\$ _____
37	THERMOPLASTIC TRAFFIC STRIPE - DETAIL 39A	425	LF	\$ _____	\$ _____
38	THERMOPLASTIC TRAFFIC STRIPE - 4" WHITE	6091	LF	\$ _____	\$ _____
39	THERMOPLASTIC TRAFFIC STRIPE - 6" WHITE WITH TYPE G REFLECTORS	100	LF	\$ _____	\$ _____
40	BICYCLE BUFFER - PARKING PERMITTED	4524	LF	\$ _____	\$ _____
41	BICYCLE BUFFER - NO PARKING	315	LF	\$ _____	\$ _____
42	BICYCLE BUFFER - INTERSECTION LINE	1145	LF	\$ _____	\$ _____
43	THERMOPLASTIC LIMIT LINE	158	LF	\$ _____	\$ _____
44	THERMOPLASTIC BASIC CROSSWALK (WHITE OR YELLOW)	1396	LF	\$ _____	\$ _____
45	THERMOPLASTIC CONTINENTAL CROSSWALK (WHITE OR YELLOW)	250	LF	\$ _____	\$ _____
46	THERMOPLASTIC PAVEMENT MARKINGS	1904	SF	\$ _____	\$ _____
47	FIRE HYDRANT BLUE MARKER GREEN PREFORMED	10	EA	\$ _____	\$ _____
48	THERMOPLASTIC BIKE LANE MARKING	432	SF	\$ _____	\$ _____
49	RED, YELLOW OR WHITE CURB PAINT	542	LF	\$ _____	\$ _____

Item No.	Description	Quantity	Units	Unit Price	Total Price
50	TRAFFIC SIGNAL DETECTOR LOOPS (TYPE A)	38	EA	\$ _____	\$ _____
51	TRAFFIC SIGNAL DETECTOR LOOPS (TYPE D)	11	EA	\$ _____	\$ _____
52	TRAFFIC SIGNAL DETECTOR LOOPS (MODIFIED TYPE D FOR BIKE LANE)	5	EA	\$ _____	\$ _____
53	TRAFFIC SIGNAL MODIFICATION (SOUTH E STREET)	1	LS	\$ _____	\$ _____
54	TRAFFIC SIGNAL MODIFICATION (BROOKWOOD AVENUE)	1	LS	\$ _____	\$ _____
55	TRAFFIC SIGNAL MODIFICATION (SCHOOL CROSSING)	1	LS	\$ _____	\$ _____
56	TRAFFIC SIGNAL INTERCONNECT SYSTEM	1	LS	\$ _____	\$ _____
57	4" WATER SERVICE LATERAL	19	LF	\$ _____	\$ _____
58	6" WATER SERVICE LATERAL	63	LF	\$ _____	\$ _____
59	8" WATER SERVICE LATERAL	52	LF	\$ _____	\$ _____
60	1" SINGLE WATER SERVICE	58	EA	\$ _____	\$ _____
61	1-1/2" DUAL WATER SERVICE	6	EA	\$ _____	\$ _____
62	1-1/2" WATER SERVICE	5	EA	\$ _____	\$ _____
63	2" WATER SERVICE	4	EA	\$ _____	\$ _____
64	2" WATER SERVICE (LATERAL & VALVE ONLY)	1	EA	\$ _____	\$ _____
65	3" WATER SERVICE (LATERAL & VALVE ONLY)	1	EA	\$ _____	\$ _____
66	4" GATE VALVE	1	EA	\$ _____	\$ _____
67	6" GATE VALVE	3	EA	\$ _____	\$ _____
68	8" GATE VALVE	2	EA	\$ _____	\$ _____
69	REPLACE SERVICE SADDLE AT MAIN	3	EA	\$ _____	\$ _____
70	12" DUCTILE IRON PIPE WATER MAIN	34	LF	\$ _____	\$ _____
71	BACKFLOW DEVICE RE-CERTIFICATION	19	EA	\$ _____	\$ _____
72	TEMPORARY BLOW-OFF	7	EA	\$ _____	\$ _____
73	WATER MAIN TIE-IN	11	EA	\$ _____	\$ _____
74	ABANDON OR REMOVE EXISTING WATER SYSTEM COMPONENTS	1	LS	\$ _____	\$ _____
75	TRENCH BRACING AND SHORING	1	LS	\$ _____	\$ _____

In the case of any discrepancy between the unit price and the total set forth for the item, the unit price shall prevail; provided, however, that if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any reason, or is omitted, or in the case of lump sum items, is not the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for the item shall prevail in accordance with the following:

1. As to lump sum items, the amount set forth in the "Total" column shall be the unit price;
2. As to unit basis items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price.

The Total Base Bid shall be the sum of the "Total" column. In case of discrepancy between the sum of the "Total" column and the amount entered as Total Base Bid, the sum of the "Total" column shall prevail. The bid comparison will be based on the sum of the "Total" column for each bidder.

If this Contract Bid is accepted by the City and the undersigned fails to execute the Contract and to give all the bonds required under the Contract, with a surety satisfactory to the Award Authority of the City of Santa Rosa, within ten calendar days after bidder has received the Notice of Award from the Engineer, then the Award Authority may, at its option, determine that the bidder has abandoned the Contract, and thereupon this bid and the acceptance thereof shall be null and void, and the forfeiture of the security accompanying this bid shall be in accordance with California Public Contract Code section 20172.

The undersigned understands and agrees that the City is not responsible for any error or omissions on the part of the undersigned in making this bid.

The bidder to whom the Contract is awarded agrees to execute the Contract in favor of the City, in the form attached, and to deliver any and all required bond(s) and insurance certificates within ten calendar days from the date of Contractor's receipt of the Notice of Award. Following the award of the Contract, Contractor shall commence work within ten calendar days from the day authorized in the Notice to Proceed and diligently prosecute the same to completion in accordance with Section 8-1.04.

LIST OF SUBCONTRACTORS

NAME OF BIDDER: _____

The following is a list of each subcontractor who will perform work or labor or render services to the undersigned for the construction of the project in an amount in excess of ½ of 1% of the total amount of this bid.

The undersigned agrees that any portion of the work in excess of ½ of 1% of the total amount of this bid and for which no subcontractor is designated herein will be performed by the undersigned.

SUBCONTRACTOR NAME	SUBCONTRACTOR LICENSE NUMBER	SUBCONTRACTOR DIR REGISTRATION NUMBER	SUBCONTRACTOR BUSINESS ADDRESS	DESCRIPTION OF WORK (ITEM NO.)

NONCOLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid. The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

NOTE: The above Noncollusion Declaration is part of the Contract Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Noncollusion Declaration.

BID BOND AFFIDAVIT AND BIDDER'S SIGNATURE PAGE

Accompanying this bid is a guaranty in the form of (Notice: Insert the words "cash \$," "Cashier's Check," "Certified Check," or "Bidder's Bond" as the case may be):

_____ in an amount equal to at least ten percent of the total of this bid.

The undersigned further agrees that if Contractor does not execute the Contract and deliver the necessary bonds to the City within the period of time specified in this Invitation for Bids, the proceeds of the security accompanying this bid shall become the property of the City of Santa Rosa, California, and this bid and the acceptance thereof may, at the option of the City, be considered null and void.

The undersigned is licensed in accordance with an act providing for the registration of Contractors, License No. _____, Class _____, expiration date _____.

The undersigned is registered with the Department of Industrial Relations, Registration No. _____.

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 of the corporation; if a partnership, state true name of partnership, also the names of all partners in the partnership; if the bidder is a sole proprietor, state the business name and the proprietor's name in full.

Secretary of State Business Entity Number: _____.

Business Address

Telephone Number

I declare under penalty of perjury that the foregoing is true and correct.

BIDDER'S SIGNATURE: _____

TITLE: _____

DATE: _____

CONTRACT

CITY OF SANTA ROSA

CALIFORNIA

CONTRACT NO. C02262

SONOMA AVE PAVEMENT REHABILITATION - E ST TO BOBELAINE DR

This Contract is made and entered into as of date to be added upon award at Santa Rosa, California, between the City of Santa Rosa ("City") and _____ of _____ ("Contractor").

ARTICLE I - For and in consideration of the payment and agreement hereinafter mentioned, to be made and performed by City, and under the conditions expressed in the required bonds hereunto annexed, Contractor agrees that for the benefit of City, at its own cost and expense, to do all the work and furnish all the materials, except such as are mentioned in the Special Provisions to be furnished by City, necessary to construct and complete the work herein described in a good, workmanlike, and substantial manner. The work embraced herein shall be done in accordance with the Standard Specifications of the State of California Department of Transportation, dated 2010, insofar as the same may apply (Standard Specifications); in accordance with the City of Santa Rosa Construction Specifications for Public Improvements (City Specifications); in accordance with the City of Santa Rosa Design and Construction Standards, (City Standards); in accordance with the State of California Department of Transportation Standard Plans, dated 2010 (Standard Plans), (collectively, "Contract Documents") and in accordance with the Special Provisions hereinabove set forth, all of which are hereby incorporated into and made part of this Contract.

The work to be performed is further shown upon a plan consisting of 31 sheets entitled, Sonoma Ave Pavement Rehabilitation - E St to Bobelaine Dr, File Number 2023-0012, approved by the Deputy Director of Transportation and Public Works, hereinafter referred to as the Project Plan(s).

ARTICLE II - Contractor agrees to receive and accept the following prices as full compensation for furnishing all materials and doing all the work contemplated and embraced in this Contract; also for all loss or damages arising out of the nature of the work aforesaid, or from the acts of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by City and for all expenses incurred by or in consequence of the suspension or discontinuance of work, and for well and faithfully completing the work, and the whole thereof in the manner and according to the Project Plans and Invitation for Bids therefor, and the requirements of the Engineer under them to wit:

ITEM NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
			\$ _____	\$ _____
TOTAL BASE BID (SUM OF "TOTAL" COLUMN)			\$ _____	

**BID ITEMS IN THIS SECTION WILL BE INSERTED
UPON AWARD OF THE CONTRACT AND SHALL BE
THE SAME AS THOSE BID UPON.**

ARTICLE III - City and Contractor hereby promise and agree that Contractor shall provide the materials and do the work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and City hereby agrees to pay for the same at the time, in the manner, and upon the conditions set forth; and the parties for themselves, their heirs, executors, administrators, successors, and assigns, do hereby agree to full performance of the covenants herein stated.

ARTICLE IV - By execution of this Contract, Contractor hereby represents and certifies that Contractor is aware of the provisions of Labor Code section 3700 which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor hereby agrees to comply with such provisions before commencing the performance of the work of this Contract.

ARTICLE V - It is further expressly agreed by and between the parties hereto that the Invitation for Bids, containing the Notice to Bidders including any required Bonds, the Contract Documents, and any Addenda are all essential parts of this Contract and are specially referred to and by such reference made a part hereof. In the event of any conflict in the provisions thereof, the terms of said documents shall control each over the other, in the following order:

1. Special Provisions
2. Project Plans
3. City Standards
4. City Specifications
5. Standard Specifications
6. Standard Plans

ARTICLE VI - Contractor agrees to commence work pursuant to this Contract within ten calendar days from the date authorized in the Notice to Proceed and to diligently prosecute the same to completion in accordance with Section 8-1.04C of the Special Provisions.

This Contract shall not be transferred or assigned without the prior written consent of City, which may be withheld by City in its sole and absolute discretion.

If Contractor is a corporation, two corporate officers of Contractor, one from each of the following two groups shall execute this Contract: a) the chairman of the board, president or any vice-president; b) the secretary, any assistant secretary, chief financial officer, or any assistant treasurer. The name and title of the corporate officers shall be printed under the signature.

In witness whereof, the parties hereto have executed this Contract as of the date first written above.

City:

City of Santa Rosa,
a Municipal corporation

By: _____

Title: _____

ATTEST:

By: _____

Title: _____

Approved as to form:

By: _____

Office of City Attorney

Contractor:

Name of Contractor,
Type of entity

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____