

BID
FOR
PAVEMENT MANAGEMENT 2026 PROJECT
CIP 000017 AND CIP 000019

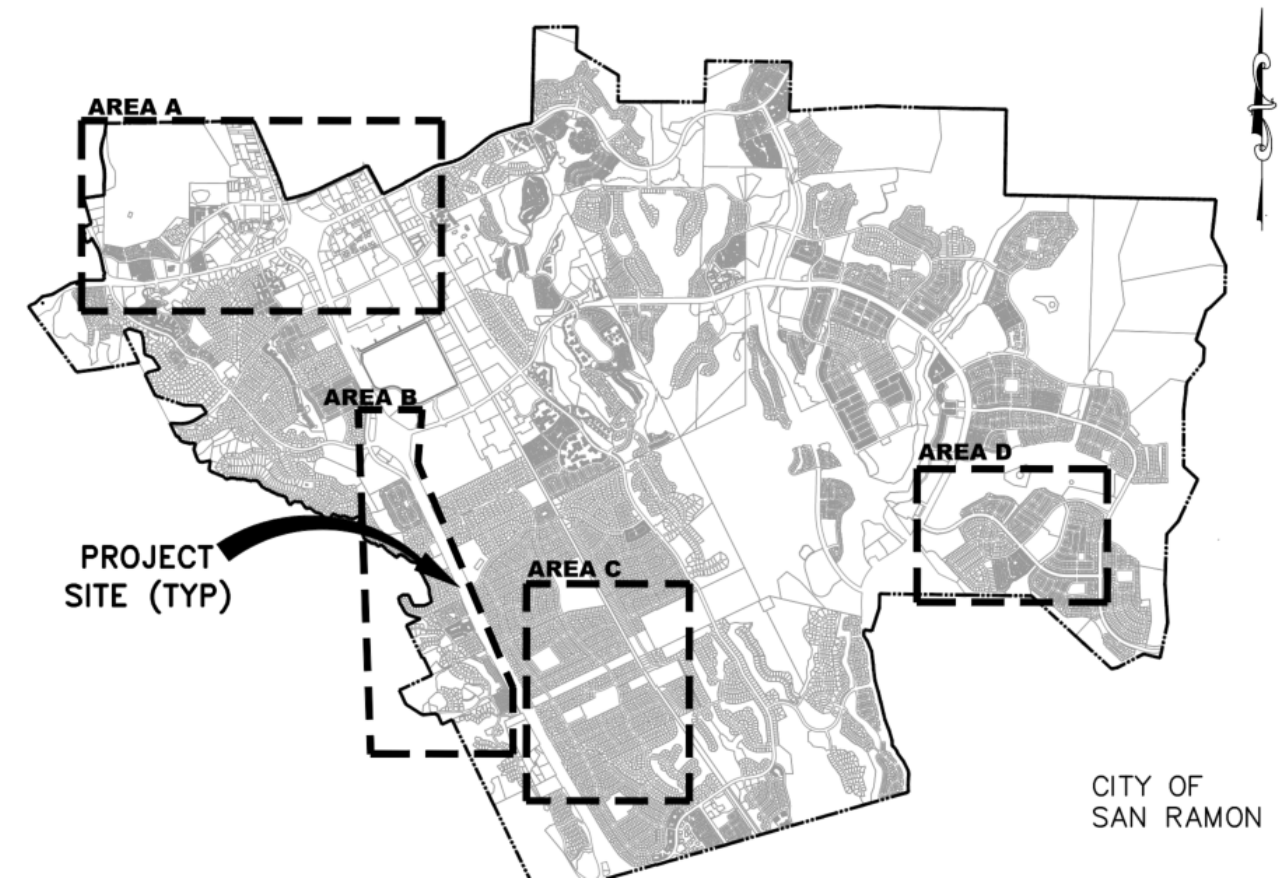


CITY OF SAN RAMON
PUBLIC WORKS DEPARTMENT

7000 Bollinger Canyon Road
San Ramon, California 94583
(925) 973-2670

A handwritten signature in black ink, appearing to read "Brian Bornstein", written over a horizontal line.

Brian Bornstein, P.E.
Public Works Director



LOCATION MAP

City of San Ramon

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Notice Inviting Bids

1. **Bid Submission.** The City of San Ramon ("City") will accept sealed bids for its **Pavement Management 2026 Project** ("Project"), by or before July 15, 2026, at 2:00 p.m., at City of San Ramon City Hall, located at 7000 Bollinger Canyon Road, San Ramon, California, at which time the bids will be publicly opened and read aloud.
2. **Project Information.**
 - 2.1 **Location and Description.** The Project is located in various neighborhoods and a park parking lot, as shown on the Project plans, and is described as follows:

The work includes, but is not limited to, the following: demolition, and reconstruction of approximately 39 curb ramps to meet current Americans with Disabilities Act (ADA) and City requirements; miscellaneous concrete repairs of sidewalks, curbs, gutters, valley gutters, median curbs, driveways, and similar items; mill and fill pavement treatment; localized pavement repairs; adjusting and raising of utility covers and manholes; adjusting and raising of survey monuments frame and cover; pavement striping, markings, and markers; signal detector loops; construction signage.
 - 2.2 **Time for Final Completion.** The Project must be fully completed within 70 working days from the start date set forth in the Notice to Proceed. City anticipates that the Work will begin on or about September 8, 2026, but the anticipated start date is provided solely for convenience and is neither certain nor binding.
3. **License and Registration Requirements.**
 - 3.1 **License.** This Project requires a valid California contractor's license for the following classification(s): A) General Engineering Contractor.
 - 3.2 **DIR Registration.** City may not accept a Bid Proposal from or enter into the Contract with a bidder, without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work pursuant to Labor Code § 1725.5, subject to limited legal exceptions.
4. **Contract Documents.** The plans, specifications, bid forms, and contract documents for the Project, and any addenda thereto ("Contract Documents") may be downloaded from City's website located at: www.sanramon.ca.gov/our_city/bids_rfp. A printed copy of the Contract Documents is not available.
5. **Bid Security.** The Bid Proposal must be accompanied by bid security of ten (10) percent of the maximum bid amount, in the form of a cashier's or certified check made payable to City, or a bid bond executed by a surety licensed to do business in the State of California on the Bid Bond form included with the Contract Documents. The bid security must guarantee that within ten (10) days after City issues the Notice of Potential Award, the successful bidder will submit the payment and performance bonds, insurance certificates and endorsements, valid Certificates of Reported Compliance as required under the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.) ("Off-Road Regulation"), if applicable, and any other submittals required by the Contract Documents and as specified in the Notice of Potential Award.
6. **Prevailing Wage Requirements.**
 - 6.1 **General.** Pursuant to California Labor Code § 1720 et seq., this Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed

for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes.

- 6.2 Rates.** The prevailing rates are on file with the City and are available online at www.dir.ca.gov/OPRL/DPreWageDetermination.htm. Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work must be at least time and one-half.
- 6.3 Compliance.** The Contract will be subject to compliance monitoring and enforcement by the DIR, under Labor Code § 1771.4.
- 7. Performance and Payment Bonds.** The successful bidder will be required to provide performance and payment bonds, each for 100% of the Contract Price, as further specified in the Contract Documents.
- 8. Substitution of Securities.** Substitution of appropriate securities in lieu of retention amounts from progress payments is permitted under Public Contract Code § 22300.
- 9. Subcontractor List.** Each Subcontractor must be registered with the DIR to perform work on public projects. Each bidder must submit a completed Subcontractor List form with its Bid Proposal, including the name, location of the place of business, California contractor license number, DIR registration number, and percentage of the Work to be performed (based on the base bid price) for each Subcontractor that will perform Work or service or fabricate or install Work for the prime contractor in excess of one-half of 1% of the bid price, using the Subcontractor List form included with the Contract Documents.
- 10. Instructions to Bidders.** All bidders should carefully review the Instructions to Bidders for more detailed information before submitting a Bid Proposal. The definitions provided in Article 1 of the General Conditions apply to all of the Contract Documents, as defined therein, including this Notice Inviting Bids.

By: 
Brian Bornstein, PE, Public Works Director

Date: 6-16-26

Publication Date: < June 16, 2026 >

END OF NOTICE INVITING BIDS

Instructions to Bidders

Each Bid Proposal submitted to the City of San Ramon ("City") for its **Pavement Management 2026 Project** ("Project") must be submitted in accordance with the following instructions and requirements:

1. Bid Submission.

1.1 General. Each Bid Proposal must be completed, using the form provided in the Contract Documents, signed, and submitted to City in a sealed envelope, with all required forms and attachments, by or before the date and time set forth in Section 1 of the Notice Inviting Bids, or as amended by subsequent addendum. Faxed or emailed Bid Proposals will not be accepted, unless otherwise specified. Late submissions will be returned unopened. City reserves the right to postpone the date or time for receiving or opening bids. Each bidder is solely responsible for all of its costs to prepare and submit its bid and by submitting a bid waives any right to recover those costs from City. The bid price(s) must include all costs to perform the Work as specified, including all labor, materials, supplies, and equipment and all other direct or indirect costs such as applicable taxes, insurance and overhead.

1.2 Bid Envelope. The sealed envelope containing the Bid Proposal and all required forms and attachments must be clearly labeled and addressed as follows:

BID PROPOSAL:

Pavement Management 2026 Project
Project No. CIP 000017 and CIP 000019

San Ramon City Hall
7000 Bollinger Canyon Road
San Ramon, CA 94583
Attn: City Clerk

The envelope must also be clearly labeled, as follows, with the bidder's name, address, and its registration number with the California Department of Industrial Relations ("DIR") for bidding on public works contracts (Labor Code §§ 1725.5 and 1771.1):

[Contractor company name]

[street address]

[city, state, zip code]

DIR Registration No: _____

1.3 DIR Registration. Subject to limited legal exceptions for joint venture bids and federally-funded projects, City may not accept a Bid Proposal from a bidder without proof that the bidder is registered with the DIR to perform public work under Labor Code § 1725.5. If City is unable to confirm that the bidder is currently registered with the DIR, City may disqualify the bidder and return its bid unopened. (Labor Code §§ 1725.5 and 1771.1(a).)

2. Bid Proposal Form and Enclosures. Each Bid Proposal must be completed in ink using the Bid Proposal form included with the Contract Documents. The Bid Proposal form must be fully completed without interlineations, alterations, or erasures. Any necessary corrections must be clear and legible, and must be initialed by the bidder's authorized representative. A Bid Proposal submitted with exceptions or terms such as "negotiable," "will negotiate," or similar, will be considered nonresponsive. Each Bid Proposal must be accompanied by bid security, as set forth in Section 4 below, and by a completed Subcontractor List and Non-Collusion Declaration using the forms included with the Contract Documents, and any other required enclosures, as applicable.

3. Authorization and Execution. Each Bid Proposal must be signed by the bidder's authorized representative. A Bid Proposal submitted by a partnership must be signed in the partnership name

by a general partner with authority to bind the partnership. A Bid Proposal submitted by a corporation must be signed with the legal name of the corporation, followed by the signature and title of two officers of the corporation with full authority to bind the corporation to the terms of the Bid Proposal, under California Corporations Code § 313.

4. **Bid Security.** Each Bid Proposal must be accompanied by bid security of ten (10) percent of the maximum bid amount, in the form of a cashier's check or certified check, made payable to the City, or bid bond using the form included in the Contract Documents and executed by a surety licensed to do business in the State of California. The bid security must guarantee that, within ten (10) days after issuance of the Notice of Potential Award, the bidder will: execute and submit the enclosed Contract for the bid price; submit payment and performance bonds for 100% of the maximum Contract Price; submit the insurance certificates and endorsements; and submit valid Certificates of Reported Compliance as required by the Off-Road Regulation, if applicable, and any other submittals, if any, required by the Contract Documents or the Notice of Potential Award. A Bid Proposal may not be withdrawn for a period of 60 days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code § 5100 et seq.
5. **Requests for Information.** Questions or requests for clarifications regarding the Project, the bid procedures, or any of the Contract Documents must be submitted in writing to Suzy Edwards, Associate Engineer, at sedwards@sanramon.ca.gov. Oral responses are not authorized and are not binding on the City. Bidders should submit any such written inquiries at least five (5) Working Days before the scheduled bid opening. Questions received any later might not be addressed before the bid deadline. An interpretation or clarification by City in response to a written inquiry will be issued in an addendum.
6. **Pre-Bid Investigation.**
 - 6.1 **General.** Each bidder is solely responsible at its sole expense for diligent and thorough review of the Contract Documents, examination of the Project site, and reasonable and prudent inquiry concerning known and potential site and area conditions prior to submitting a Bid Proposal. Each bidder is responsible for knowledge of conditions and requirements which reasonable review and investigation would have disclosed. However, except for any areas that are open to the public at large, bidders may not enter property owned or leased by the City or the Project site without prior written authorization from City.
 - 6.2 **Document Review.** Each bidder is responsible for review of the Contract Documents and any informational documents provided "For Reference Only," e.g., as-builts, technical reports, test data, and the like. A bidder is responsible for notifying City of any errors, omissions, inconsistencies, or conflicts it discovers in the Contract Documents, acting solely in its capacity as a contractor and subject to the limitations of Public Contract Code § 1104. Notification of any such errors, omissions, inconsistencies, or conflicts must be submitted in writing to the City no later than five Working Days before the scheduled bid opening. (See Section 5, above.) City expressly disclaims responsibility for assumptions a bidder might draw from the presence or absence of information provided by City.
 - 6.3 **Project Site.** Questions regarding the availability of soil test data, water table elevations, and the like should be submitted to the City in writing, as specified in Section 5, above. Any subsurface exploration at the Project site must be done at the bidder's expense, but only with prior written authorization from City. All soil data and analyses available for inspection or provided in the Contract Documents apply only to the test hole locations. Any water table elevation indicated by a soil test report existed on the date the test hole was drilled. The bidder is responsible for determining and allowing for any differing soil or water table conditions during construction. Because groundwater levels may fluctuate, difference(s) in elevation between ground water shown in soil boring logs and ground water actually encountered during construction will not be considered changed Project site conditions. Actual locations and depths must be determined by bidder's field investigation. The bidder

may request access to underlying or background information on the Project site in City's possession that is necessary for the bidder to form its own conclusions, including, if available, record drawings or other documents indicating the location of subsurface lines, utilities, or other structures.

- 6.4 Utility Company Standards.** The Project must be completed in a manner that satisfies the standards and requirements of any affected utility companies or agencies (collectively, "utility owners"). The successful bidder may be required by the third party utility owners to provide detailed plans prepared by a California registered civil engineer showing the necessary temporary support of the utilities during coordinated construction work. Bidders are directed to contact the affected third party utility owners about their requirements before submitting a Bid Proposal.
- 7. Bidders Interested in More Than One Bid.** No person, firm, or corporation may submit or be a party to more than one Bid Proposal unless alternate bids are specifically called for. However, a person, firm, or corporation that has submitted a subcontract proposal or quote to a bidder may submit subcontract proposals or quotes to other bidders.
- 8. Addenda.** Subject to the limitations of Public Contract Code § 4104.5, City reserves the right to issue addenda prior to bid time. Any addenda issued prior to the bid opening are part of the Contract Documents. Each bidder is solely responsible for ensuring it has received and reviewed all addenda prior to submitting its bid. Bidders should check City's website periodically for any addenda or updates on the Project at: www.sanramon.ca.gov/our_city/bids_r_f_p.
- 9. Brand Designations and "Or Equal" Substitutions.** Any specification designating a material, product, thing, or service by specific brand or trade name, followed by the words "or equal," is intended only to indicate quality and type of item desired, and bidders may request use of any equal material, product, thing, or service. All data substantiating the proposed substitute as an equal item must be submitted with the written request for substitution. A request for substitution must be submitted within 35 days after Notice of Potential Award unless otherwise provided in the Contract Documents. This provision does not apply to materials, products, things, or services that may lawfully be designated by a specific brand or trade name under Public Contract Code § 3400(c).
- 10. Bid Protest.** Any bid protest against another bidder must be submitted in writing and received by the City Clerk at 7000 Bollinger Canyon Road, San Ramon, CA 94583 or sent via email at Cityclerk@sanramon.ca.gov before 5:00 p.m. no later than two Working Days following bid opening ("Bid Protest Deadline") and must comply with the following requirements:
- 10.1 General.** Only a bidder who has actually submitted a Bid Proposal is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest. For purposes of this Section 10, a "Working Day" means a day that City is open for normal business, and excludes weekends and holidays observed by City. Pursuant to Public Contract Code § 4104, inadvertent omission of a Subcontractor's DIR registration number on the Subcontractor List form is not grounds for a bid protest, provided it is corrected within 24 hours of the bid opening or as otherwise provided under Labor Code § 1771.1(b).
- 10.2 Protest Contents.** The bid protest must contain a complete statement of the basis for the protest and must include all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the *specific* portion or portions of the Contract Documents upon which the protest is based. The protest must include the name, address, email address, and telephone number of the protesting bidder and any person submitting the protest on behalf of or as an authorized representative of the protesting bidder.

- 10.3 Copy to Protested Bidder.** Upon submission of its bid protest to City, the protesting bidder must also concurrently transmit the protest and all supporting documents to the protested bidder, and to any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest, by email or hand delivery to ensure delivery before the Bid Protest Deadline.
- 10.4 Response to Protest.** The protested bidder may submit a written response to the protest, provided the response is received by City before 5:00 p.m., within two Working Days after the Bid Protest Deadline or after actual receipt of the bid protest, whichever is sooner (the "Response Deadline"). The response must attach all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address, email address, and telephone number of the person responding on behalf of or representing the protested bidder if different from the protested bidder.
- 10.5 Copy to Protesting Bidder.** Upon submission of its response to the bid protest to the City, the protested bidder must also concurrently transmit by email or hand delivery, by or before the Response Deadline, a copy of its response and all supporting documents to the protesting bidder and to any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
- 10.6 Exclusive Remedy.** The procedure and time limits set forth in this Section are mandatory and are the bidder's sole and exclusive remedy in the event of a bid protest. A bidder's failure to comply with these procedures will constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.
- 10.7 Right to Award.** City reserves the right, acting in its sole discretion, to reject any bid protest that it determines lacks merit, to award the Contract to the bidder it has determined to be the responsible bidder submitting the lowest responsive bid, and to issue a Notice to Proceed with the Work notwithstanding any pending or continuing challenge to its determination.
- 11. Reservation of Rights.** City reserves the unfettered right, acting in its sole discretion, to waive or to decline to waive any immaterial bid irregularities; to accept or reject any or all bids; to cancel or reschedule the bid; to postpone or abandon the Project entirely; or to perform all or part of the Work with its own forces. The Contract will be awarded, if at all, within 60 days after opening of bids or as otherwise specified in the Special Conditions, to the responsible bidder that submitted the lowest responsive bid. Any planned start date for the Project represents the City's expectations at the time the Notice Inviting Bids was first issued. City is not bound to issue a Notice to Proceed by or before such planned start date, and it reserves the right to issue the Notice to Proceed when the City determines, in its sole discretion, the appropriate time for commencing the Work. The City expressly disclaims responsibility for any assumptions a bidder might draw from the presence or absence of information provided by the City in any form. Each bidder is solely responsible for its costs to prepare and submit a bid, including site investigation costs.
- 12. Bonds.** Within ten calendar days following City's issuance of the Notice of Potential Award to the successful bidder, the bidder must submit payment and performance bonds to City as specified in the Contract Documents using the bond forms included in the Contract Documents. All required bonds must be calculated on the maximum total Contract Price as awarded, including additive alternates, if applicable.
- 13. License(s).** The successful bidder and its Subcontractor(s) must possess the California contractor's license(s) in the classification(s) required by law to perform the Work. The successful bidder must also obtain a City business license within 10 days following City's issuance of the

Notice of Potential Award. Subcontractors must also obtain a City business license before performing any Work.

14. **Ineligible Subcontractor.** Any Subcontractor who is ineligible to perform work on a public works project under Labor Code §§ 1777.1 or 1777.7 is prohibited from performing work on the Project.
15. **Safety Orders.** If the Project includes construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five feet or deeper, each bid must include a bid item for adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life or limb, which comply with safety orders as required by Labor Code § 6707.
16. **In-Use Off-Road Diesel-Fueled Fleets.** If the Project involves the use of vehicles subject to the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.) ("Off-Road Regulation"), then within ten calendar days following City's issuance of the Notice of Potential Award to the successful bidder, the bidder must submit to City valid Certificates of Reported Compliance for its fleet and its listed Subcontractors, if applicable, in accordance with the Off-Road Regulation, unless exempt under the Off-Road Regulation.
17. **Additive and Deductive Alternates.** As required by Public Contract Code § 20103.8, if this bid solicitation includes additive or deductive bid alternate items, the method checked below will be used to determine the lowest bid. If no method is checked, subparagraph (A) will be used to determine the lowest bid. City retains the right to add to or deduct from the Contract any of the additive or deductive bid alternates included in the Bid Proposal, based on the bid price provided for each such alternate. In addition, following award and execution of the Contract, City reserves the right to incorporate one or more of the bid alternates that were not included in the Contract as awarded. Any such post-award addition(s) and/or deduction(s) will be incorporated by Change Order and based on the bid price provided for each such alternate included in the Bid Proposal.
 - 17.1 The lowest bid will be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.
18. **Bid Schedule.** Each bidder must complete the Bid Schedule form with unit prices as indicated and submit the completed Bid Schedule with its Bid Proposal.
 - 18.1 **Incorrect Totals.** In the event a computational error for any bid item (base bid or alternate) results in an incorrect extended total for that item, the submitted base bid or bid alternate total will be adjusted to reflect the corrected amount as the product of the estimated quantity and the unit cost. In the event of a discrepancy between the actual total of the itemized or unit prices shown on the Bid Schedule for the base bid, and the amount entered as the base bid on the Bid Proposal form, the actual total of the itemized or unit prices shown on the Bid Schedule for the base bid will be deemed the base bid price. Likewise, in the event of a discrepancy between the actual total of the itemized or unit prices shown on the Bid Schedule for any bid alternate, and the amount entered for the alternate on the Bid Proposal form, the actual total of the itemized prices shown on the Bid Schedule for that alternate will be deemed the alternate price. Nothing in this provision is intended to prevent a bidder from requesting to withdraw its bid for material error under Public Contract Code § 5100 et seq.
 - 18.2 **Estimated Quantities.** Unless identified as a "Final Pay Quantity," the quantities shown on the Bid Schedule are estimated and the actual quantities required to perform the Work may be greater or less than the estimated amount. The Contract Price will be adjusted to reflect the actual quantities required for the Work based on the itemized or unit prices provided in the Bid Schedule, with no allowance for anticipated profit for quantities that are deleted or decreased, and no increase in the unit price, and without regard to the percentage increase or decrease of the estimated quantity and the actual quantity.

19. **Bidder's Questionnaire.** A completed, signed Bidder's Questionnaire using the form provided with the Contract Documents and including all required attachments must be submitted within 48 hours following a request by City. A bid that does not fully comply with this requirement may be rejected as nonresponsive. A bidder who submits a Bidder's Questionnaire which is subsequently determined to contain false or misleading information, or material omissions, may be disqualified as non-responsible.
20. **For Reference Only.** The following documents are provided "For Reference Only," as defined in Section 3.4 of the General Conditions:

Attachment B "Residential Trash Pickup and Sweeping Schedules"

END OF INSTRUCTIONS TO BIDDERS

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Bid Proposal

Pavement Management 2026 Project

_____ (“Bidder”) hereby submits this Bid Proposal to the City of San Ramon (“City”) for the above-referenced project (“Project”) in response to the Notice Inviting Bids and in accordance with the Contract Documents referenced in the Notice.

1. **Base Bid.** Bidder proposes to perform and fully complete the Work for the Project as specified in the Contract Documents, within the time required for full completion of the Work, including all labor, materials, supplies, and equipment and all other direct or indirect costs including, but not limited to, taxes, insurance and all overhead, for the following price (“Base Bid”):
\$ _____.

2. **Addenda.** Bidder agrees that it has confirmed receipt of or access to, and reviewed, all addenda issued for this bid. Bidder waives any claims it might have against the City based on its failure to receive, access, or review any addenda for any reason. Bidder specifically acknowledges receipt of the following addenda:

Addendum:	Date Received:	Addendum:	Date Received:
#01	_____	#05	_____
#02	_____	#06	_____
#03	_____	#07	_____
#04	_____	#08	_____

3. **Bidder’s Certifications and Warranties.** By signing and submitting this Bid Proposal, Bidder certifies and warrants the following:
- 3.1 **Examination of Contract Documents.** Bidder has thoroughly examined the Contract Documents and represents that, to the best of Bidder’s knowledge, there are no errors, omissions, or discrepancies in the Contract Documents, subject to the limitations of Public Contract Code § 1104.
- 3.2 **Examination of Worksite.** Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.
- 3.3 **Bidder Responsibility.** Bidder is a responsible bidder, with the necessary ability, capacity, experience, skill, qualifications, workforce, equipment, and resources to perform or cause the Work to be performed in accordance with the Contract Documents and within the Contract Time.
- 3.4 **Responsibility for Bid.** Bidder has carefully reviewed this Bid Proposal and is solely responsible for any errors or omissions contained in its completed bid. All statements and information provided in this Bid Proposal and enclosures are true and correct to the best of Bidder’s knowledge.
- 3.5 **Nondiscrimination.** In preparing this bid, the Bidder has not engaged in discrimination against any prospective or present employee or Subcontractor on grounds of race, color, ancestry, national origin, ethnicity, religion, sex, sexual orientation, age, disability, or marital status.
- 3.6 **Iran Contracting Act.** If the Contract Price exceeds \$1,000,000, Bidder is not identified on a list created under the Iran Contracting Act, Public Contract Code § 2200 et seq. (the “Act”), as a person engaging in investment activities in Iran, as defined in the Act, or is otherwise expressly exempt under the Act.

4. **Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that, if City issues the Notice of Potential Award to Bidder, then within ten days following issuance of the Notice of Potential Award to Bidder, Bidder will do all of the following:

4.1 **Execute Contract.** Enter into the Contract with City in accordance with the terms of this Bid Proposal, by signing and submitting to City the Contract prepared by City using the form included with the Contract Documents;

4.2 **Submit Required Bonds.** Submit to City a payment bond and a performance bond, each for 100% of the Contract Price, using the bond forms provided and in accordance with the requirements of the Contract Documents;

4.3 **Insurance Requirements.** Submit to City the insurance certificate(s) and endorsement(s) as required by the Contract Documents; and

4.4 **Certificates of Reported Compliance.** Submit to City valid Certificates of Reported Compliance for its fleet and its listed Subcontractors, if applicable, if the Project involves the use of vehicles subject to the Off-Road Regulation. (See Section 16 of the Instructions to Bidders.)

5. **Bid Security.** As a guarantee that, if awarded the Contract, Bidder will perform its obligations under Section 4 above, Bidder is enclosing bid security in the amount of ten percent of its maximum bid amount in one of the following forms (check one):

_____ A cashier's check or certified check payable to City and issued by
_____ [Bank name] in the amount of
\$_____.

_____ A bid bond, using the Bid Bond form included with the Contract Documents, payable to City and executed by a surety licensed to do business in the State of California.

This Bid Proposal is hereby submitted on _____, 2026.

s/ _____

Name and Title

s/ _____
[See Section 3 of Instructions to Bidders]

Name and Title

Company Name

License #, Expiration Date, and Classification

Address

DIR Registration #

City, State, Zip

Phone

Contact Name

Contact Email

END OF BID PROPOSAL

Bid Schedule

This Bid Schedule must be completed in ink and included with the sealed Bid Proposal. Pricing must be provided for each Bid Item as indicated. Items marked "(SW)" are Specialty Work that must be performed by a qualified Subcontractor. The lump sum or unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead. The sum of all amounts entered in the "Extended Total Amount" column must be identical to the Base Bid price entered in Section 1 of the Bid Proposal form.

EA = Each LF = Linear Foot LS = Lump Sum SF = Square Feet SY = Square Yard
TON = Ton (2000 lbs.)

BID ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUANTITY BID	UNIT COST	EXTENDED TOTAL AMOUNT
1	Mobilization	LS	1	\$	\$
2	Traffic Control System	LS	1	\$	\$
3	Construction Area Signs	EA	36	\$	\$
4	Tree Trimming, and Tree Protection	LS	1	\$	\$
5	Temporary Pavement Delineation	LS	1	\$	\$
6	Cold Planing AC (1.5")	SY	3,509	\$	\$
7	Cold Planing AC (2")	SY	103,745	\$	\$
8	HMA Type A - Inlay	TONS	15,360	\$	\$
9	4-inch Pavement Repairs	SF	166,345	\$	\$
10	Geotextile fabric for Pumping Subgrade	SF	100	\$	\$
11	Adjust Monument Frame to Grade & Preservation	EA	32	\$	\$
12	Adjust & Replace Monument Tri. Frame to Grade & Preservation	EA	4	\$	\$
13	Adjust Sanitary Sewer MH to Grade	EA	60	\$	\$
14	Adjust Storm Drain MH to Grade	EA	29	\$	\$
15	Adjust PGE Gas Valve to Grade	EA	2	\$	\$
16	Adjust PacBell Manhole to Grade	EA	17	\$	\$
17	Adjust Water Valve Frame to Grade	EA	5	\$	\$
18	Adjust Recycled Water Valve Frame to Grade	EA	4	\$	\$
19	Adjust Water Manhole to Grade	EA	5	\$	\$
20	Replace Water Valve Box with New G5	EA	121	\$	\$
21	Striping Detail 2	LF	503	\$	\$

BID ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUANTITY BID	UNIT COST	EXTENDED TOTAL AMOUNT
22	Striping Detail 9	LF	30,049	\$	\$
23	Striping Detail 12	LF	10,141	\$	\$
24	Striping Detail 22	LF	815	\$	\$
25	Striping Detail 22 MOD	LF	15	\$	\$
26	Striping Detail 26 MOD	LF	21,207	\$	\$
27	Striping Detail 27B	LF	420	\$	\$
28	Striping Detail 29	LF	85	\$	\$
29	Striping Detail 37B	LF	497		
30	Striping Detail 38	LF	6,579	\$	\$
31	Striping Detail 38A	LF	25	\$	\$
32	Striping Detail 39	LF	16,560	\$	\$
33	Striping Detail 39A	LF	1,000	\$	\$
34	Striping Detail 40	LF	1,414		
35	White/Yellow Crosswalk Lines (12" Wide)	LF	7,308	\$	\$
36	White Stop Bar/Limit Lines (12" Wide)	LF	247	\$	\$
37	White Hatch Marks (8" Wide)	LF	420	\$	\$
38	Green Conflict Zones	SF	2,040	\$	\$
39	Pavement Markings (Thermo- plastic) – White or Yellow	SF	3,378	\$	\$
40	Pavement Markings (Thermo- plastic) – White or Yellow (Non-Skid)	SF	126	\$	\$
41	Paint Curb (Two Coats)	LF	141	\$	\$
42	Two-way Reflective Blue Pavement Marker	EA	26	\$	\$
43	Replace Loop Detector	EA	139	\$	\$
44	4-inch thick Concrete Sidewalk Replacement (includes construction joints) per City of San Ramon Standard Details C-1, C-8a and C-9. Excludes expansion joints	SF	1950	\$	\$
45	Concrete Curb and Gutter Replacement (monolithic) per City of San Ramon Standard Details C-1, C-8a and C-9	LF	1,860	\$	\$
46	6-inch wide Concrete Retaining Curb (up to 12 inches high) per City of San	LF	740	\$	\$

BID ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUANTITY BID	UNIT COST	EXTENDED TOTAL AMOUNT
	Ramon Standard Details C-1, C-8a and C-9				
47	6-inch wide, 18-inch min. Concrete Median Curb Replacement (Type C-1) per City of San Ramon Standard Details C-2, C-8a and C-9	LF	30	\$	\$
48	6-inch thick Residential Concrete Driveway Replacement (including Concrete Curb & Gutter in front of driveway, flared sides and 6-inch thick sidewalk at the back of driveway) per City of San Ramon Standard Details C-1 to C-9	SF	20	\$	\$
49	Field Modify 6-inch thick Residential Concrete Driveway Replacement (including Concrete Curb & Gutter in front of driveway, flared sides and 6-inch thick sidewalk at the back of driveway, and #4 Rebar @ 18" O.C. each way) per City of San Ramon Standard Details C-1 to C-9 - Field Modify	SF	360	\$	\$
50	8-inch thick Commercial Concrete Driveway Replacement (including Concrete Curb & Gutter in front of driveway, flared sides and 8-inch thick sidewalk at the back of driveway) per City of San Ramon Standard Details C-1 to C-9	SF	70	\$	\$
51	Concrete Curb Ramp, Caltrans A88A Case A - (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp.)	SF	460	\$	\$
52	Concrete Curb Ramp, Caltrans A88A Case B - (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp. Excludes retaining curb – to be paid under Item no. 45)	SF	230	\$	\$

BID ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUANTITY BID	UNIT COST	EXTENDED TOTAL AMOUNT
53	Concrete Curb Ramp, City of San Ramon Standard Detail C-5a – (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp. Excludes retaining curb – to be paid under Item no. 45)	SF	4,640	\$	\$
54	Concrete Curb Ramp, Caltrans A88A Case D (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp.)	SF	230	\$	\$
55	Concrete Curb Ramp, Caltrans A88B Case CH (including cast-in-place detectable warning tile, flared side, landing area, curb and gutter in front of flared side and ramp. Excludes retaining curb – to be paid under Item no. 45)	SF	160	\$	\$
56	Concrete Curb Ramp, Caltrans A88B Case CM (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp. Excludes retaining curb – to be paid under Item no. 45)	SF	160	\$	\$
57	Concrete Curb Ramp, Caltrans A88B Type C Passageway (Including cast-in-place detectable warning tiles, passage way, curb and gutter, surface of raised island)	SF	370	\$	\$
58	24-inch wide, 2-inch thick Asphalt Pavement to conform Gutter Replacement per City of San Ramon Standard Details C-1, C-2 and C-9	SF	3,120	\$	\$
59	8-inch thick Concrete Valley Gutter Replacement per City of San Ramon Standard Details C-6 and C-9 (Includes temporary traffic rated	SF	1,080	\$	\$

BID ITEM NO.	ITEM DESCRIPTION	UNIT	EST. QUANTITY BID	UNIT COST	EXTENDED TOTAL AMOUNT
	recessed skid resistant trench plates)				
60	3-inch diameter Schedule 40 PVC Cross Drain Installation per San Ramon Standard Detail SD-14	LF	6	\$	\$
61	Tree Root Removal	EA	2	\$	\$
62	Expansion joints per City of San Ramon Standard Details C-8b and as directed per City Inspector or Project Manager	LF	5	\$	\$
63	Curb Inlet Repair per City Standard Details SD-1a, SD- 1b, and SD-3a "Type A Inlet"	EA	1	\$	\$
64	Remove (Salvage) and Reinstall Existing Signage	EA	1	\$	\$

* Final Pay Quantity

TOTAL BASE BID: Items 1 through 64 inclusive: \$_____

Note: The amount entered as the "Total Base Bid" should be identical to the Base Bid amount entered in Section 1 of the Bid Proposal form.

BIDDER NAME: _____

END OF BID SCHEDULE

Subcontractor List

For each Subcontractor that will perform a portion of the Work in an amount in excess of one-half of 1% of the Bidder's total Base Bid,¹ the bidder must list a description of the Work, the name of the Subcontractor, its California contractor license number, the location of its place of business, its DIR registration number, and the Instructions to Bidders include a provision on "portion of the Work that the Subcontractor Work Limits," the bidder must also list the percentage of Work to be performed by the Subcontractor (is performing based on a percentage of the Base Bid price) in the "Percent of Work" column. .

DESCRIPTION OF WORK	SUBCONTRACTOR NAME	CALIFORNIA CONTRACTOR LICENSE NO.	LOCATION OF BUSINESS	DIR REG. NO.	PERCENT OF WORK

END OF SUBCONTRACTOR LIST

¹ For street or highway construction, this requirement applies to any subcontract of \$10,000 or more.

Noncollusion Declaration

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ [title] of _____ [business name], 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.

This declaration is intended to comply with California Public Contract Code § 7106 and Title 23 U.S.C § 112.

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].

s/ _____

Name [print]

END OF NONCOLLUSION DECLARATION

Bid Bond

_____ ("Bidder") has submitted a bid, dated _____, 2026 ("Bid"), to the City of San Ramon ("City") for work on the **Pavement Management 2026 Project** ("Project"). Under this duly executed bid bond ("Bid Bond"), Bidder as Principal and _____, its surety ("Surety"), are bound to City as obligee in the penal sum of ten (10) percent of the maximum amount of the Bid (the "Bond Sum"). Bidder and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, as follows:

1. **General.** If Bidder is awarded the Contract for the Project, Bidder will enter into the Contract with City in accordance with the terms of the Bid.
2. **Submittals.** Within ten days following issuance of the Notice of Potential Award to Bidder, Bidder must submit to City the following:
 - 2.1 **Contract.** The executed Contract, using the form provided by City in the Project contract documents ("Contract Documents");
 - 2.2 **Payment Bond.** A payment bond for 100% of the maximum Contract Price, executed by a surety licensed to do business in the State of California using the Payment Bond form included with the Contract Documents;
 - 2.3 **Performance Bond.** A performance bond for 100% of the maximum Contract Price, executed by a surety licensed to do business in the State of California using the Performance Bond form included with the Contract Documents;
 - 2.4 **Insurance.** The insurance certificate(s) and endorsement(s) required by the Contract Documents;
 - 2.5 **Certificates of Reported Compliance.** Valid Certificates of Reported Compliance for its fleet and its listed Subcontractors, if applicable, in accordance with the In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.) ("Off-Road Regulation"), if the Project involves the use of vehicles subject to the Off-Road Regulation; and any other documents required by the Instructions to Bidders or Notice of Potential Award.
3. **Enforcement.** If Bidder fails to execute the Contract or to submit the bonds, insurance certificates, and valid Certificates of Reported Compliance as required by the Contract Documents, Surety guarantees that Bidder forfeits the Bond Sum to City. Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____
4. **Duration and Waiver.** If Bidder fulfills its obligations under Section 2, above, then this obligation will be null and void; otherwise, it will remain in full force and effect for 60 days following the bid opening or until this Bid Bond is returned to Bidder, whichever occurs first. Surety waives the provisions of Civil Code §§ 2819 and 2845.

[Signatures are on the following page.]

This Bid Bond is entered into and effective on _____, 2026.

SURETY:

Business Name

s/ _____

Date

Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

BIDDER:

Business Name

s/ _____

Date

Name, Title

END OF BID BOND

Bidder's Questionnaire

PAVEMENT MANAGEMENT 2026 PROJECT

Within 48 hours following a request by City, a bidder must submit to City a completed, signed Bidder's Questionnaire using this form and all required attachments, including clearly labeled additional sheets as needed. City may request the Questionnaire from one or more of the apparent low bidders following the bid opening, and may use the completed Questionnaire as part of its investigation to evaluate a bidder's qualifications for this Project. The Questionnaire must be filled out completely, accurately, and legibly. Any errors, omissions, or misrepresentations in completion of the Questionnaire may be grounds for rejection of the bid or termination of a Contract awarded pursuant to the bid.

Part A: General Information

Bidder Business Name: _____ ("Bidder")

Check One: ☐ Corporation (State of incorporation: _____)
 ☐ Partnership
 ☐ Sole Proprietorship
 ☐ Joint Venture of: _____
 ☐ Other: _____

Main Office Address and Phone: _____

Local Office Address and Phone: _____

Website Address: _____

Owner of Business: _____

Contact Name and Title: _____

Contact Phone and Email: _____

Bidder's California Contractor's License Number(s): _____

Bidder's DIR Registration Number: _____

Part B: Bidder Experience

1. How many years has Bidder been in business under its present business name? ____ years
2. Has Bidder completed projects similar in type and size to this Project as a general contractor?
____ Yes ____ No
3. Has Bidder ever been disqualified from a bid on grounds that it is not responsible, or otherwise disqualified or debarred from bidding under state or federal law?
____ Yes ____ No

If yes, provide additional information on a separate sheet regarding the disqualification or debarment, including the name and address of the agency or owner of the project, the type and size of the project, the

reasons that Bidder was disqualified or debarred, and the month and year in which the disqualification or debarment occurred.

4. Has Bidder ever been terminated for cause, alleged default, or legal violation from a construction project, either as a general contractor or as a subcontractor?

_____ Yes _____ No

If yes, provide additional information on a separate sheet regarding the termination, including the name and address of the agency or owner of the subject project, the type and size of the project, whether Bidder was under contract as a general contractor or a subcontractor, the reasons that Bidder was terminated, and the month and year in which the termination occurred.

5. Provide information about Bidder's past projects performed as general contractor as follows:

- 5.1 Six most recently completed public works projects within the last three years;
- 5.2 Three largest completed projects within the last three years; and
- 5.3 Any project which is similar to this Project including scope and character of the work.

6. Use separate sheets to provide all of the following information for each project identified in response to the above three categories:

- 6.1 Project name, location, and description;
- 6.2 Owner (name, address, email, and phone number);
- 6.3 Prime contractor, if applicable (name, address, email, and phone number);
- 6.4 Architect or engineer (name, email, and phone number);
- 6.5 Project and/or construction manager (name, email, and phone number);
- 6.6 Scope of work performed (as general contractor or as subcontractor);
- 6.7 Initial contract price and final contract price (including change orders);
- 6.8 Original scheduled completion date and actual date of completion;
- 6.9 Time extensions granted (number of days);
- 6.10 Number and amount of stop notices or mechanic's liens filed;
- 6.11 Amount of any liquidated damages assessed against Bidder; and
- 6.12 Nature and resolution of any project-related claim, lawsuit, mediation, or arbitration involving Bidder.

Part C: Safety

1. Provide Bidder's Experience Modification Rate (EMR) for the last three years:

Year	EMR

2. Complete the following, based on information provided in Bidder's CalOSHA Form 300 or Form 300A, Annual Summary of Work-Related Illnesses and Injuries, from the most recent past calendar year:

- 2.1. Number of lost workday cases: _____
- 2.2. Number of medical treatment cases: _____
- 2.3. Number of deaths: _____

3. Has Bidder ever been cited, fined, or prosecuted by any local, state, or federal agency, including OSHA, CalOSHA, or EPA, for violation of any law, regulation, or requirements pertaining to health and safety?

_____ Yes _____ No

If yes, provide additional information on a separate sheet regarding each such citation, fine, or prosecution, including the name and address of the agency or owner of the project, the type and size of the project, the reasons for and nature of the citation, fine, or prosecution, and the month and year in which the incident giving rise to the citation, fine, or prosecution occurred.

4. Name, title, and email for person responsible for Bidder's safety program:

_____	_____	_____
Name	Title	Email

Part D: Verification

In signing this document, I, the undersigned, declare that I am duly authorized to sign and submit this Bidder's Questionnaire on behalf of the named Bidder, and that all responses and information set forth in this Bidder's Questionnaire and accompanying attachments are, to the best of my knowledge, true, accurate and complete as of the date of submission. **I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.**

Signature: _____ Date: _____

By: _____
Name and Title

END OF BIDDER'S QUESTIONNAIRE

Contract

This public works contract ("Contract") is entered into by and between the City of San Ramon ("City") and _____ ("Contractor"), for work on the **Pavement Management 2026 Project** ("Project").

The parties agree as follows:

1. **Award of Contract.** In response to the Notice Inviting Bids, Contractor has submitted a Bid Proposal to perform the Work to construct the Project. On _____, 2026, City authorized award of this Contract to Contractor for the amount set forth in Section 4, below. City has elected to include the following Project alternate(s) in the Contract: No alternates.
2. **Contract Documents.** The Contract Documents incorporated into this Contract include and are comprised of all of the documents listed below. The definitions provided in Article 1 of the General Conditions apply to all of the Contract Documents, including this Contract.
 - 2.1 Notice Inviting Bids;
 - 2.2 Instructions to Bidders;
 - 2.3 Addenda, if any;
 - 2.4 Bid Proposal and attachments thereto;
 - 2.5 Contract;
 - 2.6 Payment and Performance Bonds;
 - 2.7 General Conditions;
 - 2.8 Special Conditions;
 - 2.9 Project Plans and Specifications;
 - 2.10 Change Orders, if any;
 - 2.11 Notice of Potential Award;
 - 2.12 Notice to Proceed; and
 - 2.13 The following: Attachment A "Project Funding Sign Template", Attachment B "Residential Trash Pickup and Sweeping Schedules", Attachment C "City Standard Details", and Attachment D "Utility Details".
3. **Contractor's Obligations.** Contractor will perform all of the Work required for the Project, as specified in the Contract Documents. Contractor must provide, furnish, and supply all things necessary and incidental for the timely performance and completion of the Work, including all necessary labor, materials, supplies, tools, equipment, transportation, onsite facilities, and utilities, unless otherwise specified in the Contract Documents. Contractor must use its best efforts to diligently prosecute and complete the Work in a professional and expeditious manner and to meet or exceed the performance standards required by the Contract Documents.
4. **Payment.** As full and complete compensation for Contractor's timely performance and completion of the Work in strict accordance with the terms and conditions of the Contract Documents, City will pay Contractor \$_____ ("Contract Price") for all of Contractor's direct and indirect costs to perform the Work, including all labor, materials, supplies, equipment, taxes, insurance, bonds and all overhead costs, in accordance with the payment provisions in the General Conditions.
5. **Time for Completion.** Contractor will fully complete the Work for the Project, meeting all requirements for Final Completion, within 70 working days from the start date set forth in the Notice to Proceed ("Contract Time"). By signing below, Contractor expressly waives any claim for delayed early completion.
6. **Liquidated Damages.** As further specified in Section 5.4 of the General Conditions, if Contractor fails to complete the Work within the Contract Time, City will assess liquidated damages in the

amount of \$6,700 per day for each day of unexcused delay in achieving Final Completion, and such liquidated damages may be deducted from City's payments due or to become due to Contractor under this Contract.

7. Labor Code Compliance.

7.1. **General.** This Contract is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, including requirements pertaining to wages, working hours and workers' compensation insurance, as further specified in Article 9 of the General Conditions.

7.2. **Prevailing Wages.** This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are available online at www.dir.ca.gov/OPRL/DPreWageDetermination.htm.

7.3. **DIR Registration.** City may not enter into the Contract with a bidder without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations to perform public work pursuant to Labor Code § 1725.5, subject to limited legal exceptions.

8. Workers' Compensation Certification. Pursuant to Labor Code § 1861, by signing this Contract, Contractor certifies as follows: "I am aware of the provisions of Labor Code § 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 I will comply with such provisions before commencing the performance of the Work on this Contract."

9. Conflicts of Interest. Contractor, its employees, Subcontractors, and agents may not have, maintain, or acquire a conflict of interest in relation to this Contract in violation of any City ordinance or requirement, or in violation of any California law, including Government Code § 1090 et seq., or the Political Reform Act, as set forth in Government Code § 81000 et seq. and its accompanying regulations. Any violation of this Section constitutes a material breach of the Contract.

10. Independent Contractor. Contractor is an independent contractor under this Contract and will have control of the Work and the means and methods by which it is performed. Contractor and its Subcontractors are not employees of City and are not entitled to participate in any health, retirement, or any other employee benefits from City.

11. Notice. Any notice, billing, or payment required by or pursuant to the Contract Documents must be made in writing, signed, dated, and sent to the other party by personal delivery, U.S. Mail, a reliable overnight delivery service, or by email as a PDF file. Notice is deemed effective upon delivery, except that service by U.S. Mail is deemed effective on the second working day after deposit for delivery. Notice for each party must be given as follows:

City:

City of San Ramon
7000 Bollinger Canyon Road
San Ramon, CA 94583
Attn: City Clerk
cityclerk@sanramon.ca.gov

Copy to: Amy Amiri, Senior CIP Analyst
aamiri@sanramon.ca.gov

Contractor:

Name: _____
Title: _____
Address: _____
City/State/Zip: _____
Phone: _____
Attn: _____
Email: _____
Copy to: _____

12. **Indemnity.** To the fullest extent permitted by law, Contractor must indemnify, defend, and hold harmless City, its Council, officers, officials, employees, agents, volunteers, and consultants (individually, an "Indemnitee," and collectively the "Indemnitees") from and against any and all liability, loss, damage, claims, causes of action, demands, charges, fines, costs, and expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with the acts or omissions of Contractor, its employees, Subcontractors, representatives, or agents, in bidding or performing the Work or in failing to comply with any obligation of Contractor under the Contract, except such Liability caused by the active negligence, sole negligence, or willful misconduct of an Indemnitee. This indemnity requirement applies to any Liability arising from alleged defects in the content or manner of submission of Contractor's bid for the Contract. Contractor's failure or refusal to timely accept a tender of defense pursuant to this Contract will be deemed a material breach of the Contract. City will timely notify Contractor upon receipt of any third-party claim relating to the Contract, as required by Public Contract Code § 9201. Contractor waives any right to express or implied indemnity against any Indemnitee. Contractor's indemnity obligations under this Contract will survive the expiration or any early termination of the Contract.
13. **Insurance.** No later than ten days following issuance of the Notice of Potential Award, Contractor must procure and provide proof of the insurance coverage required by this Section in the form of certificates and endorsements acceptable to City. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract, through the date of City's acceptance of the Project. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VIII" or better. If Contractor fails to provide any of the required coverage in full compliance with the requirements of the Contract Documents, City may, at its sole discretion, purchase such coverage at Contractor's expense and deduct the cost from payments due to Contractor, or terminate the Contract for default. The procurement of the required insurance will not be construed to limit Contractor's liability under this Contract or to fulfill Contractor's indemnification obligations under this Contract.
- 13.1. **Policies and Limits.** The following insurance policies and limits are required for this Contract, unless otherwise specified in the Special Conditions:
- (A) **Commercial General Liability ("CGL") Insurance:** The CGL insurance policy must be issued on an occurrence basis, written on a comprehensive general liability form, and must include coverage for liability arising from Contractor's or its Subcontractor's acts or omissions in the performance of the Work, including contractor's protected coverage, contractual liability, products and completed operations, bodily injury, personal injury, and broad form property damage, with limits of at least **\$5,000,000** per occurrence and at least **\$10,000,000** general aggregate. The CGL insurance coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy complies with the requirements set forth in this Section, including required endorsements.
- (B) **Automobile Liability Insurance:** The automobile liability insurance policy must provide coverage of at least **\$2,000,000** combined single-limit per accident for bodily injury, death, or property damage, including hired and non-owned auto liability.
- (C) **Workers' Compensation Insurance and Employer's Liability:** The workers' compensation and employer's liability insurance policy must comply with the requirements of the California Labor Code, providing coverage of at least \$1,000,000 or as otherwise required by the statute. If Contractor is self-insured, Contractor must provide its Certificate of Permission to Self-Insure, duly authorized by the DIR.

(D) **Pollution Liability Insurance:** The pollution liability insurance policy must be issued on an occurrence basis, providing coverage of at least \$2,000,000 for all loss arising out of claims for bodily injury, death, property damage, or environmental damage caused by pollution conditions resulting from the Work.

(E) **Builder's Risk Insurance:** The builder's risk insurance policy requirement set forth in this section is hereby waived and does not apply to this Contract.

13.2. **Notice.** Each certificate of insurance must state that the coverage afforded by the policy or policies will not be reduced, cancelled or allowed to expire without at least 30 days written notice to City, unless due to non-payment of premiums, in which case ten days written notice must be made to City.

13.3. **Waiver of Subrogation.** Each required policy must include an endorsement providing that the carrier will waive any right of subrogation it may have against City.

13.4. **Required Endorsements.** The CGL policy, automobile liability policy, pollution liability policy, and builder's risk policy must include the following specific endorsements:

(A) The City, including its Council, officials, officers, employees, agents, volunteers and consultants (collectively, "Additional Insured") must be named as an additional insured for all liability arising out of the operations by or on behalf of the named insured, and the policy must protect the Additional Insured against any and all liability for personal injury, death or property damage or destruction arising directly or indirectly in the performance of the Contract. The additional insured endorsement must be provided using ISO form CG 20 10 11 85 or an equivalent form approved by the City.

(B) The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the coverages afforded will apply as though separate policies have been issued to each insured.

(C) The insurance provided by Contractor is primary and no insurance held or owned by any Additional Insured may be called upon to contribute to a loss.

(D) This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.

(E) The Contractor may use Umbrella or Excess Policies to provide the liability limits as required in this agreement. This form of insurance will be acceptable provided that all of the Primary and Umbrella or Excess Policies shall provide all of the insurance coverages herein required, including, but not limited to, primary and non-contributory, additional insured, Self-Insured Retentions (SIRs), indemnity, and defense requirements. The Umbrella or Excess policies shall be provided on a true "following form" or broader coverage basis, with coverage at least as broad as provided on the underlying Commercial General Liability insurance. No insurance policies maintained by the Additional Insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until the Contractor's primary and excess liability policies are exhausted.

(F) Contractor shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause and a copy of the Declarations and Endorsements Pages of the CGL and any Excess policies listing all policy endorsements. All certificates and endorsements and copies of the Declarations & Endorsements pages are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The City

reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time. City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

(G) CGL & Excess liability policies for any construction related work, including, but not limited to, maintenance, service, or repair work, shall continue coverage for a minimum of 5 years for Completed Operations liability coverage. Such Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the agreement of work.

(H) Special Risks or Circumstances: CITY reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

- 13.5. **Contractor's Responsibilities.** This Section establishes the minimum requirements for Contractor's insurance coverage in relation to this Project, but is not intended to limit Contractor's ability to procure additional or greater coverage. Contractor is responsible for its own risk assessment and needs and is encouraged to consult its insurance provider to determine what coverage it may wish to carry beyond the minimum requirements of this Section. Contractor is solely responsible for the cost of its insurance coverage, including premium payments, deductibles, or self-insured retentions, and no Additional Insured will be responsible or liable for any of the cost of Contractor's insurance coverage.
- 13.6. **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions that apply to the required insurance (collectively, "deductibles") in excess of \$100,000 are subject to approval by the City's Risk Manager, acting in his or her sole discretion, and must be declared by Contractor when it submits its certificates of insurance and endorsements pursuant to this Section. If the City's Risk Manager determines that the deductibles are unacceptably high, at City's option, Contractor must either reduce or eliminate the deductibles as they apply to City and all required Additional Insured; or must provide a financial guarantee, to City's satisfaction, guaranteeing payment of losses and related investigation, claim administration, and legal expenses.
- 13.7. **Subcontractors.** Contractor must ensure that each Subcontractor is required to maintain the same insurance coverage required under this Section, with respect to its performance of Work on the Project, including those requirements related to the Additional Insureds and waiver of subrogation, but excluding pollution liability or builder's risk insurance unless otherwise specified in the Special Conditions. A Subcontractor may be eligible for reduced insurance coverage or limits, but only to the extent approved in writing in advance by the City's Risk Manager. Contractor must confirm that each Subcontractor has complied with these insurance requirements before the Subcontractor is permitted to begin Work on the Project. Upon request by the City, Contractor must provide certificates and endorsements submitted by each Subcontractor to prove compliance with this requirement. The insurance requirements for Subcontractors do not replace or limit the Contractor's insurance obligations.
14. **Public Records.** Contractor acknowledges that City is subject to the provisions of the California Public Records Act (Govt. Code § 7920.000, *et seq.*) (the "Act"); therefore, this Contract and any writing prepared for or submitted to City, including but not limited to Contractor's Bid Proposal, is subject to disclosure as a public record, unless any portion thereof is exempt from disclosure under the Act. If Contractor believes that any portion of a public record is exempt from disclosure under the Act, it must clearly identify the portion(s) it believes to be exempt and identify the basis for the exemption. Contractor bears the burden of proving any claimed exemption under the Act, and by signing this Contract and initialing the acknowledgement below, Contractor agrees to indemnify,

defend, and hold harmless City against any third-party claim seeking disclosure of the public record or any portions thereof.

15. General Provisions.

- 15.1. **Assignment and Successors.** Contractor may not assign its rights or obligations under this Contract, in part or in whole, without City's written consent. This Contract is binding on Contractor's and City's lawful heirs, successors and permitted assigns.
- 15.2. **Third Party Beneficiaries.** There are no intended third party beneficiaries to this Contract.
- 15.3. **Governing Law and Venue.** This Contract will be governed by California law and venue will be in the Contra Costa County Superior Court, and no other place. Contractor waives any right it may have pursuant to Code of Civil Procedure § 394, to file a motion to transfer any action arising from or relating to this Contract to a venue outside of Contra Costa County, California.
- 15.4. **Amendment.** No amendment or modification of this Contract will be binding unless it is in a writing duly authorized and signed by the parties to this Contract.
- 15.5. **Integration.** This Contract and the Contract Documents incorporated herein, including authorized amendments or Change Orders thereto, constitute the final, complete, and exclusive terms of the agreement between City and Contractor.
- 15.6. **Severability.** If any provision of the Contract Documents is determined to be illegal, invalid, or unenforceable, in whole or in part, the remaining provisions of the Contract Documents will remain in full force and effect.
- 15.7. **Iran Contracting Act.** If the Contract Price exceeds \$1,000,000, Contractor certifies, by signing below, that it is not identified on a list created under the Iran Contracting Act, Public Contract Code § 2200 et seq. (the "Act"), as a person engaging in investment activities in Iran, as defined in the Act, or is otherwise expressly exempt under the Act.
- 15.8. **Authorization.** Each individual signing below warrants that he or she is authorized to do so by the party that he or she represents, and that this Contract is legally binding on that party. If Contractor is a corporation, signatures from two officers of the corporation are required pursuant to California Corporations Code § 313.
- 15.9. **Signatures and Counterparts.** This Agreement may be entered into by the Parties by signing any one or more counterparts, all of which shall constitute one and the same instrument. It is understood and agreed that this Agreement shall become effective and binding when one or more counterparts have been executed by each party and delivered to each other party. Additionally, electronic, facsimile, and scanned signatures shall be binding the same as originals.

[Signatures are on the following page.]

The parties agree to this Contract as witnessed by the signatures below:

CITY:

Approved as to form:

s/ _____

Mark Armstrong, Mayor

s/ _____

Martin Lysons, City Attorney

Date: _____

Date: _____

Attest:

s/ _____

Steven Spedowski, City Manager

s/ _____

Joan Snashall, City Clerk

Date: _____

Date: _____

**The Foregoing Agreement has been
Reviewed and Approval is Recommended:**

s/ _____

Brian Bornstein, Director
Public Works

San Ramon Business License #

Date: _____

Resolution Number 2026-XXX

Approved by City Council

CONTRACTOR:

Business Name

s/ _____

Seal:

Name, Title

Date: _____

Second Signature (See Section 15.8):

s/ _____

Name, Title

Date: _____

Contractor's California License Number(s) and Expiration Date(s)

END OF CONTRACT

Payment Bond

The City of San Ramon ("City") and _____ ("Contractor") have entered into a Contract for Work on the **Pavement Management 2026 Project** ("Project"). The Contract is incorporated by reference into this Payment Bond ("Bond").

1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee in an amount not less than \$_____, under California Civil Code § 9550 et seq., to ensure payment to authorized claimants. This Bond is binding on the respective successors, assignees, owners, heirs, or executors of Surety and Contractor.
2. **Surety's Obligation.** If Contractor or any of its Subcontractors fails to pay a person authorized in California Civil Code § 9100 to assert a claim against a payment bond, any amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of Contractor and its Subcontractors under California Unemployment Insurance Code § 13020 with respect to the work and labor, then Surety will pay the obligation.
3. **Beneficiaries.** This Bond inures to the benefit of any of the persons named in California Civil Code § 9100, so as to give a right of action to those persons or their assigns in any suit brought upon this Bond. Contractor must promptly provide a copy of this Bond upon request by any person with legal rights under this Bond.
4. **Duration.** If Contractor promptly makes payment of all sums for all labor, materials, and equipment furnished for use in the performance of the Work required by the Contract, in conformance with the time requirements set forth in the Contract and as required by California law, Surety's obligations under this Bond will be null and void. Otherwise, Surety's obligations will remain in full force and effect.
5. **Waivers.** Surety waives any requirement to be notified of alterations to the Contract or extensions of time for performance of the Work under the Contract. Surety waives the provisions of Civil Code §§ 2819 and 2845. City waives the requirement of a new bond for any supplemental contract under Civil Code § 9550. Any notice to Surety may be given in the manner specified in the Contract and sent to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Email: _____
6. **Law and Venue.** This Bond will be governed by California law, and venue for any dispute pursuant to this Bond will be in the Contra Costa County Superior Court, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.

[Signatures are on the following page.]

7. Effective Date; Execution. This Bond is entered into and is effective on _____, 2026.

SURETY:

Business Name

s/ _____

Date

Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

Business Name

s/ _____

Date

Name, Title

APPROVED BY CITY:

s/ _____

Date

Martin Lysons, City Attorney
Name, Title

END OF PAYMENT BOND

Performance Bond

The City of San Ramon ("City") and _____ ("Contractor") have entered into a Contract for Work on the **Pavement Management 2026 Project** ("Project"). The Contract is incorporated by reference into this Performance Bond ("Bond").

1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee for an amount not less than \$_____ to ensure Contractor's faithful performance of its obligations under the Contract. This Bond is binding on the respective successors, assignees, owners, heirs, or executors of Surety and Contractor.
2. **Surety's Obligations.** Surety's obligations are co-extensive with Contractor's obligations under the Contract. If Contractor fully performs its obligations under the Contract, including its warranty obligations under the Contract, Surety's obligations under this Bond will become null and void. Otherwise, Surety's obligations will remain in full force and effect.
3. **Waiver.** Surety waives any requirement to be notified of and further consents to any alterations to the Contract made under the applicable provisions of the Contract Documents, including changes to the scope of Work or extensions of time for performance of Work under the Contract. Surety waives the provisions of Civil Code §§ 2819 and 2845.
4. **Application of Contract Balance.** Upon making a demand on this Bond for completion of the Work prior to acceptance of the Project, City will make the Contract Balance available to Surety for completion of the Work under the Contract. For purposes of this provision, the Contract Balance is defined as the total amount payable by City to Contractor as the Contract Price minus amounts already paid to Contractor, and minus any liquidated damages, credits, or backcharges to which City is entitled under the terms of the Contract.
5. **Contractor Default.** Upon written notification from City of Contractor's termination for default under Article 13 of the Contract General Conditions, time being of the essence, Surety must act within the time specified in Article 13 to remedy the default through one of the following courses of action:
 - 5.1 Arrange for completion of the Work under the Contract by Contractor, with City's consent, but only if Contractor is in default solely due to its financial inability to complete the Work;
 - 5.2 Arrange for completion of the Work under the Contract by a qualified contractor acceptable to City, and secured by performance and payment bonds issued by an admitted surety as required by the Contract Documents, at Surety's expense; or
 - 5.3 Waive its right to complete the Work under the Contract and reimburse City the amount of City's costs to have the remaining Work completed.
6. **Surety Default.** If Surety defaults on its obligations under the Bond, City will be entitled to recover all costs it incurs due to Surety's default, including legal, design professional, or delay costs.
7. **Notice.** Any notice to Surety may be given in the manner specified in the Contract and sent to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____

8. **Law and Venue.** This Bond will be governed by California law, and venue for any dispute pursuant to this Bond will be in the Contra Costa County Superior Court, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.

9. **Effective Date; Execution.** This Bond is entered into and effective on _____, 2026.

SURETY:

Business Name

s/ _____

Date

Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

Business Name

s/ _____

Date

Name, Title

APPROVED BY CITY:

s/ _____

Date

Martin Lysons, City Attorney

Name, Title

END OF PERFORMANCE BOND

General Conditions

1. Article 1 - Definitions

Definitions. The following definitions apply to all of the Contract Documents unless otherwise indicated, e.g., additional definitions that apply solely to the Specifications or other technical documents. Defined terms and titles of documents are capitalized in the Contract Documents, with the exception of the following (in any tense or form): “day,” “furnish,” “including,” “install,” “work day,” or “working day.”

Allowance means a specific amount that must be included in the Bid Proposal for a specified purpose.

Article, as used in these General Conditions, means a numbered Article of the General Conditions, unless otherwise indicated by the context.

Change Order means a written document duly approved and executed by City, which changes the scope of Work, the Contract Price, or the Contract Time.

City means the City of San Ramon, a municipality which has entered into the Contract with Contractor for performance of the Work, acting through its City Council, officers, employees, City Engineer, and any other authorized representatives.

City Engineer means the City Engineer for City and his or her authorized delegee(s).

Claim means a separate demand by Contractor for a change in the Contract Time or Contract Price, that has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected by City, in whole or in part; a written demand by Contractor disputing a unilateral Change Order or a portion thereof; or a written demand by Contractor objecting to the amount of Final Payment.

Contract means the signed agreement between City and Contractor for performing the Work required for the Project, and all documents expressly incorporated therein.

Contract Documents means, collectively, all of the documents listed as such in Section 2 of the Contract, including the Notice Inviting Bids; the Instructions to Bidders; addenda, if any; the Bid Proposal and attachments thereto; the Contract; the Notice of Potential Award and Notice to Proceed; the payment and performance bonds; the General Conditions; the Special Conditions; the Project Plans and Specifications; any Change Orders; and any other documents which are clearly and unambiguously made part of the Contract Documents. The Contract Documents do not include documents provided “For Reference Only,” or documents that are intended solely to provide information regarding existing conditions.

Contract Price means the total compensation to be paid to Contractor for performance of the Work, as set forth in the Contract and as may be amended by Change Order or adjusted for an Allowance. The Contract Price is not subject to adjustment due to inflation or due to the increased cost of labor, material, supplies, or equipment following submission of the Bid Proposal.

Contract Time means the time specified for complete performance of the Work, as set forth in the Contract and as may be amended by Change Order.

Contractor means the individual, partnership, corporation, or joint venture that has signed the Contract with City to perform the Work.

Day means a calendar day unless otherwise specified.

Design Professional means the licensed individual(s) or firm(s) retained by City to provide architectural, engineering, or other design professional services for the Project. If no Design Professional has been retained for this Project, any reference to Design Professional is deemed to refer to the Engineer.

District Engineer means the District Engineer for City and his or her authorized delegee(s).

DIR means the California Department of Industrial Relations.

Drawings has the same meaning as Plans.

Engineer means the City Engineer or District Engineer for the City of San Ramon and his or her authorized delegees.

Excusable Delay is defined in Section 5.3(B), Excusable Delay.

Extra Work means new or unforeseen work added to the Project, as determined by the Engineer in his or her sole discretion, including Work that was not part of or incidental to the scope of the Work when the Contractor's bid was submitted; Work that is substantially different from the Work as described in the Contract Documents at bid time; or Work that results from a substantially differing and unforeseeable condition.

Final Completion means Contractor has fully completed all of the Work required by the Contract Documents to the City's satisfaction, including all punch list items and any required commissioning or training, and has provided the City with all required submittals, including the instructions and manuals, product warranties, and as-built drawings.

Final Payment means payment to Contractor of the unpaid Contract Price, including release of undisputed retention, less amounts withheld or deducted pursuant to the Contract Documents.

Furnish means to purchase and deliver for the Project.

Government Code Claim means a claim submitted pursuant to California Government Code § 900 et seq.

Hazardous Materials means any substance or material identified now or in the future as hazardous under any Laws, or any other substance or material that may be considered hazardous or otherwise subject to Laws governing handling, disposal, or cleanup.

Including, whether or not capitalized, means "including, but not limited to," unless the context clearly requires otherwise.

Inspector means the individual(s) or firm(s) retained or employed by City to inspect the workmanship, materials, and manner of construction of the Project and its components to ensure compliance with the Contract Documents and all Laws.

Install means to fix in place for materials, and to fix in place and connect for equipment.

Laws means all applicable local, state, and federal laws, regulations, rules, codes, ordinances, permits, orders, and the like enacted or imposed by or under the auspices of any governmental entity with jurisdiction over any of the Work or any performance of the Work, including health and safety requirements.

Non-Excusable Delay is defined in Section 5.3(D), Non-Excusable Delay.

Plans means the City-provided plans, drawings, details, or graphical depictions of the Project requirements, but does not include Shop Drawings.

Project means the public works project referenced in the Contract, as modified by any Project alternates elected by City, if any.

Project Manager means the individual designated by City to oversee and manage the Project on City's behalf and may include his or her authorized delegate(s) when the Project Manager is unavailable. If no Project Manager has been designated for this Project, any reference to Project Manager is deemed to refer to the Engineer.

Recoverable Costs is defined in Section 5.3(F), Recoverable Costs.

Request for Information or **RFI** means Contractor's written request for information about the Contract Documents, the Work or the Project, submitted to City in the manner and format specified by City.

Section, when capitalized in these General Conditions, means a numbered section or subsection of the General Conditions, unless the context clearly indicates otherwise.

Shop Drawings means drawings, plan details or other graphical depictions prepared by or on behalf of Contractor, and subject to City acceptance, which are intended to provide details for fabrication, installation, and the like, of items required by or shown in the Plans or Specifications.

Specialty Work means Work that must be performed by a specialized Subcontractor with the specified license or other special certification, and that the Contractor is not qualified to self-perform.

Specifications means the technical, text specifications describing the Project requirements, which are prepared for and incorporated into the Contract by or on behalf of City, and does not include the Contract, General Conditions or Special Conditions.

Subcontractor means an individual, partnership, corporation, or joint venture retained by Contractor directly or indirectly through a subcontract to perform a specific portion of the Work. The term Subcontractor applies to subcontractors of all tiers, unless otherwise indicated by the context. A third party such as a utility performing related work on the Project is not a Subcontractor, even if Contractor must coordinate its Work with the third party.

Technical Specifications has the same meaning as Specifications.

Work means all of the construction and services necessary for or incidental to completing the Project in conformance with the requirements of the Contract Documents.

Work Day or **Working Day**, whether or not capitalized, means a weekday when the City is open for business, and does not include holidays observed by the City.

Worksite means the place or places where the Work is performed, which includes, but may extend beyond the Project site, including separate locations for staging, storage, or fabrication.

2. Article 2 - Roles and Responsibilities

2.1 City.

(A) **City Council.** The City Council has final authority in all matters affecting the Project, except to the extent it has delegated authority to the Engineer.

(B) **Engineer.** The Engineer, acting within the authority conferred by the City Council, is responsible for administration of the Project on behalf of City, including authority to provide directions to the Design Professional and to Contractor to ensure proper and timely completion of the Project. The Engineer's decisions are final and conclusive within the scope of his or her authority, including interpretation of the Contract Documents.

(C) **Project Manager.** The Project Manager assigned to the Project will be the primary point of contact for the Contractor and will serve as City's representative for daily administration of the Project on behalf of City. Unless otherwise specified, all of Contractor's communications to City (in any form) will go to or through the Project Manager. City reserves the right to reassign the Project Manager role at any time or to delegate duties to additional City representatives, without prior notice to or consent of Contractor.

(D) **Design Professional.** The Design Professional is responsible for the overall design of the Project and, to the extent authorized by City, may act on City's behalf to ensure performance of the Work in compliance with the Plans and Specifications, including any design changes authorized by Change Order. The Design Professional's duties may include review of Contractor's submittals, visits to any Worksite, inspecting the Work, evaluating test and inspection results, and participation in Project-related meetings, including any pre-construction conference, weekly meetings, and coordination meetings. The Design Professional's interpretation of the Plans or Specifications is final and conclusive.

2.2 Contractor.

(A) **General.** Contractor must provide all labor, materials, supplies, equipment, services, and incidentals necessary to perform and timely complete the Work in strict accordance with the Contract Documents, and in an economical and efficient manner in the best interests of City, and with minimal inconvenience to the public.

(B) **Responsibility for the Work and Risk of Loss.** Contractor is responsible for supervising and directing all aspects of the Work to facilitate the efficient and timely completion of the Work. Contractor is solely responsible for and required to exercise full control over the Work, including the construction means, methods, techniques, sequences, procedures, safety precautions and programs, and coordination of all portions of the Work with that of all other contractors and Subcontractors, except to the extent that the Contract Documents provide other specific instructions. Contractor's responsibilities extend to any plan, method or sequence suggested, but not required by City or specified in the Contract Documents. From the date of commencement of the Work until either the date on which City formally accepts the Project or the effective date of termination of the Contract, whichever is later, Contractor bears all risks of injury or damage to the Work and the materials and equipment delivered to any Worksite, by any cause including fire, earthquake, wind, weather, vandalism, or theft, subject to the limitations of Laws, including Public Contract Code § 7105.

(C) **Project Administration.** Contractor must provide sufficient and competent administration, staff, and skilled workforce necessary to perform and timely complete the Work in accordance with the Contract Documents. Before starting the Work, Contractor must designate in writing and provide complete contact information, including telephone numbers and email address, for the officer or employee in Contractor's organization who is to serve as Contractor's primary representative for the Project, and who has authority to act on Contractor's behalf. A Subcontractor may not serve as Contractor's primary representative.

(D) **On-Site Superintendent.** Contractor must, at all times during performance of the Work, provide a qualified and competent full-time superintendent acceptable to City, and assistants as necessary, who must be physically present at the Project site while any aspect of the Work is being performed. The superintendent must have full authority to act and communicate on behalf of Contractor, and Contractor will be bound by the superintendent's communications to City. City's approval of the superintendent is required before the Work commences. If City is not satisfied with the superintendent's performance, City may request a qualified replacement of the superintendent. Failure to comply may result in temporary suspension of the Work, at Contractor's sole expense and with no extension of Contract Time, until an approved superintendent is physically present to supervise the Work. Contractor must provide written notice to City, as soon as practicable, before replacing the superintendent.

(E) **Standards.** Contractor must, at all times, ensure that the Work is performed in an efficient, skillful manner following best practices and in full compliance with the Contract Documents, Laws, and applicable manufacturer's recommendations. Contractor has a material and ongoing obligation to provide true and complete information, to the best of its knowledge, with respect to all records, documents, or communications pertaining to the Project, including oral or written reports, statements, certifications, Change Order requests, or Claims.

(F) **Meetings.** Contractor, its project manager, superintendent and any primary Subcontractors requested by City, must attend a pre-construction conference, if requested by City, as well as weekly Project progress meetings scheduled with City. If applicable, Contractor may also be required to participate in coordination meetings with other parties relating to other work being performed on or near the Project site or in relation to the Project, including work or activities performed by City, other contractors, or other utility owners.

(G) **Construction Records.** Contractor will maintain up-to-date, thorough, legible, and dated daily job reports, which document all significant activity on the Project for each day that Work is performed on the Project. The daily report for each day must include the number of workers at the Project site; primary Work activities; major deliveries; problems encountered, including injuries, if any; weather and site conditions; and delays, if any. Contractor will take date and time-stamped photographs to document general progress of the Project, including site conditions prior to construction activities, before and after photographs at offset trench laterals, existing improvements and utilities, damage and restoration. Contractor will maintain copies of all subcontracts, Project-related correspondence with Subcontractors, and records of meetings with Subcontractors. Upon request by the City, Contractor will permit review of and/or provide copies of any of these construction records.

(H) **Responsible Party.** Contractor is solely responsible to City for the acts or omissions of any Subcontractors, or any other party or parties performing portions of the Work or providing equipment, materials or services for or on behalf of Contractor or the Subcontractors. Upon City's written request, Contractor must promptly and permanently remove from the Project, at no cost to City, any employee or Subcontractor or employee of a Subcontractor who the Engineer has determined to be incompetent, intemperate or disorderly, or who has failed or refused to perform the Work as required under the Contract Documents.

(I) **Correction of Defects.** Contractor must promptly correct, at Contractor's sole expense, any Work that is determined by City to be deficient or defective in any way, including workmanship, materials, parts, or equipment. Workmanship, materials, parts, or equipment that do not conform to the requirements under the Contract Documents, as determined by City, will be considered defective and subject to rejection. Contractor must also promptly correct, at Contractor's sole expense, any Work performed beyond the lines and grades shown on the Plans or established by City, and any Extra Work performed without City's prior written approval. If Contractor fails to correct or to take reasonable steps toward correcting defective Work within five days following notice from City, or within the time specified in City's notice to correct, City may elect to have the defective Work corrected by its own forces or by a third party, in which case the cost of correction will be deducted from the Contract Price. If City elects to correct defective Work due to Contractor's failure or refusal to do so, City or its agents will have the right to take possession of and use any equipment, supplies, or materials available at the Project site or any Worksite on City property, in order to effectuate the correction, at no extra cost to City. Contractor's warranty obligations under Section 11.2, Warranty, will not be waived nor limited by City's actions to correct defective Work under these circumstances. Alternatively, City may elect to retain defective Work, and deduct the difference in value, as determined by the Engineer, from payments otherwise due to Contractor. This paragraph also applies to any defective Work performed by Contractor during the one-year warranty period under Section 11.2.

(J) **Contractor's Records.** Contractor must maintain all of its records relating to the Project in any form, including paper documents, photos, videos, electronic records, approved samples, and

the construction records required pursuant to paragraph (G), above. Project records subject to this provision include complete Project cost records and records relating to preparation of Contractor's bid, including estimates, take-offs, and price quotes or bids.

1. Contractor's cost records must include all supporting documentation, including original receipts, invoices, and payroll records, evidencing its direct costs to perform the Work, including, but not limited to, costs for labor, materials, and equipment. Each cost record should include, at a minimum, a description of the expenditure with references to the applicable requirements of the Contract Documents, the amount actually paid, the date of payment, and whether the expenditure is part of the original Contract Price, related to an executed Change Order, or otherwise categorized by Contractor as Extra Work. Contractor's failure to comply with this provision as to any claimed cost operates as a waiver of any rights to recover the claimed cost.
2. Contractor must continue to maintain its Project-related records in an organized manner for a period of five years after City's acceptance of the Project or following Contract termination, whichever occurs first. Subject to prior notice to Contractor, City is entitled to inspect or audit any of Contractor's records relating to the Project during Contractor's normal business hours. Contractor's records may also be subject to examination and audit by the California State Auditor, pursuant to Government Code § 8546.7. The record-keeping requirements set forth in this subsection 2.2(J) will survive expiration or termination of the Contract.

(K) **Copies of Project Documents.** Contractor and its Subcontractors must keep copies, at the Project site, of all Work-related documents, including the Contract, permit(s), Plans, Specifications, addenda, Contract amendments, Change Orders, RFIs and RFI responses, Shop Drawings, as-built drawings, schedules, daily records, testing and inspection reports or results, and any related written interpretations. These documents must be available to City for reference at all times during construction of the Project.

2.3 Subcontractors.

(A) **General.** All Work which is not performed by Contractor with its own forces must be performed by Subcontractors. City reserves the right to approve or reject any and all Subcontractors proposed to perform the Work, for reasons including the Subcontractor's poor reputation, lack of relevant experience, financial instability, and lack of technical ability or adequate trained workforce. Each Subcontractor must obtain a City business license before performing any Work.

(B) **Contractual Obligations.** Contractor must require each Subcontractor to comply with the provisions of the Contract Documents as they apply to the Subcontractor's portion(s) of the Work, including the generally applicable terms of the Contract Documents, and to likewise bind their subcontractors. Contractor will provide that the rights that each Subcontractor may have against any manufacturer or supplier for breach of warranty or guarantee relating to items provided by the Subcontractor for the Project, will be assigned to City. Nothing in these Contract Documents creates a contractual relationship between a Subcontractor and City, but City is deemed to be a third-party beneficiary of the contract between Contractor and each Subcontractor.

(C) **Termination.** If the Contract is terminated, each Subcontractor's agreement must be assigned by Contractor to City, subject to the prior rights of any surety, but only if and to the extent that City accepts, in writing, the assignment by written notification, and assumes all rights and obligations of Contractor pursuant to each such subcontract agreement.

(D) **Substitution of Subcontractor.** If Contractor requests substitution of a listed Subcontractor under Public Contract Code § 4107, Contractor is solely responsible for all costs City incurs in responding to the request, including legal fees and costs to conduct a hearing, and any increased subcontract cost to perform the Work that was to be performed by the listed

Subcontractor. If City determines that a Subcontractor is unacceptable to City based on the Subcontractor's failure to satisfactorily perform its Work, or for any of the grounds for substitution listed in Public Contract Code § 4107(a), City may request removal of the Subcontractor from the Project. Upon receipt of a written request from City to remove a Subcontractor pursuant to this paragraph, Contractor will immediately remove the Subcontractor from the Project and, at no further cost to City, will either (1) self-perform the remaining Work to the extent that Contractor is duly licensed and qualified to do so, or (2) substitute a Subcontractor that is acceptable to City, in compliance with Public Contract Code § 4107, as applicable.

2.4 Coordination of Work.

(A) **Concurrent Work.** City reserves the right to perform, have performed, or permit performance of other work on or adjacent to the Project site while the Work is being performed for the Project. Contractor is responsible for coordinating its Work with other work being performed on or adjacent to the Project site, including by any utility companies or agencies, and must avoid hindering, delaying, or interfering with the work of other contractors, individuals, or entities, and must ensure safe and reasonable site access and use as required or authorized by City. To the full extent permitted by law, Contractor must hold harmless and indemnify City against any and all claims arising from or related to Contractor's avoidable, negligent, or willful hindrance of, delay to, or interference with the work of any utility company or agency or another contractor or subcontractor.

(B) **Coordination.** If Contractor's Work will connect or interface with work performed by others, Contractor is responsible for independently measuring and visually inspecting such work to ensure a correct connection and interface. Contractor is responsible for any failure by Contractor or its Subcontractors to confirm measurements before proceeding with connecting Work. Before proceeding with any portion of the Work affected by the construction or operations of others, Contractor must give the Project Manager prompt written notification of any defects Contractor discovers which will prevent the proper execution of the Work. Failure to give notice of any known or reasonably discoverable defects will be deemed acknowledgement by Contractor that the work of others is not defective and will not prevent the proper execution of the Work. Contractor must also promptly notify City if work performed by others, including work or activities performed by City's own forces, is operating to hinder, delay, or interfere with Contractor's timely performance of the Work. City reserves the right to backcharge Contractor for any additional costs incurred due to Contractor's failure to comply with the requirements in this Section 2.4.

2.5 Submittals. Unless otherwise specified, Contractor must submit to the Engineer for review and acceptance, all schedules, Shop Drawings, samples, product data, and similar submittals required by the Contract Documents, or upon request by the Engineer. Unless otherwise specified, all submittals, including Requests for Information, are subject to the general provisions of this Section, as well as specific submittal requirements that may be included elsewhere in the Contract Documents, including the Special Conditions or Specifications. The Engineer may require submission of a submittal schedule at or before a pre-construction conference, as may be specified in the Notice to Proceed.

(A) **General.** Contractor is responsible for ensuring that its submittals are accurate and conform to the Contract Documents.

(B) **Time and Manner of Submission.** Contractor must ensure that its submittals are prepared and delivered in a manner consistent with the current City-accepted schedule for the Work and within the applicable time specified in the Contract Documents, or if no time is specified, in such time and sequence so as not to delay the performance of the Work or completion of the Project.

(C) **Required Contents.** Each submittal must include the Project name and contract number, Contractor's name and address, the name and address of any Subcontractor or supplier involved with the submittal, the date, and references to applicable Specification section(s) and/or drawing and detail number(s).

(D) **Required Corrections.** If corrections are required, Contractor must promptly make and submit any required corrections as specified in full conformance with the requirements of this Section, or other requirements that apply to that submittal.

(E) **Effect of Review and Acceptance.** Review and acceptance of a submittal by City will not relieve Contractor from complying with the requirements of the Contract Documents. Contractor is responsible for any errors in any submittal, and review or acceptance of a submittal by City is not an assumption of risk or liability by City.

(F) **Enforcement.** Any Work performed or any material furnished, installed, fabricated or used without City's prior acceptance of a required submittal is performed or provided at Contractor's risk, and Contractor may be required to bear the costs incident thereto, including the cost of removing and replacing such Work, repairs to other affected portions of the Work or material, and the cost of additional time or services required of City, including costs for the Design Professional, Project Manager, or Inspector.

(G) **Excessive RFIs.** A RFI will be considered excessive or unnecessary if City determines that the explanation or response to the RFI is clearly and unambiguously discernable from the Contract Documents. City's costs to review and respond to excessive or unnecessary RFIs may be deducted from payments otherwise due to Contractor.

2.6 Shop Drawings. When Shop Drawings are required by the Specifications or requested by the Engineer, they must be prepared according to best practices at Contractor's expense. The Shop Drawings must be of a size and scale to clearly show all necessary details. Unless otherwise specified by City, Shop Drawings must be provided to the Engineer for review and acceptance at least 30 days before the Work will be performed. If City requires changes, the corrected Shop Drawings must be resubmitted to the Engineer for review within the time specified by the Engineer. For all Project components requiring Shop Drawings, Contractor will not furnish materials or perform any Work until the Shop Drawings for those components are accepted by City. Contractor is responsible for any errors or omissions in the Shop Drawings, shop fits and field corrections; any deviations from the Contract Documents; and for the results obtained by the use of Shop Drawings. Acceptance of Shop Drawings by City does not relieve Contractor of Contractor's responsibility.

2.7 Access to Work. Contractor must afford prompt and safe access to any Worksite by City and its employees, agents, or consultants authorized by City; and upon request by City, Contractor must promptly arrange for City representatives to visit or inspect manufacturing sites or fabrication facilities for items to be incorporated into the Work.

2.8 Personnel. Contractor and its Subcontractors must employ only competent and skillful personnel to perform the Work. Contractor and its Subcontractor's supervisors, security or safety personnel, and employees who have unescorted access to the Project site must possess proficiency in English sufficient to read, understand, receive, and implement oral or written communications or instructions relating to their respective job functions, including safety and security requirements. Upon written notification from the Engineer, Contractor and its Subcontractors must immediately discharge any personnel who are incompetent, disorderly, disruptive, threatening, abusive, or profane, or otherwise refuse or fail to comply with the requirements of the Contract Documents or Laws, including Laws pertaining to health and safety. Any such discharged personnel may not be re-employed or permitted on the Project in any capacity without City's prior written consent.

3. Article 3 - Contract Documents

3.1 Interpretation of Contract Documents.

(A) **Plans and Specifications.** The Plans and Specifications included in the Contract Documents are complementary. If Work is shown on one but not on the other, Contractor must perform the Work as though fully described on both, consistent with the Contract Documents and

reasonably inferable from them as being necessary to produce the indicated results. The Plans and Specifications are deemed to include and require everything necessary and reasonably incidental to completion of the Work, whether or not particularly mentioned or shown. Contractor must perform all Work and services and supply all things reasonably related to and inferable from the Contract Documents. In the event of a conflict between the Plans and Specifications, the Specifications will control, unless the drawing(s) at issue are dated later than the Specification(s) at issue. Detailed drawings take precedence over general drawings, and large-scale drawings take precedence over smaller scale drawings. Any arrangement or division of the Plans and Specifications into sections is for convenience and is not intended to limit the Work required by separate trades. A conclusion presented in the Plans or Specifications is only a recommendation. Actual locations and depths must be determined by Contractor's field investigation. Contractor may request access to underlying or background information in City's possession that is necessary for Contractor to form its own conclusions.

(B) ***Duty to Notify and Seek Direction.*** If Contractor becomes aware of a changed condition in the Project, or of any ambiguity, conflict, inconsistency, discrepancy, omission, or error in the Contract Documents, including the Plans or Specifications, Contractor must promptly submit a Request for Information to the Engineer and wait for a response from City before proceeding further with the related Work. The RFI must notify City of the issue and request clarification, interpretation or direction. The Engineer's clarification, interpretation or direction will be final and binding on Contractor. If Contractor proceeds with the related Work before obtaining City's response, Contractor will be responsible for any resulting costs, including the cost of correcting any incorrect or defective Work that results. Timely submission of a clear and complete RFI is essential to avoiding delay. Delay resulting from Contractor's failure to submit a timely and complete RFI to the Engineer is Non-Excusable Delay. If Contractor believes that City's response to an RFI justifies a change to the Contract Price or Contract Time, Contractor must perform the Work as directed, but may submit a timely Change Order request in accordance with the Contract Documents. (See Articles 5 and 6.)

(C) ***Figures and Dimensions.*** Figures control over scaled dimensions.

(D) ***Technical or Trade Terms.*** Any terms that have well-known technical or trade meanings will be interpreted in accordance with those meanings, unless otherwise specifically defined in the Contract Documents.

(E) ***Measurements.*** Contractor must verify all relevant measurements in the Contract Documents and at the Project site before ordering any material or performing any Work, and will be responsible for the correctness of those measurements or for costs that could have been avoided by independently verifying measurements.

(F) ***Compliance with Laws.*** The Contract Documents are intended to comply with Laws and will be interpreted to comply with Laws.

3.2 Order of Precedence. Information included in one Contract Document but not in another will not be considered a conflict or inconsistency. Unless otherwise specified in the Special Conditions, in case of any conflict or inconsistency among the Contract Documents, the following order of precedence will apply, beginning from highest to lowest, with the most recent version taking precedent over an earlier version:

- (A) Change Orders;
- (B) Addenda;
- (C) Contract;
- (D) Notice to Proceed;
- (E) Special Conditions;
- (F) General Conditions;
- (G) Payment and Performance Bonds;

- (H) Specifications;
- (I) Plans;
- (J) Notice of Potential Award;
- (K) Notice Inviting Bids;
- (L) Instructions to Bidders;
- (M) Contractor's Bid Proposal and attachments;
- (N) the City's standard specifications, as applicable; and
- (O) Any generic documents prepared by and on behalf of a third party, that were not prepared specifically for this Project, such as the Caltrans Standard Specifications or Caltrans Special Provisions.

3.3 Caltrans Standard Specifications. Any reference to or incorporation of the Standard Specifications of the State of California, Department of Transportation ("Caltrans"), including "Standard Specifications," "Caltrans Specifications," "State Specifications," or "CSS," means the most current edition of Caltrans' Standard Specifications, unless otherwise specified ("Caltrans Standard Specifications"), including the most current amendments as of the date that Contractor's bid was submitted for this Project. The following provisions apply to use of or reference to the Caltrans Standard Specifications or Special Provisions:

(A) **Limitations.** The "General Provisions" of the Caltrans Standard Specifications, i.e., sections 1 through 9, do not apply to these Contract Documents with the exception of any specific provisions, if any, which are expressly stated to apply to these Contract Documents.

(B) **Conflicts or Inconsistencies.** If there is a conflict or inconsistency between any provision in the Caltrans Standard Specifications or Special Provisions and a provision of these Contract Documents, as determined by City, the provision in the Contract Documents will govern.

(C) **Meanings.** Terms used in the Caltrans Standard Specifications or Special Provisions are to be interpreted as follows:

1. Any reference to the "Engineer" is deemed to mean the City Engineer.
2. Any reference to the "Special Provisions" is deemed to mean the Special Conditions, unless the Caltrans Special Provisions are expressly included in the Contract Documents listed in Section 2 of the Contract.
3. Any reference to the "Department" or "State" is deemed to mean City.

3.4 For Reference Only. Contractor is responsible for the careful review of any document, study, or report provided by City or appended to the Contract Documents solely for informational purposes and identified as "For Reference Only." Nothing in any document, study, or report so appended and identified is intended to supplement, alter, or void any provision of the Contract Documents. Contractor is advised that City or its representatives may be guided by information or recommendations included in such reference documents, particularly when making determinations as to the acceptability of proposed materials, methods, or changes in the Work. Any record drawings or similar final or accepted drawings or maps that are not part of the Contract Documents are deemed to be For Reference Only. The provisions of the Contract Documents are not modified by any perceived or actual conflict with provisions in any document that is provided For Reference Only.

3.5 Current Versions. Unless otherwise specified by City, any reference to standard specifications, technical specifications, or any City or state codes or regulations means the latest specification, code or regulation in effect on the date that bids were due.

3.6 Conformed Copies. If City prepares a conformed set of the Contract Documents following award of the Contract, it will provide Contractor with two hard copy (paper) sets and one copy of the electronic file in PDF format. It is Contractor's responsibility to ensure that all Subcontractors,

including fabricators, are provided with the conformed set of the Contract Documents at Contractor's sole expense.

- 3.7 Ownership.** No portion of the Contract Documents may be used for any purpose other than construction of the Project, without prior written consent from City. Contractor is deemed to have conveyed the copyright in any designs, drawings, specifications, Shop Drawings, or other documents (in paper or electronic form) developed by Contractor for the Project, and City will retain all rights to such works, including the right to possession.

4. Article 4 - Bonds, Indemnity, and Insurance

- 4.1 Payment and Performance Bonds.** Within ten days following issuance of the Notice of Potential Award, Contractor is required to provide a payment bond and a performance bond, each in the penal sum of not less than 100% of the Contract Price, and each executed by Contractor and its surety using the bond forms included with the Contract Documents.

(A) **Surety.** Each bond must be issued and executed by a surety admitted in California. If an issuing surety cancels the bond or becomes insolvent, within seven days following written notice from City, Contractor must substitute a surety acceptable to City. If Contractor fails to substitute an acceptable surety within the specified time, City may, at its sole discretion, withhold payment from Contractor until the surety is replaced to City's satisfaction, or terminate the Contract for default.

(B) **Supplemental Bonds for Increase in Contract Price.** If the Contract Price increases during construction by five percent or more over the original Contract Price, Contractor must provide supplemental or replacement bonds within ten days of written notice from City pursuant to this Section, covering 100% of the increased Contract Price and using the bond forms included with the Contract Documents.

- 4.2 Insurance.** No later than ten days following issuance of the Notice of Potential Award, Contractor must procure and provide proof of the insurance coverage required by this Section in the form of certificates and endorsements acceptable to City. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract, through the date of City's acceptance of the Project. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VIII" or better. If Contractor fails to provide any of the required coverage in full compliance with the requirements of the Contract Documents, City may, at its sole discretion, purchase such coverage at Contractor's expense and deduct the cost from payments due to Contractor, or terminate the Contract for default. The procurement of the required insurance will not be construed to limit Contractor's liability under this Contract or to fulfill Contractor's indemnification obligations under this Contract.

(A) **Policies and Limits.** The following insurance policies and limits are required for this Contract, unless otherwise specified in the Special Conditions:

1. **Commercial General Liability ("CGL") Insurance:** The CGL insurance policy must be issued on an occurrence basis, written on a comprehensive general liability form, and must include coverage for liability arising from Contractor's or its Subcontractor's acts or omissions in the performance of the Work, including contractor's *protective* coverage, contractual liability, products and completed operations, and broad form property damage, with limits of at least **\$5,000,000** per occurrence and at least **\$10,000,000** general aggregate. The CGL insurance coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy

complies with the requirements set forth in this Section, including required endorsements.

2. **Automobile Liability Insurance:** The automobile liability insurance policy must provide coverage of at least **\$2,000,000** combined single-limit per accident for bodily injury, death, or property damage, including hired and non-owned auto liability.
3. **Workers' Compensation Insurance and Employer's Liability:** The workers' compensation and employer's liability insurance policy must comply with the requirements of the California Labor Code, providing coverage of at least **\$1,000,000** or as otherwise required by the statute. If Contractor is self-insured, Contractor must provide its Certificate of Permission to Self-Insure, duly authorized by the DIR.
4. **Pollution Liability Insurance:** *The pollution liability insurance policy must be issued on an occurrence basis, providing coverage of at least \$2,000,000 for all loss arising out of claims for bodily injury, death, property damage, or environmental damage caused by pollution conditions resulting from the Work.*
5. **Builder's Risk Insurance:** *The builder's risk insurance policy requirement set forth in this section is hereby waived and does not apply to this Contract.*

(B) **Notice.** Each certificate of insurance must state that the coverage afforded by the policy or policies will not be reduced, cancelled or allowed to expire without at least 30 days *advance* written notice to City, unless due to non-payment of premiums, in which case ten days *advance* written notice must be made to City.

(C) **Waiver of Subrogation.** Each required policy must include an endorsement providing that the carrier will waive any right of subrogation it may have against City.

(D) **Required Endorsements.** The CGL policy, automobile liability policy, pollution liability policy, and builder's risk policy must include the following specific endorsements:

1. The City, including its Council, officials, officers, employees, agents, volunteers and consultants (collectively, "Additional Insured") must be named as an additional insured for all liability arising out of the operations by or on behalf of the named insured, and the policy must protect the Additional Insured against any and all liability for personal injury, death or property damage or destruction arising directly or indirectly in the performance of the Contract. The additional insured endorsement must be provided using ISO form CG 20 10 11 85 or an equivalent form approved by the City.
2. The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the coverages afforded will apply as though separate policies have been issued to each insured.
3. The insurance provided by Contractor is primary and no insurance held or owned by any Additional Insured may be called upon to contribute to a loss.
4. This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.
5. The Contractor may use Umbrella or Excess Policies to provide the liability limits as required in this agreement. This form of insurance will be acceptable provided that all of the Primary and Umbrella or Excess Policies shall provide all of the insurance coverages herein required, including, but not limited to, primary and non-contributory, additional insured, Self-Insured Retentions (SIRs), indemnity, and defense requirements. The Umbrella or Excess policies shall be provided on a true "following

form” or broader coverage basis, with coverage at least as broad as provided on the underlying Commercial General Liability insurance. No insurance policies maintained by the Additional Insureds, whether primary or excess, and which also apply to a loss covered hereunder, shall be called upon to contribute to a loss until the Contractor’s primary and excess liability policies are exhausted.

6. Contractor shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause and a copy of the Declarations and Endorsements Pages of the CGL and any Excess policies listing all policy endorsements. All certificates and endorsements and copies of the Declarations & Endorsements pages are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor’s obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time. City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.
7. CGL & Excess liability policies for any construction related work, including, but not limited to, maintenance, service, or repair work, shall continue coverage for a minimum of 5 years for Completed Operations liability coverage. Such Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of the agreement of work.
8. Special Risks or Circumstances: CITY reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

(E) **Contractor’s Responsibilities.** This Section 4.3 establishes the minimum requirements for Contractor’s insurance coverage in relation to this Project, but is not intended to limit Contractor’s ability to procure additional or greater coverage. Contractor is responsible for its own risk assessment and needs and is encouraged to consult its insurance provider to determine what coverage it may wish to carry beyond the minimum requirements of this Section. Contractor is solely responsible for the cost of its insurance coverage, including premium payments, deductibles, or self-insured retentions, and no Additional Insured will be responsible or liable for any of the cost of Contractor’s insurance coverage.

(F) **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions that apply to the required insurance (collectively, “deductibles”) in excess of \$100,000 are subject to approval by the City’s Risk Manager, acting in his or her sole discretion, and must be declared by Contractor when it submits its certificates of insurance and endorsements pursuant to this Section 4.3. If the City’s Risk Manager determines that the deductibles are unacceptably high, at City’s option, Contractor must either reduce or eliminate the deductibles as they apply to City and all required Additional Insured; or must provide a financial guarantee, to City’s satisfaction, guaranteeing payment of losses and related investigation, claim administration, and legal expenses.

(G) **Subcontractors.** Contractor must ensure that each Subcontractor is required to maintain the same insurance coverage required under this Section 4.3, with respect to its performance of Work on the Project, including those requirements related to the Additional Insureds and waiver of subrogation, but excluding pollution liability or builder’s risk insurance unless otherwise specified in the Special Conditions. A Subcontractor may be eligible for reduced insurance coverage or limits, but only to the extent approved in writing in advance by the City’s Risk Manager. Contractor must confirm that each Subcontractor has complied with these insurance requirements before the Subcontractor is permitted to begin Work on the Project. Upon request by the City, Contractor must

provide certificates and endorsements submitted by each Subcontractor to prove compliance with this requirement. The insurance requirements for Subcontractors do not replace or limit the Contractor's insurance obligations.

5. Article 5 - Contract Time

5.1 Time is of the Essence. Time is of the essence in Contractor's performance and completion of the Work, and Contractor must diligently prosecute the Work and complete it within the Contract Time.

(A) **General.** Contractor must commence the Work on the date indicated in the Notice to Proceed and must fully complete the Work in strict compliance with all requirements of the Contract Documents and within the Contract Time. Contractor may not begin performing the Work before the date specified in the Notice to Proceed.

(B) **Authorization.** Contractor is not entitled to compensation or credit for any Work performed before the date specified in the Notice to Proceed, with the exception of any schedules, submittals, or other requirements, if any, that must be provided or performed before issuance of the Notice to Proceed.

(C) **Rate of Progress.** Contractor and its Subcontractors must, at all times, provide workers, materials, and equipment sufficient to maintain the rate of progress necessary to ensure full completion of the Work within the Contract Time. If City determines that Contractor is failing to prosecute the Work at a sufficient rate of progress, City may, in its sole discretion, direct Contractor to provide additional workers, materials, or equipment, or to work additional hours or days without additional cost to City, in order to achieve a rate of progress satisfactory to City. If Contractor fails to comply with City's directive in this regard, City may, at Contractor's expense, separately contract for additional workers, materials, or equipment or use City's own forces to achieve the necessary rate of progress. Alternatively, City may terminate the Contract based on Contractor's default.

5.2 Schedule Requirements. Contractor must prepare all schedules using standard, commercial scheduling software acceptable to the Engineer, and must provide the schedules in electronic and paper form as requested by the Engineer. In addition to the general scheduling requirements set forth below, Contractor must also comply with any scheduling requirements included in the Special Conditions or in the Technical Specifications.

(A) **Baseline (As-Planned) Schedule.** Within ten calendar days following City's issuance of the Notice to Proceed (or as otherwise specified in the Notice to Proceed), Contractor must submit to City for review and acceptance a baseline (as-planned) schedule using critical path methodology showing in detail how Contractor plans to perform and fully complete the Work within the Contract Time, including labor, equipment, materials, and fabricated items. The baseline schedule must show the order of the major items of Work and the dates of start and completion of each item, including when the materials and equipment will be procured. The schedule must also include the work of all trades, reflecting anticipated labor or crew hours and equipment loading for the construction activities, and must be sufficiently comprehensive and detailed to enable progress to be monitored on a day-by-day basis. For each activity, the baseline schedule must be dated, provided in the format specified in the Contract Documents or as required by City, and must include, at a minimum, a description of the activity, the start and completion dates of the activity, and the duration of the activity.

1. **Specialized Materials Ordering.** Within five calendar days following issuance of the Notice to Proceed, Contractor must order any specialized material or equipment for the Work that is not readily available from material suppliers. Contractor must also retain documentation of the purchase order date(s).

(B) **City's Review of Schedules.** City will review and may note exceptions to the baseline schedule, and to the progress schedules submitted as required below, to assure completion of the Work within the Contract Time. Contractor is solely responsible for resolving any exceptions noted in a schedule and, within seven days, must correct the schedule to address the exceptions. City's review or acceptance of Contractor's schedules will not operate to waive or limit Contractor's duty to complete the Project within the Contract Time, nor to waive or limit City's right to assess liquidated damages for Contractor's unexcused failure to do so.

(C) **Progress Schedules.** After City accepts the final baseline schedule with no exceptions, Contractor must submit an updated progress schedule and three-week look-ahead schedule, in the format specified by City, for review and acceptance with each application for a progress payment, or when otherwise specified by City, until completion of the Work. The updated progress schedule must: show how the actual progress of the Work as constructed to date compares to the baseline schedule; reflect any proposed changes in the construction schedule or method of operations, including to achieve Project milestones within the Contract Time; and identify any actual or potential impacts to the critical path. Contractor must also submit periodic reports to City of any changes in the projected material or equipment delivery dates for the Project.

1. **Float.** The progress schedule must show early and late completion dates for each task. The number of days between those dates will be designated as the "float." Any float belongs to the Project and may be allocated by the Engineer to best serve timely completion of the Project.
2. **Failure to Submit Schedule.** Reliable, up-to-date schedules are essential to efficient and cost-effective administration of the Project and timely completion. If Contractor fails to submit a schedule within the time periods specified in this Section, or submits a schedule to which City has noted exceptions that are not corrected, City may withhold up to five percent from payment(s) otherwise due to Contractor until the exceptions are resolved, the schedule is corrected and resubmitted, and City has accepted the schedule. In addition, Contractor's failure to comply with the schedule requirements in this Section 5.2 will be deemed a material default and a waiver of any claims for Excusable Delay or loss of productivity arising during any period when Contractor is out of compliance, subject only to the limits of Public Contract Code § 7102.

(D) **Recovery Schedule.** If City determines that the Work is more than one week behind schedule, within seven days following written notice of such determination, Contractor must submit a recovery schedule, showing how Contractor intends to perform and complete the Work within the Contract Time, based on actual progress to date.

(E) **Effect of Acceptance.** Contractor and its Subcontractors must perform the Work in accordance with the most current City-accepted schedule unless otherwise directed by City. City's acceptance of a schedule does not operate to extend the time for completion of the Work or any component of the Work, and will not affect City's right to assess liquidated damages for Contractor's unexcused delay in completing the Work within the Contract Time.

(F) **Posting.** Contractor must at all times prominently post a copy of the most current City-accepted progress or recovery schedule in its on-site office.

(G) **Reservation of Rights.** City reserves the right to direct the sequence in which the Work must be performed or to make changes in the sequence of the Work in order to facilitate the performance of work by City or others, or to facilitate City's use of its property. The Contract Time or Contract Price may be adjusted to the extent such changes in sequence actually increase or decrease Contractor's time or cost to perform the Work.

(H) **Authorized Working Days and Times.** Contractor is limited to working Monday through Friday, excluding holidays, during City's normal business hours, except as provided in the Special

Conditions or as authorized in writing by City. City reserves the right to charge Contractor for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in the Contract Documents, including reimbursement of costs incurred for inspection, testing, and construction management services.

5.3 Delay and Extensions of Contract Time.

(A) **Notice of Delay.** If Contractor becomes aware of any actual or potential delay affecting the critical path, Contractor must promptly notify the Engineer in writing, regardless of the nature or cause of the delay, so that City has a reasonable opportunity to mitigate or avoid the delay.

(B) **Excusable Delay.** The Contract Time may be extended if Contractor encounters "Excusable Delay," which is an unavoidable delay in completing the Work within the Contract Time due to causes completely beyond Contractor's control, and which Contractor could not have avoided or mitigated through reasonable care, planning, foresight, or diligence, provided that Contractor is otherwise fully performing its obligations under the Contract Documents. Grounds for Excusable Delay may include fire, natural disasters including earthquake or unusually severe weather, acts of terror or vandalism, epidemic, unforeseeable adverse government actions, unforeseeable actions of third parties, encountering unforeseeable hazardous materials, unforeseeable site conditions, or suspension for convenience under Article 13. The Contract Time will not be extended based on circumstances which will not unavoidably delay completing the Work within the Contract Time based on critical path analysis.

(C) **Weather Delays.** A "Weather Delay Day" is a Working Day during which Contractor and its forces, including Subcontractors, are unable to perform more than 40% of the critical path Work scheduled for that day due to adverse weather conditions which impair the ability to safely or effectively perform the scheduled critical path Work that day. Adverse weather conditions may include rain, saturated soil, and Project site clean-up required due to adverse weather. Determination of what constitutes critical path Work scheduled for that day will be based on the most current, City-approved schedule. Contractor will be entitled to a non-compensable extension of the Contract Time for each Weather Delay Day in excess of the normal Weather Delay Days within a given month as determined by reliable records, including monthly rainfall averages, for the preceding ten years (or as otherwise specified in the Special Conditions or Specifications).

1. Contractor must fully comply with the applicable procedures in Articles 5 and 6 of the General Conditions regarding requests to modify the Contract Time.
2. Contractor will not be entitled to an extension of time for a Weather Delay Day to the extent Contractor is responsible for concurrent delay on that day.
3. Contractor must take reasonable steps to mitigate the consequences of Weather Delay Days, including prudent workforce management and protecting the Work, Project Site, materials, and equipment.

(D) **Non-Excusable Delay.** Delay which Contractor could have avoided or mitigated through reasonable care, planning, foresight, or diligence is "Non-Excusable Delay." Contractor is not entitled to an extension of Contract Time or any compensation for Non-Excusable Delay, or for Excusable Delay that is concurrent with Non-Excusable Delay. Non-Excusable Delay includes delay caused by:

1. Weather conditions which are normal for the location of the Project, as determined by reliable records, including monthly rainfall averages, for the preceding ten years;
2. Contractor's failure to order equipment and materials sufficiently in advance of the time needed for completion of the Work within the Contract Time;

3. Contractor's failure to provide adequate notification to utility companies or agencies for connections or services necessary for completion of the Work within the Contract Time;
4. Foreseeable conditions which Contractor could have ascertained from reasonably diligent inspection of the Project site or review of the Contract Documents or other information provided or available to Contractor;
5. Contractor's failure, refusal, or financial inability to perform the Work within the Contract Time, including insufficient funds to pay its Subcontractors or suppliers;
6. Performance or non-performance by Contractor's Subcontractors or suppliers;
7. The time required to respond to excessive RFIs (see Section 2.5(G));
8. Delayed submission of required submittals, or the time required for correction and resubmission of defective submittals;
9. Time required for repair of, re-testing, or re-inspection of defective Work;
10. Enforcement of Laws by City, or outside agencies with jurisdiction over the Work; or
11. City's exercise or enforcement of any of its rights or Contractor's duties pursuant to the Contract Documents, including correction of defective Work, extra inspections or testing due to non-compliance with Contract requirements, safety compliance, environmental compliance, or rejection and return of defective or deficient submittals.

(E) **Compensable Delay.** Pursuant to Public Contract Code § 7102, in addition to entitlement to an extension of Contract Time, Contractor is entitled to compensation for costs incurred due to delay caused solely by City, when that delay is unreasonable under the circumstances involved and not within the contemplation of the parties ("Compensable Delay"). Contractor is not entitled to an extension of Contract Time or recovery of costs for Compensable Delay that is concurrent with Non-Excusable Delay. Delay due to Weather Delay Days in excess of normal for a given month, as set forth in Section 5.3(C), is not Compensable Delay, and will only entitle Contractor to an extension of time commensurate with the time lost due to such delay.

(F) **Recoverable Costs.** Contractor is not entitled to compensation for Excusable Delay unless it is Compensable Delay, as defined above. Contractor is entitled to recover only the actual, direct, reasonable, and substantiated costs ("Recoverable Costs") for each working day that the Compensable Delay prevents Contractor from proceeding with more than 50% of the critical path Work scheduled for that day, based on the most recent progress schedule accepted by City. Recoverable Costs will not include home office overhead or lost profit.

(G) **Request for Extension of Contract Time or Recoverable Costs.** A request for an extension of Contract Time or any associated Recoverable Costs must be submitted in writing to City within 14 calendar days of the date the delay is first encountered, even if the duration of the delay is not yet known at that time, or any entitlement to the Contract Time extension or to the Recoverable Costs will be deemed waived. In addition to complying with the requirements of this Article 5, the request must be submitted in compliance with the Change Order request procedures in Article 6 below. Strict compliance with these requirements is necessary to ensure that any delay or consequences of delay may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project and timely performance of the Work. Any request for an extension of Contract Time or Recoverable Costs that does not strictly comply with all of the requirements of Article 5 and Article 6 will be deemed waived.

1. **Required Contents.** The request must include a detailed description of the cause(s) of the delay and must also describe the measures that Contractor has taken to mitigate

the delay and/or its effects, including efforts to mitigate the cost impact of the delay, such as by workforce management or by a change in sequencing. If the delay is still ongoing at the time the request is submitted, the request should also include Contractor's plan for continued mitigation of the delay or its effects.

2. **Delay Days and Costs.** The request must specify the number of days of Excusable Delay claimed or provide a realistic estimate if the duration of the delay is not yet known. If Contractor believes it is entitled to Recoverable Costs for Compensable Delay, the request must specify the amount and basis for the Recoverable Costs that are claimed or provide a realistic estimate if the amount is not yet known. Any estimate of delay duration or cost must be updated in writing and submitted with all required supporting documentation as soon as the actual time and cost is known. The maximum extension of Contract Time will be the number of days, if any, by which an Excusable Delay or a Compensable Delay exceeds any concurrent Non-Excusable Delay. Contractor is entitled to an extension of Contract Time, or compensation for Recoverable Costs, only if, and only to the extent that, such delay will unavoidably delay Final Completion.
3. **Supporting Documentation.** The request must also include any and all supporting documentation necessary to evidence the delay and its actual impacts, including scheduling and cost impacts with a time impact analysis using critical path methodology and demonstrating the unavoidable delay to Final Completion. The time impact analysis must be submitted in a form or format acceptable to City.
4. **Burden of Proof.** Contractor has the burden of proving that: the delay was an Excusable Delay or Compensable Delay, as defined above; Contractor has fully complied with its scheduling obligations in Section 5.2, Schedule Requirements; Contractor has made reasonable efforts to mitigate the delay and its schedule and cost impacts; the delay will unavoidably result in delaying Final Completion; and any Recoverable Costs claimed by Contractor were actually incurred and were reasonable under the circumstances.
5. **Legal Compliance.** Nothing in this Section 5.3 is intended to require the waiver, alteration, or limitation of the applicability of Public Contract Code § 7102.
6. **No Waiver.** Any grant of an extension of Contract Time, or compensation for Recoverable Costs due to Compensable Delay, will not operate as a waiver of City's right to assess liquidated damages for Non-Excusable Delay.
7. **Dispute Resolution.** In the event of a dispute over entitlement to an extension of Contract Time or compensation for Recoverable Costs, Contractor may not stop Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work. Contractor's sole recourse for an unresolved dispute based on City's rejection of a Change Order request for an extension of Contract Time or compensation for Recoverable Costs is to comply with the dispute resolution provisions set forth in Article 12 below.

5.4 Liquidated Damages. It is expressly understood that if Final Completion is not achieved within the Contract Time, City will suffer damages from the delay that are difficult to determine and accurately specify. Pursuant to Public Contract Code § 7203, if Contractor fails to achieve Final Completion within the Contract Time due to Contractor's Non-Excusable Delay, City will charge Contractor in the amount specified in the Contract for each calendar day that Final Completion is delayed beyond the Contract Time, as liquidated damages and not as a penalty. Any waiver of accrued liquidated damages, in whole or in part, is subject to approval of the City Council or its authorized delegee.

(A) **Liquidated Damages.** Liquidated damages will not be assessed for any Excusable Delay or Compensable Delay, as set forth above.

(B) **Milestones.** Liquidated damages may also be separately assessed for failure to meet milestones specified elsewhere in the Contract Documents.

(C) **Setoff.** City is entitled to deduct the amount of liquidated damages assessed against any payments otherwise due to Contractor, including progress payments, Final Payment, or unreleased retention. If there are insufficient Contract funds remaining to cover the full amount of liquidated damages assessed, City is entitled to recover the balance from Contractor or its performance bond surety.

(D) **Occupancy or Use.** Occupancy or use of the Project in whole or in part prior to Final Completion does not constitute City's acceptance of the Project and will not operate as a waiver of City's right to assess liquidated damages for Contractor's Non-Excusable Delay in achieving Final Completion.

(E) **Other Remedies.** City's right to liquidated damages under this Section applies only to damages arising from Contractor's Non-Excusable Delay or failure to complete the Work within the Contract Time. City retains its right to pursue all other remedies under the Contract for other types of damage, including damage to property or persons, costs or diminution in value from defective materials or workmanship, costs to repair or complete the Work, or other liability caused by Contractor.

6. Article 6 - Contract Modification

6.1 Contract Modification. Subject to the limited exception set forth in subsection (D) below, any change in the Work or the Contract Documents, including the Contract Price or Contract Time, will not be a valid and binding change to the Contract unless it is formalized in a Change Order, including a "no-cost" Change Order or a unilateral Change Order. Changes in the Work pursuant to this Article 6 will not operate to release, limit, or abridge Contractor's warranty obligations pursuant to Article 11 or any obligations of Contractor's bond sureties.

(A) **City-Directed Changes.** City may direct changes in the scope or sequence of Work or the requirements of the Contract Documents, without invalidating the Contract. Such changes may include Extra Work as set forth in subsection (C) below, or deletion or modification of portions of the Work. Contractor must promptly comply with City-directed changes in the Work in accordance with the original Contract Documents, even if Contractor and City have not yet reached agreement as to adjustments to the Contract Price or Contract Time for the change in the Work or for the Extra Work. Contractor is not entitled to extra compensation for cost savings resulting from "value engineering" pursuant to Public Contract Code § 7101, except to the extent authorized in advance by City in writing, and subject to any applicable procedural requirements for submitting a proposal for value engineering cost savings.

(B) **Disputes.** In the event of a dispute over entitlement to or the amount of a change in Contract Time or a change in Contract Price related to a City-directed change in the Work, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute. Likewise, in the event that City and Contractor dispute whether a portion or portions of the Work are already required by the Contract Documents or constitute Extra Work, or otherwise dispute the interpretation of any portion(s) of the Contract Documents, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute, as directed by City. If Contractor refuses to perform the Work in dispute, City may, acting in its sole discretion, elect to delete the Work from the Contract and reduce the Contract Price accordingly, and self-perform the Work or direct that the Work be performed by others. Alternatively, City may elect to terminate the Contract for convenience or for

cause. Contractor's sole recourse for an unresolved dispute related to changes in the Work or performance of any Extra Work is to comply with the dispute resolution provisions set forth in Article 12, below.

(C) **Extra Work.** City may direct Contractor to perform Extra Work related to the Project. Contractor must promptly perform any Extra Work as directed or authorized by City in accordance with the original Contract Documents, even if Contractor and City have not yet reached agreement on adjustments to the Contract Price or Contract Time for such Extra Work. If Contractor believes it is necessary to perform Extra Work due to changed conditions, Contractor must promptly notify the Engineer in writing, specifically identifying the Extra Work and the reason(s) the Contractor believes it is Extra Work. This notification requirement does not constitute a Change Order request pursuant to Section 6.2, below. Contractor must maintain detailed daily records that itemize the cost of each element of Extra Work, and sufficiently distinguish the direct cost of the Extra Work from the cost of other Work performed. For each day that Contractor performs Extra Work, or Work that Contractor contends is Extra Work, Contractor must submit no later than the following Working Day, a daily report of the Extra Work performed that day and the related costs, together with copies of certified payroll, invoices, and other documentation substantiating the costs ("Extra Work Report"). The Engineer will make any adjustments to Contractor's Extra Work Report(s) based on the Engineer's records of the Work. When an Extra Work Report(s) is agreed on and signed by both City and Contractor, the Extra Work Report(s) will become the basis for payment under a duly authorized and signed Change Order. Failure to submit the required documentation by close of business on the next Working Day is deemed a full and complete waiver for any change in the Contract Price or Contract Time for any Extra Work performed that day.

(D) **Minor Changes and RFIs.** Minor field changes, including RFI replies from City, that do not affect the Contract Price or Contract Time and that are approved by the Engineer acting within his or her scope of authority, do not require a Change Order. By executing an RFI reply from City, Contractor agrees that it will perform the Work as clarified therein, with no change to the Contract Price or Contract Time.

(E) **Remedy for Non-Compliance.** Contractor's failure to promptly comply with a City-directed change is deemed a material breach of the Contract, and in addition to all other remedies available to it, City may, at its sole discretion, hire another contractor or use its own forces to complete the disputed Work at Contractor's sole expense, and may deduct the cost from the Contract Price.

6.2 Contractor Change Order Requests. Contractor must submit a request or proposal for a change in the Work, compensation for Extra Work, or a change in the Contract Price or Contract Time as a written Change Order request or proposal.

(A) **Time for Submission.** Any request for a change in the Contract Price or the Contract Time must be submitted in writing to the Engineer within 14 calendar days of the date that Contractor first encounters the circumstances, information or conditions giving rise to the Change Order request, even if the total amount of the requested change in the Contract Price or impact on the Contract Time is not yet known at that time. If City requests that Contractor propose the terms of a Change Order, unless otherwise specified in City's request, Contractor must provide the Engineer with a written proposal for the change in the Contract Price or Contract Time within five working days of receiving City's request, in a form satisfactory to the Engineer.

(B) **Required Contents.** Any Change Order request or proposal submitted by Contractor must include a complete breakdown of actual or estimated costs and credits, and must itemize labor, materials, equipment, taxes, insurance, subcontract amounts, and, if applicable, Extra Work Reports. Any estimated cost must be updated in writing as soon as the actual amount is known.

(C) **Required Documentation.** All claimed costs must be fully documented, and any related request for an extension of time or delay-related costs must be included at that time and in compliance with the requirements of Article 5 of the General Conditions. Upon request, Contractor

must permit City to inspect its original and unaltered bidding records, subcontract agreements, subcontract change orders, purchase orders, invoices, or receipts associated with the claimed costs.

(D) **Required Form.** Contractor must use City's form(s) for submitting all Change Order requests or proposals, unless otherwise specified by City.

(E) **Certification.** All Change Order requests must be signed by Contractor and must include the following certification:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Change Order request are true and correct. Contractor warrants that this Change Order request is comprehensive and complete as to the Work or changes referenced herein, and agrees that any known or foreseeable costs, expenses, or time extension requests not included herein, are deemed waived."

6.3 Adjustments to Contract Price. The amount of any increase or decrease in the Contract Price will be determined based on one of the following methods listed below, in the order listed with unit pricing taking precedence over the other methods. Markup applies only to City-authorized time and material Work, and does not apply to any other payments to Contractor. For Work items or components that are deleted in their entirety, Contractor will only be entitled to compensation for those direct, actual, and documented costs (including restocking fees), reasonably incurred before Contractor was notified of the City's intent to delete the Work, with no markup for overhead, profit, or other indirect costs.

(A) **Unit Pricing.** Amounts previously provided by Contractor in the form of unit prices, either in a bid schedule or in a post-award schedule of values pursuant to Section 8.1, Schedule of Values, will apply to determine the price for the affected Work, to the extent applicable unit prices have been provided for that type of Work. No additional markup for overhead, profit, or other indirect costs will be added to the calculation.

(B) **Lump Sum.** A mutually agreed upon, all-inclusive lump sum price for the affected Work with no additional markup for overhead, profit, or other indirect costs.

(C) **Time and Materials.** On a time and materials basis, if and only to the extent compensation on a time and materials basis is expressly authorized by City in advance of Contractor's performance of the Work and subject to any not-to-exceed limit. Time and materials compensation for increased costs or Extra Work (but not decreased costs or deleted Work) will include allowed markup for overhead, profit, and other indirect costs, calculated as the total of the following sums, the cumulative total of which may not exceed the maximum markup rate of 15% (excluding bond or insurance premium markup):

1. All direct labor costs provided by the Contractor, excluding superintendence, project management, or administrative costs, plus 15% markup;
2. All direct material costs provided by the Contractor, including sales tax, plus 15% markup;
3. All direct plant and equipment rental costs provided by the Contractor, plus 15% markup;
4. All actual direct labor, material, and equipment costs for Work performed by Subcontractors, plus markup on those costs not to exceed 10% of the cumulative total of those actual direct costs, regardless of the number of subcontract tiers; and

5. Increased bond or insurance premium costs computed at 1.5% of the total of the previous four sums.

- 6.4 Unilateral Change Order.** If the parties dispute the terms of a proposed Change Order, including disputes over the amount of compensation or extension of time that Contractor has requested, the value of deleted or changed Work, what constitutes Extra Work, or quantities used, City may elect to issue a unilateral Change Order, directing performance of the Work, and authorizing a change in the Contract Price or Contract Time for the adjustment to compensation or time that the City believes is merited. Contractor's sole recourse to dispute the terms of a unilateral Change Order is to submit a timely Claim pursuant to Article 12, below.
- 6.5 Non-Compliance Deemed Waiver.** Contractor waives its entitlement to any increase in the Contract Price or Contract Time if Contractor fails to fully comply with the provisions of this Article. Contractor will not be paid for unauthorized Extra Work.
- 6.6 Post-Bid Cost Increases.** The City is not responsible for any post-bid cost increases that were foreseeable at the time of the bid based on generally available information (e.g., scheduled tariffs), or that arose due to Contractor's failure to timely procure materials or equipment.

7. Article 7 - General Construction Provisions

7.1 Permits, Fees, Business License, and Taxes.

(A) **Permits, Fees, and City Business License.** Contractor must obtain and pay for all permits, fees, and licenses required to perform the Work, including a City business license. Contractor must cooperate with and provide notifications to all government agencies with jurisdiction over the Project, as may be required. Contractor must provide City with copies of all records of permits and permit applications, payment of required fees, and any licenses required for the Work.

(B) **Taxes.** Contractor must pay for all taxes on labor, material, and equipment, except Federal Excise Tax to the extent that City is exempt from Federal Excise Tax.

7.2 Temporary Facilities. Contractor must provide, at Contractor's sole expense, any and all temporary facilities for the Project, including an onsite staging area for materials and equipment, a field office, sanitary facilities, utilities, storage, scaffolds, barricades, walkways, and any other temporary structure required to safely perform the Work along with any incidental utility services. The location of all temporary facilities must be approved by the City prior to installation. Temporary facilities must be safe and adequate for the intended use and installed and maintained in accordance with Laws and the Contract Documents. Contractor must fence and screen the Project site and, if applicable, any separate Worksites, including the staging area, and its operation must minimize inconvenience to neighboring properties. Additional provisions pertaining to temporary facilities may be included in the Specifications or Special Conditions.

(A) **Utilities.** Contractor must install and maintain the power, water, sewer, and all other utilities required for the Project site, including the piping, wiring, internet and Wi-Fi connections, and any related equipment necessary to maintain the temporary facilities.

(B) **Removal and Repair.** Contractor must promptly remove all such temporary facilities when they are no longer needed or upon completion of the Work, whichever comes first. Contractor must promptly repair any damage to City's property or to other property caused by the installation, use, or removal of the temporary facilities, and must promptly restore the property to its original or intended condition.

7.3 Noninterference and Site Management. Contractor must avoid interfering with City's use of its property at or adjacent to the Project site, including use of roadways, entrances, parking areas,

walkways, and structures. Contractor must also minimize disruption of access to private property in the Project vicinity. Contractor must coordinate with affected property owners, tenants, and businesses, and maintain some vehicle and pedestrian access to their residences or properties at all times. Temporary access ramps, fencing or other measures must be provided as needed. Before blocking access to a private driveway or parking lot, Contractor must provide effective notice to the affected parties at least 48 hours in advance of the pending closure and allow them to remove vehicles. Private driveways, residences and parking lots must have access to a roadway during non-Work hours.

(A) **Offsite Acquisition.** Unless otherwise provided by City, Contractor must acquire, use, and dispose of, at its sole expense, any Worksites, licenses, easements, and temporary facilities necessary to access and perform the Work.

(B) **Offsite Staging Area and Field Office.** If additional space beyond the Project site is needed, such as for the staging area or the field office, Contractor may need to make arrangements with the nearby property owner(s) to secure the space. Before using or occupying any property owned by a third party, Contractor must provide City with a copy of the necessary license agreement, easement, or other written authorization from the property owner, together with a written release from the property owner holding City harmless from any related liability, in a form acceptable to the City Attorney.

(C) **Traffic Management.** Contractor must provide traffic management and traffic controls as specified in the Contract Documents, as required by Laws, and as otherwise required to ensure public and worker safety, and to avoid interference with public or private operations or the normal flow of vehicular, bicycle, or pedestrian traffic.

7.4 Signs. No signs may be displayed on or about City's property, except signage which is required by Laws or by the Contract Documents, without City's prior written approval as to size, design, and location.

7.5 Project Site and Nearby Property Protections.

(A) **General.** Contractor is responsible at all times, on a 24-hour basis and at its sole cost, for protecting the Work, the Project site, and the materials and equipment to be incorporated into the Work, until the City has accepted the Project, excluding any exceptions to acceptance, if any. Except as specifically authorized by City, Contractor must confine its operations to the area of the Project site indicated in the Plans and Specifications. Contractor is liable for any damage caused by Contractor or its Subcontractors to the Work, City's property, the property of adjacent or nearby property owners and the work or personal property of other contractors working for City, including damage related to Contractor's failure to adequately secure the Work or any Worksite.

1. Subject to City's approval, Contractor will provide and install safeguards to protect the Work; any Worksite, including the Project site; City's real or personal property and the real or personal property of adjacent or nearby property owners, including plant and tree protections.
2. City wastewater systems may not be interrupted. If the Work disrupts existing sewer facilities, Contractor must immediately notify City and establish a plan, subject to City's approval, to convey the sewage in closed conduits back into the sanitary sewer system. Sewage must not be permitted to flow in trenches or be covered by backfill.
3. Contractor must remove with due care, and store at City's request, any objects or material from the Project site that City will salvage or reuse at another location.
4. If directed by Engineer, Contractor must promptly repair or replace any property damage, as specified by the Engineer. However, acting in its sole discretion, City may

elect to have the property damage remedied otherwise, and may deduct the cost to repair or replace the damaged property from payment otherwise due to Contractor.

5. Contractor will not permit any structure or infrastructure to be loaded in a manner that will damage or endanger the integrity of the structure or infrastructure.

(B) **Securing Project Site.** After completion of Work each day, Contractor must secure the Project site and, to the extent feasible, make the area reasonably accessible to the public unless City approves otherwise. All excess materials and equipment not protected by approved traffic control devices must be relocated to the staging area or demobilized. Trench spoils must be hauled off the Project site daily and open excavations must be protected with steel plates. Contractor and Subcontractor personnel may not occupy or use the Project site for any purpose during non-Work hours, except as may be provided in the Contract Documents or pursuant to prior written authorization from City.

(C) **Unforeseen Conditions.** If Contractor encounters facilities, utilities, or other unknown conditions not shown on or reasonably inferable from the Plans or apparent from inspection of the Project site, Contractor must immediately notify the City and promptly submit a Request for Information to obtain further directions from the Engineer. Contractor must avoid taking any action which could cause damage to the facilities or utilities pending further direction from the Engineer. The Engineer's written response will be final and binding on Contractor. If the Engineer's subsequent direction to Contractor affects Contractor's cost or time to perform the Work, Contractor may submit a Change Order request as set forth in Article 6 above.

(D) **Support; Adjacent Properties.** Contractor must provide, install, and maintain all shoring, bracing, and underpinning necessary to provide support to City's property and adjacent properties and improvements thereon. Contractor must provide notifications to adjacent property owners as may be required by Laws. See also, Section 7.15, Trenching of Five Feet or More.

(E) **Notification of Property Damage.** Contractor must immediately notify the City of damage to any real or personal property resulting from Work on the Project. Contractor must immediately provide a written report to City of any such property damage in excess of \$500 (based on estimated cost to repair or replace) within 24 hours of the occurrence. The written report must include: (1) the location and nature of the damage, and the owner of the property, if known; (2) the name and address of each employee of Contractor or any Subcontractor involved in the damage; (3) a detailed description of the incident, including precise location, time, and names and contact information for known witnesses; and (4) a police or first responder report, if applicable. If Contractor is required to file an accident report with another government agency, Contractor will provide a copy of the report to City.

7.6 Materials and Equipment.

(A) **General.** Unless otherwise specified, all materials and equipment required for the Work must be new, free from defects, and of the best grade for the intended purpose, and furnished in sufficient quantities to ensure the proper and expeditious performance of the Work. Contractor must employ measures to preserve the specified quality and fitness of the materials and equipment. Unless otherwise specified, all materials and equipment required for the Work are deemed to include all components required for complete installation and intended operation and must be installed in accordance with the manufacturer's recommendations or instructions. Contractor is responsible for timely procurement of materials and equipment to avoid delay in Project completion and to avoid incurring additional costs due to known market volatility (e.g., scheduled tariffs). Contractor is responsible for all shipping, handling, and storage costs associated with the materials and equipment required for the Work. Contractor is responsible for providing security and protecting the Work and all of the required materials, supplies, tools and equipment at Contractor's sole cost until City has formally accepted the Project as set forth in Section 11.1, Final Completion. Contractor will not assign, sell, mortgage, or hypothecate any materials or equipment for the Project, or remove any materials or equipment that have been installed or delivered.

(B) **City-Provided.** If the Work includes installation of materials or equipment to be provided by City, Contractor is solely responsible for the proper examination, handling, storage, and installation in accordance with the Contract Documents. Contractor must notify City of any defects discovered in City-provided materials or equipment, sufficiently in advance of scheduled use or installation to afford adequate time to procure replacement materials or equipment as needed. Contractor is solely responsible for any loss of or damage to such items which occurs while the items are in Contractor's custody and control, the cost of which may be offset from the Contract Price and deducted from any payment(s) due to Contractor.

(C) **Intellectual Property Rights.** Contractor must, at its sole expense, obtain any authorization or license required for use of patented or copyright-protected materials, equipment, devices, or processes that are incorporated into the Work. Contractor's indemnity obligations in Article 4 apply to any claimed violation of intellectual property rights.

7.7 Substitutions.

(A) **"Or Equal."** Any Specification designating a material, product, or thing (collectively, "item") or service by specific brand or trade name, followed by the words "or equal," is intended only to indicate the quality and type of item or service desired, and Contractor may request use of any equal item or service. Unless otherwise stated in the Specifications, any reference to a specific brand or trade name for an item or service that is used solely for the purpose of describing the type of item or service desired, will be deemed to be followed by the words "or equal." A substitution will only be approved if it is a true "equal" item or service in every aspect of design, function, and quality, as determined by City, including dimensions, weight, maintenance requirements, durability, fit with other elements, and schedule impacts.

(B) **Request for Substitution.** A post-award request for substitution of an item or service must be submitted in writing to the Engineer for approval in advance, within the applicable time period provided in the Contract Documents. If no time period is specified, the substitution request may be submitted any time within 35 days after the date of award of the Contract, or sufficiently in advance of the time needed to avoid delay of the Work, whichever is earlier.

(C) **Substantiation.** Any available data substantiating the proposed substitute as an equal item or service must be submitted with the written request for substitution. Contractor's failure to timely provide all necessary substantiation, including any required test results as soon as they are available, is grounds for rejection of the proposed substitution, without further review.

(D) **Burden of Proving Equality.** Contractor has the burden of proving the equality of the proposed substitution at Contractor's sole cost. City has sole discretion to determine whether a proposed substitution is equal, and City's determination is final.

(E) **Approval or Rejection.** If the proposed substitution is approved, Contractor is solely responsible for any additional costs or time associated with the substituted item or service. If the proposed substitution is rejected, Contractor must, without delay, install the item or use the service as specified by City.

(F) **Contractor's Obligations.** City's approval of a proposed substitution will not relieve Contractor from any of its obligations under the Contract Documents. In the event Contractor makes an unauthorized substitution, Contractor will be solely responsible for all resulting cost impacts, including the cost of removal and replacement and the impact to other design elements.

7.8 Testing and Inspection.

(A) **General.** All materials, equipment, and workmanship used in the Work are subject to inspection and testing by City at all times and at all locations during construction and/or fabrication, including at any Worksite, shops, and yards. All manufacturers' application or installation instructions must be provided to the Inspector at least ten days prior to the first such application or installation. Contractor must, at all times, make the Work available for testing or inspection. Neither

City's inspection or testing of Work, nor its failure to do so, operate to waive or limit Contractor's duty to complete the Work in accordance with the Contract Documents.

(B) **Scheduling and Notification.** Contractor must cooperate with City in coordinating the inspections and testing. Contractor must submit samples of materials, at Contractor's expense, and schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor must notify the Engineer no later than noon of the Working Day before any inspection or testing and must provide timely notice to the other necessary parties as specified in the Contract Documents. If Contractor schedules an inspection or test beyond regular Work hours, or on a Saturday, Sunday, or recognized City holiday, Contractor must notify the Engineer at least two Working Days in advance for approval. If approved, Contractor must reimburse City for the cost of the overtime inspection or testing. Such costs, including the City's hourly costs for required personnel, may be deducted from payments otherwise due to Contractor.

(C) **Responsibility for Costs.** City will bear the initial cost of inspection and testing to be performed by independent consultants retained by City, subject to the following exceptions:

1. Contractor will be responsible for the costs of any subsequent inspections or tests which are required to substantiate compliance with the Contract Documents, and any associated remediation costs.
2. Contractor will be responsible for inspection costs, at City's hourly rates, for inspection time lost because the Work is not ready or Contractor fails to appear for a scheduled inspection.
3. If any portion of the Work that is subject to inspection or testing is covered or concealed by Contractor prior to the inspection or testing, Contractor will bear the cost of making that portion of the Work available for the inspection or testing required by the Contract Documents, and any associated repair or remediation costs.
4. Contractor is responsible for properly shoring all compaction test sites deeper than five feet below grade, as required under Section 7.15 below.
5. Any Work or material that is defective or fails to comply with the requirements of the Contract Documents must be promptly repaired, removed, replaced, or corrected by Contractor, at Contractor's sole expense, even if that Work or material was previously inspected or included in a progress payment.

(D) **Contractor's Obligations.** Contractor is solely responsible for any delay occasioned by remediation of defective or noncompliant Work or material. Inspection or testing of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified. Any Work done without the inspection(s) or testing required by the Contract Documents will be subject to rejection by City.

(E) **Distant Locations.** If required off-site testing or inspection must be conducted at a location more than 100 miles from the Project site, Contractor is solely responsible for the additional travel costs required for testing and/or inspection at such locations.

(F) **Final Inspection.** The provisions of this Section 7.8 also apply to final inspection under Article 11, Completion and Warranty Provisions.

7.9 Project Site Conditions and Maintenance. Contractor must at all times, on a 24-hour basis and at its sole cost, maintain the Project site and staging and storage areas in clean, neat, and sanitary condition and in compliance with all Laws pertaining to safety, air quality, and dust control. Adequate toilets must be provided, and properly maintained and serviced for all workers on the Project site, located in a suitably secluded area, subject to City's prior approval. Contractor must

also, on a daily basis and at its sole cost, remove and properly dispose of the debris and waste materials from the Project site.

(A) **Air Emissions Control.** Contractor must not discharge smoke or other air contaminants into the atmosphere in violation of any Laws. Contractor must comply with all Laws, including the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.).

(B) **Dust and Debris.** Contractor must minimize and confine dust and debris resulting from the Work. Contractor must abate dust nuisance by cleaning, sweeping, and immediately sprinkling with water excavated areas of dirt or other materials prone to cause dust, and within one hour after the Engineer notifies Contractor that an airborne nuisance exists. The Engineer may direct that Contractor provide an approved water-spraying truck for this purpose. If water is used for dust control, Contractor will only use the minimum necessary. Contractor must take all necessary steps to keep waste water out of streets, gutters, or storm drains. See Section 7.19, Environmental Control. If City determines that the dust control is not adequate, City may have the work done by others and deduct the cost from payment otherwise due to Contractor. Contractor will immediately remove any excess excavated material from the Project site and any dirt deposited on public streets.

(C) **Clean up.** Before discontinuing Work in an area, Contractor must clean the area and remove all debris and waste along with the construction equipment, tools, machinery, and surplus materials.

1. Except as otherwise specified, all excess Project materials, and the materials removed from existing improvements on the Project site with no salvage value or intended reuse by City, will be Contractor's property.
2. Hauling trucks and other vehicles leaving the Project site must be cleaned of exterior mud or dirt before traveling on City streets. Materials and loose debris must be delivered and loaded to prevent dropping materials or debris. Contractor must immediately remove spillage from hauling on any publicly traveled way. Streets affected by Work on the Project must be kept clean by street sweeping.

(D) **Disposal.** Contractor must dispose of all Project debris and waste materials in a safe and legal manner. Contractor may not burn or bury waste materials on the Project site. Contractor will not allow any dirt, refuse, excavated material, surplus concrete or mortar, or any associated washings, to be disposed of onto streets, into manholes or into the storm drain system.

(E) **Completion.** At the completion of the Work, Contractor must remove from the Project site all of its equipment, tools, surplus materials, waste materials and debris, presenting a clean and neat appearance. Before demobilizing from the Project site, Contractor must ensure that all surfaces are cleaned, sealed, waxed, or finished as applicable, and that all marks, stains, paint splatters, and the like have been properly removed from the completed Work and the surrounding areas. Contractor must ensure that all parts of the construction are properly joined with the previously existing and adjacent improvements and conditions. Contractor must provide all cutting, fitting and patching needed to accomplish that requirement. Contractor must also repair or replace all existing improvements that are damaged or removed during the Work, both on and off the Project site, including curbs, sidewalks, driveways, fences, signs, landscaping, utilities, street surfaces and structures. Repairs and replacements must be at least equal to the previously existing improvements, and the condition, finish and dimensions must match the previously existing improvements. Contractor must restore to original condition all property or items that are not designated for alteration under the Contract Documents and leave each Worksite clean and ready for occupancy or use by City.

(F) **Non-Compliance.** If Contractor fails to comply with its maintenance and cleanup obligations or any City clean up order, City may, acting in its sole discretion, elect to suspend the Work until the condition(s) is corrected with no increase in the Contract Time or Contract Price, or undertake appropriate cleanup measures without further notice and deduct the cost from any amounts due or to become due to Contractor.

7.10 Instructions and Manuals. Contractor must provide to City three copies each of all instructions and manuals required by the Contract Documents, unless otherwise specified. These must be complete as to drawings, details, parts lists, performance data, and other information that may be required for City to easily maintain and service the materials and equipment installed for this Project.

(A) **Submittal Requirements.** The instructions and manuals, along with any required guarantees, must be delivered to City for review prior to requesting final inspection pursuant to Section 11.1(A), unless otherwise specified.

(B) **Training.** Contractor or its Subcontractors must train City's personnel in the operation and maintenance of any complex equipment or systems as a condition precedent to Final Completion, if required in the Contract Documents.

7.11 As-built Drawings. Contractor and its Subcontractors must prepare and maintain at the Project site a detailed, complete and accurate as-built set of the Plans which will be used solely for the purpose of recording changes made in any portion of the original Plans in order to create accurate record drawings at the end of the Project.

(A) **Duty to Update.** The as-built drawings must be updated as changes occur, on a daily basis if necessary. City may withhold the estimated cost for City to have the as-built drawings prepared from payments otherwise due to Contractor, until the as-built drawings are brought up to date to the satisfaction of City. Actual locations to scale must be identified on the as-built drawings for all runs of mechanical and electrical work, including all site utilities installed underground, in walls, floors, or otherwise concealed. Deviations from the original Plans must be shown in detail. The exact location of all main runs, whether piping, conduit, ductwork or drain lines, must be shown by dimension and elevation. The location of all buried pipelines, appurtenances, or other improvements must be represented by coordinates and by the horizontal distance from visible above-ground improvements.

(B) **Final Completion.** Contractor must verify that all changes in the Work are depicted in the as-built drawings and must deliver the complete set of as-built drawings to the Engineer for review and acceptance as a condition precedent to Final Completion and Final Payment.

7.12 Existing Utilities.

(A) **General.** The Work may be performed in developed, urban areas with existing utilities, both above and below ground, including utilities identified in the Contract Documents or in other informational documents or records. Contractor must take due care to locate identified or reasonably identifiable utilities before proceeding with trenching, excavation, or any other activity that could damage or disrupt existing utilities. This may include excavation with small equipment, potholing, or hand excavation, and, if practical, using white paint or other suitable markings to delineate the area to be excavated. Except as otherwise provided herein, Contractor will be responsible for costs resulting from damage to identified or reasonably identifiable utilities due to Contractor's negligence or failure to comply with the Contract Documents, including the requirements in this Article 7.

(B) **Unidentified Utilities.** Pursuant to Government Code § 4215, if, during the performance of the Work, Contractor discovers utility facilities not identified by City in the Contract Documents, Contractor must immediately provide written notice to City and the utility. City assumes

responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project site if those utilities are not identified in the Contract Documents. Contractor will be compensated in accordance with the provisions of the Contract Documents for the costs of locating, repairing damage not due to Contractor's failure to exercise reasonable care, and removing or relocating utility facilities not indicated in the Plans or Specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work. Contractor will not be assessed liquidated damages for delay in completion of the Work, to the extent the delay was caused by City's failure to provide for removal or relocation of the utility facilities.

7.13 Notice of Excavation. Contractor must comply with all applicable requirements in Government Code § 4216 *et seq.*, which are incorporated by reference herein. Government Code § 4216.2 requires that, except in an emergency, Contractor must contact the appropriate regional notification center, or Underground Services Alert, at least two working days, but not more than 14 calendar days, before starting any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations. Contractor may not begin excavation until it has obtained and submitted to Engineer an inquiry identification number from Underground Services Alert.

7.14 Trenching and Excavations of Four Feet or More. As required by Public Contract Code § 7104, if the Work includes digging trenches or other excavations that extend deeper than four feet below the surface, the provisions in this Section apply to the Work and the Project.

(A) **Duty to Notify.** Contractor must promptly, and before the following conditions are disturbed, provide written notice to City if Contractor finds any of the following conditions:

1. Material that Contractor believes may be a hazardous waste, as defined in § 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing Laws;
2. Subsurface or latent physical conditions at the Project site differing from those indicated by information about the Project site made available to bidders prior to the deadline for submitting bids; or
3. Unknown physical conditions at the Project site of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in work of the character required by the Contract Documents.

(B) **City Investigation.** City will promptly investigate the conditions and if City finds that the conditions materially differ from those indicated, apparent, or reasonably inferred from information about the Project site made available to bidders, or involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the Work, City will issue a Change Order.

(C) **Disputes.** In the event that a dispute arises between City and Contractor regarding any of the conditions specified in subsection (B) above, or the terms of a Change Order issued by City, Contractor will not be excused from completing the Work within the Contract Time, but must proceed with all Work to be performed under the Contract. Contractor will retain any and all rights provided either by the Contract or by Laws which pertain to the resolution of disputes between Contractor and City.

7.15 Trenching of Five Feet or More. As required by Labor Code § 6705, if the Contract Price exceeds \$25,000 and the Work includes the excavation of any trench or trenches of five feet or more in depth, a detailed plan must be submitted to City for acceptance in advance of the excavation. The detailed plan must show the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation. If the plan varies from

the shoring system standards, it must be prepared by a California registered civil or structural engineer. Use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders is prohibited.

- 7.16 New Utility Connections.** Except as otherwise specified, City will pay connection charges and meter costs for new permanent utilities required by the Contract Documents, if any. Contractor must notify City sufficiently in advance of the time needed to request service from each utility provider so that connections and services are initiated in accordance with the Project schedule.
- 7.17 Lines and Grades.** Contractor must comply with the City's Grading and Excavation Code, which is set forth in Division C7 of the City's Municipal Code, and accessible online at: online.encodeplus.com/regs/sanramon-ca/index.aspx. Contractor is required to use any benchmark provided by the Engineer. Unless otherwise specified in the Contract Documents, Contractor must provide all lines and grades required to execute the Work. Contractor must also provide, preserve, and replace if necessary, all construction stakes required for the Project. All stakes or marks must be set by a California licensed surveyor or a California registered civil engineer. Contractor must notify the Engineer of any discrepancies found between Contractor's staking and grading and information provided by the Contract Documents. Upon completion, all Work must conform to the lines, elevations, and grades shown in the Plans, including any changes directed by a Change Order.
- 7.18 Historic or Archeological Items.**
- (A) **Contractor's Obligations.** Contractor must ensure that all persons performing Work at the Project site are required to immediately notify the Project Manager, upon discovery of any potential historic or archeological items, including historic or prehistoric ruins, a burial ground, archaeological or vertebrate paleontological site, including fossilized footprints or other archeological, paleontological or historical feature on the Project site (collectively, "Historic or Archeological Items").
- (B) **Discovery; Cessation of Work.** Upon discovery of any potential Historic or Archeological Items, Work must be stopped within an 85-foot radius of the find and may not resume until authorized in writing by City. If required by City, Contractor must assist in protecting or recovering the Historic or Archeological Items, with any such assistance to be compensated as Extra Work on a time and materials basis under Article 6, Contract Modification. At City's discretion, a suspension of Work required due to discovery of Historic or Archeological Items may be treated as Excusable Delay pursuant to Article 5, or as a suspension for convenience under Article 13.
- 7.19 Environmental Control.** Contractor must not pollute any drainage course or its tributary inlets with fuels, oils, bitumens, acids, insecticides, herbicides or other harmful materials. Contractor must prevent the release of any hazardous material or hazardous waste into the soil or groundwater, and prevent the unlawful discharge of pollutants into City's storm drain system and watercourses as required below. Contractor and its Subcontractors must at all times in the performance of the Work comply with all Laws concerning pollution of waterways, including the Contra Costa Clean Water Program. Information about the Contra Costa Clean Water Program is available online at: www.cccleanwater.org. Information about the City's Municipal Code regarding stormwater is available online at: online.encodeplus.com/regs/sanramon-ca/index.aspx.
- (A) **Stormwater Permit.** Contractor must comply with all applicable conditions of the latest version of the State Water Resources Control Board National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction and Land Disturbance Activities ("Stormwater Permit").
- (B) **Contractor's Obligations.** If required for the Work, a copy of the Stormwater Permit is on file in City's principal administrative offices, and Contractor must comply with it without adjustment of the Contract Price or the Contract Time. Contractor must timely and completely submit required reports and monitoring information required by the conditions of the Stormwater Permit. Contractor

also must comply with all other Laws governing discharge of stormwater, including applicable municipal stormwater management programs.

- 7.20 Noise Control.** Contractor must comply with all applicable noise control Laws. Noise control requirements apply to all equipment used for the Work or related to the Work, including trucks, transit mixers or transient equipment that may or may not be owned by Contractor.
- 7.21 Mined Materials.** Pursuant to Public Contract Code § 20676, Contractor will not purchase any sand, gravel, or other minerals for the Work from an operation subject to the Surface Mining and Reclamation Act of 1975 (Public Resources Code § 2710 et seq.) unless the Contractor certifies, under penalty of perjury, that the minerals are from a mining operation included on the AB 3098 List, which may be accessed online at: www.conservation.ca.gov/smgb/Pages/AB-3098-List.aspx.

8. Article 8 - Payment

- 8.1 Schedule of Values.** Prior to submitting its first application for payment, Contractor must prepare and submit to the Project Manager a schedule of values apportioned to the various divisions and phases of the Work, including mobilization and demobilization. If a Bid Schedule was submitted with Contractor's bid, the amounts in the schedule of values must be consistent with the Bid Schedule. Each line item contained in the schedule of values must be assigned a value such that the total of all items equals the Contract Price. The items must be sufficiently detailed to enable accurate evaluation of the percentage of completion claimed in each application for payment, and the assigned value consistent with any itemized or unit pricing submitted with Contractor's bid.

(A) **Measurements for Unit Price Work.** Materials and items of Work to be paid for on the basis of unit pricing will be measured according to the methods specified in the Contract Documents.

(B) **Deleted or Reduced Work.** Contractor will not be compensated for Work that City has deleted or reduced in scope, except for any labor, material or equipment costs for such Work that Contractor reasonably incurred before Contractor learned that the Work could be deleted or reduced. Contractor will only be compensated for those actual, direct and documented costs incurred, and will not be entitled to any mark up for overhead or lost profits.

- 8.2 Progress Payments.** Following the last day of each month, or as otherwise required by the Special Conditions or Specifications, Contractor will submit to the Project Manager a monthly application for payment for Work performed during the preceding month based on the estimated value of the Work performed during that preceding month.

(A) **Application for Payment.** Each application for payment must be itemized to include labor, materials, and equipment incorporated into the Work, and materials and equipment delivered to the Project site, as well as authorized and approved Change Orders. Each payment application must be supported by the unit prices submitted with Contractor's Bid Schedule and/or schedule of values and any other substantiating data required by the Contract Documents.

(B) **Payment of Undisputed Amounts.** City will pay the undisputed amount due within 30 days after Contractor has submitted a complete and accurate payment application, subject to Public Contract Code § 20104.50. City will deduct a percentage from each progress payment as retention, as set forth in Section 8.5, below, and may deduct or withhold additional amounts as set forth in Section 8.3, below.

- 8.3 Adjustment of Payment Application.** City may adjust or reject the amount requested in a payment application, including application for Final Payment, in whole or in part, if the amount requested is disputed or unsubstantiated. Contractor will be notified in writing of the basis for the modification to the amount requested. City may also deduct or withhold from payment otherwise

due based upon any of the circumstances and amounts listed below. Sums withheld from payment otherwise due will be released when the basis for that withholding has been remedied and no longer exists.

(A) For Contractor's unexcused failure to perform the Work as required by the Contract Documents, including correction or completion of punch list items, City may withhold or deduct an amount based on the City's estimated cost to correct or complete the Work.

(B) For loss or damage caused by Contractor or its Subcontractors arising out of or relating to performance of the Work or any failure to protect the Project site, City may deduct an amount based on the estimated cost to repair or replace. (See, e.g., Sections 7.5, 7.6, 7.9, and 7.12.)

(C) For Contractor's failure to pay its Subcontractors and suppliers when payment is due, City may withhold an amount equal to the total of past due payments and may opt to pay that amount separately via joint check pursuant to Section 8.6(B), Joint Checks.

(D) For Contractor's failure to timely correct rejected, nonconforming, or defective Work, City may withhold or deduct an amount based on the City's estimated cost to correct or complete the Work.

(E) For any unreleased stop notice, City may withhold 125% of the amount claimed.

(F) For Contractor's failure to submit any required schedule or schedule update in the manner specified or within the time specified in the Contract Documents, City may withhold an amount equal to five percent of the total amount requested until Contractor complies with its schedule submittal obligations.

(G) For Contractor's failure to maintain or submit as-built documents in the manner specified or within the time specified in the Contract Documents, City may withhold or deduct an amount based on the City's cost to prepare the as-builts.

(H) For Work performed without Shop Drawings that have been accepted by City, when accepted Shop Drawings are required before proceeding with the Work, City may deduct an amount based on the estimated cost to correct unsatisfactory Work or diminution in value. For fines, payments, or penalties assessed under the Labor Code, City may deduct from payments due to Contractor as required by Laws and as directed by the Division of Labor Standards Enforcement.

(I) For fines, charges, or penalties assessed against the City due to Contractor's acts or omissions, including violations of Laws, City may withhold or deduct such amounts from payment otherwise due to Contractor.

(J) For any other costs or charges that may be withheld or deducted from payments to Contractor, as provided in the Contract Documents, including liquidated damages, City may withhold or deduct such amounts from payment otherwise due to Contractor.

8.4 Early Occupancy. Neither City's payment of progress payments nor its partial or full use or occupancy of the Project constitutes acceptance of any part of the Work.

8.5 Retention. City will retain five percent of the full amount due on each progress payment (i.e., the amount due before any withholding or deductions pursuant to Section 8.3, Adjustment of Payment Application), or the percentage stated in the Notice Inviting Bids, whichever is greater, as retention to ensure full and satisfactory performance of the Work. Contractor is not entitled to any reduction in the rate of withholding at any time, nor to release of any retention before 35 days following City's recordation of the Notice of Completion, subject to the terms of Public Contract Code § 7107.

(A) **Substitution of Securities.** As provided by Public Contract Code § 22300, Contractor may request in writing that it be allowed, at its sole expense, to substitute securities for the retention withheld by City. Any escrow agreement entered into pursuant to this provision must fully comply with Public Contract Code § 22300 and will be subject to approval as to form by City's legal counsel. If City exercises its right to draw upon such securities in the event of default pursuant to section (7) of the statutory Escrow Agreement for Security Deposits in Lieu of Retention, pursuant to subdivision (g) of Public Contract Code § 22300 ("Escrow Agreement"), and if Contractor disputes that it is in default, its sole remedy is to comply with the dispute resolution procedures in Article 12 and the provisions therein. It is agreed that for purposes of this paragraph, an event of default includes City's rights pursuant to these Contract Documents to withhold or deduct sums from retention, including withholding or deduction for liquidated damages, incomplete or defective Work, stop payment notices, or backcharges. It is further agreed that if any individual authorized to give or receive written notice on behalf of a party pursuant to section (10) of the Escrow Agreement are unavailable to give or receive notice on behalf of that party due to separation from employment, retirement, death, or other circumstances, the successor or delegee of the named individual is deemed to be the individual authorized to give or receive notice pursuant to section (10) of the Escrow Agreement.

(B) **Release of Undisputed Retention.** All undisputed retention, less any amounts that may be assessed as liquidated damages, retained for stop notices, or otherwise withheld pursuant to Section 8.3, Adjustment of Payment Application, will be released as Final Payment to Contractor no sooner than 35 days following recordation of the notice of completion, and no later than 60 days following acceptance of the Project by City's governing body or authorized designee pursuant to Section 11.1(C), Acceptance, or, if the Project has not been accepted, no later than 60 days after the Project is otherwise considered complete pursuant to Public Contract Code § 7107(c).

8.6 Payment to Subcontractors and Suppliers. Each month, Contractor must promptly pay each Subcontractor and supplier the value of the portion of labor, materials, and equipment incorporated into the Work or delivered to the Project site by the Subcontractor or supplier during the preceding month. Such payments must be made in accordance with the requirements of Laws pertaining to such payments, and those of the Contract Documents and applicable subcontract or supplier contract.

(A) **Withholding for Stop Notice.** Pursuant to Civil Code § 9358, City will withhold 125% of the amount claimed by an unreleased stop notice, a portion of which may be retained by City for the costs incurred in handling the stop notice claim, including attorneys' fees and costs, as authorized by law.

(B) **Joint Checks.** City reserves the right, acting in its sole discretion, to issue joint checks made payable to Contractor and a Subcontractor or supplier, if City determines this is necessary to ensure fair and timely payment for a Subcontractor or supplier who has provided services or goods for the Project. As a condition to release of payment by a joint check, the joint check payees may be required to execute a joint check agreement in a form provided or approved by the City Attorney's Office. The joint check payees will be jointly and severally responsible for the allocation and disbursement of funds paid by joint check. Payment by joint check will not be construed to create a contractual relationship between City and a Subcontractor or supplier of any tier beyond the scope of the joint check agreement.

8.7 Final Payment. Contractor's application for Final Payment must comply with the requirements for submitting an application for a progress payment as stated in Section 8.2, above. Corrections to previous progress payments, including adjustments to estimated quantities for unit priced items, may be included in the Final Payment. If Contractor fails to submit a timely application for Final Payment, City reserves the right to unilaterally process and issue Final Payment without an application from Contractor in order to close out the Project. For the purposes of determining the deadline for Claim submission pursuant to Article 12, the date of Final Payment is deemed to be the date that City acts to release undisputed retention as final payment to Contractor, or otherwise

provides written notice to Contractor of Final Payment or that no undisputed funds remain available for Final Payment due to offsetting withholdings or deductions pursuant to Section 8.3, Adjustment of Payment Application. If the amount due from Contractor to City exceeds the amount of Final Payment, City retains the right to recover the balance from Contractor or its sureties.

- 8.8 Release of Claims.** City may, at any time, require that payment of the undisputed portion of any progress payment or Final Payment be contingent upon Contractor furnishing City with a written waiver and release of all claims against City arising from or related to the portion of Work covered by those undisputed amounts subject to the limitations of Public Contract Code § 7100. Any disputed amounts may be specifically excluded from the release.
- 8.9 Warranty of Title.** Contractor warrants that title to all work, materials, or equipment incorporated into the Work and included in a request for payment will pass over to City free of any claims, liens, or encumbrances upon payment to Contractor.

9. Article 9 - Labor Provisions

- 9.1 Discrimination Prohibited.** Discrimination against any prospective or present employee engaged in the Work on grounds of race, color, ancestry, national origin, ethnicity, religion, sex, sexual orientation, age, disability, or marital status is strictly prohibited. Contractor and its Subcontractors are required to comply with all applicable Laws prohibiting discrimination, including the California Fair Employment and Housing Act (Govt. Code § 12900 et seq.), Government Code § 11135, and Labor Code §§ 1735, 1777.5, 1777.6, and 3077.5.
- 9.2 Labor Code Requirements.**
- (A) **Eight Hour Day.** Pursuant to Labor Code § 1810, eight hours of labor constitute a legal day's work under this Contract.
- (B) **Penalty.** Pursuant to Labor Code § 1813, Contractor will forfeit to City as a penalty, the sum of \$25.00 for each day during which a worker employed by Contractor or any Subcontractor is required or permitted to work more than eight hours in any one calendar day or more than 40 hours per calendar week, except if such workers are paid overtime under Labor Code § 1815.
- (C) **Apprentices.** Contractor is responsible for compliance with the requirements governing employment and payment of apprentices, as set forth in Labor Code § 1777.5, which is fully incorporated by reference.
- (D) **Notices.** Pursuant to Labor Code § 1771.4, Contractor is required to post all job site notices prescribed by Laws.
- 9.3 Prevailing Wages.** Each worker performing Work under this Contract that is covered under Labor Code §§ 1720, 1720.3, or 1720.9, including cleanup at the Project site, must be paid at a rate not less than the prevailing wage as defined in §§ 1771 and 1774 of the Labor Code. The prevailing wage rates are on file with the City and available online at www.dir.ca.gov/OPRL/DPreWageDetermination.htm. Contractor must post a copy of the applicable prevailing rates at the Project site.
- (A) **Penalties.** Pursuant to Labor Code § 1775, Contractor and any Subcontractor will forfeit to City as a penalty up to \$200.00 for each calendar day, or portion thereof, for each worker paid less than the applicable prevailing wage rate. Contractor must also pay each worker the difference between the applicable prevailing wage rate and the amount actually paid to that worker.
- (B) **Federal Requirements.** If this Project is subject to federal prevailing wage requirements in addition to California prevailing wage requirements, Contractor and its Subcontractors are required to pay the higher of the currently applicable state or federal prevailing wage rates.

9.4 Payroll Records. Contractor must comply with the provisions of Labor Code §§ 1771.4, 1776, and 1812 and all implementing regulations, which are fully incorporated by this reference, including requirements for monthly electronic submission of payroll records to the DIR.

(A) **Contractor and Subcontractor Obligations.** Contractor and each Subcontractor must keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed in connection with the Work. Each payroll record must contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

1. The information contained in the payroll record is true and correct; and
2. Contractor or the Subcontractor has complied with the requirements of Labor Code §§ 1771, 1811, and 1815 for any Work performed by its employees on the Project.

(B) **Certified Record.** A certified copy of an employee's payroll record must be made available for inspection or furnished to the employee or his or her authorized representative on request, to City, to the Division of Labor Standards Enforcement Division of Apprenticeship Standards of the DIR, and as further required by the Labor Code.

(C) **Enforcement.** Contractor or Subcontractor has ten days in which to comply with the requirements of Labor Code § 1776 following receipt of a written notice requesting certified copies of payroll records pursuant to Labor Code § 1776. If Contractor or Subcontractor fails to comply within the ten-day period, Contractor or Subcontractor will forfeit a penalty of \$100.00 per day, or portion thereof, for each worker for whom compliance is required, until strict compliance is achieved. Upon request by the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement, these penalties will be withheld from payments then due to Contractor.

9.5 Labor Compliance. Pursuant to Labor Code § 1771.4, the Contract for this Project is subject to compliance monitoring and enforcement by the DIR.

10. Article 10 - Safety Provisions

10.1 Safety Precautions and Programs. Contractor and its Subcontractors are fully responsible for safety precautions and programs, and for the safety of persons and property in the performance of the Work. Contractor and its Subcontractors must at all times comply with all applicable health and safety Laws and seek to avoid injury, loss, or damage to persons or property by taking reasonable steps to protect its employees and other persons at any Worksite, materials and equipment stored on or off site, and property at or adjacent to any Worksite.

(A) **Reporting Requirements.** Contractor must immediately notify the City of any death, serious injury or illness resulting from Work on the Project. Contractor must immediately provide a written report to City of each recordable accident or injury occurring at any Worksite within 24 hours of the occurrence. The written report must include: (1) the name and address of the injured or deceased person; (2) the name and address of each employee of Contractor or of any Subcontractor involved in the incident; (3) a detailed description of the incident, including precise location, time, and names and contact information for known witnesses; and (4) a police or first responder report, if applicable. If Contractor is required to file an accident report with a government agency, Contractor will provide a copy of the report to City.

(B) **Legal Compliance.** Contractor's safety program must comply with the applicable legal and regulatory requirements. Contractor must provide City with copies of all notices required by Laws.

(C) **Contractor's Obligations.** Any damage or loss caused by Contractor arising from the Work which is not insured under property insurance must be promptly remedied by Contractor.

(D) **Remedies.** If City determines, in its sole discretion, that any part of the Work or Project site is unsafe, City may, without assuming responsibility for Contractor's safety program, require Contractor or its Subcontractor to cease performance of the Work or to take corrective measures to City's satisfaction. If Contractor fails to promptly take the required corrective measures, City may perform them and deduct the cost from the Contract Price. Contractor agrees it is not entitled to submit a Claim for damages, for an increase in Contract Price, or for a change in Contract Time based on Contractor's compliance with City's request for corrective measures pursuant to this provision.

10.2 Hazardous Materials. Unless otherwise specified in the Contract Documents, this Contract does not include the removal, handling, or disturbance of any asbestos or other Hazardous Materials. If Contractor encounters materials on the Project site that Contractor reasonably believes to be asbestos or other Hazardous Materials, and the asbestos or other Hazardous Materials have not been rendered harmless, Contractor may continue Work in unaffected areas reasonably believed to be safe, but must immediately cease work on the area affected and report the condition to City. No asbestos, asbestos-containing products or other Hazardous Materials may be used in performance of the Work.

10.3 Material Safety. Contractor is solely responsible for complying with § 5194 of Title 8 of the California Code of Regulations, including by providing information to Contractor's employees about any hazardous chemicals to which they may be exposed in the course of the Work. A hazard communication program and other forms of warning and training about such exposure must be used. Contractor must also maintain Safety Data Sheets ("SDS") at the Project site, as required by Laws, for materials or substances used or consumed in the performance of the Work. The SDS will be accessible and available to Contractor's employees, Subcontractors, and City.

(A) **Contractor Obligations.** Contractor is solely responsible for the proper delivery, handling, use, storage, removal, and disposal of all materials brought to the Project site and/or used in the performance of the Work. Contractor must notify the Engineer if a specified product or material cannot be used safely.

(B) **Labeling.** Contractor must ensure proper labeling on any material brought onto the Project site so that any persons working with or in the vicinity of the material may be informed as to the identity of the material, any potential hazards, and requirements for proper handling, protections, and disposal.

10.4 Hazardous Condition. Contractor is solely responsible for determining whether a hazardous condition exists or is created during the course of the Work, involving a risk of bodily harm to any person or risk of damage to any property. If a hazardous condition exists or is created, Contractor must take all precautions necessary to address the condition and ensure that the Work progresses safely under the circumstances. Hazardous conditions may result from, but are not limited to, use of specified materials or equipment, the Work location, the Project site condition, the method of construction, or the way any Work must be performed.

10.5 Emergencies. In an emergency affecting the safety or protection of persons, Work, or property at or adjacent to any Worksite, Contractor must take reasonable and prompt actions to prevent damage, injury, or loss, without prior authorization from the City if, under the circumstances, there is inadequate time to seek prior authorization from the City.

11. Article 11 - Completion and Warranty Provisions

11.1 Final Completion.

(A) **Final Inspection and Punch List.** *When the Work required by this Contract is fully performed, Contractor must provide written notification to City requesting final inspection. The Engineer will schedule the date and time for final inspection, which must include Contractor's primary representative for this Project and its superintendent. Based on that inspection, City will prepare a punch list of any items that are incomplete, missing, defective, incorrectly installed, or otherwise not compliant with the Contract Documents. The punch list to Contractor will specify the time by which all of the punch list items must be completed or corrected. The punch list may include City's estimated cost to complete each punch list item if Contractor fails to do so within the specified time. The omission of any non-compliant item from a punch list will not relieve Contractor from fulfilling all requirements of the Contract Documents. Contractor's failure to complete any punch list item within the time specified in the punch list will not waive or abridge its warranty obligations for any such items that must be completed by the City or by a third party retained by the City due to Contractor's failure to timely complete any such outstanding item.*

(B) **Requirements for Final Completion.** Final Completion will be achieved upon completion or correction of all punch list items, as verified by City's further inspection, and upon satisfaction of all other Contract requirements, including any commissioning required under the Contract Documents and submission of all final submittals, including instructions and manuals as required under Section 7.10, and complete, final as-built drawings as required under Section 7.11, all to City's satisfaction.

(C) **Acceptance.** The Project will be considered accepted upon City Council action during a public meeting to accept the Project, unless the Engineer is authorized to accept the Project, in which case the Project will be considered accepted upon the date of the Engineer's issuance of a written notice of acceptance. In order to avoid delay of Project close out, the City may elect, acting in its sole discretion, to accept the Project as complete subject to exceptions for punch list items that are not completed within the time specified in the punch list.

(D) **Final Payment and Release of Retention.** Final Payment and release of retention, less any sums withheld pursuant to the provisions of the Contract Documents, will not be made sooner than 35 days after recordation of the notice of completion. If Contractor fails to complete all of the punch list items within the specified time, City may withhold up to 150% of City's estimated cost to complete each of the remaining items from Final Payment and may use the withheld retention to pay for the costs to self-perform the outstanding items or to retain a third party to complete any such outstanding punch list item.

11.2 Warranty.

(A) **General.** Contractor warrants that all materials and equipment will be new unless otherwise specified, of good quality, in conformance with the Contract Documents, and free from defective workmanship and materials. Contractor further warrants that the Work will be free from material defects not intrinsic in the design or materials required in the Contract Documents. Contractor warrants that materials or items incorporated into the Work comply with the requirements and standards in the Contract Documents, including compliance with Laws, and that any Hazardous Materials encountered or used were handled as required by Laws. At City's request, Contractor must furnish satisfactory evidence of the quality and type of materials and equipment furnished. Contractor's warranty does not extend to damage caused by normal wear and tear, or improper use or maintenance.

(B) **Warranty Period.** Contractor's warranty must guarantee its Work for a period of one year from the date of Project acceptance (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions.

Contractor must obtain from its Subcontractors, suppliers and manufacturers any special or extended warranties required by the Contract Documents.

(C) **Warranty Documents.** As a condition precedent to Final Completion, Contractor must supply City with all warranty and guarantee documents relevant to equipment and materials incorporated into the Work and guaranteed by their suppliers or manufacturers.

(D) **Subcontractors.** The warranty obligations in the Contract Documents apply to Work performed by Contractor and its Subcontractors, and Contractor agrees to be co-guarantor of such Work.

(E) **Contractor's Obligations.** Upon written notice from City to Contractor of any defect in the Work discovered during the Warranty Period, Contractor or its responsible Subcontractor must promptly correct the defective Work at its own cost. Contractor's obligation to correct defects discovered during the Warranty Period will continue past the expiration of the Warranty Period as to any defects in Work for which Contractor was notified prior to expiration of the Warranty Period. Work performed during the Warranty Period ("Warranty Work") will be subject to the warranty provisions in this Section 11.2 for a one-year period that begins upon completion of such Warranty Work to City's satisfaction.

(F) **City's Remedies.** If Contractor or its responsible Subcontractor fails to correct defective Work within ten days following notice by City, or sooner if required by the circumstances, City may correct the defects to conform with the Contract Documents at Contractor's sole expense. Contractor must reimburse City for its costs in accordance with subsection (H), below.

(G) **Emergency Repairs.** In cases of emergency where any delay in correcting defective Work could cause harm, loss or damage, City may immediately correct the defects to conform with the Contract Documents at Contractor's sole expense. Contractor or its surety must reimburse City for its costs in accordance with subsection (H), below.

(H) **Reimbursement.** Contractor must reimburse City for its costs to repair under subsections (F) or (G), above, within 30 days following City's submission of a demand for payment pursuant to this provision. If City is required to initiate legal action to compel Contractor's compliance with this provision, and City is the prevailing party in such action, Contractor and its surety are solely responsible for all of City's attorney's fees and legal costs expended to enforce Contractor's warranty obligations herein, in addition to any and all costs City incurs to correct the defective Work.

11.3 Use Prior to Final Completion. City reserves the right to occupy or make use of the Project, or any portions of the Project, prior to Final Completion if City has determined that the Project or portion of it is in a condition suitable for the proposed occupation or use, and that it is in its best interest to occupy or make use of the Project, or any portions of it, prior to Final Completion.

(A) **Non-Waiver.** Occupation or use of the Project, in whole or in part, prior to Final Completion will not operate as acceptance of the Work or any portion of it, nor will it operate as a waiver of any of City's rights or Contractor's duties pursuant to these Contract Documents, and will not affect nor bear on the determination of the time of substantial completion with respect to any statute of repose pertaining to the time for filing an action for construction defect.

(B) **City's Responsibility.** City will be responsible for the cost of maintenance and repairs due to normal wear and tear with respect to those portions of the Project that are being occupied or used before Final Completion. The Contract Price or the Contract Time may be adjusted pursuant to the applicable provisions of these Contract Documents if, and only to the extent that, any occupation or use under this Section actually adds to Contractor's cost or time to complete the Work within the Contract Time.

- 11.4 Substantial Completion.** For purposes of determining “substantial completion” with respect to any statute of repose pertaining to the time for filing an action for construction defect, “substantial completion” is deemed to mean the last date that Contractor or any Subcontractor performs Work on the Project prior to City acceptance of the Project, except for warranty work performed under this Article.

12. Article 12 - Dispute Resolution

- 12.1 Claims.** This Article applies to and provides the exclusive procedures for any Claim arising from or related to the Contract or performance of the Work.

(A) **Limitations.** A Claim may only include the portion of a previously rejected demand that remains in dispute between Contractor and City. With the exception of any dispute regarding the amount of money actually paid to Contractor as Final Payment, Contractor is not entitled to submit a Claim demanding a change in the Contract Time or the Contract Price, which has not previously been submitted to City in full compliance with Article 5 and Article 6, and subsequently rejected in whole or in part by City.

(B) **Scope of Article.** This Article is intended to provide the exclusive procedures for submission and resolution of Claims of any amount and applies in addition to the provisions of Public Contract Code § 9204 and § 20104 et seq., which are incorporated by reference herein.

(C) **No Work Delay.** Notwithstanding the submission of a Claim or any other dispute between the parties related to the Project or the Contract Documents, Contractor must perform the Work and may not delay or cease Work pending resolution of a Claim or other dispute, but must continue to diligently prosecute the performance and timely completion of the Work, including the Work pertaining to the Claim or other dispute.

(D) **Informal Resolution.** Contractor will make a good faith effort to informally resolve a dispute before initiating a Claim, preferably by face-to-face meeting between authorized representatives of Contractor and City.

- 12.2 Claims Submission.** The following requirements apply to any Claim subject to this Article:

(A) **Substantiation.** The Claim must be submitted to City in writing by registered or certified mail with return receipt requested and clearly identified as a “Claim” submitted pursuant to this Article 12. The Claim must include all of the documents necessary to substantiate the Claim including the Change Order request that was rejected in whole or in part, and a copy of City’s written rejection that is in dispute. The Claim must clearly identify and describe the dispute, including relevant references to applicable portions of the Contract Documents, and a chronology of relevant events. Any Claim for additional payment must include a complete, itemized breakdown of all known or estimated labor, materials, taxes, insurance, and subcontract, or other costs. Substantiating documentation such as payroll records, receipts, invoices, or the like, must be submitted in support of each component of claimed cost. Any Claim for an extension of time or delay costs must be substantiated with a schedule analysis and narrative depicting and explaining claimed time impacts.

(B) **Claim Format and Content.** A Claim must be submitted in the following format:

1. Provide a cover letter, specifically identifying the submission as a “Claim” submitted under this Article 12 and specifying the requested remedy (e.g., amount of proposed change to Contract Price and/or change to Contract Time).
2. Provide a summary of each Claim, including underlying facts and the basis for entitlement, and identify each specific demand at issue, including the specific Change

Order request (by number and submittal date), and the date of City's rejection of that demand, in whole or in part.

3. Provide a detailed explanation of each issue in dispute. For multiple issues included within a single Claim or for multiple Claims submitted concurrently, separately number and identify each individual issue or Claim, and include the following for each separate issue or Claim:
 - a. A succinct statement of the matter in dispute, including Contractor's position and the basis for that position;
 - b. Identify and attach all documents that substantiate the Claim, including relevant provisions of the Contract Documents, RFIs, calculations, and schedule analysis (see subsection (A), Substantiation, above);
 - c. A chronology of relevant events; and
 - d. Analysis and basis for claimed changes to Contract Price, Contract Time, or any other remedy requested.
4. Provide a summary of issues and corresponding claimed damages. If, by the time of the Claim submission deadline (below), the precise amount of the requested change in the Contract Price or Contract Time is not yet known, Contractor must provide a good faith estimate, including the basis for that estimate, and must identify the date by which it is anticipated that the Claim will be updated to provide final amounts.
5. Include the following certification, executed by Contractor's authorized representative:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Claim submittal are true and correct. Contractor warrants that this Claim submittal is comprehensive and complete as to the matters in dispute, and agrees that any costs, expenses, or delay not included herein are deemed waived."

(C) ***Submission Deadlines.***

1. A Claim disputing rejection of a request for a change in the Contract Time or Contract Price must be submitted within 21 days following the date that City notified Contractor in writing that a request for a change in the Contract Time or Contract Price, duly submitted in compliance with Article 5 and Article 6, has been rejected in whole or in part. A Claim disputing the terms of a unilateral Change Order must be submitted within 21 days following the date of issuance of the unilateral Change Order. These Claim deadlines apply even if Contractor cannot yet quantify the total amount of any requested change in the Contract Time or Contract Price. If the Contractor cannot quantify those amounts, it must submit an estimate of the amounts claimed pending final determination of the requested remedy by Contractor.
2. With the exception of any dispute regarding the amount of Final Payment, any Claim must be filed on or before the date of Final Payment or will be deemed waived.
3. A Claim disputing the amount of Final Payment must be submitted within 21 days of the effective date of Final Payment, under Section 8.7, Final Payment.
4. Strict compliance with these Claim submission deadlines is necessary to ensure that any dispute may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project. **Any Claim that is not submitted within the specified deadlines will be deemed waived by Contractor.**

12.3 City's Response. City will respond within 45 days of receipt of the Claim with a written statement identifying which portion(s) of the Claim are disputed, unless the 45-day period is extended by mutual agreement of City and Contractor or as otherwise allowed under Public Contract Code § 9204. For a Claim subject to Public Contract Code § 20104 et seq., if City determines that the Claim is not adequately substantiated pursuant to Section 12.2(A), Substantiation, City may first request in writing, within 30 days of receipt of the Claim, any additional documentation supporting the Claim or relating to defenses to the Claim that City may have against the Claim.

(A) **Duty to Update Estimated Amounts.** If Contractor's Claim is based on estimated amounts, Contractor has a continuing duty to update its Claim as soon as possible with information on actual amounts in order to facilitate prompt and fair resolution of the Claim.

(B) **Non-Waiver.** Any failure by City to respond within the times specified above will not be construed as acceptance of the Claim, in whole or in part, or as a waiver of any provision of these Contract Documents.

12.4 Meet and Confer. If Contractor disputes City's written response, or City fails to respond within the specified time, within 15 days of receipt of City's response or within 15 days of City's failure to respond within the applicable 45-day time period under Section 12.3, respectively, Contractor may notify City of the dispute in writing sent by registered or certified mail, return receipt requested, and demand an informal conference to meet and confer for settlement of the issues in dispute. If Contractor fails to notify City of the dispute and demand an informal conference to meet and confer in writing within the specified time, Contractor's Claim will be deemed waived.

(A) **Schedule Meet and Confer.** Upon receipt of the demand to meet and confer, City will schedule the meet and confer conference to be held within 30 days, or later if needed to ensure the mutual availability of each of the individuals that each party requires to represent its interests at the meet and confer conference.

(B) **Location for Meet and Confer.** The meet and confer conference will be scheduled at a location at or near City's principal office.

(C) **Written Statement After Meet and Confer.** Within ten working days after the meet and confer has concluded, City will issue a written statement identifying which portion(s) of the Claim remain in dispute, if any.

(D) **Submission to Mediation.** If the Claim or any portion remains in dispute following the meet and confer conference, within ten working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute, the Contractor may identify in writing disputed portion(s) of the Claim, which will be submitted for mediation, as set forth below.

12.5 Mediation and Government Code Claims.

(A) **Mediation.** Within ten working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute following the meet and confer, City and Contractor will mutually agree to a mediator, as provided under Public Contract Code § 9204. Mediation will be scheduled to ensure the mutual availability of the selected mediator and all of the individuals that each party requires to represent its interests. If there are multiple Claims in dispute, the parties may agree to schedule the mediation to address all outstanding Claims at the same time. The parties will share the costs of the mediator and mediation fees equally, but each party is otherwise solely and separately responsible for its own costs to prepare for and participate in the mediation, including costs for its legal counsel or any other consultants.

(B) **Government Code Claims.**

1. Timely presentation of a Government Code Claim is a condition precedent to filing any legal action based on or arising from the Contract. Compliance with the Claim

submission requirements in this Article 12 is a condition precedent to filing a Government Code Claim.

2. The time for filing a Government Code Claim will be tolled from the time Contractor submits its written Claim pursuant to Section 12.2, above, until the time that Claim is denied in whole or in part at the conclusion of the meet and confer process, including any period of time used by the meet and confer process. However, if the Claim is submitted to mediation, the time for filing a Government Code Claim will be tolled until conclusion of the mediation, including any continuations, if the Claim is not fully resolved by mutual agreement of the parties during the mediation or any continuation of the mediation.

12.6 Tort Claims. This Article does not apply to tort claims and nothing in this Article is intended nor will be construed to change the time periods for filing tort-based Government Code Claims.

12.7 Arbitration. It is expressly agreed, under Code of Civil Procedure § 1296, that in any arbitration to resolve a dispute relating to this Contract, the arbitrator's award must be supported by law and substantial evidence.

12.8 Burden of Proof and Limitations. Contractor bears the burden of proving entitlement to and the amount of any claimed damages. Contractor is not entitled to damages calculated on a total cost basis, but must prove actual damages. Contractor is not entitled to speculative, special, or consequential damages, including home office overhead or any form of overhead not directly incurred at the Project site or any other Worksite; lost profits; loss of productivity; lost opportunity to work on other projects; diminished bonding capacity; increased cost of financing for the Project; extended capital costs; non-availability of labor, material or equipment due to delays; or any other indirect loss arising from the Contract. The Eichleay Formula or similar formula will not be used for any recovery under the Contract. The City will not be directly liable to any Subcontractor or supplier.

12.9 Legal Proceedings. In any legal proceeding that involves enforcement of any requirements of the Contract Documents, the finder of fact will receive detailed instructions on the meaning and operation of the Contract Documents, including conditions, limitations of liability, remedies, claim procedures, and other provisions bearing on the defenses and theories of liability. Detailed findings of fact will be requested to verify enforcement of the Contract Documents. All of the City's remedies under the Contract Documents will be construed as cumulative, and not exclusive, and the City reserves all rights to all remedies available under law or equity as to any dispute arising from or relating to the Contract Documents or performance of the Work.

12.10 Other Disputes. The procedures in this Article 12 will apply to any and all disputes or legal actions, in addition to Claims, arising from or related to this Contract, including disputes regarding suspension or early termination of the Contract, unless and only to the extent that compliance with a procedural requirement is expressly and specifically waived by City. Nothing in this Article is intended to delay suspension or termination under Article 13.

13. Article 13 - Suspension and Termination

13.1 Suspension for Cause. In addition to all other remedies available to City, if Contractor fails to perform or correct Work in accordance with the Contract Documents, including non-compliance with applicable environmental or health and safety Laws, City may immediately order the Work, or any portion of it, suspended until the circumstances giving rise to the suspension have been eliminated to City's satisfaction.

(A) **Notice of Suspension.** Upon receipt of City's written notice to suspend the Work, in whole or in part, except as otherwise specified in the notice of suspension, Contractor and its Subcontractors must promptly stop Work as specified in the notice of suspension; comply with

directions for cleaning and securing the Worksite; and protect the completed and in-progress Work and materials. Contractor is solely responsible for any damages or loss resulting from its failure to adequately secure and protect the Project.

(B) **Resumption of Work.** Upon receipt of the City's written notice to resume the suspended Work, in whole or in part, except as otherwise specified in the notice to resume, Contractor and its Subcontractors must promptly re-mobilize and resume the Work as specified; and within ten days from the date of the notice to resume, Contractor must submit a recovery schedule, prepared in accordance with the Contract Documents, showing how Contractor will complete the Work within the Contract Time.

(C) **Failure to Comply.** Contractor will not be entitled to an increase in the Contract Time or Contract Price for a suspension occasioned by Contractor's failure to comply with the Contract Documents.

(D) **No Duty to Suspend.** City's right to suspend the Work will not give rise to a duty to suspend the Work, and City's failure to suspend the Work will not constitute a defense to Contractor's failure to comply with the requirements of the Contract Documents.

13.2 Suspension for Convenience. City reserves the right to suspend, delay, or interrupt the performance of the Work in whole or in part, for a period of time determined to be appropriate for City's convenience. Upon notice by City pursuant to this provision, Contractor must immediately suspend, delay, or interrupt the Work and secure the Project site as directed by City except for taking measures to protect completed or in-progress Work as directed in the suspension notice, and subject to the provisions of Section 13.1(A) and (B), above. If Contractor submits a timely request for a Change Order in compliance with Articles 5 and 6, the Contract Price and the Contract Time will be equitably adjusted by Change Order pursuant to the terms of Articles 5 and 6 to reflect the cost and delay impact occasioned by such suspension for convenience, except to the extent that any such impacts were caused by Contractor's failure to comply with the Contract Documents or the terms of the suspension notice or notice to resume. However, the Contract Time will only be extended if the suspension causes or will cause unavoidable delay in Final Completion. If Contractor disputes the terms of a Change Order issued for such equitable adjustment due to suspension for convenience, its sole recourse is to comply with the Claim procedures in Article 12.

13.3 Termination for Default. City may declare that Contractor is in default of the Contract for a material breach of or inability to fully, promptly, or satisfactorily perform its obligations under the Contract.

(A) **Default.** Events giving rise to a declaration of default include Contractor's refusal or failure to supply sufficient skilled workers, proper materials, or equipment to perform the Work within the Contract Time; Contractor's refusal or failure to make prompt payment to its employees, Subcontractors, or suppliers or to correct defective Work or damage; Contractor's failure to comply with Laws, or orders of any public agency with jurisdiction over the Project; evidence of Contractor's bankruptcy, insolvency, or lack of financial capacity to complete the Work as required within the Contract Time; suspension, revocation, or expiration and nonrenewal of Contractor's license or DIR registration; dissolution, liquidation, reorganization, or other major change in Contractor's organization, ownership, structure, or existence as a business entity; unauthorized assignment of Contractor's rights or duties under the Contract; or any material breach of the Contract requirements.

(B) **Notice of Default and Opportunity to Cure.** Upon City's declaration that Contractor is in default due to a material breach of the Contract Documents, if City determines that the default is curable, City will afford Contractor the opportunity to cure the default within ten days of City's notice of default, or within a period of time reasonably necessary for such cure, including a shorter period of time if applicable.

(C) **Termination.** If Contractor fails to cure the default or fails to expediently take steps reasonably calculated to cure the default within the time period specified in the notice of default, or if City determines that the default is not curable, City may issue written notice to Contractor and its performance bond surety of City's termination of the Contract for default.

(D) **Waiver.** Time being of the essence in the performance of the Work, if Contractor's surety fails to arrange for completion of the Work in accordance with the Performance Bond within seven calendar days from the date of the notice of termination pursuant to paragraph (C), City may immediately make arrangements for the completion of the Work through use of its own forces, by hiring a replacement contractor, or by any other means that City determines advisable under the circumstances. Contractor and its surety will be jointly and severally liable for any additional cost incurred by City to complete the Work following termination, where "additional cost" means all cost in excess of the cost City would have incurred if Contractor had timely completed Work without the default and termination. In addition, City will have the right to immediate possession and use of any materials, supplies, and equipment procured for the Project and located at the Project site or any Worksite on City property for the purposes of completing the remaining Work.

(E) **Compensation.** Within 30 days of receipt of updated as-builts, all warranties, manuals, instructions, or other required documents for Work installed to date, and delivery to City of all equipment and materials for the Project for which Contractor has already been compensated, Contractor will be compensated for the Work satisfactorily performed in compliance with the Contract Documents up to the effective date of the termination pursuant to the terms of Article 8, Payment, subject to City's rights to withhold or deduct sums from payment otherwise due pursuant to Section 8.3, and excluding any costs Contractor incurs as a result of the termination, including any cancellation or restocking charges or fees due to third parties. If Contractor disputes the amount of compensation determined by City, its sole recourse is to comply with the Claim Procedures in Article 12, by submitting a Claim no later than 30 days following notice from City of the total compensation to be paid by City.

(F) **Wrongful Termination.** If Contractor disputes the termination, its sole recourse is to comply with the Claim procedures in Article 12. If a court of competent jurisdiction or an arbitrator later determines that the termination for default was wrongful, the termination will be deemed to be a termination for convenience, and Contractor's damages will be strictly limited to the compensation provided for termination for convenience under Section 13.4, below. Contractor waives any claim for any other damages for wrongful termination including special or consequential damages, lost opportunity costs, or lost profits, and any award of damages is subject to Section 12.8, Burden of Proof and Limitations.

13.4 Termination for Convenience. City reserves the right, acting in its sole discretion, to terminate all or part of the Contract for convenience upon written notice to Contractor.

(A) **Compensation to Contractor.** In the event of City's termination for convenience, Contractor waives any claim for damages, including for loss of anticipated profits from the Project. The following will constitute full and fair compensation to Contractor, and Contractor will not be entitled to any additional claim or compensation:

1. **Completed Work.** The value of its Work satisfactorily performed as of the date notice of termination is received, based on Contractor's schedule of values and unpaid costs for items delivered to the Project site that were fabricated for incorporation in the Work;
2. **Demobilization.** Demobilization costs specified in the schedule of values, or if demobilization costs were not provided in a schedule of values pursuant to Section 8.1, then based on actual, reasonable, and fully documented demobilization costs; and
3. **Termination Markup.** Five percent of the total value of the Work performed as of the date of notice of termination, including reasonable, actual, and documented costs to

comply with the direction in the notice of termination for convenience, and demobilization costs, which is deemed to cover all overhead and profit to date.

(B) **Disputes.** If Contractor disputes the amount of compensation determined by City pursuant to paragraph (A), above, its sole recourse is to comply with the Claim procedures in Article 12, by submitting a Claim no later than 30 days following notice from City of total compensation to be paid by City.

13.5 Actions Upon Termination for Default or Convenience. The following provisions apply to any termination under this Article, whether for default or convenience, and whether in whole or in part.

(A) **General.** Upon termination, City may immediately enter upon and take possession of the Project and the Work and all tools, equipment, appliances, materials, and supplies procured or fabricated for the Project. Contractor will transfer title to and deliver all completed Work and all Work in progress to City.

(B) **Submittals.** Unless otherwise specified in the notice of termination, Contractor must immediately submit to City all designs, drawings, as-built drawings, Project records, contracts with vendors and Subcontractors, manufacturer warranties, manuals, and other such submittals or Work-related documents required under the terms of the Contract Documents, including incomplete documents or drafts.

(C) **Close Out Requirements.** Except as otherwise specified in the notice of termination, Contractor must comply with all of the following:

1. Immediately stop the Work, except for any Work that must be completed pursuant to the notice of termination and comply with City's instructions for cessation of labor and securing the Project and any other Worksite(s).
2. Comply with City's instructions to protect the completed Work and materials, using best efforts to minimize further costs.
3. Contractor must not place further orders or enter into new subcontracts for materials, equipment, services or facilities, except as may be necessary to complete any portion of the Work that is not terminated.
4. As directed in the notice, Contractor must assign to City or cancel existing subcontracts that relate to performance of the terminated Work, subject to any prior rights, if any, of the surety for Contractor's performance bond, and settle all outstanding liabilities and claims, subject to City's approval.
5. As directed in the notice, Contractor must use its best efforts to sell any materials, supplies, or equipment intended solely for the terminated Work in a manner and at market rate prices acceptable to City.

(D) **Payment Upon Termination.** Upon completion of all termination obligations, as specified herein and in the notice of termination, Contractor will submit its request for Final Payment, including any amounts due following termination pursuant to this Article 13. Payment will be made in accordance with the provisions of Article 8, based on the portion of the Work satisfactorily completed, including the close out requirements, and consistent with the previously submitted schedule of values and unit pricing, including demobilization costs. Adjustments to Final Payment may include deductions for the cost of materials, supplies, or equipment retained by Contractor; payments received for sale of any such materials, supplies, or equipment, less re-stocking fees charged; and as otherwise specified in Section 8.3, Adjustment of Payment Application.

(E) **Continuing Obligations.** Regardless of any Contract termination, Contractor's obligations for portions of the Work already performed will continue and the provisions of the Contract Documents will remain in effect as to any claim, indemnity obligation, warranties, guarantees, submittals of as-built drawings, instructions, or manuals, record maintenance, or other such rights and obligations arising prior to the termination date.

14. Article 14 - Miscellaneous Provisions

- 14.1 Assignment of Unfair Business Practice Claims.** Under Public Contract Code § 7103.5, Contractor and its Subcontractors agree to assign to City all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2 (commencing with § 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or any subcontract. This assignment will be effective at the time City tenders Final Payment to Contractor, without further acknowledgement by the parties.
- 14.2 Provisions Deemed Inserted.** Every provision of law required to be inserted in the Contract Documents is deemed to be inserted, and the Contract Documents will be construed and enforced as though such provision has been included. If it is discovered that through mistake or otherwise that any required provision was not inserted, or not correctly inserted, the Contract Documents will be deemed amended accordingly.
- 14.3 Waiver.** City's waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of the Contract Documents will not be effective unless it is in writing and signed by City. City's waiver of any breach, failure, right, or remedy will not be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor will any waiver constitute a continuing waiver unless specified in writing by City.
- 14.4 Titles, Headings, and Groupings.** The titles and headings used and the groupings of provisions in the Contract Documents are for convenience only and may not be used in the construction or interpretation of the Contract Documents or relied upon for any other purpose.
- 14.5 Statutory and Regulatory References.** With respect to any amendments to any statutes or regulations referenced in these Contract Documents, the reference is deemed to be the version in effect on the date that bids were due.
- 14.6 Survival.** The provisions that survive termination or expiration of this Contract include Contract Section 11, Notice, and subsections 12.1, 12.2, 12.3, 12.4, 12.5, and 12.6 of Section 12, General Provisions; and the following provisions in these General Conditions: Section 2.2(J), Contractor's Records, Section 2.3(C), Termination, Section 3.7, Ownership, Section 4.2, Indemnity, Article 12, Dispute Resolution, and Section 11.2, Warranty.

END OF GENERAL CONDITIONS

Special Conditions

SC-1.0 Character.

- 1.1 Contractor, its employees, and any Subcontractors must conduct themselves in accordance with the City of San Ramon Sexual Harassment and Equal Opportunity Policy while on City property and engaged directly or indirectly in City business. This policy prohibits comments, slurs, jokes, innuendoes, pranks, physical harassment, unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature. Copies of the policy are available for review at the office of Engineering Services at 2401 Crow Canyon Road, San Ramon, CA. Violators of this policy will be discharged from the Project Site immediately upon written direction of the Engineer and will not be re-employed on the Project.

SC-2.0 Authorized Work Days and Hours.

- 2.1 **Authorized Work Days.** Except as expressly authorized in writing by City, Contractor is limited to performing Work on the Project on the following days of the week, excluding holidays observed by City:

Monday through Friday. Contractor requests for Saturday work must be submitted to the City in writing a minimum 8 working days in advance of requested Saturday work.

- 2.2 **Authorized Work Hours.** Except as expressly authorized in writing by City, Contractor is limited to performing Work on the Project during the following hours:

8:00 a.m. to 4:30 p.m. Attention is directed to TS-3.3, "Hours For Lane Closures", of these Technical Specifications.

SC-3.0 Five Working Days Prior to Pre-Construction Conference. Contractor must present City with the following information or documents five (5) working days in advance of the Pre-Construction Conference:

- 3.1 Traffic Control Plans for review and approval, see section TS-4 Traffic Control System;
- 3.2 Temporary pedestrian route plans for review and approval, if work activities require the closure of a pedestrian route. You may route pedestrians using the existing sidewalk or by constructing a temporary access route. See section TS-3 Maintaining Traffic, and TS-4 Traffic Control System.
- 3.3 Schedule for demolition and construction of concrete curb ramps, curb, gutter, sidewalk, and valley gutter; lowering and raising of utility frame and covers; localized 4" pavement repairs; cold planing; HMA Inlay; and striping, see section TS-4 Traffic Control System.

SC-4.0 Pre-Construction Conference. City will designate a date and time for a pre-construction conference with Contractor following Contract execution. Project administration procedures and coordination between City and Contractor will be discussed, and Contractor must present City with the following information or documents at the meeting for City's review and acceptance before the Work commences:

- 4.1 Name, 24-hour contact information, and qualifications of the proposed on-site superintendent;
- 4.2 List of all key Project personnel and their complete contact information, including email addresses and telephone numbers during regular hours and after hours;

- 4.3 Staging plans that identify the sequence of the Work, including any phases and alternative sequences or phases, with the goal of minimizing the impacts on residents, businesses and other operations in the Project vicinity;
- 4.4 If required, traffic control plans associated with the staging plans that are signed and stamped by a licensed traffic engineer;
- 4.5 Draft baseline schedule for the Work as required under Section 5.2 of the General Conditions, to be finalized within ten (10) days after City issues the Notice to Proceed;
- 4.6 Breakdown of lump sum bid items, to be used for determining the value of Work completed for future progress payments to Contractor;
- 4.7 Schedule with list of Project submittals that require City review, and list of the proposed material suppliers and locations at which the materials are available for inspection;
- 4.8 Plan for coordination with affected utility owner(s) and compliance with any related permit requirements;
- 4.9 Construction Best Management Practices action plan;
- 4.10 Water Pollution Control Program and Storm Drain Inlet protection plan;
- 4.11 Oil and grease stain cleaning solution and/or procedure plan;
- 4.12 List of certified traffic control supervisors, and certified flaggers including proof of current certification;
- 4.13 City of San Ramon "No Fee" Encroachment Permit application;
- 4.14 Cut sheets, pictures, and/or template of "Project Funding Signs", "No Parking" signs;
- 4.15 Number and type of street sweepers that will be used on the Project for each type of construction activity;
- 4.16 Concrete Mix design
- 4.17 Class 2 aggregate base;
- 4.18 Geotextile for soft (pumping) areas;
- 4.19 HMA mix designs;
- 4.20 Pavement markings, traffic stripes, and pavement marker materials, including materials for temporary pavement delineation
- 4.21 Number and type of equipment that will be used on the Project for each type of construction activity;
- 4.22 Cut sheet of Survey monument frame and cover; and
- 4.23 Any other documents specified in the Special Conditions or Notice of Potential Award.

SC 5.0. Sequence of Work for Pavement Projects. Contractor must perform the Work in a sequential order as shown on Contractor's City-approved progress schedule and as follows:

- 5.1** Work on any subsequent item of Work must not proceed until all the prior items of Work have been completed to the satisfaction of the Engineer. Multiple items of Work must not be performed concurrently unless shown on Contractor's progress schedule and approved by the Engineer. Any deviation from Contractor's progress schedule or the requirements of this Section must be approved by the Engineer.
- 5.2** All project funding signs must be installed at City-approved locations two weeks prior to starting any Work.
- 5.3** All construction area signs must be installed at City-approved locations 48 hours prior to starting any Work.
- 5.4** All Drain Inlet (DI) protection must be in place prior to construction.
- 5.5** A clear sidewalk path of travel or pedestrian access route must be provided at all times
- 5.6** All concrete removal and replacement must be completed prior to any pavement repairs, and inlays.
- 5.7** Contractor must maintain temporary pedestrian access route clear of obstructions. Do not allow traffic control devices, equipment, or construction materials to protrude into the walkway. Maintain a continuous unobstructed path connecting all pedestrian routes, parking lots, and bus stops located within the project limits.
- 5.8** All concrete construction shall be complete within 4 working days, unless approved by the Engineer. Concrete construction shall include saw cutting, demolition, form work, completion of concrete pour.
- 5.9** All sidewalk, and curb ramps shall be re-opened to the public prior to any Holiday weekend.
- 5.10** All sidewalk, and curb ramps within school zones shall be constructed during school hours, and no more than 24 hours between operations (aka demolition, forming, concrete placement), unless approved by the Engineer.
- 5.11** Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be installed by the Contractor prior to opening the traveled ways to the public.
- 5.12** Pavement repair must be performed after cold planing of an entire section of street.
- 5.13** Loop detectors damaged during construction shall be replaced within forty-eight (48) hours. All loop detectors shall be installed prior to placement of the top layer of asphalt concrete pavement.
- 5.14** All utilities to be adjusted within the pavement repairs must be lowered to below the subgrade surface, prior to any excavation.
- 5.15** All utilities to be adjusted within the pavement repair areas must be raised to grade after the final lift of asphalt concrete has been placed.
- 5.16** All utilities to be adjusted within inlay areas must be raised to grade after the final lift of asphalt concrete has been placed.
- 5.17** The top layer of asphalt concrete must be placed no later than 72 hours after excavation begins on any individual court or street, and prior to any weekend or holiday.

- 5.18 Permanent pavement stripes, markings and markers must not be placed for at least seven calendar days, but no later than 14 calendar days, following the top layer of inlay finish course.
- 5.19 Removal of construction signs following final striping and substantial completion of all work.
- 5.20 Contractor must maintain any mail boxes on the Project site and relocate them to their permanent locations as soon as possible in the course of the Work, to the satisfaction of the affected property owners and the postal service.

SC 6.0. Notification of Public. All information displayed to the public regarding the Project must be neat, clear, meaningful, legible and timely. Any disputes regarding execution of public notification will be judged according to these criteria.

- 6.1 No Work will take place on any street until all residents, businesses, and schools thereon have been formally notified at least two weeks in advance by City approved written notification. Contractor must distribute City approved flyers, at least two (2) weeks prior to commencement of Work at any location, and a second notification seventy-two (72) hours in advance of cold-planning, asphalt concrete inlay, and any work when parking, access to streets, and/or driveways will be delayed. In addition, posting of "no parking" signs shall be seventy-two (72) hours in advance of work.

- 6.2 Contractor shall include in the notification any landscaping requiring trimming by the property owner prior to concrete repair work including upgrading of curb ramps. Property owner shall trim any overhanging growth to a minimum of six (6) inches behind the sidewalk, and mark location of irrigation lines within one (1) foot from behind sidewalk, and curb ramp.

Notification may include "the Contractor will not be responsible for the resulting look of the shrubbery." In the case the Contractor must trim shrubbery in order to complete construction of the improvements. However, this does not preclude the Contractor from exercising due caution when necessary to trim shrubbery nor preclude the responsibilities set forth in Section TS-8, "Re-landscaping" of these Technical Specifications.

- 6.3 The hours of distribution of these notices by Contractor shall be from 8:00 A.M. to 7:00 P.M. Monday through Friday.
- 6.4 Contractor must distribute additional City-prepared notices during construction as needed or as directed by the Engineer.
- 6.5 In the event full driveway is to be repaired or replaced, the Contractor shall notify the property owner of driveway repair, and must maintain public access at all times by removing and replacing only half of the driveway at a time.
- 6.6 Any Work occurring on streets without proper notification may be terminated immediately, upon request of the Engineer, until proper notification is completed. No form of notification will be used without approval, in advance, by the Engineer. All sign types, barricades, flyers, mounting devices, and other forms of notification must be in accordance with these Contract Documents or submitted in advance to the Engineer for approval prior to installation, and/or distribution, and the start of Work.
- 6.7 Contractor is responsible for maintaining correct, clear, and legible information on signs.
- 6.8 All signs must be new. Signs and equipment bearing names of other jurisdictions or construction companies not employed on the Project will not be permitted. Information on

signs may be crossed out and rewritten only one time, and only if the new information can be presented legibly. All other changes to signs will require either new signs, or new information neatly applied to opaque labels completely covering obsolete information.

- 6.9** Barricades with signs must be removed within 24 hours after Contractor's Work operation is complete, unless a subsequent operation will take place within three calendar days of completion, in which case only sign changes are required. Any barricades, with or without signs, not removed within 24 hours will be subject to removal by City personnel at Contractor's expense, at a rate of \$245/Hr with a two hour minimum during City authorized work hours and days or \$290/Hr with a three hour minimum outside of authorized work hours and days per personnel required, plus 35% markup, and will be deducted from payment due or to become due to Contractor.

SC 7.0. Garbage Pickup Schedule. The residential trash pickup schedule is shown in Attachment B. The Contractor shall coordinate with the garbage disposal company to ensure that construction activities are performed without disrupting garbage pickup.

SC 8.0. Close Out Requirements. Contractor's close out requirements include the following, if applicable:

- 8.1** Contractor must replace, with thermoplastic, any existing striping within and adjacent to the Project site that is damaged during the Work. Partially damaged striping must be replaced in its entirety.
- 8.2** Contractor must replace any survey monuments that are damaged or removed during the Work, with a Record of Survey filed by a licensed land surveyor as required by California law.
- 8.3** Before removing any traffic control or street signs on the Project site, Contractor must take photographs showing their original locations. Upon completion of each phase of construction, Contractor must temporarily reset the signs at those locations. Contractor must then replace the signs permanently upon completion of the Work and the cost of their removal and replacement must be included in the Bid Proposal.

END OF SPECIAL CONDITION

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Technical Specifications

TS-1. MOBILIZATION

TS-1.1 GENERAL

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to and from the project site; for the establishment of all offices, buildings, on-site sanitary facilities, developing construction water supply and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to commencement of work on the various work tasks on the project site. Furnishing and maintaining project field offices, facilities, facility control and cleanup, developing a construction staging area and plan, storage yard fencing, and storage lockers or other items of similar character, shall all be classified as mobilization.

Furnishing, installing, and relocating as needed "Project Funding Signs", obtaining permits and licenses, and paying all related fees, notification to the public, preparation and update of construction schedules, coordination and cooperation, attendance of project meetings, preparation of daily reports, contractor/subcontractor insurance and bonds, and maintaining record documents shall all be classified as mobilization.

A schedule of values shall be submitted, itemizing salient items, costs, and activities involved in each item. Items shall also include maintenance of such facilities and removal and cleanup costs.

Measurement will be made as a percentage of the costs incurred according to the schedule of values submitted, except that not more than seventy-five percent (75%) of the bid price shall be paid prior to the final estimate for payment being due, said remaining twenty-five percent (25%) shall be paid upon completion of cleanup and removal with final payment.

TS-1.2 CONSTRUCTION STAGING AREA

No on-site storage is available. Attention is directed to Article 7.3 (B), "Offsite Staging Area and Field Office", of these General Conditions. Contractor shall arrange for its own storage and staging area at Contractor's expense.

Contractor shall prepare and submit a plan describing the construction staging area to the Engineer for approval. Contractor shall not permit any waste or damage to be done to the staging area and shall maintain the area in good condition, free of litter and debris. Upon completion of the work, the area shall be restored to its pre-construction or better condition, including the repair of any damaged pavement, curbs, markings, or other public infrastructure components.

TS-1.3 SANITARY RESTROOM FACILITIES

Sanitary restroom facilities shall be furnished and maintained by the Contractor, and shall be mounted on a moveable trailer and moved to various locations throughout the project as necessary. The Contractor's proposed locations for restroom facilities shall be reviewed with the Engineer prior to delivery and placement of restroom facilities. Restroom facilities shall be removed from the jobsite at the end of the work day.

TS-1.4 ENVIRONMENTAL REQUIREMENTS

Contractor shall comply with all air pollution, water quality, and other environmental control rules, regulations, ordinances and statutes that apply to the project and execution of the work performed pursuant to the Contract, including the requirements of the Contra Costa Clean Water Program (CCCWP) with respect to the Pollution Prevention Program. The major elements of this program are shown on the last

Plan Sheet, "Construction Best Management Practices". Attention is directed to Article 7.19 "Environmental Control", of these General Conditions.

Attention is directed to Section TS-10.4, "Existing Yellow Traffic Striping and Pavement Markings", of these Technical Specifications.

Contractor shall implement construction site Best Management Practices (BMP's) for control of non-storm water and point discharges, erosion and sediment control.

A Construction Best Management Practices action plan, Water Pollution Control Program (WPCP) and Storm Drain Inlet protection plan shall be required for the project.

Contractor shall be required to implement temporary construction site best management practices in accordance with the *Construction Site Best Management Practices (BMP's) Manual* issued by the State of California, Department of Transportation. Temporary BMP's required for this Contract shall include, but are not limited to:

- A. Stockpile Management: Implement BMP's, as appropriate, for soil stabilization and sediment control as applicable to stockpiles of various materials.
- B. Mobile Operations: Implement BMP's, as appropriate, for control of equipment fueling and maintenance, concrete mixing and wash out, hauling and storage of materials. BMP's shall control all specific situations that mobile operations can create.
- C. Wind Erosion Controls: Implement BMP's, as appropriate, for all disturbed soils on the project site that are subject to wind erosion when wind and dry conditions exist.
- D. Tracking Controls: Implement BMP's, as appropriate, for control of sediments and debris from the construction site.
- E. Non-Storm Water and Waste Management and Materials Pollution Controls: Implement BMP's, as appropriate, to control the discharge of materials other than storm water to the storm water collection system.

The Contractor shall inspect BMP's regularly. Improperly installed, damaged or ineffective BMP's shall be corrected immediately.

TS-1.5 PROJECT FUNDING SIGNS

Contractor shall furnish, install, and relocate as needed, eight (8) project funding signs. Four (4) signs shall be four feet (4') by four feet (4'), and four (4) signs shall be four feet (4') by eight feet (8'). See Project Funding Sign Templates in Appendix B.

Exact language shall be coordinated with the Engineer and proofs shall be submitted for approval prior to ordering signs.

Project and funding signs shall be the stationary-mounted type as specified in Sections 12-3.11, "Construction Area Signs", and 12-3.11C(2), "Stationary-Mounted Signs", of the State Standard Specifications. Project signs on barricades will not be allowed.

Signs shall be installed at locations determined by the Engineer, two weeks prior to the start of work, or as directed by the Engineer.

Signs shall be kept clean and in good repair.

Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two (2) working days prior to commencing any excavation for project and funding sign posts. Regional centers include, but are not limited to, the following:

Underground Service Alert (USA) 1-800-227-2600 Northern California

All excavations required to install project and funding signs shall be performed by hand methods without the use of power equipment.

TS-1.6 MEASUREMENT AND PAYMENT

The lump sum price paid for "**Mobilization**" shall be considered as full compensation for mobilization as specified herein, including but not limited to notifications, project records and documents, obtaining all required permits, licenses, and paying all fees, developing construction schedules, moving on the site any equipment required for the operations, preparatory work including furnishing, installing, and relocating project funding signs indicating funding source(see Attachment A), coordination and cooperation, project meetings, developing construction water supply, developing a construction staging area, providing on-site sanitary facilities, offices, subcontractor insurance and bonds, Contractor insurance and bonds, environmental requirements, demobilization, and all other mobilization work, and no additional payment will be allowed therefore.

TS-2. STAGE CONSTRUCTION

TS-2.1 GENERAL

Attention is directed to Article 5.2, "Schedule Requirements", of these General Conditions; and SC-5.0, "Sequence of Work for Pavement Projects", of these Special Conditions.

Contractor shall prosecute all work in a staged and sequential order, and as specified in these Contract Documents. Subsequent items of work in the stage construction location shall not commence until all the preceding items of work in that stage of work have been completed to the satisfaction of the Engineer.

Overall scope of the project involves several distinct neighborhoods. Work shall be performed in a staged and sequential order within a particular neighborhood, work operations may be staggered between neighborhoods, as permitted by the Engineer, when required.

Multiple items of work shall not be performed concurrently unless shown on the Contractor's Construction Schedule and approved by the Engineer.

Minor deviations from the requirements of this section may be allowed by the Engineer if, in the opinion of the Engineer, prosecution of the contract will be better served and the work expedited. Any request for such deviations by the Contractor shall not be adopted without the Engineer's written approval.

All project funding signs shall be installed at City approved locations two (2) weeks, prior to starting of any work.

Contractor shall be responsible to verify with City staff if any other projects are expected to be active within, or near, the project's limits. Contractor shall coordinate and cooperate with concurrent projects to minimize conflict and disruption to the public.

Nothing in this section, or on the contract plans, shall be construed as to relieve the Contractor of its responsibility to comply with the requirements of Section 7-1.04, "Public Safety", of the State Standard Specifications.

Failure to comply with these requirements and provisions shall be sufficient cause for the Engineer to suspend the work in accordance with provisions of Article 13, "Suspension and Termination", of these General Conditions.

TS-2.2 MEASUREMENT AND PAYMENT

Payment for stage construction shall be considered as included in the contract prices bid for the various items of work shown on the Bid Schedule, which prices will be considered as full compensation for all labor, supervision, materials, equipment, tools and incidentals, and no additional compensation will be allowed therefore.

TS-3. MAINTAINING TRAFFIC

TS-3.1 GENERAL

Attention is directed to Sections 7-1.03, "Public Convenience", 7-1.04, "Public Safety", and 12, "Temporary Traffic Control", of the State Standard Specifications. Nothing in these Contract Documents shall be construed as relieving the Contractor from the responsibilities for public safety.

Lane closures shall conform to the details shown in the most current edition of the "California Manual on Uniform Traffic Control Devices" (CAMUTCD), the provisions specified herein and TS-4, "Traffic Control System", of these Technical Specifications.

Public right-of-way generally refers to the street, sidewalk and parkway areas that are used by the public as a means of travel.

"Traffic" shall be defined as all road users including vehicles, pedestrians, bicycles, emergency vehicles, commercial trucks, public transportation, and all other users of the highway for the purpose of travel.

"Traffic Lane" shall be defined as that portion of the roadway for movement of a single line of vehicles.

"Lane Closure" shall be defined as the temporary closure of a portion or the full width of an existing traffic lane. The temporary shifting of an existing traffic lane to shoulders, parking areas, medians or other areas of the roadway shall be considered a lane closure.

Contractor shall schedule, stage and conduct all construction operations with regard to public convenience and in a manner to provide for the safe and expeditious movement of traffic.

Prior to commencing any activity within any public right-of-way, the Contractor shall implement traffic control measures in accordance with City-approved traffic control plans.

Portable Changeable Message Signs (CMS) shall be installed, one (1) in each direction, a minimum of seventy-two (72) hours prior to any work on arterials and collectors, including the following:

- Crow Canyon Place, Crow Canyon Road, E. Branch Parkway, Omega Road, San Ramon Valley Boulevard, Sherwood Way, and Westside Drive

Portable CMS's shall be furnished, installed, maintained and relocated (as-needed) by the contractor, as long as required, to accommodate the contractor's schedule and work duration at each location. Portable CMS installation shall be thoroughly coordinated with the Engineer.

Contractor shall furnish and install temporary "No Parking" signs at least seventy-two (72) hours prior to the effective time of such restriction as needed to facilitate the work in public parking areas, in accordance with these Contract Documents.

Access to private homes, business establishments, etc., shall be provided by the Contractor at all times except when temporary closure is authorized by the Engineer.

Notification of property owners shall be in accordance with TS-3.4, "Residential Streets Requirements", Section TS-4.5, "Resident and Business Notifications", of these Technical Specifications, and SC-6.0, "Notification of Public", of these Special Conditions.

Within work affecting business complexes and commercial areas, at least one (1) driveway shall be accessible at all times, and thoroughly coordinated with the Engineer.

Temporary driveways in excavation areas shall be provided with temporary compacted backfill materials with temporary asphalt surfacing as approved by the Engineer, or with permanent hot mix asphalt, to meet field conditions and enable sufficient support for vehicles using such temporary access.

Openings shall be provided through temporary barricades and access provided to adjacent properties as directed by the Engineer in order to meet and be in accordance with the requirements of Article 7.3, "Noninterference and Site Management", Article 7.22, "Traffic", and Article 10, "Safety Provisions" of these General Conditions; and TS-4, "Traffic Control System" of these Technical Specifications.

All vehicles in the construction areas must have a company sign on the exterior of the vehicle visible to the public. Personal vehicles of the Contractor's employees shall not be parked on the traveled way, including any section closed to public traffic.

Pedestrian access and emergency vehicles access shall be provided at all times through the construction areas. Crosswalks will require special handling. Contractor shall submit location specific pedestrian handling plans which address the safe passage of pedestrians through the construction site. Access shall meet ADA requirements with a hard, non-skid surface.

Certified flaggers shall be utilized:

1. When it is necessary to change traffic controls frequently.
2. For stopping of through traffic for equipment movement.
3. For alternate directional use of a single traffic lane.
4. To expedite the safe movement of traffic through or around work zones.
5. To expedite the safe movement of traffic through intersections.

Flaggers shall be properly positioned, attired and equipped to perform these functions.

Should permanent pavement markings become obliterated due to construction, the permanent markings should be restored as soon as practicable. If the Contractor is unable to restore permanent markings by the end of the shift, then temporary markings shall be installed prior to the Contractor leaving the job site. Temporary markings shall conform to the requirements of Part 6 of the most current edition of the CAMUTCD.

Contractor shall temporarily cover any existing signs and signals which conflict with temporary signs, temporary pavement delineation, or traffic detours, as approved by the Engineer.

TS-3.2 LANE CLOSURES

A minimum of one (1) eleven-foot (11') traffic lane open for use by public traffic will be required at all times. In specific locations, if noted on the plans or approved by the Engineer, the width of through lane(s) may be reduced to ten feet (10'). The Contractor shall provide at least one (1) flagman at each end at all times

when the traveled way has been reduced to one (1) traffic lane or when any one-way traffic control is implemented. A single flagman may be utilized when the length of one-way traffic control is short and, in the opinion of the Engineer, the criteria for a single flagman as defined in the CAMUTCD is met.

If a bicycle lane is disrupted or closed, traffic control shall include accommodations to bicycles in accordance to Chapter 6 of the latest edition of the CAMUTCD.

No night, weekend, or holiday work is allowed unless specified in these Contract Documents or approved by the Engineer. The full width of the traveled way shall be open for use by public traffic Saturdays, Sundays, holidays, at the end of each working period, and when construction activities are not actively in progress, unless specified in these Contract Documents.

Temporary full closure of streets is not permitted without advance written approval and submittal of detour plans for approval by the Engineer. Portable CMS shall be required for all full closures. Contractor shall show any proposed street closures on the traffic control plan required by TS-4, "Traffic Control System", of these Technical Specifications and shall provide all necessary detour signing, temporary pavement delineation, traffic control devices, and flagmen necessitated by the temporary road closure. The City reserves the right to reject any temporary full street closure proposed by the Contractor. No additional compensation will be allowed to the Contractor if a proposed full street closure is rejected by the City.

Lanes closed for the street work shall remain closed until applied pavement materials (HMA, striping and markings, etc.) have sufficiently cured to accommodate traffic without tracking, shoving, raveling, or the occurrence of other damage. The Contractor shall determine when pavement materials have sufficiently cured to accommodate traffic.

The Contractor shall furnish, install, maintain, and remove all markers, portable signs, cones, delineators, barricades, flashing arrow signs, crash cushions, or any other traffic control devices necessary to ensure the safe passage of traffic through the work zone.

TS-3.3 HOURS FOR LANE CLOSURES

All lane closures on arterial and collector streets, including Crow Canyon Place, Crow Canyon Road, E. Branch Parkway, Omega Road, San Ramon Valley Boulevard, Sherwood Way, and Westside Drive, shall be subject to the following restrictions:

Lane closures shall be restricted to the hours of **9:00 am to 3:30 pm, Monday through Friday**.

During periods when school is in session, lane closures on the following streets shall be restricted to the hours listed below:

Monday, Tuesday, and Thursday: 9:00 am to 3:00 pm

Wednesday: 9:30 am to 2:00 pm

Friday: 9:00 am to 1:30 pm

These school-session restrictions shall apply to the following streets:

Broadmoor Drive
Davona Drive
E. Branch Parkway
Pine Valley Road
San Ramon Valley Boulevard
Sherwood Way

Lane closures on all other residential streets shall be restricted to the hours of **8:30 am to 4:30 pm**.

Working hours are specified in Article 5.2 (H), "Schedule Requirements", of these General Conditions, and SC 2.2, "Authorized Work Hours", of these Special Conditions.

Minor operations which do not require a lane closure shall be completed during the normal working hours specified in Article 5.2 (H), "Schedule Requirements", of these General Conditions, and SC 2.2, "Authorized Work Hours", of these Special Conditions.

The full width of traveled way shall be open for use by public traffic on Saturdays, Sundays, holidays, at the end of each working period, and when construction activities are not actively in progress.

Contractor's operations shall be scheduled so that traffic control can be discontinued and all lanes open to traffic no later than the stated time.

At the end of each work period, components of the traffic control systems which are not needed shall be removed from the traveled way and shoulder.

Minor deviations from lane closure requirements may be permitted upon written request seven (7) days in advance of lane closure. Such deviations shall not be adopted until the Engineer has given written approval. All other deviations will be made by contract change order.

Failure to comply with the requirements and provisions in this section shall be sufficient cause for the Engineer to suspend work in accordance with the provisions of Article 13, "Suspension and Termination", of these General Conditions.

TS-3.4 RESIDENTIAL STREETS REQUIREMENTS

Work within residential streets shall be sequenced in such a manner as to minimize inconvenience to residents. In addition to the traffic control plan requirements, Contractor shall also show proposed parking staging area(s) for residents to park. Proposed temporary parking staging area(s) shall not exceed more than approximately 1,000 feet from the furthest property affected by the work. Contractor shall perform the work on any portion of an individual street not to exceed approximately 1,000 feet long at a time. Contractor is not allowed to perform work on any streets adjacent to the 1,000 feet long section of a street without providing adequate staging and parking for the area being affected. Any deviations from this requirement shall be approved in advance by the Engineer.

The properties affected by the work shall be notified in advance by notices approved by the City in accordance with TS-4.5, "Resident and Business Notifications", of these Technical Specifications, and SC-6.0, "Notification of Public", of these Special Conditions.

TS-3.5 MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, supervision, materials, tools, equipment, site cleanup, traffic control, flagmen, flashing arrow signs, portable CMS, and incidentals necessary to maintain traffic and install and remove safety features and for complying with the requirements of this section shall be considered as included in the lump sum price paid for **"Traffic Control System"** and no additional compensation will be allowed therefore, except as noted below.

Traffic control required by work, which is classified as extra work, as provided in Article 6.1, "Contract Modification", of these General Conditions, will be paid for as part of said extra work.

All construction area signs shown on the Key Maps within the Plan sheets shall be paid per each as **"Construction Area Signs"**. Refer to TS-6 "Construction Area Signs", of these Technical Specifications for measurement and payment information.

All other traffic control signs, including flashing arrow signs and all portable CMS, shall be included in the price paid for "Traffic Control System", and no additional compensation will be allowed therefore.

TS-4. TRAFFIC CONTROL SYSTEM

TS-4.1 GENERAL

This work shall consist of implementing a Traffic Control System for closing traffic lanes in accordance with the details shown on any approved traffic control plan submittals for traffic control, the provisions of Section 12, "Temporary Traffic Control", of the State Standard Specifications, and the provisions of TS-3, "Maintaining Traffic", of these Technical Specifications.

The provisions in this section shall not relieve the Contractor from its responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.04, "Public Safety", of the State Standard Specifications. Nothing in these Contract Documents shall be construed as to reduce the minimum standards specified in the current CAMUTCD published by Caltrans.

Each vehicle used to place, maintain, and remove components of the traffic control system on the roadway shall be equipped with a Type II flashing arrow sign that shall be used for placing, maintaining, or removing said components. The signs shall be controllable by the operator of the vehicle while the vehicle is in motion. The minimum size shall be thirty-six inches (36") by seventy-two inches (72").

If any component in the traffic control system is displaced or ceases to operate or function as specified from any cause during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

Lane closures shall not be permitted unless work in the closed lane area is in progress. Lane closures shall not exceed one-quarter (1/4) mile unless otherwise approved by the Engineer.

Failure to comply with these requirements and provisions shall be sufficient cause for the Engineer to suspend work in accordance with the provisions of Article 13, "Suspension and Termination", of these General Conditions.

TS-4.2 TRAFFIC CONTROL PLAN

Contractor shall submit all Traffic Control Plans (TCPs) for review and approval five (5) working days in advance of the Pre-Construction conference. The Contractor shall allow five (5) working days for the City's review for each resubmittal.

The City may permit certain minor operations, such as those involving a small work area including construction area signs and utility adjustments, to proceed with lane closure and traffic control requirements specified under the latest Caltrans Standard Plans T11, "Traffic Control System for Lane Closure on Multilane Conventional Highways", and T13, "Traffic Control System for Lane Closure on Two Lane Conventional Highways". The Contractor shall submit TCPs for minor operations which affect intersections and for pedestrian accommodations.

Contractor shall submit a schedule for installation of construction area signs, installation of project funding signs, removal of striping, markings, and markers, slurry seal, chip seal, micro-surfacing, raising utilities, and striping work a minimum of five (5) working days in advance of the Pre-Construction Conference. Contractor shall allow five (5) working days for review of each resubmittal. Contractor's attention is directed to various requirements as specified in TS-3, "Maintaining Traffic", of these Technical Specifications.

All TCPs shall be prepared and stamped by a registered civil or traffic engineer, and shall provide sufficient information and details to show typical lane closures, channelizing, and proposed detours or street closures, locations and usage of flagmen, typical construction zone signing, provisions for pedestrians and bicycles, etc. TCP shall show in detail the proposed staging and sequencing of work together with the proposed traffic control system for each work task. The proposed traffic control system shall, in all respects, satisfy the requirements of these Contract Documents. The proposed TCP will be reviewed by the San Ramon Traffic Engineering Division and subsequently returned to the Engineer. The Engineer or designated San

Ramon Inspector shall return it to the Contractor for any necessary revisions or corrections. Contractor shall revise and resubmit the TCP to the Engineer and this process shall be repeated until the proposed TCP is approved by the San Ramon Traffic Engineering Division. The Contractor will not be permitted to perform any lane closures or implement any part of the TCP until it has been approved by the San Ramon Traffic Engineering Division. It is the Contractor's responsibility to submit the TCP in a timely manner to obtain the required approvals prior to starting work.

If the Contractor is unable or fails to submit and/or receive an approval of its Traffic Control Plan(s) within ten (10) working days after the Pre-Construction Conference, the City may take the necessary steps to have the Traffic Control Plan(s) prepared by a registered civil or traffic engineer. All costs incurred by the City to prepare the aforementioned Plans, including twenty percent (20%) administrative markup, will be charged to the Contractor. Additionally, Contractor's failure to submit and/or obtain approval of its Traffic Control Plan(s) and/or is unable or fails to implement the Traffic Control Plan(s) provided by the City shall be sufficient cause for the Engineer to suspend work in accordance with the provisions of Article 13, "Suspensions and Termination", of these General Conditions. The days on which the suspension order is in effect shall be considered as working days. The increase of Contractor's operation cost due to implementation of the Traffic Control Plan(s) to be provided by the City shall not constitute a basis for claim by the Contractor for extra payment or damages, and therefore, no additional compensation will be allowed.

TS-4.3 TRAFFIC CONTROL SUPERVISOR

The Traffic Control System shall be placed, maintained and removed under the direct supervision of a person who is certified by either the Institute of Transportation Engineers (ITE), the American Traffic Safety Services Association (ATSSA), the International Municipal Signal Association (IMSA), or the State of California. The Contractor shall designate in writing the person who shall have the responsibility for supervising the activities associated with the Traffic Control System. This designation, along with proof of certification, shall be provided to the Engineer for his/her approval two (2) working days in advance of any planned activity that requires traffic control. The person designated shall have the authority to stop the work if necessary. Failure of the designated person to be present at the jobsite when any part of the Traffic Control System is in place shall be considered a failure on the part of Contractor to perform a provision of the contract. The Engineer shall in accordance with Article 13, "Suspensions and Termination", of these General Conditions, suspend all work until such time as satisfactory arrangements have been made to have a certified person on the jobsite at all times when the Traffic Control System is in place.

TS-4.4 USE OF FLAGGERS AT INTERSECTIONS

Use of certified flaggers shall be as specified in the Project Plans, the most current edition of the CAMUTCD, on the Caltrans Standard Plans Caltrans Standard Plans T11, "Traffic Control System for Lane Closure on Multilane Conventional Highways", and T13, "Traffic Control System for Lane Closure on Two Lane Conventional Highways". Contractor shall provide flaggers at all intersections affected in any way by the construction. Work within all intersections shall be staged in such a fashion as to maintain traffic flow at all times.

TS-4.5 RESIDENT AND BUSINESS NOTIFICATIONS

Attention is directed to SC-6.0, "Notification of Public", of these Special Conditions.

TS-4.6 TEMPORARY "NO PARKING" SIGNS

Attention is directed to SC-6.0, "Notification of Public", of these Special Conditions.

Contractor shall furnish and install "No Parking" signs on construction area streets a minimum of seventy-two (72) hours and a maximum of five (5) days in advance of the period parking restrictions are to be in effect. These signs shall be placed on barricades in the project area facing the street. These signs will bear the "No Parking" time limits and dates. Time limits and dates to be posted on "No Parking" signs shall not exceed the required time to perform each specific activity/item of work. For any violation of "No Parking"

signs by the citizens, the Contractor shall contact the City Police Department for removal of vehicles. Location and duration of "No Parking" limits shall be approved by the Engineer. The type of "No Parking" signs to be furnished and installed by the Contractor shall be submitted to and approved by the Engineer prior to their use.

TS-4.7 REMOVAL OF SIGNS AND BARRICADES

At the completion of construction operations, the Contractor shall remove barricades, signs, delineators, and other temporary measures from and immediately adjacent to the traveled way. The street shall be restored to its intended use, including the movement of public traffic, access to fronting properties and parking of vehicles. When permitted, such devices may be stored in the public right-of-way for a period not to exceed twenty-four (24) hours. Such storage is permitted provided the storage devices are stored in a neat and orderly manner and the storage does not interfere with the safe and orderly movement of traffic including vehicles, pedestrians and bicycles. Arrow boards shall not be stored in the public right-of-way.

TS-4.8 MEASUREMENT AND PAYMENT

The contract lump sum price paid for **"Traffic Control System"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals and for doing all the work involved including, but not limited to, controlling traffic; furnishing and implementing the traffic control plans; resident and business notification; placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of all the components of the traffic control system including all lane closures, message signs, and detours necessary for any activities during the life of the project, all special and temporary signing necessary, and all other work as shown on the City approved TCPs, as specified in the State Standard Specifications, San Ramon Standards and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

The full cost of furnishing all flagmen and guards under the provisions of these Contract Documents and Sections 7-1.03, "Public Convenience", and 7-1.04, "Public Safety", and 12-1, "General", of the State Standard Specifications will be borne by the Contractor and shall be considered included in the price paid for "Traffic Control System" and no additional compensation will be allowed therefore.

Progress payments for **"Traffic Control System"** shall be calculated as the percent completed of asphalt concrete work, based on the contract dollar value of work completed compared to the total current total dollar value of the asphalt concrete work in the contract.

Traffic control system required by work, which is classified as extra work, as provided in Article 6.1, "Contract Modification", of these General Conditions, will be paid for as part of said extra work.

TS-5. TEMPORARY PAVEMENT DELINEATION

TS-5.1 GENERAL

Temporary pavement delineation shall be furnished, installed, placed, maintained, repaired, relocated and removed in accordance with the provisions in Section 12, "Temporary Traffic Control", of the State Standard Specifications, CAMUTCD, and these Contract Documents. Nothing in these Contract Documents shall be construed as to reduce the minimum standards specified in the CAMUTCD published by Caltrans or as relieving the Contractor of the Contractor's responsibilities as specified in Section 7-1.04, "Public Safety", of the State Standard Specifications.

Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic. Pavement delineation shall be provided at all times for traveled ways open to the public.

Contractor shall install all temporary pavement delineation, including lane lines, limit lines, pavement

stripes, crosswalks, legends, arrows, markings, traffic stripes, swing lines, and all other delineation, at the same layout, size and width and following the same or equivalent striping patterns or details as the obliterated pavement delineation it is replacing or as the planned permanent striping shown on the Plans. There shall be no exceptions to this requirement, except as follows:

- Deviations from the Plans, other than the two bullets below, shall be approved by the Engineer:
 - “STOP” legends; and
 - Centerline stripes, less than sixty feet (60') in length adjacent to limit lines.

Failure by the Contractor to satisfy this requirement shall be sufficient cause for the City to have the required temporary delineation installed and all costs for this work, including a thirty-five percent (35%) administrative markup, deducted from any progress payments due the Contractor. The intent of this requirement is to have a complete temporary pavement delineation installation in place on any traveled way open to public traffic where permanent pavement delineation has not yet been installed.

All work necessary, including any required lines or marks, to establish the alignment of temporary pavement delineation shall be performed by the Contractor. Surfaces to receive temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation.

Temporary pavement markers and removable type traffic tape which conflicts with a new traffic pattern or which is applied to the final layer of surfacing or existing pavement to remain in place shall be removed when no longer required for the direction of public traffic, as determined by the Engineer, and disposed of in accordance with Article 7.9, “Project Site Conditions and Maintenance”, of these General Conditions and Section 5-1.20B(4), “Contractor-Property Owner Agreement”, of the State Standard Specifications.

All work necessary to establish satisfactory lines for temporary pavement delineation shall be performed by the Contractor. Temporary pavement delineation that is damaged from any cause during the progress of work shall be immediately repaired or replaced by the Contractor at his/her own expense.

TS-5.2 TEMPORARY PAVEMENT DELINEATION - PAINT

No temporary painted striping shall be applied.

TS-5.3 TEMPORARY PAVEMENT DELINEATION – TAPE AND MARKERS

All temporary pavement delineation applied to top layer of hot mix asphalt, or existing pavements to remain shall be temporary raised reflective pavement markers and temporary removable traffic tape. Painted striping or markings in place of temporary markers and tape are not allowed. The temporary markers and tape shall be in place prior to opening the traveled way to the public and shall be maintained until permanent striping and markings are installed.

All Temporary Pavement Delineation shall be in accordance with State Standard Specifications, except where delineators are not used between a bike lane (eight feet (8') wide or less) and drive lane where two (2) markers shall be placed side-by-side for bike lane delineation at longitudinal intervals of not more than twelve feet (12') on center, and where delineators are used on the buffer between the bike lane and the drive lane where two (2) sets of two (2) markers shall be placed side-by-side for bike lane and bike buffer delineation at longitudinal intervals of not more than twelve feet (12') on center.

TS-5.4 MEASUREMENT AND PAYMENT

The contract lump sum price paid for **"Temporary Pavement Delineation"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment including, but not limited to, site cleanup, traffic control and incidentals and for doing all the work necessary to lay out, place, maintain, and remove temporary pavement striping and markings and all other work as shown on the Plans, as specified in the State Standard Specifications, San Ramon Standards and these Contract Documents, and as directed by the Engineer, and no additional compensation will be allowed therefore. Progress payments for **"Temporary Pavement Delineation"** shall be calculated as the percent completed of HMA Type A – Inlay, and four-inch (4") Pavement repairs work, based on the contract dollar value of work completed compared to the total current total dollar value of HMA Type A – Inlay, and four-inch (4") Pavement repairs work in the contract.

Temporary pavement delineation required by work, which is classified as extra work, as provided in Article 6.1, "Contract Modification", of these General Conditions, will be paid for as part of said extra work.

TS-6. CONSTRUCTION AREA SIGNS

TS-6.1 GENERAL

This work shall consist of providing construction area signs as shown on Plans. The signs shall be furnished, erected, maintained, and removed when no longer needed, as specified in Sections 12-3.11, "Construction Area Signs", and 12-3.11B(2), "Stationary-Mounted Signs", of the State Standard Specifications.

Signs shall be installed at locations determined by the Engineer, two (2) weeks prior to the start of work, or as directed by the Engineer.

Signs shall be kept clean and in good repair. Sign types and sizes shall be as shown on the Plans, and per the most current edition of the CAMUTCD.

Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two (2) working days prior to commencing any excavation for construction area signposts. Regional centers include, but are not limited to, the following:

Underground Service Alert (USA) 1-800-227-2600 Northern California

All excavations required to install construction area signs shall be performed by hand methods without the use of power equipment.

TS-6.2 MEASUREMENT AND PAYMENT

All construction area signs shall be paid per each as **"Construction Area Signs"**. Other temporary signs, shall be included in the bid item "Temporary Traffic Control".

Each Construction Area Sign will be counted and paid for based on the number of sign panels furnished, installed, maintained, and removed at locations determined by the Engineer, or as directed by the Inspector, regardless of number of sign posts required.

Contract unit price paid per each for **"Construction Area Signs"** shall include full compensation for furnishing all labor, supervision, materials, tools, and equipment to complete the work, including, but not limited to, sign installation; sign updating and changes; traffic control; furnish, place, maintain, and remove all construction area signs; site clean-up, and all other work as shown on Plans, as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

Compensation for all other signs as required for traffic control, traffic safety, lane closures, detours, and all other temporary signs shown on the Plans and necessary signing shall be considered as included in the contract lump sum price paid for "Traffic Control System".

TS-7. CONSTRUCTION AREA TRAFFIC CONTROL DEVICES

TS-7.1 GENERAL

Traffic control shall conform to the latest edition of the CAMUTCD published by Caltrans and the Caltrans Standard Plans,

No deviation in traffic control from the references mentioned above will be allowed unless written permission is granted by the Engineer.

It is the responsibility of the Contractor performing work on or adjacent to a public thoroughfare to install and maintain such devices which are necessary to provide passage for the traveling public, including pedestrians and bicyclists, through the work, as well as for the safeguard of workers.

TS-7.2 PUBLIC SAFETY

Contractor shall provide for the safety of the traffic and the public in accordance with the provisions in Section 7-1.04, "Public Safety", of the State Standard Specifications and these Contract Documents.

TS-7.3 TRAFFIC CONES

If an emergency condition or unexpected delay occurs, during the hours of darkness, traffic cones shall be affixed with reflective cone sleeves. The reflective sheeting of sleeves on the traffic cones shall be visible at 1,000 feet at night under illumination of legal high beam headlights, by persons with vision of or corrected to 20/20.

Reflective cone sleeves shall conform to the following:

1. Removable flexible reflective cone sleeves shall be fabricated from reflective sheeting, have a minimum height of thirteen inches (13") and shall be placed a maximum of three inches (3") from the top of the cone. The sleeves shall not be in place during daylight hours.
2. Permanently affixed semitransparent reflective cone sleeves shall be fabricated from semitransparent reflective sheeting, have a minimum height of thirteen inches (13"), and shall be placed a maximum of three inches (3") from the top of the cone. Traffic cones with semitransparent reflective cone sleeves may be used during daylight hours.
3. Permanently affixed double band reflective cone sleeves shall have two (2) white reflective bands. The top band shall be six inches (6") in height, placed a maximum of four inches (4") from the top of the cone. The lower band shall be four inches (4") in height, placed two inches (2") below the bottom of the top band. Traffic cones with double-band reflective cone sleeves may be used during daylight hours.

The type of reflective cone sleeve used shall be at the option of the Contractor. Only one type of reflective cone sleeve shall be used on this project.

TS-7.4 BARRICADES

Type III barricades shall conform to the requirements specified in the Standard Specification for Type III barricades except as modified in these Contract Documents. Type III barricades shall be constructed of lightweight materials and shall have no rigid stay bracing for "A" frame designs.

Entire area of orange and white shall be retro-reflectorized with a material that has a smooth, sealed out surface that will display the same approximate size, shape and color day and night. The predominant color for other barricade components shall be white, except that unpainted galvanized metal or aluminum components may be used.

Type II reflective sheeting for stripes on barricade rail faces shall conform to the requirements of one of the materials specified on the latest listing of prequalified and tested signing and delineation materials and products maintained by the Department of Transportation, State of California.

Barricades shall be kept in good repair and shall be cleaned or repainted as necessary to preserve their appearance and retro-reflectivity.

Owner identification shall not be imprinted on the reflectorized face of any rail. It may be imprinted elsewhere, as on supports and on non-reflectorized rail faces.

Barricades used shall have a minimum of 270 square inches of retro-reflective area facing traffic.

If barricades are susceptible to overturning in the wind, sandbags may be placed on the lower parts of the frame or stays to provide the required ballast, but shall not be placed on top of any striped rail.

TS-7.5 PORTABLE SIGNS

Portable signs shall only be permitted for temporary lane closures. All construction area signs shall conform to TS-6, "Construction Area Signs", of these Technical Specifications. The Contractor shall temporarily cover the existing signs which conflict with temporary signs as required by the approved TCPs or as directed by the Engineer.

TS-7.6 PARKING RESTRICTION SIGNS

Attention is directed to SC-6.0, "Notification of Public", of these Special Conditions, and TS-4.6, "Temporary "No Parking" Signs", of these Technical Specifications for parking restriction requirements.

The Contractor shall place signs prohibiting parking on Type II barricades. Signs may be paper, and shall clearly show dates and times that the restrictions apply. Contractor shall provide all signs and barricades.

TS-7.7 FLASHING ARROW SIGNS

Flashing arrow signs shall conform to the requirements set forth in Section 12-3.30, "Flashing Arrow Signs", of the State Standard Specifications.

TS-7.8 CHANGEABLE MESSAGE SIGNS

Changeable message signs (CMSs) shall be furnished, placed, relocated as required, operated, and maintained at the Engineers approved locations.

All CMS messages must be reviewed and approved by the Engineer prior to deployment.

CMS shall conform to the provisions of Section 12-3.32, "Portable Changeable Message Signs", of the State Standard Specifications and these Technical Specifications.

Portable changeable message signs shall display alternating messages, "ROAD WORK AHEAD" and "(DATE) to (DATE)" and "MON - FRI" at three (3) second intervals. The Contractor shall immediately modify the displayed message(s) when directed by the Engineer.

Location of the CMS shall be included in the traffic control plan submittal. The CMS shall be placed in a manner in which it does not obstruct the sidewalks or the bike lanes.

TS-7.9 MEASUREMENT AND PAYMENT

Full compensation for complying with the requirements of this section shall be considered as included in the lump sum price paid for "**Traffic Control System**" and no additional compensation will be allowed therefore.

TS-8. WATERING AND SWEEPING

TS-8.1 GENERAL

Contractor shall develop a water supply and apply water, including water as needed for dust control. No washing of streets is allowed until after area is mechanically or manually swept.

TS-8.2 WATERING

Contractor shall not draw water from any hydrant without obtaining the advance approval of the East Bay Municipal Utility District (EBMUD) or Dublin San Ramon Services District (DSRSD).

TS-8.3 SWEEPING

Sweep by hand or mechanical methods, such as vacuuming.

Sweep all streets within the limits of the project and include construction project trucking routes:

1. During clearing and grubbing activities
2. During earthwork activities
3. During trenching activities
4. During pavement-structure construction activities
5. When vehicles are entering and leaving the job site
6. After soil-disturbing activities
7. After observing off-site tracking of material

Monitor paved areas and roadways within the project, including trucking routes. Sweep within:

- A. One (1) hour if sediment or debris is observed during activities requiring sweeping
- B. Twenty-four (24) hours if sediment or debris is observed during activities not requiring sweeping

Remove collected material, including sediment, from paved shoulders, drain inlets, curbs and dikes, and other drainage areas.

Keep and submit records of street sweeping activities, including sweeping times, sweeping locations, and the quantity of collected material.

Contractor shall have **a minimum of two (2) sweepers** on site daily when road work is in progress. The Contractor shall submit a sweeping schedule, and type of street sweeper to the Engineer for approval at the preconstruction conference. The Contractor shall not begin work until the City has approved the sweeping schedule, and type of street sweeper.

Contractor will be noticed and given twenty-four (24) hours to clean up debris, surplus material, loose gravel, mud and silt. If not cleaned up after twenty-four (24) hours removal by City at Contractor's expense, at City's cost plus thirty-five percent (35%) markup, and shall be deducted from monies due or to be due to the Contractor.

TS-8.4 MEASUREMENT AND PAYMENT

Full compensation for conforming to the requirements of this section shall be considered as included in the bid prices for other items of work, and no additional compensation will be allowed therefore.

TS-9. CONSTRUCTION LAYOUT

TS-9.1 GENERAL

The work in this section includes the furnishing of all labor, supervision, equipment, materials, tools, and incidentals and performing all operations in connection with setting construction survey stakes (if needed) and marks by the Contractor and all work necessary to provide the limits, lines and alignment required for proper staking layout, construction, and completion of the work.

No horizontal control is provided on the project plans. Work areas are shown in their approximate location. Exact location of work areas (paving limits, striping, etc.) shall be approved by the Engineer prior to the start of work.

TS-9.2 EXECUTION

The Contractor shall set all stakes (if needed) and marks to establish the lines and layout required for the completion of the work, as shown on the Plans, as specified in the State Standard Specifications and these Contract Documents.

TS-9.3 CONSTRUCTION LAYOUT

The Contractor will provide and establish the necessary lines, grades and marks to layout the horizontal and vertical alignment of all work as shown on the Plans and as specified in this section. As a minimum, the Contractor shall provide suitable lines, staking, and layout markings for all work including, but not limited to, the following:

1. Markings showing the location of each construction area sign.
2. Markings showing and establishing the limits of work for all saw-cutting, Cold Planing AC, HMA Type A – Inlay, and Pavement repairs work.
3. Markings for the layout of all pavement delineation including stripes, legends, markings and markers.

The Contractor shall set or establish the necessary construction layout stakes and markings a minimum of two working days in advance of the work and shall notify the Engineer when such markings have been set.

All reference points made by the Contractor shall be protected and remain undisturbed until project completion.

TS-9.4 PROTECTION OF MONUMENTS

Contractor shall protect all monuments, markings, stakes, and survey points in their undisturbed location and condition for the duration of construction.

Contractor shall provide the Engineer with forty-eight (48) hours advance notice, prior to any excavation, in the vicinity of existing monuments. The monuments shall be field referenced by the Contractor.

The Contractor shall furnish, at its expense, all the necessary work and operations necessary to replace the existing monument, survey marker, or reference point that may be damaged or disturbed by reason of

the Contractor's operation. Replacement shall be made under the direction of the City's Land Surveyor. The Contractor shall provide a minimum of five (5) working days notification for monument work.

TS-9.5 MEASUREMENT AND PAYMENT

Full compensation for conforming to the requirements of this section shall be considered as included in the bid prices for other items of work, and no additional compensation will be allowed therefore.

TS-10. EXISTING HIGHWAY FACILITIES

TS-10.1 GENERAL

The work performed in connection with various existing highway facilities shall conform to the provisions in Article 7.12, "Existing Utilities", of the General Conditions, Section 15, "Existing Facilities", of the State Standard Specifications, and these Contract Documents.

Nothing in these Contract Documents shall relieve the Contractor of its responsibilities as specified in Section 7-1.04, "Public Safety", of the State Standard Specifications.

At least two (2) working days in advance of any sawcutting, cold planning, excavation, or any other work in the vicinity of any signalized intersection, the Contractor shall notify Underground Service Alert (USA). The Contractor shall coordinate with the City to have all traffic loop detectors and home run layouts marked in the field prior to any base work.

TS-10.2 TREE TRIMMING, AND TREE PROTECTION

This project includes work on streets with mature trees adjacent to the pavement. In some locations, the tree canopy may extend over the pavement. It is the responsibility of the Contractor to conduct his/her operations around tree canopies such that the work is accomplished without damage to trees.

Contractor shall trim trees as required to facilitate construction operations. If tree trimming is necessary, it shall be approved at least two (2) weeks in advance by the Engineer and the City's arborist. Attention is directed to SC-6.0, "Notification of Public", of the Special Conditions.

Tree trimming shall be done in accordance with "Pruning Standards", published by the Western Chapter of the International Society of Arboriculture.

TS-10.3 EXISTING TRAFFIC STRIPING, MARKINGS, AND MARKERS

Remove traffic stripes and pavement markings by methods that do not materially damage the pavement. Removal by sandblasting shall not be permitted. Remove pavement marking images so that the old message cannot be identified. Wherever removing by grinding, make the grinding area rectangular. The minimum dimensions of the rectangle are the height and width of the pavement marking.

Sweep up or vacuum any residue before it can (1) be blown by traffic or wind, (2) migrate across lanes or shoulders, or (3) enter a drainage facility.

Remove pavement markers and the underlying adhesive by methods that cause the least possible damage to the pavement or surfacing.

During removal of ceramic-type pavement markers, use screens or other protective devices to contain fragments.

Fragments from the removal work must be removed before opening the lanes to public traffic.

TS-10.4 EXISTING YELLOW TRAFFIC STRIPING AND PAVEMENT MARKINGS

Attention is directed to Article 7.9, "Project Site Conditions and Maintenance", and Article 7.19, "Environmental Control", of these General Conditions.

Contractor's attention is directed to the State Health and Safety and Cal-OSHA regulations and requirements regarding the removal, handling and disposal of yellow thermoplastic and painted traffic striping and pavement markings. The Contractor is responsible for any additional requirements necessary to comply with the regulations.

Where grinding or other methods approved by the Engineer are used to remove yellow thermoplastic and yellow painted traffic stripe and pavement marking, the removed residue, including dust, shall be contained and collected immediately. Sweeping equipment shall not be used. Collection shall be by a high efficiency particulate air (HEPA) filter equipped vacuum attachment operated concurrently with the removal operations or other equally effective methods approved by the Engineer.

Nothing in these Contract Documents shall relieve the Contractor of the Contractor's responsibilities as specified in Section 7-1.04, "Public Safety", of the State Standard Specifications.

TS-10.5 EXISTING UNDERGROUND FACILITIES

At least two (2) working days in advance of any excavation work, the Contractor shall notify Underground Service Alert (USA).

The Contractor's attention is directed to the existing storm drain, water, gas, electric, traffic signal, sanitary sewer, cable TV, fiber optic, and telephone lines within the limits of work. Prior to excavating near these existing facilities, the Contractor shall pothole the existing facilities and inform the Engineer of the actual depth of each line. The Contractor shall use caution while potholing these facilities and shall adjust the limits and/or depths of the various paving work shown on the Plans, as directed by the Engineer.

TS-10.6 EXISTING TRAFFIC SIGNAL DETECTOR LOOPS

Contractor shall coordinate with the City to have all traffic loop detectors and home run layouts marked in the field prior to any work.

Contractor shall protect in place existing traffic signal detector loop wires that are to remain as directed by the Engineer. The layout and limits of the work, and proposed traffic loop protection shall be approved in advance by the Engineer.

If any part of any loop conductor (to remain in place), including the portion leading to the adjacent pull box, is damaged by the Contractor's operations, the entire detector loops shall be replaced at the Contractor's expense within forty-eight (48) hours.

The Contractor is responsible for notifying the Engineer if and when the traffic signal loops will be affected by the construction work and when scheduled for restoration.

TS-10.7 REFERENCING AND MARKING EXISTING FACILITIES

Work by Contractor shall include locating and protecting existing facilities, utility covers, monument covers, clean outs and manholes to be raised or uncovered after HMA Type A – Inlay, and Pavement repairs, respectively, and setting sufficient reference points prior to excavation and paving to enable their subsequent retrieval by the Contractor. The Contractor shall reference and set points for all affected utilities including Central Contra Costa Sanitary District (CCCSD) and Dublin San Ramon Services District (DSRSD) sewer manholes, and DSRSD and East Bay Municipal Utility District (EBMUD) facilities, Pacific Gas and Electric (PG&E) facilities, and communication (PACBELL Manhole) facilities. When excavations are necessary around monument or utilities, the Contractor shall submit a plan to the Engineer at least

forty-eight (48) hours in advance of excavation operations, showing all reference points and offset distance set for each survey monument, manhole and utility facility.

All reference points made by the Contractor shall be protected and remain undisturbed until project completion. The Contractor shall cooperate with all utility companies and shall coordinate the paving schedule with CCCSD, DSRSD and EBMUD.

Monuments:

- Contractor shall be responsible for noting and field referencing (as needed) all existing monuments within the work zone, whether protecting-in-place, raising, replacing frame and cover. These consist of City monuments in monument wells but may also include unprotected iron pipes and railroad spikes. Contractor shall walk each street thoroughly, and catalog each existing monument of record, of whatever character and submit his records to the Engineer.
- The Contractor shall preserve all monuments, markings, stakes, and survey points in their undisturbed location and condition for the duration of construction. Contractor shall provide the Engineer with forty- eight (48) hour advance notice, prior to any excavation, in the vicinity of existing monuments. The monuments shall be field referenced by the Contractor. **Under no circumstances shall any monument, of whatever character, be lost, destroyed, or sealed over permanently.** If a monument is damaged due to contractor operations and must be restored, or must be replaced to accommodate contractor operations, a licensed land surveyor and the Engineer shall be consulted for legal requirements. All costs to hire the land surveyor and for filing the proper documents at the County Recorder's Office shall be borne by the Contractor.
- **Section 8771 of the Business and Professions Code:** The filing of Corner Records/Record(s) of Survey shall not apply for protecting or adjusting existing monument frames.

TS-10.8 ADJUST CITY STORM DRAIN MANHOLE AND CITY MONUMENT FRAME AND COVER TO GRADE

This work shall consist of adjusting storm drain manhole and survey monument frames to below the cold plane or grinding elevation in pavement repairs, and cold planning areas, prior to excavation, pavement removal, grinding, or cold planning, and then to finished grade following placement of the top layer of asphalt concrete pavement.

Work by the Contractor shall include locating, referencing and setting sufficient marks prior to adjusting facilities below the planed and/or grinded surface to enable their subsequent retrieval by the Contractor. Contractor shall submit a plan to the Engineer at least forty-eight (48) hours in advance as specified in TS-10.7, "Referencing and Marking Existing Facilities", of these Technical Specifications.

Storm drain manhole adjustment below the planed surface or removed asphalt shall include removal of the existing concrete collar, re-using the existing frame and cover, removal of riser ring, as required, to a minimum of two inches (2") below planed surface. The work shall include placing and securing an acceptable temporary steel lid or cover below the planed surface or grinding elevation, and placement of temporary asphalt concrete over and around the temporary lid or cover as required to allow for passage of vehicular traffic prior to and following cold planing or excavation operations.

Storm drain manholes shall be adjusted to finished grade by raising the frame and cover to finished grade and constructing a new concrete collar. The adjusted manhole shall conform to San Ramon Standard Detail M-2a, "Manhole/Valve Casting Adjustment".

Survey monument frame adjustment below the planed surface or removed asphalt shall include removal of the existing concrete collar, re-using the existing frame and cover, removal of riser ring, as required, to a minimum of two inches (2") below the planed surface. The work shall include placing and securing an

acceptable temporary lid or cover below the planed surface or grinding elevations, and placement of temporary asphalt concrete over and around the temporary lid or cover as required to allow for the passage of vehicular traffic prior to and following cold planning or pavement removal operations. **Prior to any monument adjustment, Contractor shall verify the depth of cover to the monument disk at each location.** The lowering method shall ensure that the monument disk will be protected and will not be damaged during the construction.

Survey monument frame and cover shall be adjusted to finished grade by raising the frame and cover to finished grade and constructing a new concrete collar. The adjusted monument shall conform to San Ramon Standard Detail R-1, "Street Survey Monument".

For all adjustments, the top surface of the raised facility shall be within one-eighth inch (1/8") of the adjacent finished grade. Adjustment to final grade shall not be made until the top layer of paving has been completed immediately surrounding it. **The Contractor shall preserve the survey point of all monuments in its undisturbed location and condition.** Attention is directed to TS-10.7, "Referencing and Marking Existing Facilities", of these Technical Specifications regarding the cataloging of existing monuments.

This work shall also include placement of temporary asphalt concrete around the survey monument if the permanent asphalt concrete patching cannot be placed the same day the facility is adjusted to finished grade.

TS-10.9 RAISE SEWER AND WATER FACILITIES NOT OWNED BY THE CITY

The work shall consist of the adjusting of CCCSD, DSRSD, and EBMUD MH (manholes), and water valve pots frame and cover to below the cold plane, and/or grinding elevation in pavement repairs, and cold planning areas, prior to excavation, cold planning, grinding, and pavement removal, and then to finished grade following the top layer of asphalt concrete pavement. The Contractor shall cooperate with and coordinate all adjustments with the utility owners (EBMUD, CCCSD and DSRSD). The Contractor shall include the Engineer in coordination efforts with EBMUD, CCCSD, and DSRSD.

The Contractor's attention is directed to Revocable Bid Item:

- Replace Water Valve Box with New G-5
- Adjust Water Valve Frame to Grade
- Adjust Recycled Water Valve Frame to Grade
- Adjust Sanitary Sewer MH to Grade
- Adjust Sanitary Sewer Clean Out MH to Grade

The City reserves the right to delete portions or all of the aforementioned bid items after the contract is awarded to the Contractor, depending on the utility company's acceptance and/or rejection of the unit prices provided by the Contractor. Therefore, no price negotiation shall be made for the deletion of a portion of, or the entirety of, each bid item listed above.

City's deletion of portions or all of the aforementioned bid items, resulting from utility company's rejection of the unit price, does not relinquish the contractor's responsibility to cooperate with and coordinate all raising of frames and covers to finished grade with the appropriate utility owner.

Contractor shall provide written notice to the appropriate EBMUD Service Yard, CCCSD, and DSRSD by FAX at least two (2) weeks in advance of start of work. Notification shall include all relevant project information including locations, size, scope and schedule of affected EBMUD, CCCSD and DSRSD facilities.

- Contact EAST AREA EBMUD at (510) 287-7182; Fax (925) 930-8832.
- Contact CCCSD at (925) 229-7316; Fax (925) 938-2956
- Contact DSRSD at (925) 570-8914; Fax (925) 828-7553

If Contractor fails to provide notice to the appropriate EBMUD Service Yard, CCCSD, and/or DSRSD pursuant to these procedures prior to conducting work and the Contractor buries, lowers, fills-in, paves over, or otherwise damages EBMUD, CCCSD, and/or DSRSD facilities, EBMUD, CCCSD, and/or DSRSD will bill Contractor for the cost of repairing its facilities.

The City may elect to require the Contractor to adjust some or all of the existing sewer and water facilities to grade. This work shall consist of adjusting facilities to below the planed surface prior to grinding, cold planning, or excavation and to finished grade following the top layer of asphalt concrete pavement. The Contractor shall cooperate and coordinate adjustments with the various utility owners.

Work by the Contractor shall include locating, referencing, and setting sufficient marks prior to adjusting facilities below the planed surface to enable their subsequent retrieval by the Contractor. The Contractor shall submit a plan to the Engineer at least forty-eight (48) hours in advance as specified in TS-10.7, "Referencing and Marking Existing Facilities", of these Technical Specifications.

Adjustment to finished grade of frames and covers shall consist of resetting the frame to grade by adjusting and/or reconstructing the existing concrete riser rings within the throat area. The top twelve inches (12"), minimum, of the existing concrete collar shall be reconstructed and existing concrete riser rings shall be replaced, if damaged. The reconstructed sections shall be at least equal in quality to the existing structure. The adjusted frames and covers shall conform to EBMUD, CCCSD and, DSRSD specifications, requirements and standard drawings included in Attachment D of these Contract Documents.

EBMUD Facilities:

- If Bid Item Replace Water Valve Box with New G-5 is not revoked, the contractor shall replace existing EBMUD water valve pots and covers with new G-5 frames and covers. Contractor will be required to request & obtain the G-5 frames from EBMUD and install per EBMUD's Valve Pot Detail (no concrete collar). City will provide EBMUD contact information at the Pre-Construction meeting.

The top surface of the adjusted facility shall be within one-eighth inch (1/8") of the adjacent finished grade. Adjustment to final grade shall not be made until the final paving or surfacing has been completed immediately surrounding it, or as directed by the Engineer. If permanent asphalt concrete is not placed the same day the facility is adjusted to finished grade, the Contractor shall place temporary asphalt concrete prior to opening the lane to public traffic, or as directed by the Engineer.

Upon completion of utility adjustments done by the Contractor, the Contractor shall provide written documentation obtained from EBMUD, CCCSD, and DSRSD regarding each utility's acceptance of the facility work.

TS-10.10 ADJUST FACILITIES OWNED BY GAS, ELECTRIC, AND COMMUNICATIONS AGENCIES

Work shall consist of adjusting facilities to below the planed surface prior to grinding or excavation and to finished grade following the top layer of asphalt concrete pavement. The Contractor shall cooperate with and coordinate all adjustments with the utility owner (Gas, Electric, and communication agencies).

Work by the Contractor shall include locating, referencing, and setting sufficient marks prior to adjusting facilities below the planed surface to enable their subsequent retrieval by the Contractor. The Contractor shall submit a plan to the Engineer at least forty-eight (48) hours in advance as specified in TS-10.7, "Referencing and Marking Existing Facilities", of these Technical Specifications.

Contractor shall provide written notice to the appropriate utility owners at least two (2) weeks in advance of start of work. Notification shall include all relevant project information including locations, size, scope and schedule. City shall be sent copies of all written notification from Contractor to appropriate utility owners.

Contact information for appropriate utility owners will be provided to the Contractor by the City within five (5) days upon written request.

Contractor shall provide written notice to the appropriate utility owners at least two (2) working days in advance of changes in schedules.

If Contractor fails to provide notice to the appropriate utility owners pursuant to these procedures prior to conducting work and the Contractor buries, lowers, fills-in, paves over, or otherwise damages utility's facilities, utility owners will bill Contractor for the cost of repairing its facilities and for any other liability.

The top surface of the adjusted facility shall be within one-eighth inch (1/8") of the adjacent finished grade. Adjustment to final grade shall not be made until the final paving or surfacing has been completed immediately surrounding it. If permanent asphalt concrete is not placed the same day the facility is adjusted to finished grade, the Contractor shall place temporary asphalt concrete prior to opening the lane to public traffic.

Upon completion of utility adjustments done by the Contractor, the Contractor shall provide written documentation obtained from utility owners regarding each utility's acceptance of the facility work.

TS-10.11 MEASUREMENT AND PAYMENT

The contract lump sum price paid for Bid Item **"Tree Trimming, and Tree Protection"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals and for doing all the work involved, including but not limited to, trimming, hauling, disposal, and all other work as specified in these Contract Documents and as directed by the Engineer and no additional compensation will be allowed therefore.

The contract unit prices paid per each for **"Adjust Monument Frame to Grade & Preservation"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals necessary for completing the work, to adjust the frames and covers to below the cold plane, excavation or grinding surface and to finished grade following the top layer of asphalt concrete paving; including, but not limited to, locating, referencing, and setting marks and submitting a plan forty-eight (48) hours in advance; excavation; furnishing temporary lids and covers; concrete collars; placement of temporary and permanent asphalt concrete around the adjusted facility; and for cataloging and preserving monuments in accordance with TS-11, "Survey Monuments", of these Technical Specifications; and all other work as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

The contract unit prices paid per each for **"Replace Water Valve Box with New G-5"**, shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals to complete the work necessary to lower the frames and covers below the cold plane or grinding surface, to raise the frames and covers to finished grade following the top layer of asphalt concrete paving, and replace existing EBMUD valve pots frame and cover with EBMUD-furnished G-5 box, including, but not limited to, coordination with EBMUD, referencing existing facility, excavation, removal and disposal of old valve pot frame and covers (to be verified with EBMUD), connecting riser rings; furnishing temporary lids and covers; placement of temporary and permanent asphalt concrete around adjusted facility; obtaining documentation from utility companies accepting the work, and all other work as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, in accordance with utility company requirements and as directed by the Engineer, and no additional compensation shall be allowed therefore.

The contract unit prices paid per each for **"Adjust Water Valve Frame to Grade", "Adjust Storm Drain MH to Grade", "Adjust Sanitary Sewer MH to Grade", and "Adjust Sanitary Sewer Clean Out MH to Grade"**, shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals to complete the work necessary to adjust the frames and covers below the cold plane or grinding surface and to finished grade following the top layer of asphalt concrete paving, including, but not limited to, coordinating with the utility company; locating, referencing, setting marks and submitting

a plan forty-eight (48) hours in advance; connecting riser rings; constructing false bottoms in sewer manholes; excavation; furnishing temporary lids and covers; concrete collars (except for water valve covers); placement of temporary and permanent asphalt concrete around adjusted facility; obtaining documentation from utility companies accepting the work, and all other work as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, in accordance with utility company requirements and as directed by the Engineer, and no additional compensation shall be allowed therefore.

The contract unit prices paid per each for Bid Items **“Adjust Pac Bell Manhole to Grade”** and **“Adjust PG&E Gas Valve to Grade”** shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals to complete the work necessary to adjust the frames and covers below the cold plane or grinding surface and to finished grade following the top layer of asphalt concrete paving, including, but not limited to, coordinating with the utility company; locating, referencing, setting marks and submitting a plan forty-eight (48) hours in advance; connecting riser rings; excavation; furnishing temporary lids and covers; concrete collars; placement of temporary and permanent asphalt concrete around adjusted facility; obtaining documentation from utility companies accepting the work, and all other work as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, in accordance with utility company requirements and as directed by the Engineer, and no additional compensation shall be allowed therefore.

The City reserves the right and discretion to delete the work for Bid Items **“Replace Water Valve Box with New G-5”**, **“Adjust Water Valve Frame to Grade”**, **“Adjust Storm Drain MH to Grade”**, **“Adjust Sanitary Sewer MH to Grade”**, **“Adjust Sanitary Sewer MH to Grade”**, and **“Adjust Monument Frame to Grade & Preservation”** of the Base Bid Schedule in whole or in part.

Full compensation for arranging with the utility owners for the timely adjustment of their facility shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefore.

Full compensation for conducting a field search and cataloging each monument location, locating, and protecting street monuments and survey points shall be considered as included in the contract prices paid for the bid items of work involving survey monuments per this section, and no additional compensation will be allowed therefore.

Full compensation for potholing, if needed, shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefore.

TS-11. SURVEY MONUMENT

TS-11.1 GENERAL

The Contractor shall protect all monuments, markings, stakes, and survey points in their undisturbed location and condition for the duration of construction.

Contractor shall provide the Engineer with forty-eight (48) hour advance notice, prior to any excavation, in the vicinity of existing monuments. The monuments shall be field referenced by the Contractor.

Attention is directed to the requirements specified in TS-10, "Existing Highway Facilities", of these Technical Specifications for the work required to catalog and adjust or raise existing survey monument frames to grade.

Section 8771 of the Business and Professions Code: The filing of Corner Records/Record(s) of Survey shall not apply for protecting, raising, or adjusting existing monument frames. However, field referencing and filing pre- and post-construction corner records shall apply when replacing

triangular frames and covers with circular frames and covers, or when installing new survey monument frames over existing iron pipes (change of character).

Advance construction signs and traffic control requirements for the monument work within the limits of the work, as shown on the Plans, shall comply with the requirements of TS-3, "Maintaining Traffic", and TS-4, "Traffic Control System", of these Technical Specifications.

The Contractor shall furnish, at his/her expense, all the necessary work and operations necessary to replace the existing monument, survey marker, or reference point that may be damaged or disturbed by reason of the Contractor's operation. Replacement shall be made under the direction of the City's Land Surveyor. The Contractor shall provide a minimum of five (5) working days notification for monument work.

All removed monument frames and covers shall be disposed of outside the highway right-of-way in accordance with the provisions in Article 7.9, "Project Site Conditions and Maintenance", of the General Conditions, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications

TS-11.2 REPLACE SURVEY MONUMENT FRAME AND COVER, AND INSTALL CITY STANDARD MONUMENT FRAME AND COVER OVER EXISTING MONUMENT

Existing triangular monument frames and covers shall be removed and replaced with circular frames and covers and set to finished grade at location shown on the Plans or where directed by the Engineer. Work by the Contractor shall include locating, referencing, and setting sufficient marks prior to adjusting facilities below the planed surface to enable their subsequent retrieval by the Contractor. The Contractor shall submit a plan to the Engineer at least forty-eight (48) hours in advance as specified in TS-10.7, "Referencing and Marking Existing Facilities", of these Technical Specifications.

The frame and cover shall be placed and set to finished grade following placement of the top layer of paving. The top surface of the frame and cover shall be within one-eighth inch (1/8") of the adjacent finished grade. For monuments, the frame, cover, and collar shall conform to San Ramon Standard Detail R-1, "Street Survey Monument". The Contractor shall be responsible for preserving and protecting the existing survey point in its undisturbed location.

The work shall also include placement of temporary asphalt concrete around the monuments if the permanent asphalt concrete patching cannot be placed the same day the facility is raised or set to finished grade.

All removed monument frames and covers shall be disposed of outside the highway right-of-way in accordance with the provisions in Article 7.9, "Project Site Conditions and Maintenance", of these General Conditions, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications.

TS-11.3 MONUMENT PRESERVATION

Contractor shall be responsible for preserving all existing monuments within the project limits. Under no circumstances shall monuments of record, of any character, be paved over, destroyed, or removed.

If a monument is damaged due to contractor operations and must be restored, or must be replaced to accommodate contractor operations, a licensed land surveyor and the Engineer shall be consulted for legal requirements. All costs to hire the land surveyor and for the filing the proper documents at the County Recorder's Office shall be borne by the contractor.

TS-11.4 MEASUREMENT AND PAYMENT

The contract price paid per each for **"Adjust & Replace Monument Tri. Frame to Grade & Preservation."** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and

incidentals necessary to complete the work, including, but not limited to, locating, referencing and setting marks; and placing temporary and permanent asphalt concrete around replaced or new monument frames prior to opening the roadway to the public traffic and all other work as shown on the Plans, the San Ramon Standard Details, and as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer and no other compensation will be allowed therefore.

Payment for conducting a field search and cataloging each monument location, locating, exposing (if necessary), and protecting street monuments and survey points, as well as complying with all requirements of **Section 8771 of the Business and Professions Code regarding the filing of Corner Records or Record(s) of Survey** shall be considered as included in the contract prices paid for the bid items of work involving survey monuments per this section, and no additional compensation will be allowed therefore.

The City reserves the right and discretion to delete the work for Bid Items **“Adjust & Replace Monument Tri. Frame to Grade & Preserv.”** of the Base Bid Schedule in whole or in part.

TS-12. PAVEMENT REPAIRS

TS-12.1 GENERAL

In areas designated for pavement repairs, the existing bituminous surfacing (and aggregate base material, depending on existing pavement thickness) shall be removed by cold planning, or sawcut and excavated (or by any suitable combination of methods as selected by the Contractor and approved by the Engineer) to the depth shown on the plans, and minimum width of four feet (4'). The resulting excavation shall be backfilled with three-fourths inch (3/4") HMA, Type A asphalt concrete in accordance with TS-14, "Asphalt Concrete", of these Technical Specifications, as detailed on the plans and as specified in these Contract Documents.

The total estimated quantities of pavement repairs are in the Bid Schedule. Estimated pavement repair areas are called out on the plans. The actual areas for repair will be verified and designated in the field by the Engineer following the award of contract and prior to the start of construction.

The Contractor shall provide for the public safety and public convenience in accordance with the provisions of Sections 7-1.03, "Public Convenience", and 7-1.04, "Public Safety", of the State Standard Specifications, and TS-3, "Maintaining Traffic", TS-4, "Traffic Control System", and TS-7, "Construction Area Traffic Control Devices", of these Technical Specifications.

TS-12.2 TIMING

In pavement repair areas, all excavation and asphalt concrete paving work, shall be sequenced and constructed such that the existing asphalt concrete and base material is removed to the planned depth, the existing base material is graded and compacted, and all layers of asphalt concrete are placed during the same working period (day). Any change from this requirement must be approved in advance by the Engineer.

On the mill and fill streets, grinding and pavement repair work shall be completed within a street section the same day. The pavement repairs will be verified and marked in the field by the Engineer following completion of the cold planing operation. The top layer of asphalt concrete shall be placed prior to upcoming weekend or holiday.

The Contractor shall coordinate with the City to have all traffic loop detectors and home run layouts marked in the field prior to any pavement repair work.

Access to all driveways shall be maintained at all times. If necessary, excavations shall be temporarily filled at driveways to allow access at the end of the working period and re-excavated the next working period at the Contractor's expense.

TS-12.3 EXCAVATION

If utility covers and/or manholes exist within the limits of pavement repairs, cold planing, overlay, inlay, or mill and fill, they shall be lowered to below the depth of excavation and raised to grade after final pavement treatments are applied in accordance with TS-10, "Existing Highway Facilities", of these Technical Specifications.

Where existing asphalt concrete and base material is removed by cold planing, the use of the heater planing method is not allowed. The cold planing machine shall be operated so as not to produce fumes or smoke. The cold planing machine shall be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation. The depth, width and shape of the cut shall be as indicated on the typical cross sections and details, or as directed by the Engineer. The final cut shall result in a uniform surface conforming to the typical cross sections, cross sections or details. The outside lines of the planed area shall be neat and uniform. The road surfacing to remain in place shall not be damaged in any way by the planing.

The Contractor's attention is directed to the possible existence of utility trenches with portland cement concrete backfill in the roadway area. The cold planing machine should be capable of cold planing through portland cement concrete. Any damage to utilities backfilled with portland cement concrete shall be repaired by the Contractor at his expense. No additional compensation will be allowed for cold planing through portland cement concrete.

The Contractor shall also be aware of the possible existence of pavement fabric. The existing pavement fabric shall be removed and disposed of and no additional compensation will be allowed for removal and disposal of pavement fabric.

No longitudinal drop-off will be allowed at any time between any adjacent lanes open to public traffic at the end of the working period. When allowed by the Engineer, the Contractor may cold plane the final longitudinal pass between adjacent travel lanes such that a minimum thirty-to-one (30:1) slope is maintained between the cold planed surface and the adjacent existing pavement grade when opened to public traffic. There shall be no adjustment in compensation to the Contractor for making additional passes or to comply with this requirement.

On areas where the underlying material appears to be wet or soft or where it deflects under wheel loads, the Contractor shall employ excavation and work techniques which do not worsen the subgrade condition.

In the event, the underlying material is soft, yielding, unstable, or unsuitable, it shall be excavated and backfilled in accordance with TS-12.6, "Pumping Subgrade", of these Technical Specifications.

Unsuitable material is defined as material the Engineer determines to be:

- 1) Of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content, or
- 2) Too wet to be properly compacted and circumstances prevent in-place drying prior to incorporation into the work, or
- 3) Otherwise unsuitable for the planned use.

All other unsuitable material encountered below the grading plane shown on the Plans shall be excavated and disposed of per Section 19-1.03B, "Unsuitable Material", of the State Specifications and at the direction of the Engineer. Sub-excavation shall not begin without prior approval from the Engineer. The cost of removal and disposal of unsuitable material and replacement material shall be paid for as provided in Article 6, "Contract Modification, of the General Conditions.

TS-12.4 MATERIAL REMOVED

The material excavated from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be removed and disposed of outside the street right-of-way in accordance with the provisions of Article 7.9, "Project Site Conditions and Maintenance", of these General Conditions, TS-8.3, "Sweeping", of these Technical Specifications, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications. The Contractor shall immediately remove any incidental material resulting from the excavation operation from roadway areas open to public traffic. Stockpiling will not be allowed.

Cold planed material from this project or any other source shall not be used on this project unless otherwise allowed in these Technical Specifications and approved by the Engineer.

Roadway excavation material will consist of asphalt concrete and base material. The Contractor shall also be aware of the possible existence of pavement fabric. The material to be excavated may contain other typical constituents of asphalt concrete by-products and/or any other naturally occurred deleterious substances encountered with roadway construction. The City makes no guarantee that the material excavated will be reusable, recyclable or disposable to any disposal site designated by the Contractor. No additional compensation shall be allowed to the Contractor if the excavated material is not reusable, recyclable or is required to be disposed of at Class II disposal facilities. Any testing, if required, by the disposal site shall be arranged and paid for by the Contractor.

TS-12.5 PREPARATION OF EXISTING BASE AND SUBGRADE

At locations where all existing AC is removed and aggregate base material is exposed, the aggregate base material shall be compacted prior to placement of HMA. Compaction of the existing aggregate base materials shall conform to Section 19-5, "Compaction", of the State Standard Specifications except as noted. The existing base material in pavement inlay areas shall be scarified, graded, and moisture conditioned to obtain optimum moisture content and, compacted to a relative compaction of not less than ninety-five percent (95%) for a depth of 0.5 feet below the grading plane. The existing base material shall be graded to within 0.05 foot of the grade established by the Engineer. The second item of paragraph 1 of Section 19-5.03B, "Relative Compaction (95 Percent)", of the State Standard Specifications shall not apply. Relative compaction shall be determined by ASTM D1557.

After approval of the base material by the Engineer, a tack coat of asphaltic emulsion meeting the grade requirements of SS-1, SS1h, CSS-1, or CSS-1h conforming to Section 94 of State Standard Specifications shall be applied to the vertical edges of the existing asphalt concrete prior to filling the areas with new HMA.

At locations where HMA is to be placed over existing asphalt, the planed surface shall be thoroughly cleaned by utilizing a street sweeper to remove all grinding and dust material. After the planed surface is swept clean, all vertical and horizontal surfaces shall be completely tack coated with an asphaltic emulsion. The application rate for the asphaltic emulsion shall be determined by the Contractor and approved by the Engineer. The completed tacked surface shall be approved by the Engineer prior to placement of HMA. Any deficiencies in the tacked surface shall be corrected prior to placing asphalt concrete.

Prior to placing each layer of HMA, a tack coat shall be applied to the surfaces of all faces of gutters, gutter lips, and vertical curb surfaces against where the new HMA is to be placed.

Pavement repair locations shall be backfilled with three-fourths inch (3/4") HMA, Type A and conform to the provisions in Section 39-2.02B(4) "Aggregates" of the State Standard Specifications, or three-fourths inch (3/4") HMA, Type A with a maximum of twenty-five percent (25%) RAP and conform to the provisions in Section 39-2.02B(5), "Reclaimed Asphalt Pavement", of the State Standard Specification, and these Contract Documents. HMA shall be placed in lifts no less than two and three-eighths inches (2 3/8") and less than three inches (3"). Compaction must conform to Section 39-2.01C(15), "Compaction", of the State Standard Specifications, except for intermediate compaction does not require a pneumatic-tired roller.

Each layer of newly placed asphalt concrete shall be allowed to cool to at least 160°F, prior to placing the next layer of asphalt concrete.

All excavations for pavement repairs or pumping subgrade repairs shall be backfilled to the level of the surrounding pavement so that no elevation variation is evident. The surface shall have a maximum variation from high to low of 0.01 feet maximum when measured with a twelve-foot (12') level. Variation at the edges shall not exceed 0.01 feet maximum. When matching existing pavement, the finished surface shall not inhibit drainage. The upslope edge of the removal and replace shall be 0.00 feet high to 0.01 feet low. On the downslope edge of the remove and replace, the finished surface shall be 0.01 feet high to 0.00 feet low. Any resulting variations shall be corrected to the satisfaction of the Engineer, the same working period (day) during which the excavation is performed and prior to opening the full roadway to public traffic.

If the Contractor cannot place permanent asphalt concrete the same working period (day), due to unanticipated problems, excavations shall be temporarily filled to the existing pavement level at the end of the working period and re-excavated the next working period at the Contractor's expense. Temporarily filled excavations shall have a minimum two-inch (2") thick temporary asphalt concrete surface.

TS-12.6 PUMPING SUBGRADE

Contractor shall notify the Engineer immediately if "pumping" subgrade is present. In the event that "pumping" subgrade is confirmed by the Engineer, the following procedures shall be followed:

- A. The area shall be sub-excavated to a depth to be determined by the Engineer;
- B. A geotextile fabric (Mirafi 600x, or an approved equal) shall be placed;
- C. Aggregate base material shall be placed over the fabric to the original subgrade surface and compacted to ninety percent (90%) relative compaction with the top six inches (6") compacted to ninety-five percent (95%) relative compaction;
- D. Aggregate base shall then be placed to the original aggregate base surface and compacted to ninety-five percent (95%) relative compact, unless directed by the engineer to place deep lift asphalt concrete, and,
- E. Asphalt concrete base course(s) shall be placed.

TS-12.7 MEASUREMENT AND PAYMENT

The contract unit price paid per square foot for **"4-inch Pavement repairs"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals for doing all work involved in the excavation, including, but not limited to, sawcutting or grinding, removal, manual removal where necessary, testing of off-haul material (if required by the disposal site), loading, off-haul, and disposal of existing asphalt concrete (including pavement fabric) and base materials, compacting the existing base materials (if necessary depending on existing AC thickness), protecting and excavating around existing utilities; street sweeping, placing HMA, and all other work as shown on the Plans, as specified in the State Standard Specifications, San Ramon Standards and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

The contract unit price paid per square foot for **"Geotextile fabric for Pumping Subgrade"** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, incidentals and for doing all the work involved including, but not limited to, placing geotextile fabric for pumping subgrade, complete in place, including cleaning pavement, and all other related work as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer, and no additional compensation shall be allowed therefore.

Geotextile fabric will be measured by the square foot determined from the actual surface area covered by geotextile fabric for pumping subgrade fabric.

Attention is directed to the proposed dimensions and estimated quantities of pavement repair areas shown on the Plans and in the Bid Schedule. These are provided for information only. **The City reserves the right to increase or decrease the actual quantity of pavement repairs to be done.**

TS-13. ASPHALT PAVEMENT COLD PLANING

TS-13.1 GENERAL

Existing asphalt concrete shall be removed by cold planing at the locations and to the depths and dimensions shown on the Plans in accordance with these Contract Documents. The Contractor shall coordinate with the City to have all traffic loop detectors and home run layouts marked in the field prior to cold planning, conforms, and/or wedge grinding work.

Attention is directed to TS-12, "Pavement repairs", of these Technical Specifications for timing and sequencing of milling and pavement repair work.

The material to be removed may contain other typical constituents of asphalt concrete by-products and/or any other naturally occurred deleterious substances encountered with roadway construction. The City makes no guarantee that the material excavated will be reusable, recyclable or disposable to any disposal site designated by the Contractor. No additional compensation shall be allowed to the Contractor if the excavated material is not reusable, recyclable or is required to be disposed of at Class II disposal facilities. Any testing, if required, by the disposal site shall be arranged and paid for by the Contractor.

Planing asphalt concrete pavement shall be performed by the cold planing method. The use of the heater planing method is not allowed.

The cold planing machine shall be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation. The depth, width and shape of the cut shall be as indicated on the Plans, and as directed by the Engineer. The final cut shall result in a uniform surface conforming to the Plans or specified in the Contract. The outside lines of the planed area shall be neat and uniform. The road surfacing to remain in place shall not be damaged in any way by the planing.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be removed and disposed of outside the street right-of-way in accordance with the provisions in Article 7.9, "Project Site Conditions and Maintenance", of the General Conditions, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications. Removal operations of planed material shall be concurrent with planing operations, unless otherwise directed by the Engineer. The Contractor shall provide and operate street sweeper(s) during all cold planing activities to ensure the planed surface is free of all loose material. The Contractor shall immediately remove any incidental pavement grindings resulting from the cold planing from any roadway area open to public traffic.

The Contractor shall also be aware of the possible existence of pavement fabric. The existing pavement fabric shall be removed and disposed of and no additional compensation will be allowed for removal and disposal of pavement fabric.

Unsuitable material encountered below the grading plane shown on the Plans shall be cold planed or excavated and disposed of as described in the previous paragraph.

The Contractor shall construct temporary asphalt concrete curb ramps with ADA compliant slopes at locations where the cold planing is done that impacts existing curb ramps if the new pavement is not placed within the same working day.

TS-13.2 MEASUREMENT AND PAYMENT

The contract unit price paid per square yard for **Bid Items “Cold Planing AC (1.5”)”, “Cold Planing AC (2”)”, and “Cold Planing AC (3”)”** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, and for doing all the work involved, including, but not limited to, cold planning or grinding, dealing with existing roadway structures as needed, disposing of planed material (including pavement fabric); street sweeping; maintaining, removing, and installing and disposing of temporary asphalt concrete ramps at existing curb ramps; and all other work as shown on the Plans, as specified in the State Standard Specifications and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

The quantities to be paid will be measured irrespective of the number of passes required to cold plane or grind the areas to the specified measurements as shown on the Plans, and as directed by the Engineer.

TS-14. ASPHALT CONCRETE

TS-14.1 GENERAL

The work included in this section shall be performed as shown on the Plans and in accordance with the requirements of Section 39, "Hot Mix Asphalt", of the State Standard Specifications, except as noted, and these Contract Documents.

Attention is directed to TS-12, "Pavement repairs", of these Technical Specifications for timing and sequencing of pavement repairs.

TS-14.2 ASPHALT

Asphalt binder to be mixed with aggregate shall be a steam-refined paving asphalt in conformance with the provisions in Section 92, "Asphalt Binders", of the State Standard Specifications. PG 64-10 asphalt binder shall be used for all applications.

The amount of asphalt binder to be mixed with the aggregate for Type A hot mix asphalt (HMA) for paving shall be determined in conformance with the requirements in California Test 367. The Contractor shall submit asphalt concrete mix designs sufficiently in advance of manufacturing to allow for City review and approval. The Engineer may direct the amount of asphalt binder to be mixed with the aggregate. In the event that an increase or decrease is ordered, the unit price of asphalt concrete items stated in the Contractor's proposal shall be considered valid to cover any cost relating to the addition or reduction of liquid asphalt quantity and no adjustment in compensation will be made therefore.

TS-14.3 AGGREGATE

Aggregate for pavement repairs shall be three-fourths inch (3/4") HMA, Type A.

Aggregate for pavement inlays, and overlays shall be one-half inch (1/2") HMA, Type A.

TS-14.4 RECLAIMED ASPHALT CONCRETE

At the Contractor's option, the Contractor may produce asphalt concrete using reclaimed asphalt pavement (RAP). Asphalt concrete produced using RAP shall conform to the provisions for asphalt concrete in this TS-17, "Asphalt Concrete", of these Technical Specifications. The Contractor may substitute RAP for a portion of the virgin aggregate in asphalt concrete in an amount not exceeding twenty-five percent (25%) of the asphalt concrete dry aggregate weight.

RAP shall be processed from asphalt concrete removed from pavement surfaces. RAP shall be stored in stockpiles on smooth surfaces free of debris and organic material. RAP stockpiles shall consist only of

homogeneous RAP. The Contractor may process and stockpile RAP throughout the project's life. Processing and stockpiling operations shall prevent material contamination and segregation.

For RAP substitution greater than fifteen percent (15%) and not exceeding twenty-five percent (25%), the grade of the virgin binder must be the specified grade of asphalt binder for Type A HMA with the upper and lower temperature classification reduced by 42.8°F (6°C). Hamburg wheel track requirements are based on the grade of asphalt binder specified for Type A HMA.

The Contractor shall determine the amount of asphalt binder to be mixed with the combined virgin aggregate and RAP in conformance with the requirements in California Test 367, amended by California Test 384, "Method of Test to Determine Combined Gradations for Hot Mix Asphalt (HMA) Using Up To twenty-five percent (25%) Reclaimed Asphalt Pavement (RAP)". California Test 384 is available at:

<https://dot.ca.gov/-/media/dot-media/programs/engineering/documents/californiatestmethods-ctm/ctm-384-jan2014-a11y.pdf>

At least twenty-one (21) days before starting production of asphalt concrete using RAP, the Contractor shall submit a proposed asphalt concrete mix design in writing to the Engineer for approval. The mix design submittal shall consist of the following:

- A. RAP:
 - 1. Processed stockpile locations.
 - 2. California Test 384 test results.
 - 3. Correlation factor for aggregate gradations from California Test 382 and LP-9.
 - 4. Three (3) seventy (70) pound samples of processed RAP representing the material to be used. The three (3) samples shall be split from the sample the Contractor uses to determine the mix design. The Contractor shall obtain and split the samples in conformance with the requirements in California Test 125 and 384.
 - 5. The substitution rate for virgin aggregate and percent RAP.
- B. Virgin aggregate and supplemental fine aggregate blend:
 - 1. Target values for each sieve size.
 - 2. Aggregate quality tests results.
 - 3. Each aggregate source to be used including producer, location, and California Mine Identification number.
 - 4. Percentage of each aggregate stockpile, cold feed, and hot bin to be used.
 - 5. Gradation of each aggregate stockpile, cold feed, and hot bin to be used.
- C. Asphalt binder:
 - 1. Source.
 - 2. Material Safety Data Sheets.
- D. Antistrip additives, if used:
 - 1. Name of product.
 - 2. Name of manufacturer.
 - 3. Manufacturer's designation and proposed rate.
 - 4. Location and method of addition.
 - 5. Material Safety Data Sheets.

E. Asphalt concrete:

1. A completed mix design that reflects the percent of RAP to be used including the electronic worksheet identified in California Test 384.
2. In graphical format, stability and air voids versus asphalt binder percentage of asphalt in conformance with the requirements in CTM 384.

If proposing a change in the RAP substitution rate, the Contractor shall notify the Engineer. If the substitution rate changes more than five percent (5%) by dry aggregate weight in the asphalt concrete mixture, the Contractor shall submit a new mix design.

The aggregate gradation for the asphalt concrete produced with RAP shall be calculated based on the mathematical combination of the virgin aggregate gradation during production and the daily RAP gradation. RAP shall be sampled and gradation shall be determined in conformance with the requirements in California Test 384. RAP gradations shall be:

- A. Determined daily by the Contractor.
- B. Used for the mathematical combination of that day's asphalt concrete production.
- C. Reported to the Engineer.

The Contractor shall perform quality control testing of the RAP source each day asphalt concrete using RAP is produced.

Daily, the Contractor shall submit to the Engineer:

- A. Results for RAP gradation and the asphalt binder content in RAP determined in conformance with the requirements in California Test 384. The Contractor shall sample RAP from the weigh hopper or pugmill.
- B. Mathematical calculation of the gradation of the virgin aggregate and RAP aggregate blend.
- C. Correlation factor for RAP burn-off determined in conformance with the requirements in California Test 384.

The Contractor's mixing equipment shall have a device that safely provides a sample representative of the virgin aggregate and RAP incorporated into the asphalt concrete. The Contractor shall sample in conformance with the requirements in California Test 125 and 384.

The temperature of asphalt concrete using RAP shall not exceed 325°F.

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 (5) seconds. After asphalt binder is added, the mixing time shall not be less than thirty (30) seconds.

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.

TS-14.5 CONSTRUCTION

Asphalt concrete shall be placed as shown on the Plans. Asphalt concrete shall be spread and compacted and finished in conformance with Section 39-2.01C, "Construction", of the current State Standard Specifications. Method compaction may be used in conformance with Section 39-2.01C(15)(b), "Method Compaction", of the State Standard Specifications for pavement repair locations.

Asphalt concrete shall be placed and compacted starting on the low side of the roadway and progress toward the high side. Paving shall be sequenced to avoid paving a lane width with cold joints on both sides.

At least forty-eight (48) hours prior to starting any paving operations, the Contractor shall submit to the Engineer a plan outlining his/her proposed sequencing of paving the roadway. The plan shall designate the proposed limits or boundaries of the areas to be paved during a working period, width of spread (location of joints) in each area, and the proposed overlap of each course. Sufficient detail shall be included in the plan to ensure every joint is correctly located. The Contractor shall not commence any paving operations until approved to do so by the Engineer.

Contractor shall not perform paving operations when the weather is rainy or foggy. It shall be the Contractor's responsibility, based on weather predictions, to schedule his/her paving operations to avoid paving in the rain or fog, or wet or frozen pavement. If the day's operations are canceled because of predicted rain or fog or freezing a non-working day will be allowed regardless of actual working conditions. Asphalt concrete shall not be placed on any surface that contains ponded water or excessive moisture in the opinion of the Engineer. If paving operations are in progress and rain or fog forces a shut down, loaded trucks in transit shall return to the plant and no compensation will be allowed therefore.

Reference is made to the State Standard Specifications, Section 94, "Asphaltic Emulsions". On the day that the next lift is to be placed, the previous layer surface is to be swept clean and all vertical and horizontal surfaces completely tack coated with asphaltic emulsion before additional layers of asphalt concrete area spread. The rate of application shall be as determined by the Contractor and approved by the Engineer. The tack coat shall be applied no more than two hundred feet (200') ahead of paving machine.

Reference is made to the State Standard Specifications, Section 39-2.01C(3)(f), "Tack Coat". Prior to placing each layer of asphalt concrete, a tack coat shall be applied to the surfaces of all faces of gutters, gutter lips, vertical curb, construction joints, between HMA layers, to existing pavement and planed surfaces against where the new pavement is to be placed.

Each layer of newly placed asphalt concrete shall be allowed to cool to at least 160°F, prior to placing the next layer of asphalt concrete.

At the Contractor's option, paving asphalt may be used for paint binder instead of asphaltic emulsion. If paving asphalt is used, the grade shall be PG 64-10 and the rate of application will be determined by the Contractor and approved by the Engineer. The paving asphalt shall be applied at a temperature of not less than 285°F nor more than 350°F. Paint binder shall be required on all vertical and horizontal surfaces upon which new asphalt concrete is to be placed.

The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction. Payment for paint binder shall be included in the various pay items of work, and no additional compensation will be allowed therefore.

The Contractor shall furnish and use canvas tarpaulins to cover all loads of asphalt concrete from the time that the mixture is loaded until it is discharged from the delivery vehicle.

Batch data and load slips shall be presented to the Engineer as asphalt is delivered to the project site to allow verification of location and use. Failure to do so may result in non-payment for questionable quantities.

Contractor's asphalt paving equipment shall utilize a ski device and the minimum length of such device shall be twelve feet (12'). The ski device shall be a rigid, one-piece unit and the entire length shall be utilized in activating the sensor.

Handwork, raking, and repetitive handling of any asphalt concrete shall be minimized. The broadcasting of any loose or excess asphalt concrete material onto the rolled mat is prohibited. Any asphalt concrete material that has fallen onto the adjacent roadway surface shall either be raked against the edge of the mat

or removed from the site. Failure to comply with this requirement may result in the rejection of the finished paving by the Engineer.

When a straightedge twelve feet (12') long is laid on the finished surface and parallel with the center line, the 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 twelve feet (12') long laid in a direction transverse to the centerline and extending from edge to edge of a twelve foot (12') traffic lane.

If the finished surface of the final asphalt concrete layer does not meet the required surface tolerance, it shall be brought within tolerance by either (1) abrasive grinding with equipment utilizing diamond blades (with fog seal coat on the areas which have been ground), (2) removal and replacement, or (3) placing an overlay of asphalt concrete. The method will be selected by the Engineer. The corrective work shall be at the Contractor's expense.

If abrasive grinding is used to bring the finished surface to specified surface tolerances, additional grinding with equipment utilizing diamond blades shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel to the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within any ground area.

All ground areas shall be neat rectangular areas of uniform surface appearance. Conforms between existing pavement and newly constructed top layer of asphalt concrete or overlay pavement shall be made by tapering the new pavement as shown on the Plans. The asphalt concrete shall extend to the gutter lip, unless otherwise shown on the Plans or directed by the Engineer. In areas without curbs, the asphalt concrete shall extend to the edge of pavement or to the limits of paving and shall be tapered as shown on the Plans.

At the end of each working period, the Contractor shall construct temporary asphalt concrete ramps at any transverse drop-offs that may exist prior to opening the lanes to public traffic. Asphalt concrete shall be placed to the level of the newly placed layer of AC and tapered on a slope of thirty-to-one (30:1) or flatter to the level of the planed surface or previously placed layer of AC or as shown on the Plans. A commercial grade roofing paper or other suitable material shall be placed beneath the temporary asphalt concrete ramps and tapers to facilitate their subsequent removal.

The requirement for a thirty-to-one (30:1) longitudinal taper may be waived on half-street width paving, provided that the Contractor paves the remaining half-width of the street on the next calendar day. The contractor shall erect "UNEVEN PAVEMENT" signs (C46(CA)) at intervals approved by the Engineer along the half-width paved segment.

At the end of each work period, the Contractor shall construct temporary asphalt concrete ramps at all existing driveway and side street locations where drop-offs exist between the lip of existing gutter or pavement surface and the level of the planed surface or asphalt concrete pavement. The asphalt concrete shall be tapered on a slope to the level of the planed surface or asphalt concrete pavement as shown on the Plans.

Asphalt concrete for ramps shall be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Asphalt concrete ramps shall be completely removed, including all loose material from the underlying surface, before placing the permanent surfacing. Such removed material shall be disposed of outside the highway right-of-way in accordance with Article 7.9, "Project Site Conditions and Maintenance", of these General Conditions and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the 2018 State Standard Specifications.

TS-14.6 MEASUREMENT AND PAYMENT

The contract unit price paid per ton for **Bid Item “HMA Type A - Inlay”** shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals to complete the asphalt concrete work, including, but not limited to, cleaning existing pavement; sawcutting conforms; furnishing, transporting, placing, spreading and compacting asphalt concrete; manual placement where necessary; tack coat; quality control testing at Contractor's expense; constructing, maintaining, removing, and disposing of temporary asphalt concrete ramps; and any necessary corrective abrasive grinding or fog coat; and all other work as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work necessary to hand rake roadway intersection conforms shall be considered as included in the contract price paid per ton for asphalt concrete and no additional compensation will be allowed therefore.

Hot Mix Asphalt (Type A) used for temporary facilities in order to maintain public vehicular and pedestrian traffic through the work area and to maintain access to adjacent businesses and residents that are not shown on the plans, shall not be measured and paid for separately but shall be considered as included in the various contract items of work as specified in “Maintaining Traffic” of these Technical Specifications.

TS-15. DEMOLITION, EXCAVATION AND COMPACTION

TS-15.1 GENERAL

The work to be done consists of, but is not limited to: saw-cutting and removing existing concrete curb, gutter and sidewalk; saw-cutting and removing existing curb ramp; saw-cutting and removing existing valley gutter; saw-cutting and removing existing driveway; saw-cutting and removing existing asphalt concrete paving adjacent to the gutter; saw-cutting and removing existing curb inlet; excavating and subgrade preparation; tree root removal; minor irrigation repair and re-landscaping; and other miscellaneous work specified in the construction documents.

Attention is directed to TS-3, "Maintaining Traffic", TS-4, "Traffic Control System", TS-7 "Construction Area Traffic Control Devices", of these Technical Specifications and SC-6.0, "Notification of Public", of these Special Conditions.

TS-15.2 EXCAVATION/PREPARATION/AGGREGATE BASE/COMPACTION

Any locations which did not have concrete sidewalk, and/or curb ramp previously, and upon which concrete sidewalk, and/or curb ramp is to be constructed, shall be stripped of all vegetation and excavated to a depth of seven inches (7") below adjacent curb or sidewalk, scarified and compacted to ninety-five percent (95%) relative compaction. All vegetation and excavated material shall be the property of the Contractor and shall be disposed of in a legal manner off the City's property.

Class II aggregate base shall be spread and compacted to ninety-five percent (95%) relative compaction upon the compacted subgrade. The thickness of the aggregate base shall be per the City Standard Details, and these Technical Specifications.

TS-15.3 CONCRETE REMOVAL

Outline of the concrete to be removed shall be cut full depth in straight lines with a power-driven saw before removal. If the existing curb, gutter, sidewalk, valley gutter, curb ramp, and driveway between the saw-cut line and the nearest existing score line cracks or becomes damaged during the course of construction, the Contractor shall be responsible for the removal and replacement of said damaged curb, gutter, sidewalk, valley gutter, curb ramp, and driveway all the way to the score line. No additional compensation shall be allowed for such repair work. All debris, tree roots, site stripings, and removed concrete material shall

become the property of the Contractor and shall be disposed of in accordance with Article 7.9, "Project Site Conditions and Maintenance", of the General Conditions, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications, and off the City's property.

Contractor's attention is directed to "Monolithic" sidewalk on Standard Detail C-1 (Curb, Gutter & Sidewalk). In some cases, monolithic sidewalk may include a "thickened edge" as shown on Detail C-1. Contractor shall bid accordingly.

All areas of subgrade, concrete base, and any other areas disturbed or removed by Contractor's operations shall be replaced in kind and compacted per City Standard Detail.

Contractor shall take all necessary precautions to protect existing concrete surrounding the work area. Damage to the existing concrete to remain in place shall be repaired to a condition equal to that existing prior to the beginning of removal operations. The cost of repairing existing concrete damaged by the Contractor's operation shall be at Contractor's expense.

TS-15.4 ASPHALT PAVEMENT DEMOLITION

After removal of the existing curb and gutter, and prior to Contractor's installation of face of gutter forms, Contractor will notify City Inspector for approval to omit face of gutter forms. If City Inspector approves edge of pavement condition, the Contractor may omit the face of gutter forms and pour directly against the existing pavement. If City Inspector disapproves edge of pavement condition, the Contractor shall saw-cut the pavement at a point at least twenty-four inches (24") from the edge of pavement per City Standard Detail, or as directed by the City Inspector. and remove the existing pavement and base rock to a minimum depth of four inches (4") below the existing.

The outline of any asphalt pavement to be removed shall be cut in straight lines with a power-driven saw to a depth not less than four inches (4") before removal. Remaining saw-cut pavement shall be protected from damage until new asphalt concrete is placed.

All removed asphalt, debris, tree roots, and site stripping shall become the property of the Contractor and shall be disposed of in accordance with Article 7.9, "Project Site Conditions and Maintenance", of the General Conditions, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications, and off the City's property. The Contractor shall immediately remove any incidental material resulting from the excavation operation from roadway areas, pedestrian and bicycle pathways open to the public. Stockpiling will not be allowed.

Contractor shall take all necessary precautions to protect existing asphalt pavement area surrounding the work area. Damage to the existing asphalt to remain in place shall be repaired to a condition equal to that existing prior to the beginning of removal operations. The cost of repairing existing asphalt pavement damaged by the Contractor's operation shall be at his expense.

TS-15.5 EXISTING DRAIN/IRRIGATION LINES AND LANDSCAPING RESTORATION

Contractor shall take all necessary precautions to protect existing area surrounding the work area. Damage to the existing drain/irrigation lines, and landscaping to remain in place shall be repaired to a condition equal to that existing prior to the beginning of removal operations. The cost of repairing existing drain/irrigation lines and landscaping damaged by the Contractor's operation shall be at Contractor's expense.

TS-15.6 MEASUREMENT AND PAYMENT

Full compensation for conforming to the requirements of this section, except for doing all work involved in TS-5.04 "Asphalt Pavement Demolition", shall be considered as included in the bid prices for other items of work, and no additional compensation will be allowed therefore.

Full compensation for furnishing all supervision, labor, materials, tools, equipment, and incidentals, and for doing all the work involved in "Asphalt pavement saw-cut and removal" including disposing of in accordance with Article 7.9, "Project Site Conditions and Maintenance", of the General Conditions, and Section 5-1.20B(4), "Contractor-Property Owner Agreement", of the State Standard Specifications, and off the City's property, shall be considered as included in the unit price paid for "24-inch wide, 2-inch thick Asphalt Pavement to conform Gutter Replacement per City of San Ramon Standard Details C-1 to C-9" and no additional compensation shall be allowed therefore.

TS-16. CONCRETE WORK

TS-16.1 GENERAL

The work to be done consists of, but is not limited to: installing curb and gutter; sidewalk; median curb; median curb and gutter; driveways; valley gutter and apron; valley gutter; surface-mounted detectable warning tile; three inch (3") cross-drain; curb inlet repair; removal (salvage) and reinstall of existing signs imbedded in concrete; and curb ramp at various locations according to the attached Standard Details or site specific plans.

Locations where concrete work is expected to receive vehicular travel such as valley gutters, maintenance road access, and Ironhorse trail access, will require reinforcement of four inch (4") rebar @ eighteen inches (18") on center, and a minimum of three (3) day cure. Field modifications are to be expected. Traffic rated steel plates will be required. If requested by the City Inspector, breaks will be required.

Attention is directed to TS-3, "Maintaining Traffic", TS-4, "Traffic Control System", TS-7, "Construction Area Traffic Control Devices", of these Technical Specifications and SC-4.1, "Notification of Public", of these Special Conditions.

TS-16.2 CONCRETE

The provisions of Section 73, "Concrete Curbs and Sidewalks", of the State Standard Specifications are fully applicable except as modified below:

- Concrete shall be a six-(6) sack mix and shall conform to Section 90 of the State of California Standard Specifications.
- Concrete shall be doweled to the existing curb and/or sidewalk as shown on City Standard Details C-1, C-6, C-8a, and C-9. An expansion joint will be required as directed by City Inspector or Project Manager as shown on City Standard Details C-8b.
- Match Existing Color Concrete: The new color concrete shall match the existing concrete in color and finish. Submit samples for review.
- The City does not accept the use of lamp black in regular concrete.

TS-16.3 MATERIAL

- Cement shall conform to ASTM C150, Type I or II, Portland cement.
- Fly ash shall conform to ASTM C618, Class C or F.
- Aggregate shall conform to ASTM C33 and shall be a hard durable material with minimum shrinkage:
 - Coarse Aggregate: Normal weight, three-fourths inch (3/4") maximum size, clean, uncoated crushed stone.
 - Fine Aggregate: Sand Equivalent not less than seventy-five (75) when tested per California Test Method No. 217.
- Water shall be clean, potable and not detrimental to concrete.
- Water-Reducing Admixture shall conform to ASTM C494.
- Air-Entraining Admixture: ASTM C260.

TS-16.4 REINFORCEMENT

- All reinforcing steel shall be clean and free of scale, oil, and defects.
- Steel Reinforcing Bar shall be deformed billet-steel bar conforming to ASTM A615/A615M, Grade 60.
- Plain Steel Welded Wire Fabric shall be plain conforming ASTM A185 and shall be sizes and spacing as indicated on the drawings.
- Deformed Steel Welded Wire Fabric shall be deformed conforming ASTM A497 and shall be sizes and spacing as indicated on the drawings.
- Tie Wire shall be No. 16 gage or heavier conforming to ASTM A82 and shall be black and annealed.

TS-16.5 TRUNCATED DOMES

Truncated domes shall be installed at each curb ramp. The work includes the purchase and installation of cast-in-place (or epoxied where no new concrete is placed) truncated domes for each curb ramp in conformance with the City's current curb ramp detail (C-5c) included with these Specifications and Caltrans Standard Plans.

TS-16.6 MEASUREMENT AND PAYMENT

All concrete work shall be measured in the field excluding the area for existing utility vaults and boxes and on the basis of the units specified in the Bid Schedule for said work completed to the satisfaction of the City.

Full compensation for furnishing all supervision, labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing curb and gutter; sidewalk; median curb; median curb and gutter; valley gutter; valley gutter and apron; driveways including curb and gutter; curb ramp according to the provision of this Section including doweling, curb inlet repair, cross drain installation, surface-mounted detectable warning tile installation, working around utility vaults and boxes, and expansion joints, shall be considered as included in the Bid Schedule unit price for:

- "4-inch thick Concrete Sidewalk Replacement (includes construction joints) per City of San Ramon Standard Details C-1, C-8a and C-9. Excludes expansion joints."
- "Concrete Curb & Gutter Replacement (monolithic) per City of San Ramon Standard Details C-1, C-8a and C-9"
- "6-inch wide Concrete Retaining Curb (up to 12 inches high) per City of San Ramon Standard Details C-1, C-8a and C-9"
- "6-inch wide, 18-inch min. Concrete Median Curb Replacement (Type C-1) per City of San Ramon Standard Details C-2, C-8a and C-9"
- "6-inch thick Residential Concrete Driveway Replacement (including Concrete Curb & Gutter in front of driveway, flared sides and 6-inch thick sidewalk at the back of driveway) per City of San Ramon Standard Details C-1 to C-9"
- "Field Modify 6-inch thick Residential Concrete Driveway Replacement (including Concrete Curb & Gutter in front of driveway, flared sides and 6-inch thick sidewalk at the back of driveway, and 4 inch Rebar @ 18 inches O.C. each way) per City of San Ramon Standard Details C-1 to C-9" – Field Modify
- "8-inch thick Commercial Concrete Driveway Replacement (including Concrete Curb & Gutter in front of driveway, flared sides and 8-inch thick sidewalk at the back of driveway) per City of San Ramon Standard Details C-1 to C-9"
- "Concrete Curb Ramp – Caltrans A88A Case A (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp.)"
- "Concrete Curb Ramp – Caltrans A88A Case B (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp. Excludes retaining curb"
- "Concrete Curb Ramp – City of San Ramon Standard Detail C-5a (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp. Excludes retaining curb)

- “Concrete Curb Ramp – Caltrans A88A Case D (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp.)”
- “Concrete Curb Ramp – Caltrans A88B Case CM (including cast-in-place detectable warning tile, flared sides, landing area, curb and gutter in front of flared sides and ramp. Excludes retaining curb)”
- “Concrete Curb Ramp – Caltrans A88B Case CH (including cast-in-place detectable warning tile, flared side, landing area, curb and gutter in front of flared side and ramp. Excludes retaining curb)”
- “Concrete Curb Ramp – Caltrans A88B Type C Passageway (including cast-in-place detectable warning tiles, passage way, curb and gutter, surface of raised island.)”
- “8-inch thick Concrete Valley Gutter Replacement per City of San Ramon Standard Details C-6 and C-9”
- “3-inch diameter Schedule 40 PVC Cross Drain Installation per San Ramon Standard Detail SD-14”
- “Expansion joints per City of San Ramon Standard Details C-8b and as directed per City Inspector or Project Manager”
- “Curb Inlet Repair per City of San Ramon Standard Details SD-1a, SD-1b, and SD-3a “Type A Inlet””

TS-17. ASPHALT PAVEMENT FOR CONCRETE REPAIRS

TS-17.1 GENERAL

The work to be done consists of, but is not limited to, installing new asphalt pavement and base material at locations where original asphalt pavement is removed due to installing new curb and gutter.

Attention is directed to TS-3, "Maintaining Traffic", TS-4, "Traffic Control System", TS-7 "Construction Area Traffic Control Devices", of these Technical Specifications and SC-4.1, "Notification of Public", of these Special Conditions.

TS-17.2 ASPHALT PAVEMENT

All existing aggregate base material shall be compacted prior to placement of HMA. Compaction of the existing aggregate base materials shall conform to Section 19-5, "Compaction", of the State Standard Specifications except as noted.

Aggregate Base – Aggregate base material shall be Class II, three-fourths inch (3/4") maximum grading as specified in Section 26 of the State Standard Specifications. Aggregate base shall be placed in accordance with requirements of Section 26 of the State Standard Specifications. The materials shall be graded and compacted in equal layers to at least ninety-five percent (95%) of maximum density.

Asphalt Binder - Asphalt binder to be mixed with aggregate shall be a steam-refined paving asphalt in conformance with the provisions in Section 92, "Asphalt Binders", of the current State Standard Specifications. PG 64-10 asphalt binder shall be used for all applications.

Asphalt concrete – Asphalt concrete shall be Type A, one-half inch (1/2") maximum grading and shall conform to the provisions in Section 39, "Asphalt Concrete", of the State Standard Specifications. The percentage of asphalt binder shall be a minimum of five-point-seven percent (5.7%). The asphalt binder to be mixed with aggregate shall be a steam-refined paving asphalt in conformance with the provisions in Section 92, "Asphalt Binders", of the current State Standard Specifications. Asphalt concrete shall be placed in lifts no less than one and one-half inch (1 1/2") and no greater than three inches (3"), with enough time between each lift for the asphalt concrete to cool to at least 160°F, before the next lift is applied.

Tack coat – After approval of the base material by the Engineer, a tack coat of SS-1, SS1h, CSS1h conforming to Section 94 of State Standard Specifications shall be applied to aggregate base and all vertical surfaces of existing pavement, curb, gutters, construction joints or other surface against which asphalt pavement is to be placed.

TS-17.3 MEASUREMENT AND PAYMENT

All asphalt pavement for concrete repairs shall be measured in the field on the basis of the units specified in the Bid Schedule and said pavement work completed to the satisfaction of the City.

Full compensation for furnishing all supervision, labor, materials, tools, equipment, and incidentals, and for doing all work involved in conforming to the provisions of this Section shall be considered as included in the unit price paid for "24-inch wide, 2-inch thick Asphalt Pavement to conform Gutter Replacement per City of San Ramon Standard Details C-1 to C-9" and no additional compensation shall be allowed therefore.

TS-18. NOT USED

TS-19. NOT USED

TS-20. TRAFFIC STRIPES, PAVEMENT LEGENDS AND MARKINGS, AND PAVEMENT MARKERS

TS-20.1 GENERAL

Traffic stripes and pavement legends and markings shall conform to the provisions in Section 84, "Markings", and Section 81, "Miscellaneous Traffic Control Devices", of the State Standard Specifications and these Contract Documents. Traffic striping, pavement markers, and green bike lane marking shall be placed in accordance with the applicable details as shown on the latest Caltrans Standard Plans A20A through A20D, and the Project Plans. Pavement legends and markings shall be placed in accordance with the applicable details of the latest Caltrans Standard Plans A24A through A24E.

All traffic stripes and pavement legends and markings on streets, and parking lots shall be thermoplastic. All stripes and pavement legends in bicycle and pedestrian areas shall be non-skid thermoplastic.

TS-20.2 LOCATIONS AND CONTROL

Contractor shall verify all street widths and confirm the lane layout presented on the plans prior to the start of "cat-tracking".

Temporary layout marks and "cat tracking" shall be placed by the Contractor for all striping (including limit lines and crosswalks). Layout marks shall be approved by the Engineer prior to "cat tracking". Temporary "cat tracks" shall be approved by the Engineer prior to final striping. Layout marks and "cat tracks" remaining after striping shall be removed. Blacking out with paint will not be allowed.

TS-20.3 MATERIALS

Materials used for thermoplastic and glass beads shall conform to Sections 84-2.02, "Materials", of the State Standard Specifications. Thermoplastic materials shall be free of lead and chromium.

Light Green Pigment: The material shall be manufactured with appropriate pigment to ensure that the resulting colors comply with the Light Green color as specified in the FHWA Memorandum dated April 15, 2011: Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14).

Daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
X	y	x	y	x	y	x	y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

Nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
---	--	---	--	---	--	---	--

X	y		x	y		x	y		x	y
0.230	0.754		0.336	0.540		0.450	0.500		0.479	0.520

The pigment system must not contain heavy metals or any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

Non-skid thermoplastic shall use non-skid type glass beads in the table below. The crushed glass cullet in such a mixture shall be produced from clear glass, with a maximum size of 850 micrometers (100% passing by weight) and a minimum size of 425 micrometers (0-5% passing by weight). The skip resistance shall be a minimum of 55 BPN (British Pendulum Number).

Material	Percentage of Mixture	Percentage Limits
Binder	20%	18% min
Glass Beads	20%	15% min
TiO2 Pigment	10%	15% min
Filler	35%	37% max
Cullet	15%	10% min

Materials used for paint and glass beads shall conform to Section 84-2.02, "Materials", of the State Standard Specifications.

TS-20.4 GENERAL APPLICATION

Existing striping, legends and markings, if indicated for removal, as specified herein or as directed by the Engineer, shall be removed by mechanical means or other methods with prior approval of the Engineer. Sandblasting will not be allowed. Attention is directed to TS-10, "Existing Highway Facilities", of these Technical Specifications.

Any damage to the newly placed stripes, legends or markings, due to the failure of the Contractor to protect his/her work, and correction of errors shall be repaired by the Contractor at no additional cost.

Streets shall receive thermoplastic stripes, legends, markings and markers no sooner than seven (7) calendar days following resurfacing of the street. All stripes, legends, markings and markers shall be placed within fourteen (14) calendar days of the final resurfacing.

TS-20.5 THERMOPLASTIC APPLICATION

Thermoplastic application shall conform to Section 84-2.03, "Construction", of the State Standard Specifications.

Traffic stripes and pavement markings shall be free of runs, bubbles, craters, drag marks, and debris.

TS-20.6 PAVEMENT MARKERS

Pavement markers shall conform to the provisions in Section 81-3, "Pavement Markers", of the State Standard Specifications and these Contract Documents. Non-reflective pavement markers shall be ceramic.

Adhesive shall be hot melt bituminous adhesive conforming to Section 81-3.02D, "Hot Melt Bituminous Adhesive", of the State Standard Specifications.

Markers shall be placed according to the latest Caltrans Standard Plans A20A - A20D, except as modified by the Plans or the Engineer.

Blue two-way reflectors shall be installed in the traffic lane adjacent to each fire hydrant on all streets within the limits of work in accordance with Figure 3B-102 of the latest edition of the CAMUTCD. Although every effort was made to locate and show existing fire hydrants on the plans, it is the Contractor's responsibility to locate all existing fire hydrants and install blue markers at each location.

Pavement markers shall not be placed on new asphalt concrete surfacing until the roadway has been opened to public traffic for a period of not less than seven (7) days for hot melt bituminous adhesive.

Any damage to the newly placed markers due to the failure of the Contractor to protect the work and correction of errors shall be repaired by them at no additional cost.

TS-20.7 PAINT CURB (TWO COATS)

The contractor shall install curb painting (red, blue, white, and yellow) as noted on the plans. The surface of the curb shall be cleaned prior to painting. The second coat of paint cannot be applied on the same day as the first coat of paint.

TS-20.8 MEASUREMENT AND PAYMENT

Traffic stripes will be measured by the linear foot along the traffic line without deductions for the gaps shown in the State Standard Plan details. Gaps in traffic stripes at intersections or driveways will not be measured as part of striping quantity.

The contract unit prices paid per linear foot for the **various traffic stripe and pavement marker bid items** of work shown on the Bid Schedule, and for:

- **"Striping, Detail 2"**
- **"Striping, Detail 9"**
- **"Striping, Detail 12"**
- **"Striping, Detail 22"**
- **"Striping, Detail 22 MOD"**
- **"Striping, Detail 26 MOD"**
- **"Striping, Detail 27B"**
- **"Striping, Detail 29"**
- **"Striping, Detail 37B"**
- **"Striping, Detail 38"**
- **"Striping, Detail 38A"**
- **"Striping, Detail 39"**
- **"Striping, Detail 39A"**
- **"Striping, Detail 40"**
- **"White / Yellow-Crosswalk Lines (12" Wide)"**
- **"White Stop Bar / Limit Lines (12" Wide)"**
- **"White Hatch Marks (8" Wide)"**

shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals and for doing all the work involved including, but not limited to; any necessary layout work and "cat tracks" including verifying all street widths and confirming the lane layout presented on the plans; removal of any and all conflicting existing or temporary striping, placing traffic stripes using thermoplastic or non-skid thermoplastic material as specified herein; placing markers; and all other work as shown on the Plans, as specified in the State Standard Specifications and these Contract Documents, and as directed by the Engineer and no additional compensation will be allowed therefore.

The contract unit price paid per square foot for **Bid Items “Green Conflict Zones”, “Pavement Markings (Thermoplastic) – White or Yellow”, and “Pavement Markings (Thermoplastic) – White or Yellow (Non-Skid)”**, shall include full compensation for all labor, supervision, materials, tools, equipment and incidentals, including, but not limited to, furnishing and applying thermoplastic pavement markings and legends and non-skid thermoplastic material in bicycle lanes, and parking lots; layout work and marks; and removal of any and all conflicting, existing or temporary striping and all other work as shown on the Plans, as specified in the State Standard Specifications, State Standard Plans, and these Contract Documents and as directed by the Engineer and no additional compensation will be allowed therefore.

The contract unit prices paid per each for **“Two-Way Reflective Blue Pavement Marker”** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals and for doing all work involved in locating fire hydrants; and furnishing and placing the markers, as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer and no additional compensation shall be allowed therefore.

The contract price paid per linear foot for **“Paint Curb (Two Coats)”** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in painting curb (yellow, white, blue, and red) complete in place as shown on the plans, as specified in the State Standard Specifications and these Contract Documents, and as directed by the Engineer and no additional compensation shall be allowed therefore.

TS-21. TRAFFIC SIGNAL FACILITIES

TS-21.1 GENERAL

The work consists of installing new traffic signal inductive loop detectors at locations shown on the Plans.

The Contractor shall coordinate all traffic signalization issues with the City of San Ramon Traffic Engineering Division. All traffic signal operation changes (all-red flash, signal timing changes, etc.) shall be requested two (2) working days before work is to commence. Emergency signal operation changes shall be requested through the Engineer. The Contractor shall replace any existing loop detector outside project limits that may be damaged by the Contractor as a result of construction operations at no cost to the City.

TS-21.2 LOOP DETECTORS

All loop detectors within City right-of-way shall be Type "E" and Type "E" Modified in accordance with San Ramon Standard Detail T-5a and 5b, “Traffic Signal Detector Loops”.

Detector loop cables shall be installed prior to the placement of the top layer of asphalt concrete. The Contractor shall be responsible for locating each detector loop. The detector loops and home runs shall be marked by the Contractor and reviewed by the Engineer before the pavement is cut.

The pavement slots shall be cut with an abrasive type saw. Residue resulting from the slot cutting operation shall not be permitted to flow across open traffic lanes. The minimum loop slot width shall be 0.250 inches and the minimum home run slot width shall be 0.375 inches. The minimum loop slot depth shall be 2.00 inches ± 0.25 inches. The minimum depth of the home run slot for the first three feet (3') from the curb termination shall be 3.00 inches ± 0.25 inches. The depth of the home run slot shall be gradually reduced to 2.00 inches ± 0.25 inches before the loop area is reached. All bends in the loop wire shall be greater than ninety (90) degrees.

The Contractor shall not start the installation of any detector loops if a forecast of rain exists during the installation operation or during the next twenty-four (24) hours.

TS-21.3 LOOP INSTALLATION

Detector loops shall be installed in accordance with San Ramon Standard Detail T-5a and 5b, "Traffic Signal Detector Loops".

The Contractor shall install "Type 1" loop detector wire in the slots cut in the pavement only in the presence of the Engineer. At no time is the loop wire to be inserted into the slot with any sharp edged tool (i.e. a screwdriver). The loop wire installed in the home run slot shall be twisted a minimum of two (2) turns per foot prior to installation.

After conductors are installed, paint binder shall be applied to all vertical surfaces of the slot. The Contractor shall then completely fill the slots with "OverCoat Loop Filler" or approved equal. Epoxy filler shall not be used. Excess filler shall be removed so that the finished level is flush with the pavement surface. The air temperature during installation shall be above 50°F and the temperature of the filler during installation shall be over 70°F. The loop filler shall not be cut or diluted with water or solvent.

The loop detector wires shall be banded, in pairs, by lane and labeled with identification bands in the termination pullbox. Each label shall show the loop number, phase, and lane location. Identification bands shall be constructed from a nylon cable tie with three-eighth inch (3/8") by three-quarter inch (3/4") label flag attached (T & B Ty-Rap Cable Ties, #TY553 or approved equal). The marking pen shall be one recommended by the manufacturer of the cable tie and shall be an indelible marking pen capable of writing on the nylon material (Ty-Rap Marking Pen, #WT 163 M-1, Black or approved equal). No other method of labeling will be acceptable.

All new detector loops shall be inspected by the Engineer and an insulation resistance measurement shall be made in the Engineer's presence before and after application of sealant. Insulation resistance shall not be less than one hundred (100) mega ohms. Resistance readings for each loop at each intersection shall be recorded in the controller cabinet log book. The Contractor shall verify the loop assignments and the existing DLC identifications with the City Traffic Signal Maintenance personnel prior to connecting or splicing the new loops to the existing detector lead cables.

The Contractor shall notify the Engineer when all loops and detector lead-in cable have been installed. The Contractor shall test all detectors and cables in accordance with Section 86-2.14, "Testing", of the State Standard Specifications in the presence of the Engineer. The insulation resistance shall not be less than one thousand five hundred (1,500) mega ohms on all loop detector circuits. Once completed, the Contractor shall make all necessary field splices and protect these installations from damage.

Commercial quality asphalt concrete hot mix shall be used to fill all curb termination points.

There shall be no separate measurement or compensation for the replacement of new loop detectors that may be damaged by the contractor as a result of multiple construction operations in the same work area. The Contractor shall sequence, schedule, and coordinate the work such that new loop detectors are protected in place following their initial installation. Any costs to replace new loop detectors damaged by subsequent contract work shall be borne by the Contractor.

Detector loop handhole removal, where shown on plan, and wire reconnection, shall be in accordance with Standard Plan ES-5D, "Electrical Systems (Curb and Shoulder Termination, Trench, and Handhole Detail", of the State Standard Specifications, or as directed by the Engineer.

TS-21.4 EXISTING DETECTOR LOOP REPLACEMENT - TIMING

Loop detectors shall be replaced within forty-eight (48) hours. All loop detectors shall be installed prior to placement of the top layer of asphalt concrete pavement.

TS-21.5 MEASUREMENT AND PAYMENT

The contract price paid per each for **Bid Item “Replace Loop Detector”** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and all work involved to place, connect to the existing traffic signal system, test said loop detectors, and all other work as shown on the Plans, as specified in the State Standard Specifications, and these Contract Documents, and as directed by the Engineer and no additional payment will be allowed therefore.

Contract price paid for vehicle loop detector replacement shall also include removal of detector handholes where shown on plan, and reconnection of wires, for a fully functional loop system.

END OF TECHNICAL SPECIFICATIONS

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Attachment A

PROJECT FUNDING SIGN TEMPLATE

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4' x 4' SIGN



CONTRA COSTA
transportation
authority



Your MEASURE J Tax Dollars At Work

Pavement Management 2026 Project CIP 000017, & CIP 000019

ACTUAL SIZE: 4' X 4'
PMS 287U (BLUE)/BLACK

FONT: GILL SANS ULTRA
TEXT COLOR: BLACK
CCTA LOGO COLOR: PANTONE 287 U

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4'x8' SIGN



CONTRA COSTA
transportation
authority



**Your MEASURE J
Tax Dollars At Work
Pavement Management 2026
Project CIP 000017, & CIP 000019**

FONT: GILL SANS ULTRA
TEXT COLOR: BLACK
CCTA LOGO COLOR: PANTONE 287 U

ACTUAL SIZE: 8' X 4' (2:1)
PMS 287U (BLUE)/BLACK

INTENTIONALLY LEFT BLANK

Attachment B

RESIDENTIAL TRASH PICKUP AND SWEEPING SCHEDULE

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
A	CROW CANYON PL	FOSTORIA WAY	CROW CANYON RD	PAVEMENT REPAIRS		COMMERCIAL
A	CROW CANYON RD (EB)	BOLLINGER CANYON RD	TWIN CREEKS DR	2" MILL & FILL	TUESDAY	SECOND and FOURTH THURSDAY
A	CROW CANYON RD (EB)	TWIN CREEKS DR	SR VALLEY BLVD	2" MILL & FILL		COMMERCIAL
A	CROW CANYON RD (EB)	CROW CANYON PL	ALCOSTA BLVD	2" MILL & FILL		COMMERCIAL
A	CROW CANYON RD (WB)	SR VALLEY BLVD	OLD MILL RD	2" MILL & FILL	TUESDAY	COMMERCIAL
A	CROW CANYON RD (WB)	OLD MILL RD	BOLLINGER CANYON RD	2" MILL & FILL	TUESDAY	SECOND and FOURTH THURSDAY
A	CROW CANYON RD (WB)	ALCOSTA BLVD	CROW CANYON PL	2" MILL & FILL		COMMERCIAL
A	OLD MILL ROAD	CROW CANYON RD	130 LF N/O CROW CANYON RD	2" MILL & FILL	TUESDAY	SECOND and FOURTH THURSDAY
A	OMEGA RD	330 FT N/O DEERWOOD RD	FARIA PRESERVE PKWY	2" MILL & FILL		COMMERICAL
A	OMEGA RD	DEERWOOD RD	330 FT N/O DEERWOOD RD	PAVEMENT REPAIRS		COMMERCIAL
A	PORTER DRIVE	CROW CANYON RD	130 LF N/O CROW CANYON RD	2" MILL & FILL	TUESDAY	SECOND and FOURTH THURSDAY
B	CENTENNIAL WAY	WESTSIDE DR (W)	WESTSIDE DR (E)	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	CENTURY OAKS CT	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	CHAPPARAL CT	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	COMSTOCK CT	CENTENNIAL WAY	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	FOUR OAKS HOLLOW	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	LONE TREE CT	LONE TREE LN	SAN RAMON VALLEY BLVD	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	MAJESTIC OAK CT	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
B	PINE VALLEY PL	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	SAN RAMON VALLEY BLVD (NB)	PINE VALLEY RD	MONTEVIDEO DR	2" MILL & FILL	MONDAY	SECOND and FOURTH WEDNESDAY
B	SAN RAMON VALLEY BLVD (NB)	MONTEVIDEO DR	BOLLINGER CANYON RD	PAVEMENT REPAIRS	TUESDAY	FIRST and THIRD THURSDAY
B	SAN RAMON VALLEY BLVD (SB)	MONTEVIDEO DR	PINE VALLEY RD	2" MILL & FILL	MONDAY	SECOND and FOURTH WEDNESDAY
B	SAN RAMON VALLEY BLVD (SB)	BOLLINGER CANYON RD	MONTEVIDEO DR	PAVEMENT REPAIRS	TUESDAY	FIRST and THIRD THURSDAY
B	WELFORD RANCH CT	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	WESTSIDE CT	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	WESTSIDE DR	MAJESTIC OAK CT	WOODBOROUGH WAY	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	WESTSIDE DR	WOODBOROUGH WAY	SAN RAMON VALLEY BLVD	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	WESTSIDE PL	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	WINDING CREEK WAY	WESTSIDE DR	HENRY RANCH DR	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
B	WINDMILL CT	WESTSIDE DR	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
C	ACORN CT	SEDFIELD AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	ADAMS PL	PINE VALLEY RD	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
C	ALMOND CT	BROADMOOR DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	ARVADA CT	CHEYENNE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	ASHBY WAY	HILLSBORO AVE	N END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	AVOCADO CT	ASHBY WAY	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	BOXFORD PL	PINE VALLEY RD	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	BUTTE AVE	SEDFIELD AVE	BROADMOOR DR	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	CABRILLO AVE	BROADMOOR DR	SEDFIELD AVE	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	CASHEW CT	BROADMOOR DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	CASPER PL	BUTTE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	CHESTNUT CT	BROADMOOR DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	CHEYENNE AVE	BROADMOOR DR	ASHBY WAY	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	CODY CT	OAK CREEK DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	DAYTON CT	CHEYENNE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	DEVON CT	NORTHLAND AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
C	EDEN PL	LARAMIE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	EL MOLINO PL	DAVONA DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	ETHAN CT	DAVONA DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	ETNA CT	DAVONA DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	FILBERT CT	SEDFIELD AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	GOSHEN CT	E END	W END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
C	GOSHEN PL	GOSHEN CT	PINE VALLEY RD	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
C	HAVEN PL	DAVONA DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	HAZELNUT CT	ASHBY WAY	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	HILLSBORO AVE	BROADMOOR DR	W END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	HILLSBORO AVE	BROADMOOR DR	E END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	INVERNESS CT	INVERNESS ST	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	INVERNESS ST	BROADMOOR DR	SEDFIELD AVE	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	LAGUNA PL	PINE VALLEY RD	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
C	LANDER PL	BUTTE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	LARAMIE AVE	DAVONA DR	ASHBY WAY	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	LIPTON PL	LARAMIE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	LYCHEE CT	AVOCADO CT	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	MAY CT	MAY WAY	END	1.5" MILL & FILL	FRIDAY	SECOND and FOURTH TUESDAY
C	MILLS PL	LARAMIE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	NORTHLAND PL	MAY WAY	END	1.5" MILL & FILL	FRIDAY	SECOND and FOURTH TUESDAY
C	NORTHLAND PL	DAVONA DR	MAY WAY	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	NORWICH CT	INVERNESS ST	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	OAK CREEK DR	DAVONA DR	TAREYTON AVE	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	PECAN CT	DAVONA DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	PINENUT CT	BROADMOOR DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	RIVERTON PL	BUTTE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	SAN BLAS PL	ESTERO DR	END	1.5" MILL & FILL	MONDAY	FIRST and THIRD WEDNESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
C	SAN PEDRO PL	CASA GRANDE	END	PAVEMENT REPAIRS	MONDAY	FIRST and THIRD WEDNESDAY
C	SEDFIELD AVE	BROADMOOR DR	CABRILLO AVE	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	SEDFIELD AVE	BROADMOOR DR	W END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	SOTA PL	ESTERO DR	END	1.5" MILL & FILL	MONDAY	FIRST and THIRD WEDNESDAY
C	STRATFORD DR	PINE VALLEY RD	TAREYTON AVE	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	SUNNYBROOK PL	YOSEMITE AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	TAREYTON AVE	PINE VALLEY RD	DAVONA DR	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	TAREYTON CT	TAREYTON AVE	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	TOM CT	PINE VALLEY RD	END	PAVEMENT REPAIRS	MONDAY	SECOND and FOURTH WEDNESDAY
C	WESTWOOD AVE	DAVONA DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	WINN CT	STRATFORD DR	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	WINTHROP AVE	DAVONA DR	W END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	WINTHROP AVE	DAVONA DR	E END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
C	YALE CT	NORTHLAND PL	END	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
C	YOSEMITE AVE	TAREYTON AVE	SUNNYBROOK PL	PAVEMENT REPAIRS	FRIDAY	SECOND and FOURTH TUESDAY
D	ALDGATE WAY	SHERWOOD WAY	PAIGE WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	ALVO CT	ENFIELD ST	END	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	ARDEN CT	WYCLIFFE LN	END	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	ARLINGTON WAY	E BRANCH PKWY	PERCY LN	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	BAKER WAY	CARRINGTON CT	SHERWOOD WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	BANBURY DR	WYCLIFFE LN	CHANCERY WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	CHANCERY WAY	WYCLIFFE LN	E BRANCH PKWY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	E BRANCH PKWY (EB)	BOLLINGER CANYON RD	WINDEMERE PKWY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	E BRANCH PKWY (WB)	WINDEMERE PKWY	BOLLINGER CANYON RD	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	EMBLETON LN	MORNINGTON LN	VERNON WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	ENFIELD ST	E BRANCH PKWY	PAIGE WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	FARRINGDON WY	ENFIELD ST	LAMBETH WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	FENWICK WAY	ENFIELD ST	ARLINGTON WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
D	HALIFAX WAY	ENFIELD ST	HOSKINS LN	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	HOSKINS LN	ENFIELD ST	HALIFAX WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	INGLETON WAY	WYCLIFFE LN	E BRANCH PKWY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	KEARNY WAY	WINDEMERE PKWY	KEATS LN	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	KEATS LN	ENFIELD ST	HALIFAX WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	LAMBETH WAY	THURLOW WAY	FENWICK WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	MELBOURNE WAY	SHERWOOD WAY	MORNINGTON LN	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	MORNINGTON LN	SHERWOOD WAY	BAKER WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	PAIGE CT	KEARNY WAY	END	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	PAIGE WAY	ENFIELD ST	KEARNY WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	PERCY LN	ENFIELD ST	KEATS LN	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	QUIMBY CT	CHANCERY WAY	END	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	SALISBURY WAY	MORNINGTON LN	MELBOURNE WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	SHERWOOD WAY	WINDEMERE PKWY	E BRANCH PKWY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY

PAVEMENT MANAGEMENT 2026 PROJECT
RESIDENTIAL TRASH COLLECTION STREET SWEEPING SCHEDULES

AREA	ROAD NAME	BEGIN LOCATION	END LOCATION	PAVEMENT TREATMENT	RESIDENTIAL TRASH COLLECTION SCHEDULE	RESIDENTIAL STREET SWEEPING SCHEDULE
D	SPORTS PARK - PARKING LOT	BAKER WAY	E BRANCH PKWY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	THURLOW WAY	ENFIELD ST	ARLINGTON WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	VERNON WAY	MELBOURNE WAY	MORNINGTON LN	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	WYCLIFFE CT	INGLETON WAY	END	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY
D	WYCLIFFE LN	INGLETON WAY	CHANCERY WAY	PAVEMENT REPAIRS	FRIDAY	FIRST and THIRD TUESDAY



STANDARD DETAILS



**7000 Bollinger Canyon Road
San Ramon, CA 94583**

**Telephone: (925) 973-2670
Fax: (925) 275-8178**

CITY OF SAN RAMON
STANDARD DETAILS INDEX
CONCRETE WORK

NAME	DRAWING #
Curb, Gutter & Sidewalk	C-1
Median Curbs & AC Dike	C-2
New Residential Driveway Approach	C-3
Commercial Driveway	C-4 A & B
Handicap Ramp (Curb return)	C-5 A, B & C
Valley Gutter & Apron	C-6
Weakened Plane Joints & Score Lines	C-7
Construction Joints	C-8 A & B
General Curb, Gutter & Sidewalk Notes	C-9

MISCELLANEOUS

NAME	DRAWING #
Clean Water Marker	M-1
Manhole/Valve Casting Adjustment/Valve Pot Installation	M-2 A, B & C
Longitudinal Trench Backfill/Repair & Resurfacing	M-3 A, B & C

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NAME	DRAWING #
Street Survey Monument	R-1
Street/Private Street Name Sign	R-2 A & B
Street Name Sign Location	R-3
Street Name & Sign Mounting Detail	R-4
Sign Breakaway Post Installation	R-5
Striping Detail	R-6
Speed Lump	R-7 A, B, C & D
Crosswalk Striping	R-8
Traffic Stripes	R-9
Bike Lane Striping	R-10
Buffered Bike Lane Striping Detail	R-11
Green Back Shared Lane Marking	R-12

STORM DRAINS

NAME	DRAWING #
Type "A" Inlet (Curb Inlet)	SD-1 A & B
Type "B" Inlet (Curb Inlet)	SD-2 A & B
Curb Inlet	SD-3 A & B
Type "C" Inlet (Drop Inlet)	SD-4
Drop Inlet – Frame, Grate & Coverplate	SD-5 A & B
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CITY OF SAN RAMON
STANDARD DETAILS INDEX

STORM DRAINS (Cont'd)

NAME	DRAWING #
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Riprap Outfall	SD-10
PCC V Ditch	SD-11
Concrete Collar	SD-12
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Subdrain Detail	SD-15
Subdrain	SD-16
Typical Toe Subdrain Detail	SD-17 A, B & C

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NAME	DRAWING #
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Pole & Luminaire Schedule	SL-2
Electrolier	SL-3
Electrolier - Foundation	SL-4
Electrolier - Location	SL-5
Electrolier – Grounding Detail	SL-6

TRAFFIC

NAME	DRAWING #
Traffic Signal Detector Loops	T-5 A & B
Sample Overhead Street Name/Logo Detail Sign	T-Sign A & B

CITY OF SAN RAMON
STANDARD DETAILS INDEX
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Tree Guying Detail	L-2
Tree & Shrub Planting On Slopes Detail	L-3
Protective Fencing Detail	L-4
Root Barrier Detail	L-5
Shrub Planting Detail	L-6
Plant Spacing Detail	L-7

IRRIGATION SYSTEM DETAILS

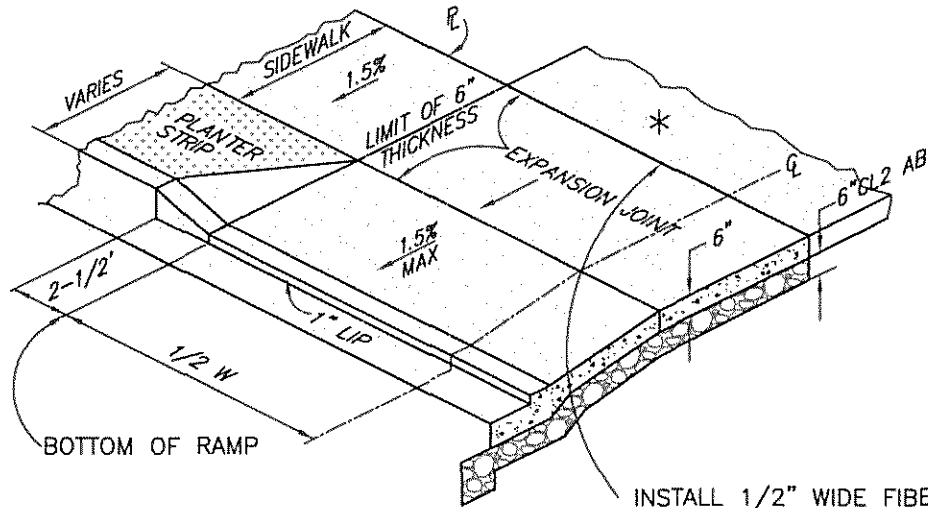
NAME	DRAWING #
2" & Smaller Backflow Assembly Detail	I-1
2-1/2" & Larger Backflow Assembly Detail	I-2
Backflow Preventer Enclosure Detail	I-3
Controller Enclosure Detail	I-4
Controller/ET Gage Connection Detail	I-5
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Splice Box Detail	I-7
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Waterproof Splice Assembly Detail	I-9
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Shrub & Tree Bubbler Riser Detail	I-24
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CITY OF SAN RAMON
STANDARD DETAILS INDEX
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Monolithic Sign Detail	S-39 A
Monolithic Sign Detail	S-39 B
Monolithic Sign Notes	S-39 C

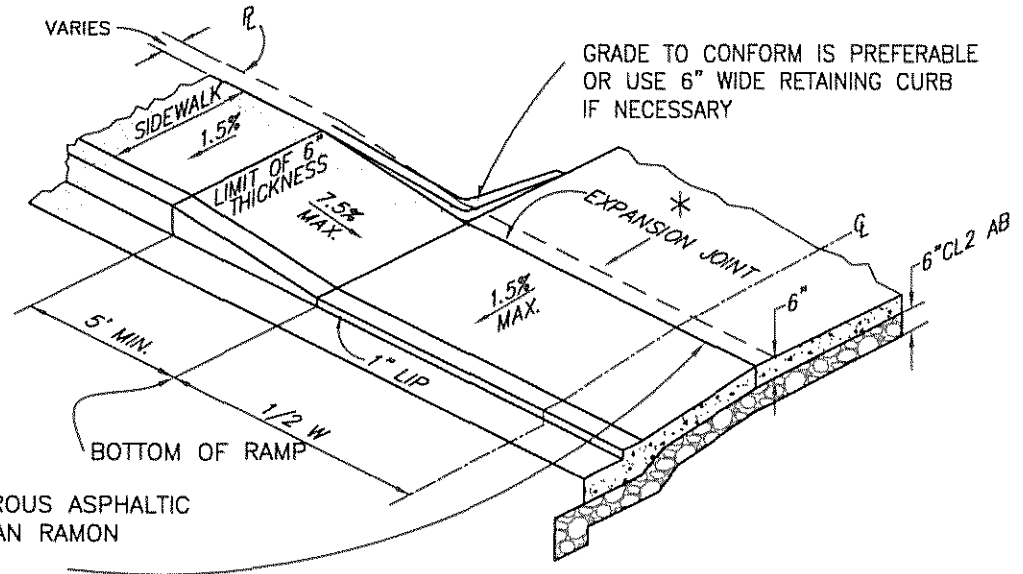
* = GRADE TO MATCH EXISTING SLOPE OF DRIVEWAY BEHIND SIDEWALK AND SHALL NOT EXCEED 10% WITHOUT APPROVAL BY CITY.

W = 12'-0" MINIMUM
24'-0" MAXIMUM (SEE NOTE 3)



DRIVEWAY WITH SEPARATE SIDEWALK

DETAIL A - N.T.S.



DRIVEWAY WITH MONOLITHIC SIDEWALK

DETAIL B - N.T.S.

NOTES FOR DETAILS A & B:

1. SEE DETAIL C-9 GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. ALL DRIVEWAY WIDTHS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. RESIDENTIAL UNITS SHALL HAVE A MAXIMUM OF WIDTH (W) OF 24 FEET FOR TWO CAR GARAGES 36 FEET FOR THREE CAR GARAGES PER ZONING ORD. D3-37.A1.a(2).
3. THE TOTAL WIDTH OF ALL DRIVEWAYS (MEASURED AT THE TOP OF CURB BETWEEN OUTSIDE EDGES) SHALL NOT EXCEED 50% OF THE LOT FRONTAGE, UNLESS APPROVED BY THE CITY ENGINEER.
4. EXPANSION JOINTS SHALL BE INSTALLED AT THE CENTER OF ALL DRIVEWAYS WHEN W=20' OR MORE.
5. REINFORCEMENT SHALL BE 6"x6"x10" GA. WELDED WIRE MESH SET ON DOBIE BLOCKS IN LOWER THIRD OF CONCRETE, OR APPROVED EQUAL.
6. SECOND DRIVEWAYS ARE NOT ALLOWED UNLESS APPROVED BY THE PLANNING AND ENGINEERING DEPARTMENTS, WITH THE EXCEPTION OF AN ACCESSORY UNIT PER ZONING ORD. D3-37-A1.c.



CITY OF SAN RAMON

DETAIL C-3

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

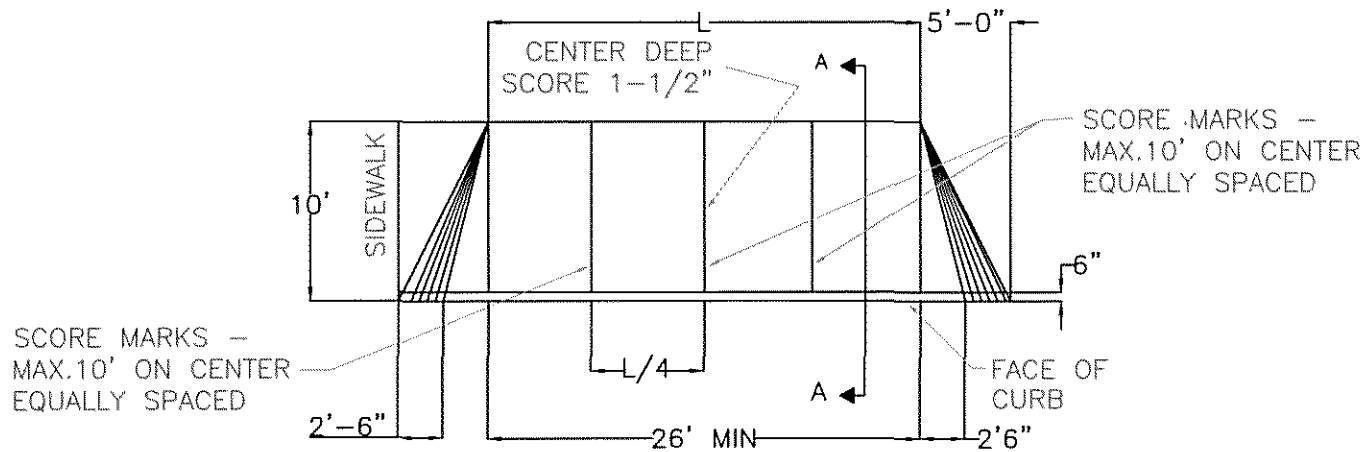
NEW RESIDENTIAL
DRIVEWAY APPROACH

APPROVED BY:

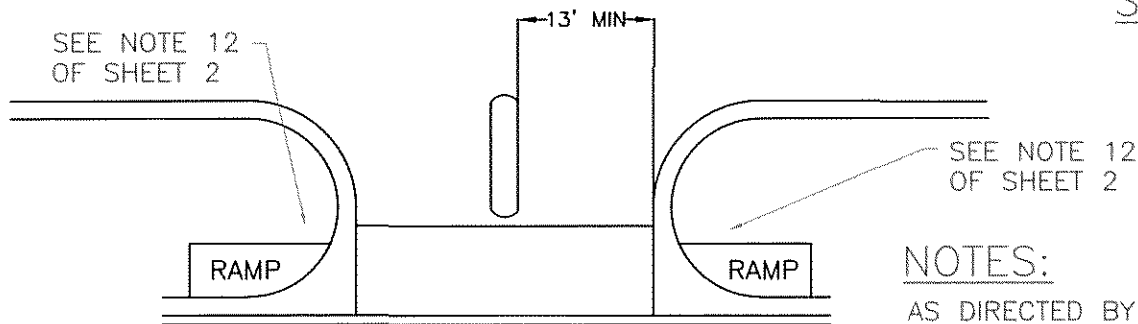
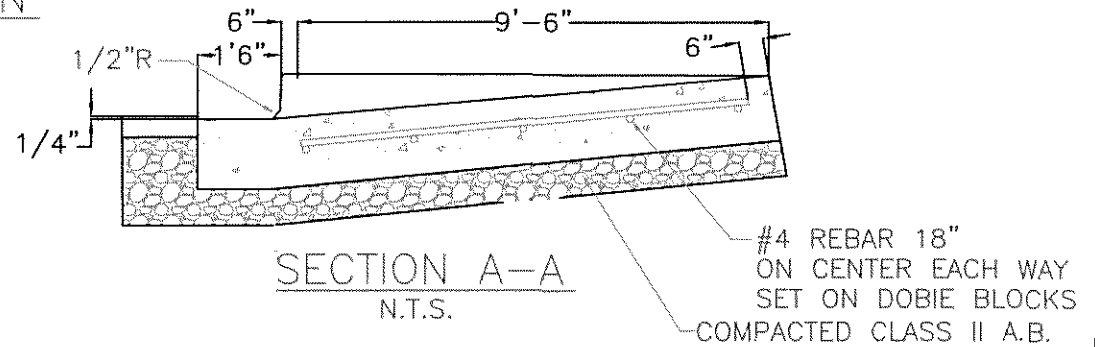
DATE: 12-22-17

R. R. Banta
CITY ENGINEER

SHT 1 of 1



STANDARD DRIVEWAY PLAN
N.T.S.



CURB RETURN DRIVEWAY
N.T.S.

NOTES:

AS DIRECTED BY THE CITY ENGINEER, IN MANY CASES A CUSTOMIZED DRIVEWAY WILL BE REQUIRED TO ENSURE ADA COMPLIANCE, AND LAND USE COMPATIBILITY OR FIRE DISTRICT ACCESS REQUIREMENTS WITH TYPE OF DRIVEWAY.



CITY OF SAN RAMON

DETAIL C-4a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

COMMERCIAL DRIVEWAY

APPROVED BY: DATE: 12-18-17

Br. R. Bannister
CITY ENGINEER

SHT 1 of 2

NOTES:

1. SEE DETAIL C-9 GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. AN ENTRANCE TO A PARKING AREA ACCOMMODATING MORE THAN 25 AUTOMOBILES SHALL INCLUDE A MEDIAN STRIP.
3. DRIVEWAYS SERVING THE SAME PARKING AREA SHALL BE AT LEAST 25 FEET APART FROM NEAREST EDGE TO NEAREST EDGE.
4. DRIVEWAYS SHALL BE 8 INCHES THICK ON 6 INCHES CLASS 2 BASE MATERIAL WITH #4 REBAR, SET ON DOBIE BLOCKS, 18 INCHES ON CENTER EACH WAY.
5. ALL DRIVEWAY WIDTHS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.
6. L= LENGTH OF DRIVEWAY.
7. THE REQUIRED STRUCTURAL SECTION FOR ANY DRIVEWAY SHALL BE CONTINUOUS FROM THE CURB TO THE BACK OF THE SIDEWALK.
8. THE TOTAL WIDTH OF ALL DRIVEWAYS (MEASURED AT THE TOP OF THE CURB BETWEEN OUTSIDE EDGES) SHALL NOT EXCEED 50% OF THE LOT FRONTAGE, UNLESS APPROVED BY THE CITY ENGINEER.
9. AGGREGATE BASE UNDER DRIVEWAYS SHALL BE COMPACTED TO 95% RELATIVE COMPACTION.
10. IF DRIVEWAY SERVES MORE THAN ONE LOT, MAXIMUM DRIVEWAY GRADE IS 15%, EXCEPT ACROSS SIDEWALKS WHICH SHALL BE 2% MAXIMUM. ADDITIONAL DRIVEWAY LENGTH MUST BE PROVIDED TO ACCOMMODATE THE EXCESS GRADE BREAK. FOR GRADE BREAK CHART SEE STD C-3.
11. CAR DIMENSIONS WERE OBTAINED FROM THE 1991 EDITION OF "PARKING DIMENSIONS", MOTOR VEHICLE MANUFACTURES ASSOCIATION. THIS DESIGN AND CONSTRUCTION AID IS BASED ON THE MOST UNFAVORABLE DIMENSIONS OF CARS LISTED. FOR UNIQUE OR OVERSIZED CARS, A SPECIAL DESIGN IS REQUIRED.
12. IF PAVEMENT CROSS SLOPE EXCEEDS 2.8% THE MODIFIED DRIVEWAY SHALL BE USED WITH THE SLOPE OF THE DRIVEWAY RAMP REDUCED SO THAT THE DIFFERENCE IN SLOPE OF THE DRIVEWAY RAMP AND THE SLOPE OF A LINE BETWEEN THE GUTTER AND A POINT ON THE ROADWAY 5 FEET FROM GUTTER LINE SHALL NOT EXCEED 15%. REDUCE DRIVEWAY RAMP SLOPE, NOT THE GUTTER SLOPE. OTHER DIMENSIONS SHALL BE MODIFIED AS APPROVED BY THE ENGINEERING DIVISION.
13. FOR ALL CURB RETURN DRIVEWAYS MUST PROVIDE ADA CURB RAMP FOR ACCESSIBILITY PER CITY STANDARDS.



CITY OF SAN RAMON

DETAIL C-4b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

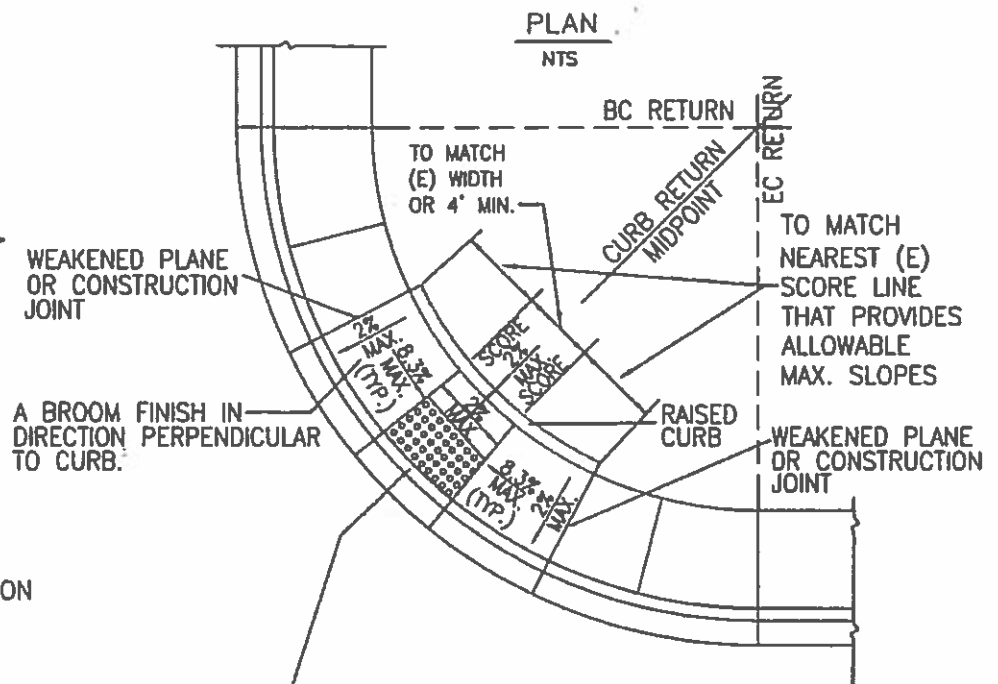
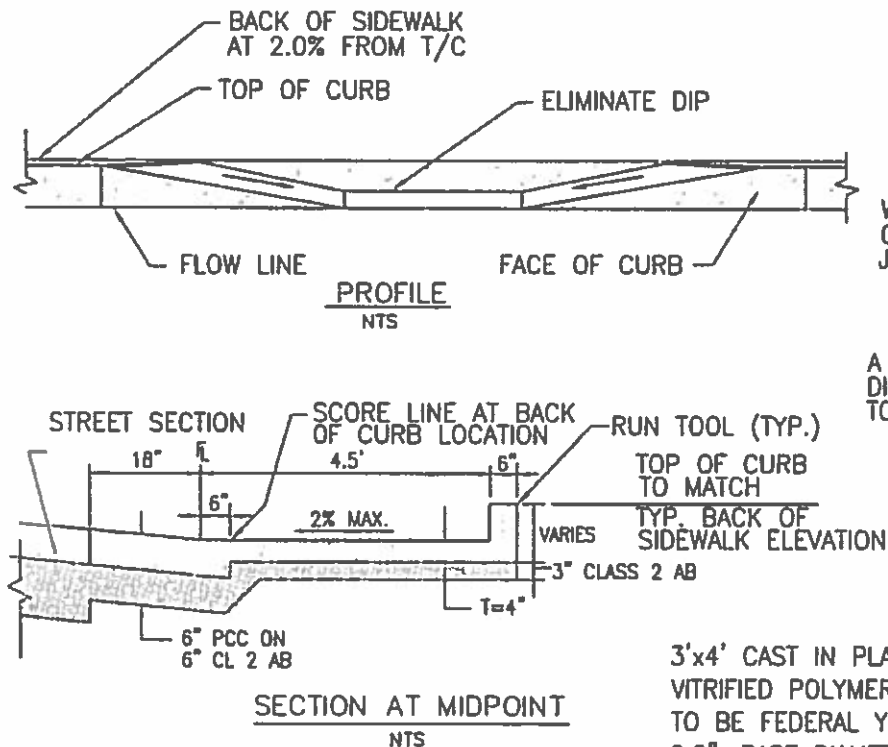
STANDARD DETAIL

COMMERCIAL DRIVEWAY

APPROVED BY: DATE: 12-18-17

Ben R. Barate
CITY ENGINEER

SHT 2 of 2



3'x4' CAST IN PLACE PREFABRICATED DETECTABLE WARNING SURFACE, COMPOSED OF A VITRIFIED POLYMER INCLUDING ALUMINUM OXIDE ("ARMOR-TILE" OR APPROVED EQUAL) COLOR TO BE FEDERAL YELLOW. DOMES TO BE 'IN-LINE' PARALLEL TO CURBING, WITH A HEIGHT OF 0.2", BASE DIAMETER OF 0.9" AND TOP DIAMETER OF 0.45", SPACED 1.66" O.C. (2.35" O.C. ON THE DIAGONAL). FIELD SURFACE AND TOP DOMES TO HAVE A DOTTED TEXTURE FOR SLIP RESISTANCE. DENSITY OF DOTS IN FIELD AREA TO BE 30 PER SQUARE INCH MINIMUM. FOR MORE DETAIL, SEE SHEET 3 OF DETAIL C-5c.

NOTES:

1. THE SURFACE OF EACH CURB RAMP AND ITS FLARED SIDES SHALL BE SLIP RESISTANT AND SHALL BE OF A CONTRASTING FINISH FROM THAT OF THE ADJACENT SIDEWALK.
2. SEE NOTES 8, 9, AND 11 IN DETAIL C-9 GENERAL NOTES FOR CURB GUTTER AND SIDEWALK.
3. CURB INLET GUTTER DEPRESSION SHALL NOT ENCROACH UPON RAMP DEPRESSION AND SHALL BE LOCATED UPSTREAM OF THE CURB RAMP WHERE POSSIBLE.



CITY OF SAN RAMON

DETAIL C-5a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2019

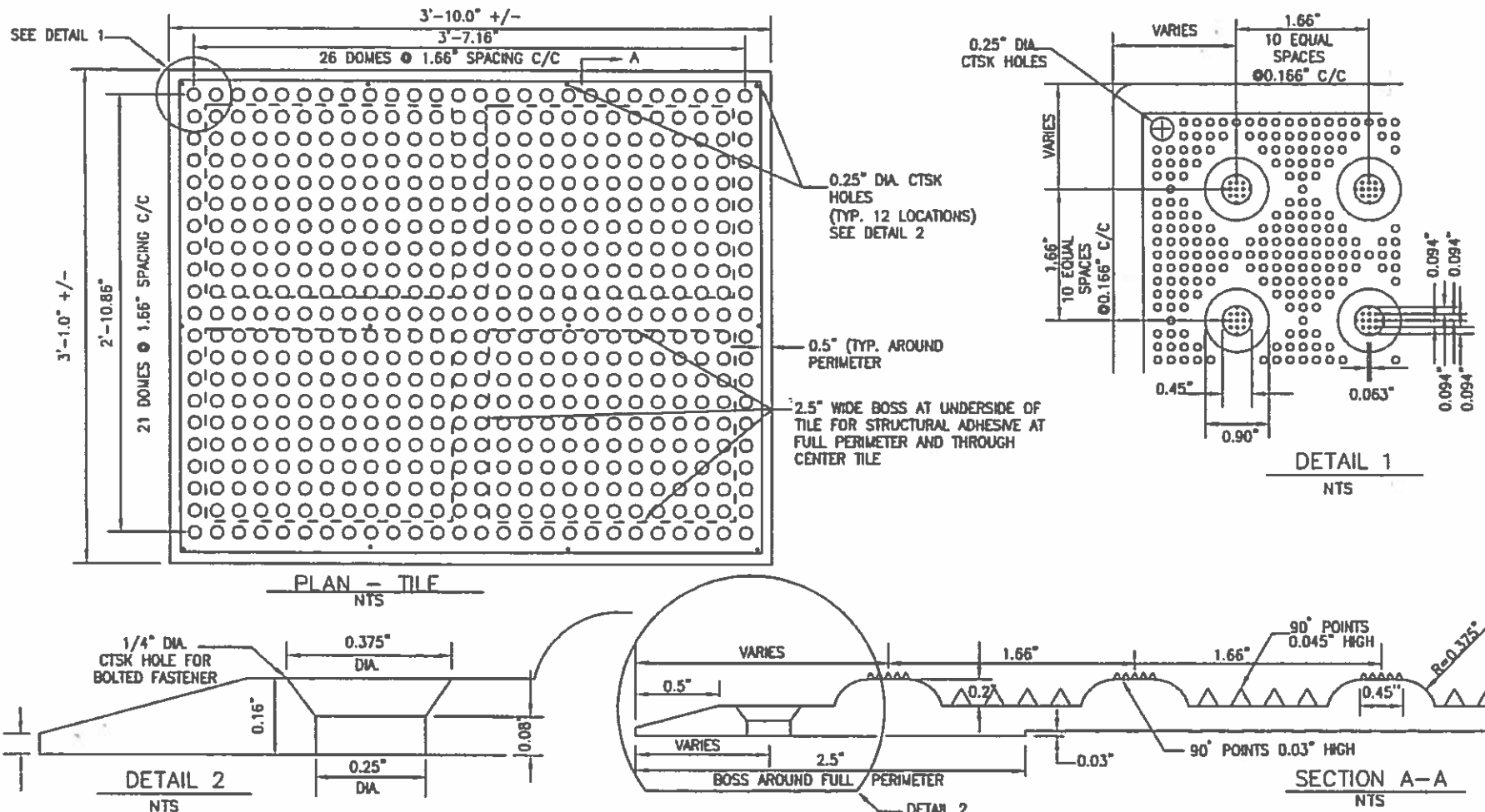
STANDARD DETAIL

CURB RAMP DETAIL
FOR EXISTING STREETS
(CURB RAMP RETROFIT)

APPROVED BY: DATE: 12-10-19

B. R. Bester
CITY ENGINEER

SHT 1 of 3



NOTES:

1. SURFACE MOUNTED TILE DETAILS SHOWN. DETAILS ARE APPLICABLE TO TILE SURFACE SECTION ONLY. CAST-IN-PLACE TILE UNIT DESIGN AND DETAILS TO BE APPROVED BY THE CITY ENGINEER. TILE MATERIAL, FASTENERS, AND ADHESIVE TO BE APPROVED BY THE CITY ENGINEER.
2. FOR RETROFIT APPLICATIONS ONLY, OR WHERE PERMITTED BY THE CITY ENGINEER, SURFACE APPLIED TILES ARE PERMITTED. PRODUCT TO BE AS MANUFACTURED BY ENGINEERED PLASTICS INC./ARMOR-TILE OR EQUAL (SEE DETAILS). TILE MATERIAL, FASTENERS AND ADHESIVE TO BE APPROVED BY THE CITY ENGINEER.
3. THE DETECTABLE WARNING TILES SHALL BE THE FOLLOWING COLOR: USE FEDERAL YELLOW COLOR.



CITY OF SAN RAMON

DETAIL C-5c

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2019

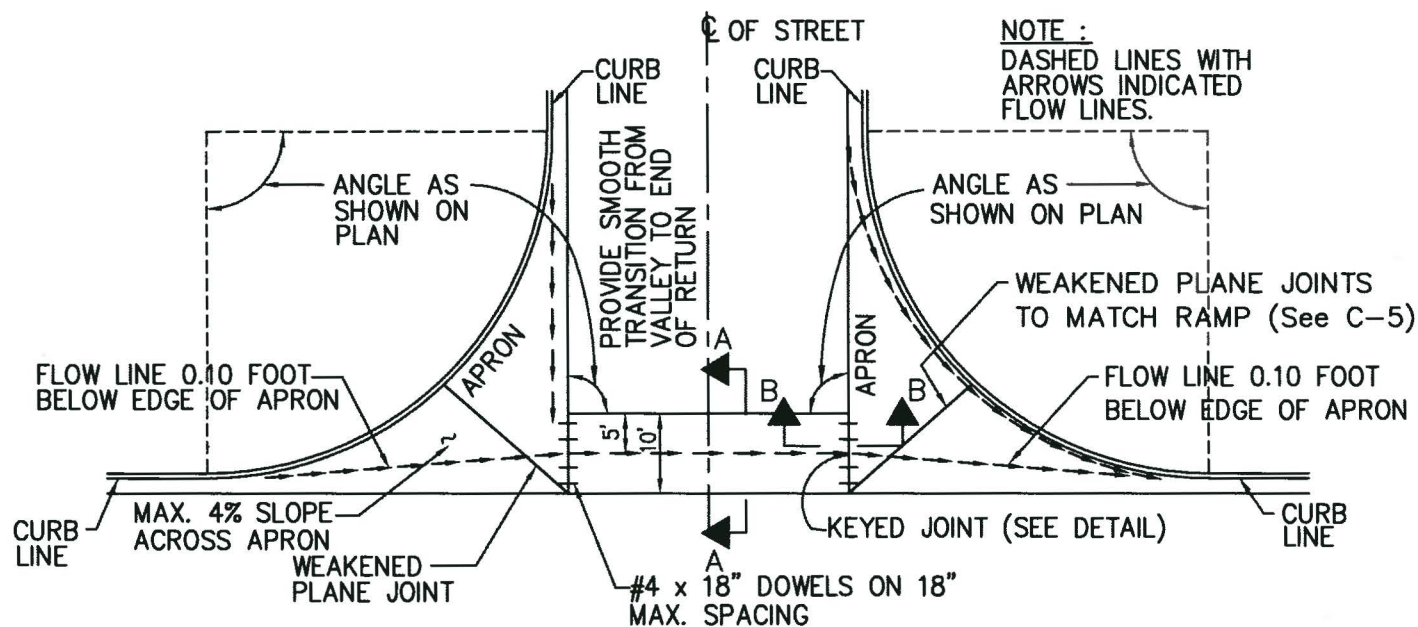
STANDARD DETAIL

CURB RAMP
(CURB RETURN)

APPROVED BY: DATE: 12-10-19

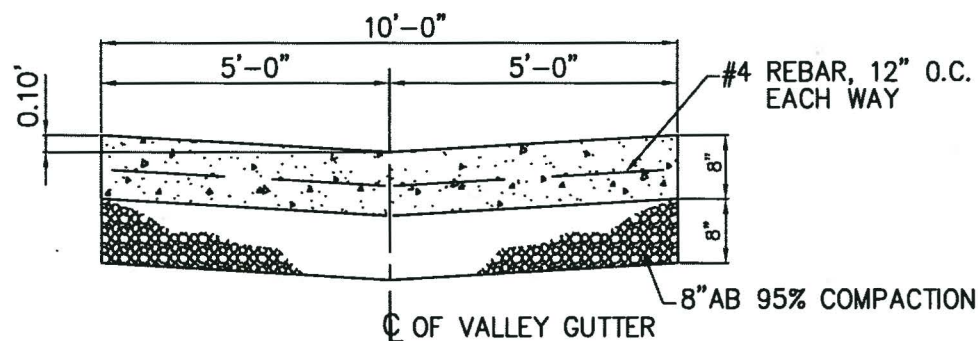
Br N Borte
CITY ENGINEER

SHT 3 of 3



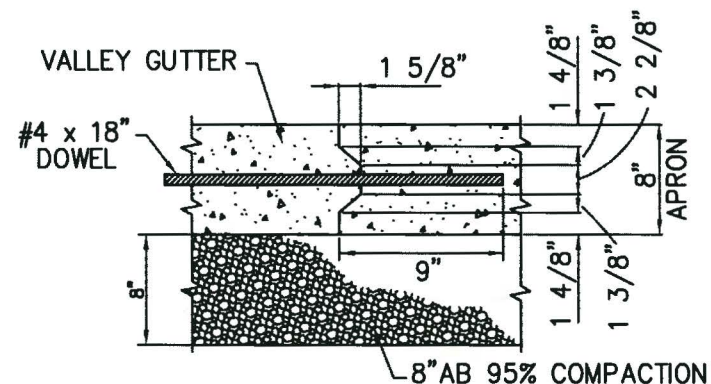
PLAN VIEW OF VALLEY GUTTER AND APRON

N.T.S.



SECTION A-A

N.T.S.



SECTION B-B

N.T.S.

NOTE:

1. VALLEY GUTTER AND APRON TO BE CONSTRUCTED ON A MINIMUM OF 8" OF CLASS 2 AGGREGATE BASE ROCK, COMPACTED TO 95% RELATIVE COMPACTION.



CITY OF SAN RAMON

DETAIL C-6

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

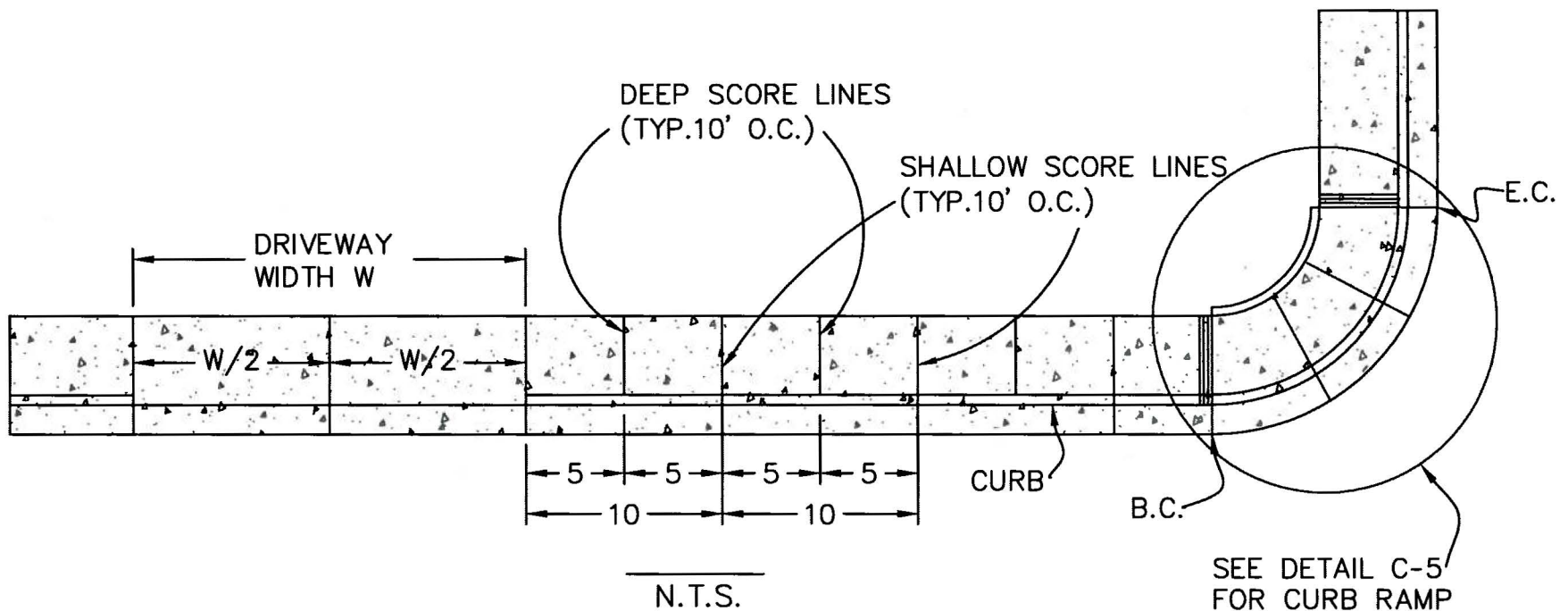
VALLEY GUTTER
AND APRON

APPROVED BY:

DATE: 6/1/11

Brian R. Bortolin
CITY ENGINEER

SHT 1 of 1



NOTES:

1. WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND SHALL EXTEND THROUGH SIDEWALK AND CURB & GUTTER. WIDTH SHALL BE 1/4" AND DEPTH SHALL BE 1" MINIMUM.
2. DEEP TOOL SCORE LINES 1" MIN. EVERY 10'. SIDEWALK SHALL HAVE A 1/4" X 1/4" SHALLOW SCORE MARK 5' O.C. FROM THE DEEP SCORE MARK, EXCEPT WHEN ADJACENT TO EXISTING DRIVEWAY OR SIDEWALK, IN WHICH CASE THEY SHALL CORRESPOND TO THE EXISTING LINES. LONGITUDINAL SCORE LINES WILL BE REQUIRED IN SIDEWALK 9 FEET OR MORE IN WIDTH, AT THE CENTER OF WALK, OR MATCH EXISTING.



CITY OF SAN RAMON

DETAIL C-7

DRAWN BY: ELR

CHECKED BY: ENGINEERING

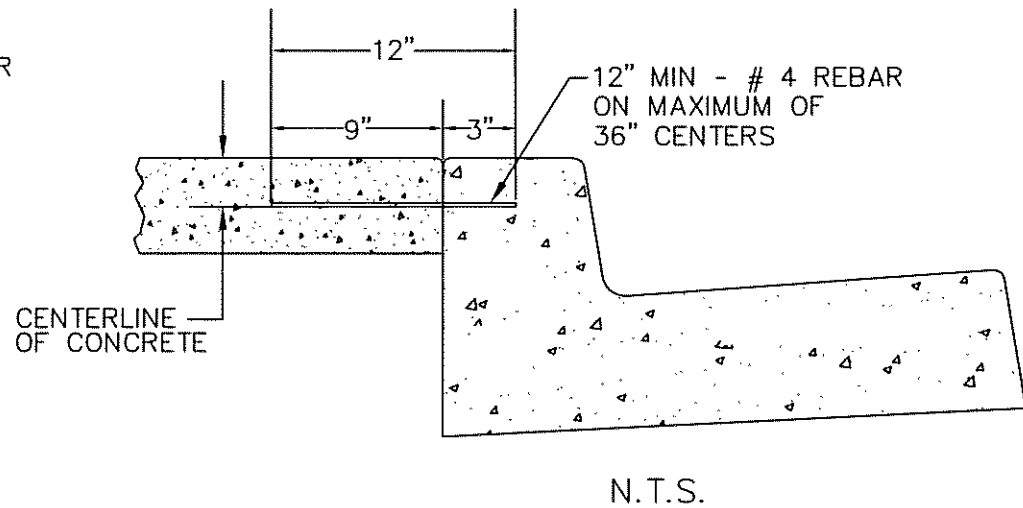
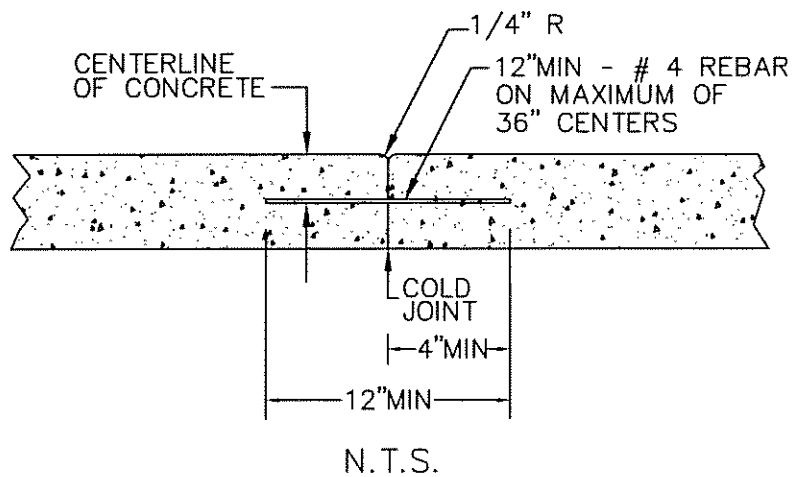
DATE: 05/20/11

STANDARD DETAIL

WEAKENED PLANE JOINTS
AND SCORE LINES

APPROVED BY: DATE: 6/1/11
Prin R. Bernstein
CITY ENGINEER

SHT 1 of 1



NEW TO EXISTING CONCRETE CONSTRUCTION JOINTS

NOTES:

1. SEE DETAIL C-9 FOR GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. ALL CONCRETE DEMOLITION SHALL OCCUR AT WEAKENED PLANE JOINTS, WHICH SHALL BE SAWCUT TO A MINIMUM DEPTH OF 3", ADJACENT TO UNDAMAGED SIDEWALK OR CURB AND GUTTER.
3. TIE BARS SHALL BE REQUIRED WHENEVER NEW CONCRETE IS POURED AGAINST EXISTING CONCRETE EXCEPT THAT PRIVATELY-OWNED CONCRETE WORK (e.g., DRIVEWAY) SHALL NOT BE TIED INTO PUBLIC-OWNED CONCRETE (e.g., SIDEWALK).
4. ALL CONSTRUCTION JOINTS SHALL HAVE A MINIMUM OF 2 TIE BARS.



CITY OF SAN RAMON

DETAIL C-8a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

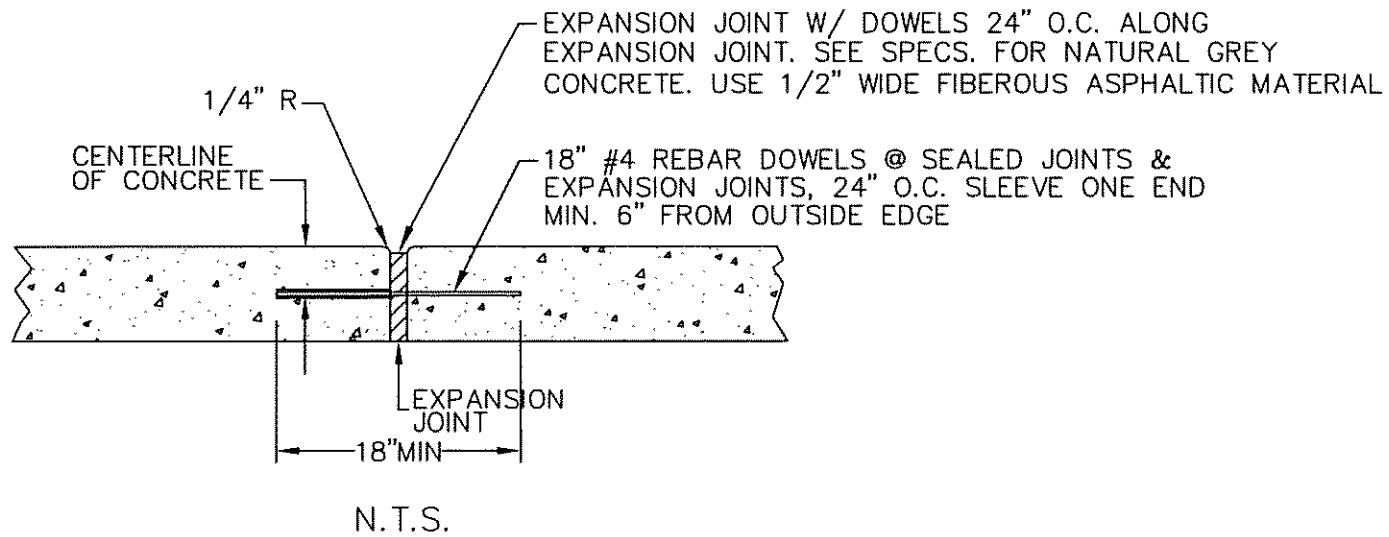
STANDARD DETAIL

CONSTRUCTION JOINTS

APPROVED BY: DATE: 12-18-17

Ben R. Barte
CITY ENGINEER

SHT 1 of 2



NOTES:

1. SEE DETAIL C-9 FOR GENERAL NOTES FOR CURB, GUTTER AND SIDEWALK.
2. ALL CONCRETE DEMOLITION SHALL OCCUR AT WEAKENED PLANE JOINTS, WHICH SHALL BE SAWCUT TO A MINIMUM DEPTH OF 3", ADJACENT TO UNDAMAGED SIDEWALK OR CURB AND GUTTER.
3. TIE DOWELS SHALL BE REQUIRED WHENEVER NEW CONCRETE IS POURED AGAINST EXISTING CONCRETE EXCEPT THAT PRIVATELY-OWNED CONCRETE WORK (e.g., DRIVEWAY) SHALL NOT BE TIED INTO PUBLIC-OWNED CONCRETE (e.g., SIDEWALK).
4. ALL CONSTRUCTION JOINTS SHALL HAVE A MINIMUM OF 2 DOWELS.



CITY OF SAN RAMON

DETAIL C-8b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

EXPANSION JOINTS

APPROVED BY:

DATE: 12-18-17

[Signature]

CITY ENGINEER

SHT 2 of 2

1. Concrete shall be CSR 6-sack concrete mix and shall conform to the requirements of current Caltrans Standard Specifications. Aggregate base (AB) shall be Crushed AB per Caltrans.
2. Subgrade and Crushed Aggregate Base shall be compacted to not less than 90% relative compaction, as tested by a City approved lab at contractor's expense, except under valley gutter and driveway approaches, which shall be compacted to 95% RC per ASTM D1557. For replacement of existing curb, gutter and sidewalk AB thickness shall match existing.
3. Expansion joints shall be constructed at the EC and BC of curb returns, at each side of driveways and at 20' nominal intervals. 1/2" bituminous impregnated felt, ASTM 994 shall be installed vertically, shall extend through the full depth and width of the work and be installed perpendicular to the work. Weakened-plane joints, 2" deep for sidewalks, 3" deep for 6" thick driveways, and 4" deep for 8" thick driveways, shall be spaced at 10' nominal intervals, and at each side of curb ramps, mid-points of driveways with curb cuts exceeding 20' and as directed by the City Engineer. All joints shall extend through the curb and gutter.
4. Exposed surfaces of sidewalk, driveway, curb and gutter shall be steel troweled followed by a medium broom finish.
5. Except as shown, all exposed edges, including at expansion joints and weakened-plane joints, shall be tooled to 1/2" radius. Decorative finish see note 18.
6. Sidewalk shall be score marked at per detail nominal intervals each way or to match existing score marks. Monolithic curb, sidewalk and driveway shall have a continuous score mark 6" from curb face.
7. All concrete shall be cured by keeping continuously moist for three days after pouring either by sprinkling, covering with a waterproof membrane, or applying TYPE I concrete curing compound. Decorative finish see note 18.
8. Extruded curb or gutter requires PRIOR approval by the City Engineer. Extruded sidewalks or driveways are prohibited.
9. For existing AC overlaid gutter, flow line of new concrete gutter shall match existing concrete gutter flow line. Curb lip at driveways shall be increased to 1/2" higher than AC overlay. AC overlay shall be reinstated to establish flow line.
10. All gutter lips, sidewalk, curb ramp or driveway edges, or curbing's constructed adjacent to AC, shall be formed, finished and tooled. A 24" wide full depth AC street structural section shall be constructed adjacent to the concrete improvement. The AC shall be saw cut and the AC section shall be a minimum of 6" deep on minor streets, parking lots, pathways, etc., 9" deep on collector streets and 12" on arterial streets. All AC 95% RC SS-1h Tack Coat (paint binder) all hard surfaces (AC, Conc., etc.).
11. All concrete improvements shall be doweled to adjacent concrete improvements using 12" long 10M (#4) rebar dowels (2 dowels min. each side) at 36" OC max. 4" min. embedment, except for expansion joints (see Detail C-8b). Drill for drive tight fit or epoxy in place. Decorative finish see note 18.
12. Dowels shall be installed per Note 11 when planter strips are filled with concrete or when sidewalk is added to the back of the existing walk. Street tree wells shall be provided in accordance with City requirements.
13. All concrete improvements to be removed shall be saw cut along existing scorelines to a minimum depth of 1/2 the thickness of the concrete improvement. No section to be replaced shall be smaller than 4' in either length or width. If the saw cut in sidewalk or driveway would fall within 4' of a construction joint, expansion joint, cold joint, or edge, the concrete shall be removed to the joint or edge, including AB. All saw cut residue shall be vacuumed concurrently with sawing operation.
14. New imported full depth AB shall be placed under all new or replacement curb, gutter, sidewalk and driveway, except as to match existing conditions or as allowed by the City Engineer.
15. The typical City standard curb height is 6" and the typical City gutter width is 18". However, existing curb heights 3" to 9" and gutter widths 12" to 24" shall be matched in kind when directed by the City Engineer.
16. Any acts of vandalism or deformation to finish of the concrete shall be repaired within the first 24 hrs. after placement. Repairs made after 24 hrs. of placement shall consist of complete removal and replacement of the affected area.
17. Suitable native soil backfill shall be flushed with adjacent concrete finish grade along all form voids and planter strips. Reseed as appropriate.
18. Decorative Finish Concrete Paving shall be colored and finished as shown on plans. Existing decorative finishes shall be matched in kind. Expansion joints shall be constructed and sealed as shown. Curing compound/color hardener/wax sealer matching decorative finish shall be used.



CITY OF SAN RAMON

DETAIL C-9

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

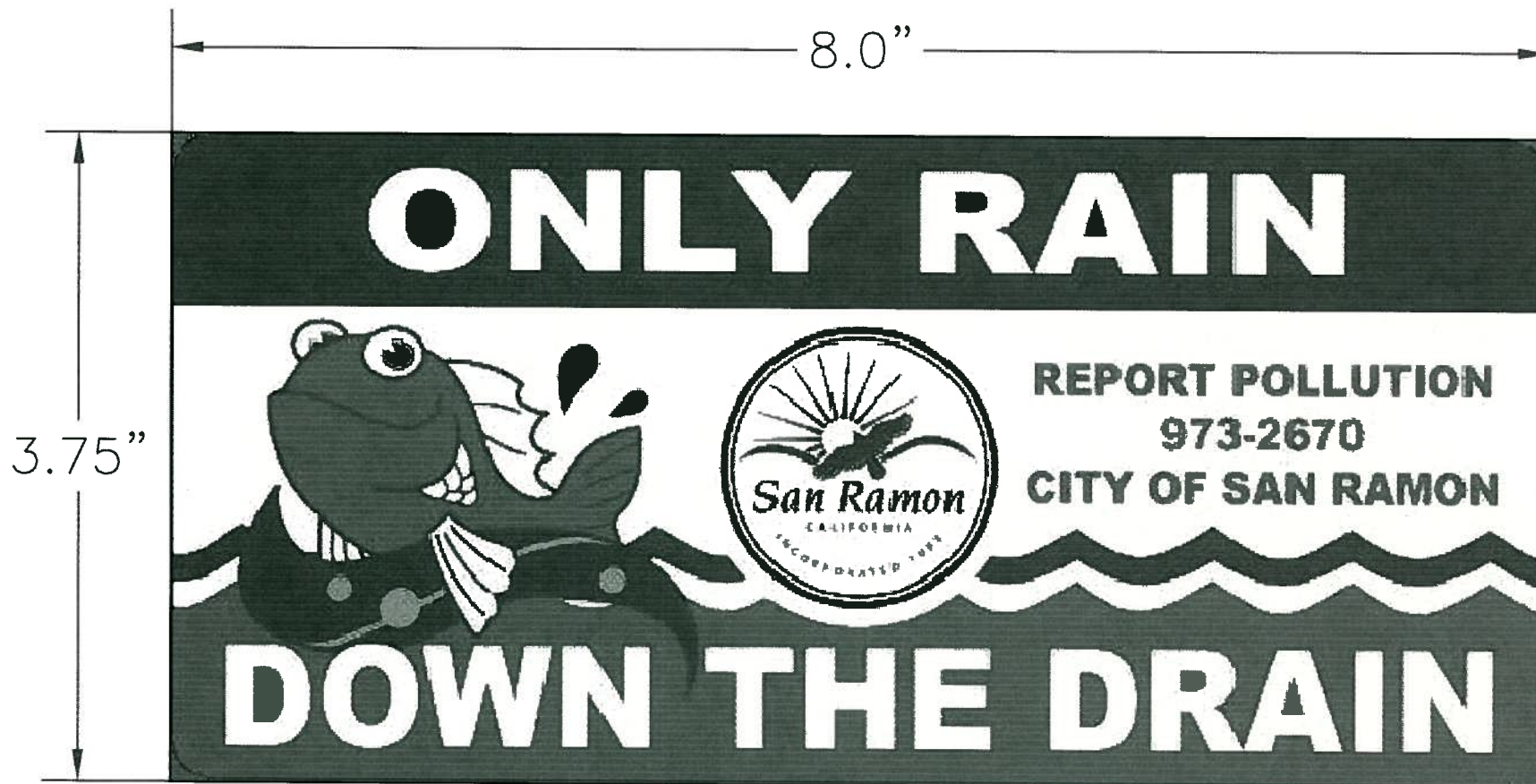
STANDARD DETAIL

GENERAL CURB, GUTTER
AND SIDEWALK NOTES

APPROVED BY: DATE: 12-18-17

[Signature]
CITY ENGINEER

SHT 1 of 1



SCALE 1:1

NOTES:

1. MARKER MAY BE PURCHASED FROM CITY OF SAN RAMON, ENGINEERING SERVICES DEPARTMENT.
2. MARKER TO BE PLACED ON ALL STORM WATER INLETS.
3. SEE SD-1, SD-2 & SD-4 FOR SAMPLE LOCATIONS.
4. INSTALL PER INSTRUCTIONS PROVIDED USING DAS CURB MARKER ADHESIVE.



CITY OF SAN RAMON

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DETAIL M-1

DATE: 05/20/11

STANDARD DETAIL

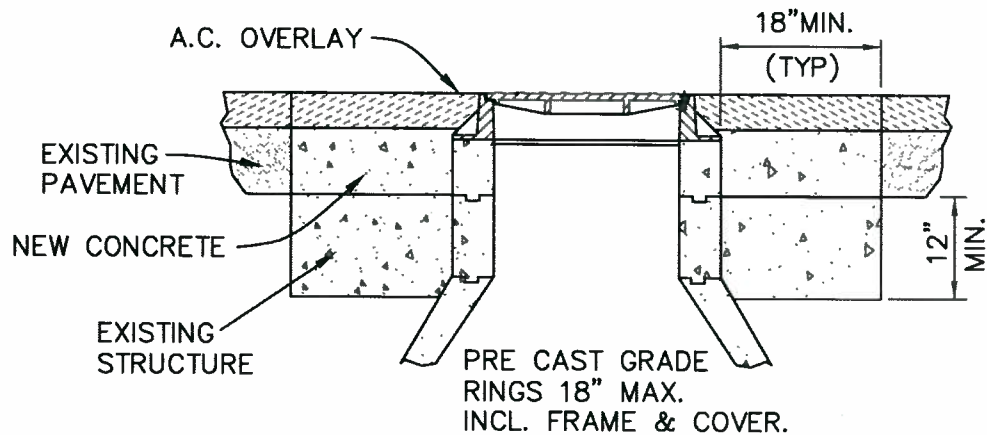
CLEAN WATER MARKER

APPROVED BY:

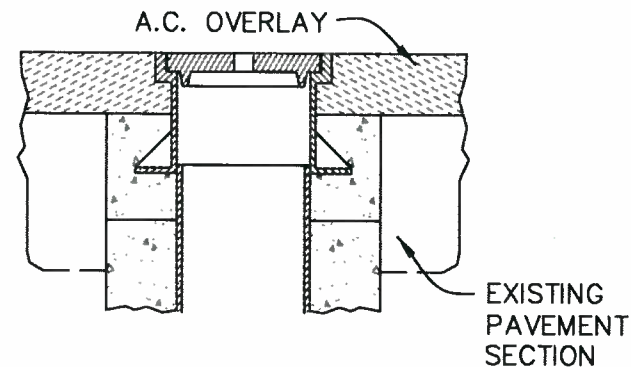
DATE: 6/1/11

Brian H. Brumstein
CITY ENGINEER

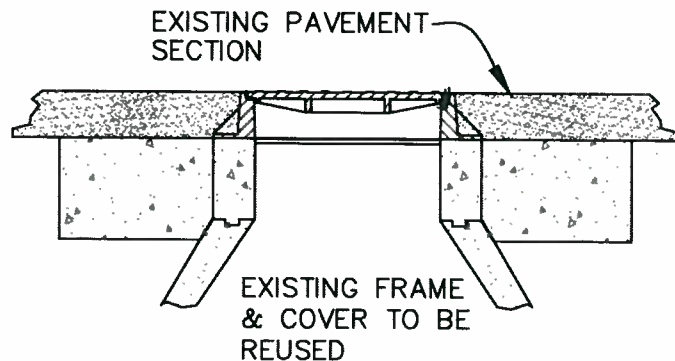
SHT 1 of 1



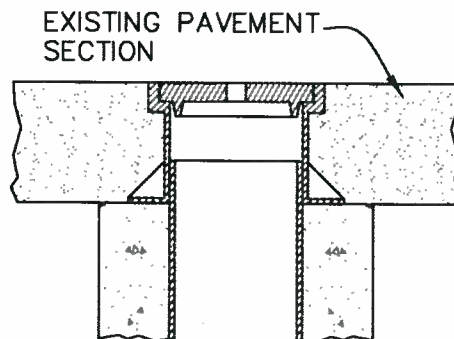
RAISED
N.T.S.



RAISED
N.T.S.

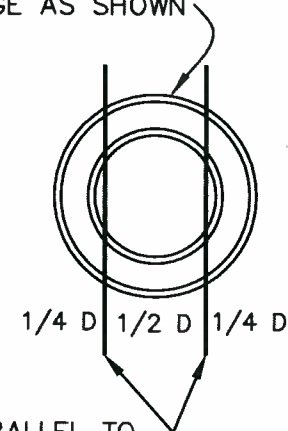


EXISTING
N.T.S.



EXISTING
N.T.S.

FRAME COVER AND AC LIP TO BE WITHIN 1/8" OF THE ELEVATION OF SURROUNDING PAVEMENT. TO BE DETERMINED WITH STRAIGHT EDGE AS SHOWN



STRAIGHT EDGES PARALLEL TO DIRECTION OF TRAVEL OR AS DIRECTED BY THE CITY ENGINEER



CITY OF SAN RAMON

DETAIL M-2a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

MANHOLE / VALVE CASTING
ADJUSTMENT

APPROVED BY:

DATE: 6/1/11

Brian L. Brown
CITY ENGINEER

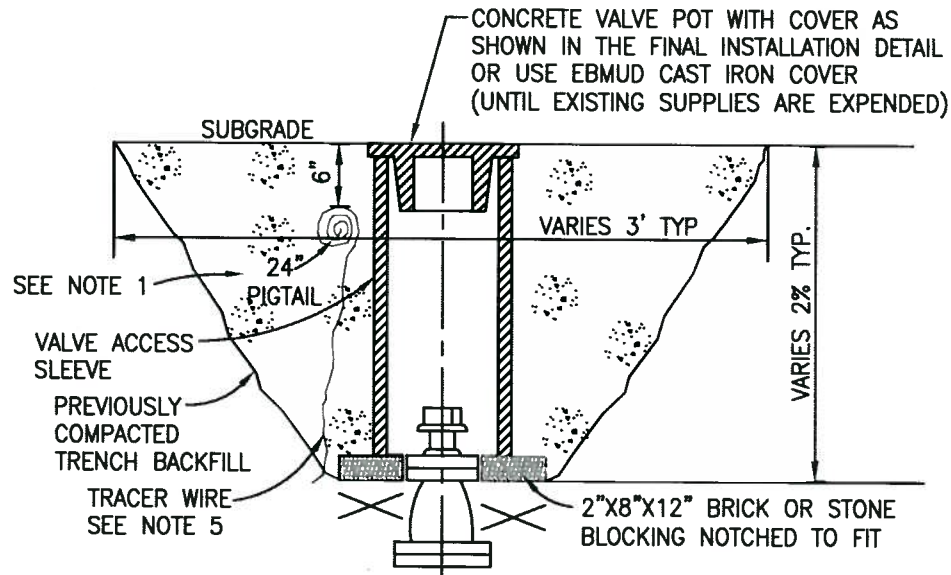
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of

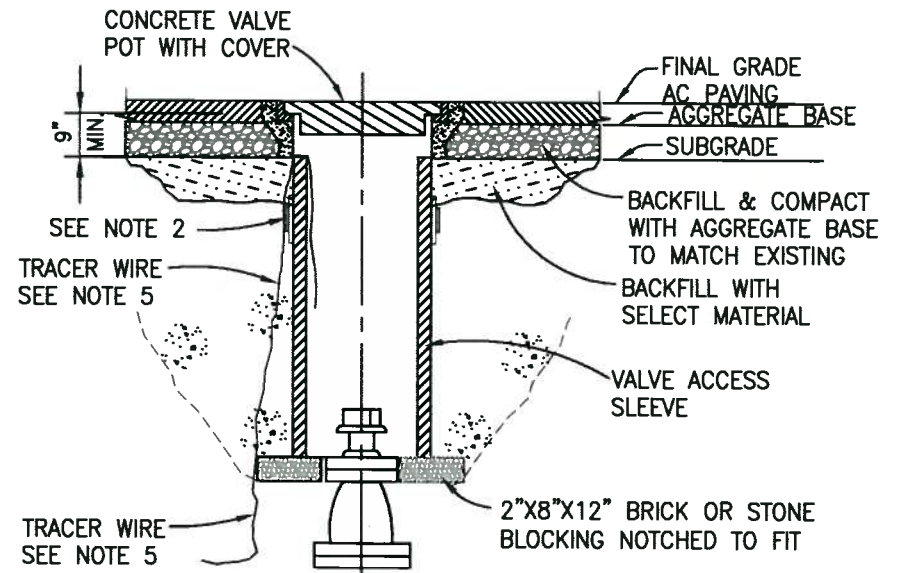
3

IN NEW A.C. STREET CONSTRUCTION



PRELIMINARY INSTALLATION PRIOR TO PLACING PAVING BASE

N.T.S.



FINAL INSTALLATION AFTER PAVING IS COMPLETED

N.T.S.

NOTES:

1. AGGREGATE BASE OR OTHER SUITABLE MATERIAL FOR COMPACTION.
2. USE REPAIR CLAMP OR 3 WRAPS OF 2" WIDE PIPE TAPE, OR EQUIVALENT, TO HOLD JOINT IN ALIGNMENT WHILE PLACING CONCRETE.
3. VALVE ACCESS SLEEVE IS 8.625" O.D. STEEL PIPE, MIN. WALL 10 GA., MAX. SCHEDULE 40 OR SCHEDULE 40 PVC PIPE.
4. TOP OF VALVE COVER TO FIT FLUSH WITH FINISH GRADE OF THE STREET OR RIGHT OF WAY.
5. NON-METALLIC MAINS REQUIRE TRACER WIRE TO BE EXTENDED INTO THE TOP OF THE VALVE POT, IN ACCORDANCE WITH E.B.M.U.D. SPECIFICATIONS.
6. ON STREET RESURFACING PROJECTS, INSTALL RISER RING(S), AS REQUIRED TO ALLOW GATE POT COVER TO CONFORM WITH ADJACENT SURFACES.



CITY OF SAN RAMON

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DETAIL M-2b

DATE: 05/20/11

STANDARD DETAIL

VALVE POT INSTALLATION

APPROVED BY:

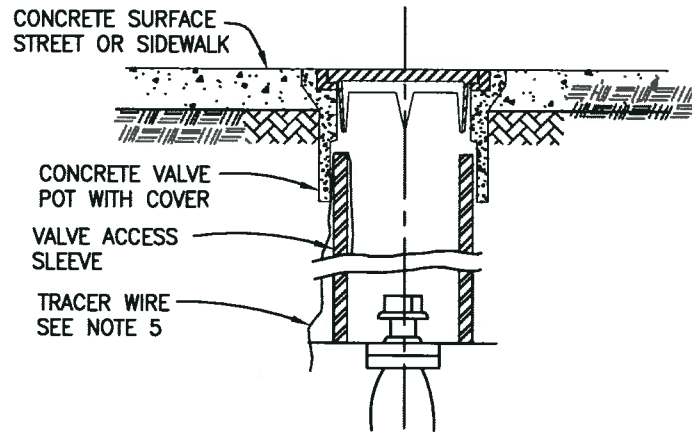
DATE: 6/1/11

Brian V. Brumstein

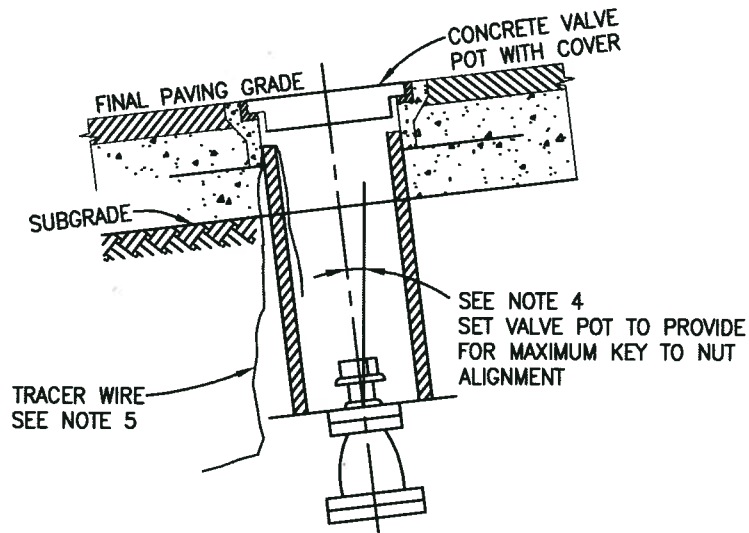
CITY ENGINEER

SHT 2 of 3

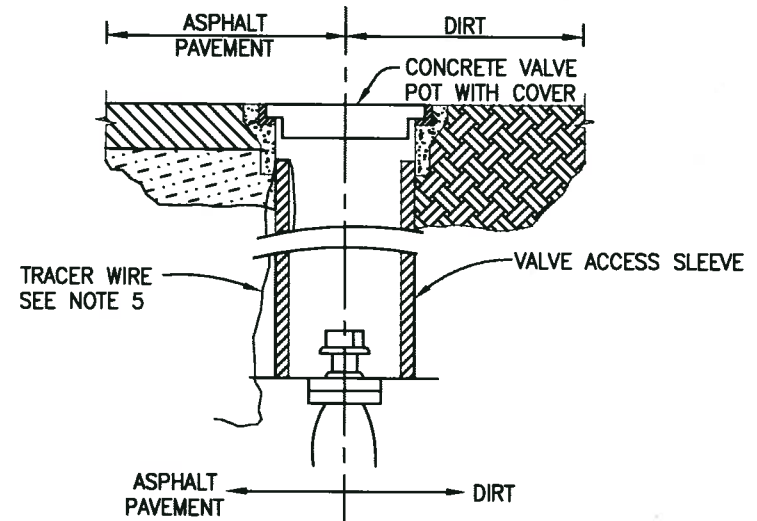
IN EXISTING CONCRETE PAVEMENT



IN SLOPING GRADES



IN EXISTING ASPHALT PAVEMENT OR DIRT



NOTES:

1. AGGREGATE BASE OR OTHER SUITABLE MATERIAL FOR COMPACTION.
2. USE REPAIR CLAMP OR 3 WRAPS OF 2" WIDE PIPE TAPE, OR EQUIVALENT, TO HOLD JOINT IN ALIGNMENT WHILE PLACING CONCRETE.
3. VALVE ACCESS SLEEVE IS 8.625" O.D. STEEL PIPE, MIN. WALL 10 GA., MAX. SCHEDULE 40 OR SCHEDULE 40 PVC PIPE.
4. TOP OF VALVE COVER TO FIT FLUSH WITH FINISH GRADE OF THE STREET OR RIGHT OF WAY.
5. NON-METALLIC MAINS REQUIRE TRACER WIRE TO BE EXTENDED INTO THE TOP OF THE VALVE POT, IN ACCORDANCE WITH E.B.M.U.D. SPECIFICATIONS.
6. ON STREET RESURFACING PROJECTS, INSTALL RISER RING(S), AS REQUIRED TO ALLOW GATE POT COVER TO CONFORM WITH ADJACENT SURFACES.



CITY OF SAN RAMON

DETAIL M-2c

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

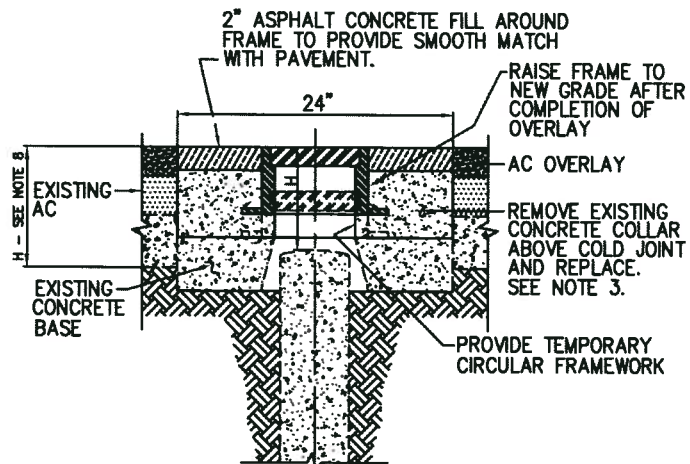
VALVE POT INSTALLATION

APPROVED BY:

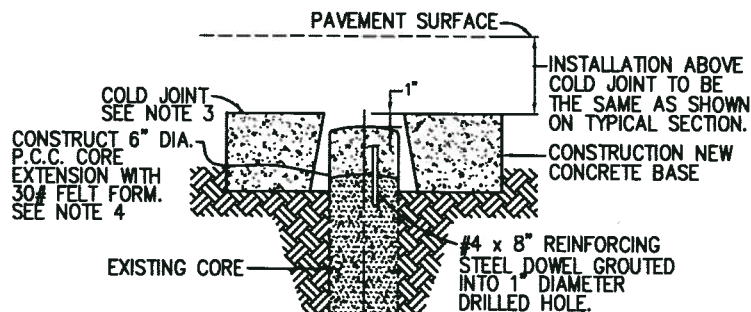
DATE: 6/1/11

Brian M. Bernstein
CITY ENGINEER

SHT 3 of 3



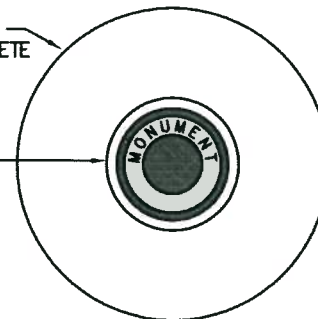
DETAIL "A"
FRAME ADJUSTMENT



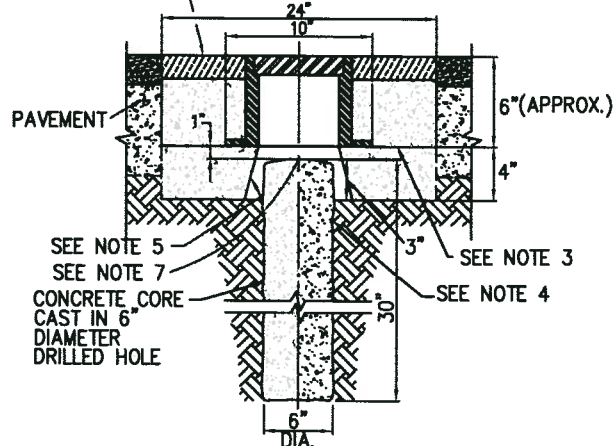
DETAIL "B"
CORE EXTENSION

24" DIAMETER PORTLAND CEMENT CONCRETE JACKET COVERED WITH 2" OF ASPHALT CONCRETE SEE NOTE 1.

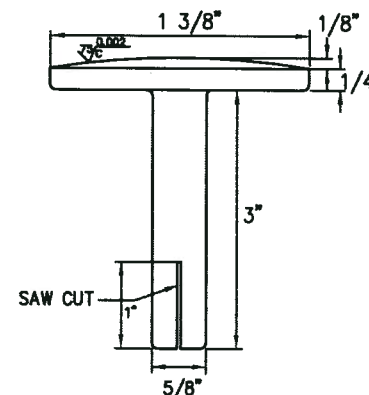
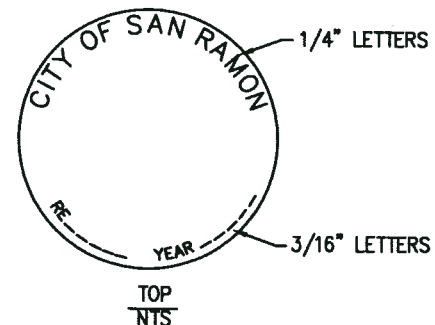
METAL COVER AND FRAME (SCHEMATIC ONLY)-SEE NOTE 2



2" ASPHALT CONCRETE FILL AROUND FRAME TO PROVIDE SMOOTH MATCH WITH PAVEMENT.



TYPICAL SECTION
ORIGINAL INSTALLATION



SECTION
MONUMENT DISK

NOTES:

1. PORTLAND CEMENT CONCRETE FOR JACKET AND CORE SHALL BE CLASS 1 PER CURRENT CALTRANS SPECIFICATIONS. ASPHALT CONCRETE SHALL BE TYPE B 1/2" MAX. - MED. GRADING.
2. APPROVED COVERS AND FRAMES ARE THOSE MANUFACTURED BY FORNI CORP. ("IRONSIDES"). AMERICAN BRASS AND IRON FOUNDRY, AND MONROE CASTING. OTHER TYPES MUST BE APPROVED BY THE CITY ENGINEER. COVERS SHALL BE MARKED "MONUMENT", SHALL BE NON-ROCKING, & DESIGNED FOR A 16,000 POUND WHEEL LOAD.
3. 30# FELT TO CREATE A "COLD JOINT".
4. 6" DIAMETER COLLAR FORMED WITH 30# FELT, 1" BELOW "COLD JOINT".
5. TAPERED METAL CONE OR 3/32" MINIMUM CHIPBOARD CONE.
6. SOLID BRASS MARKER (1 3/8" DIAMETER TOP AND 5/8" x 3" SHANK) WITH DISTINCTIVE PUNCH AND R.E. OR L.S. NUMBER.
7. ADJUSTMENT RINGS (NOT SHOWN) ARE AVAILABLE FOR BOTH TYPES OF FRAMES. MAXIMUM HEIGHT OF ADJUSTMENT BY RINGS: FOR FORNI FRAME, 3" FOR A.B. AND I. FRAME. WHEN REQUIRED ADJUSTMENT EXCEEDS ABOVE LIMITS, THE FRAME SHALL BE RAISED TO CONFORM TO THE NEW PAVEMENT SURFACE AS SHOWN IN DETAIL "A".
8. WHEN DIMENSION "H" FROM TOP OF FRAME TO TOP OF CONCRETE CORE (SEE DETAIL "A") EXCEEDS 12", THE CORE SHALL BE EXTENDED AS SHOWN IN DETAIL "B".
9. ALL LETTERING TO BE STAMPED 1/16" DEEP.
10. ALL FILLETS AND ROUNDS TO BE 1/16" RADIUS.



CITY OF SAN RAMON

DETAIL R-1

DRAWN BY: ELR

CHECKED BY: ENG'G., PS

DATE: 05/20/11

STANDARD DETAIL

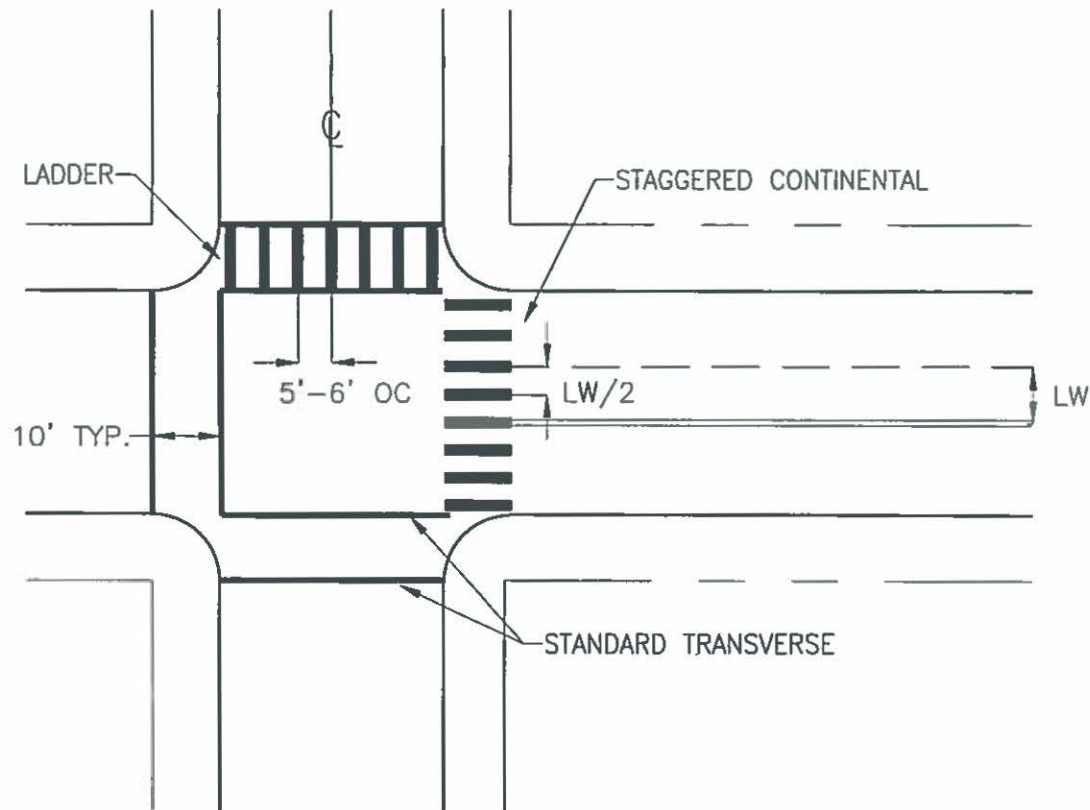
STREET SURVEY
MONUMENT

APPROVED BY:

DATE: 6/1/11

Brian A. Brantley
CITY ENGINEER

SHT 1 of 1



NOTES:

1. ALL CROSSWALKS SHALL BE WHITE EXCEPT DESIGNATED SCHOOL CROSSINGS, WHICH SHALL BE YELLOW.
2. TRANSVERSE LINES ARE 12" WIDE UNLESS OTHERWISE NOTED.
3. STAGGERED CONTINENTAL AND LADDER MARKINGS SHALL BE 24" WIDE UNLESS OTHERWISE NOTED.
4. STAGGERED CONTINENTAL AND LADDER MARKINGS SHOULD BE CENTERED TO THE LANE LINES, OFFSET 5' TO 6' OC TO AVOID WHEEL PATH AND SHALL BE RETROREFLECTIVE AND PARALLEL TO THE LANE.
5. ALL CROSSWALKS SHALL BE THERMOPLASTIC, NON-SKID AND RETROREFLECTIVE.
6. LW = LANE WIDTH
7. OC = ON CENTER



CITY OF SAN RAMON

DETAIL R-8

DRAWN BY: RR

CHECKED BY: DF

DATE: APRIL 2020

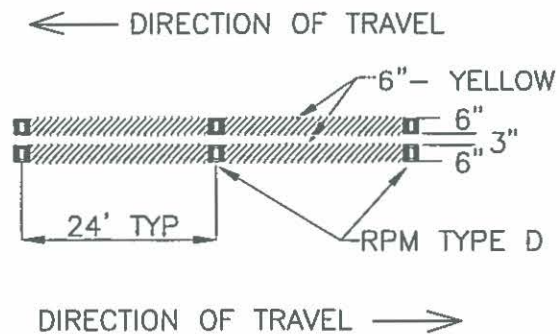
STANDARD DETAIL

CROSSWALK STRIPING

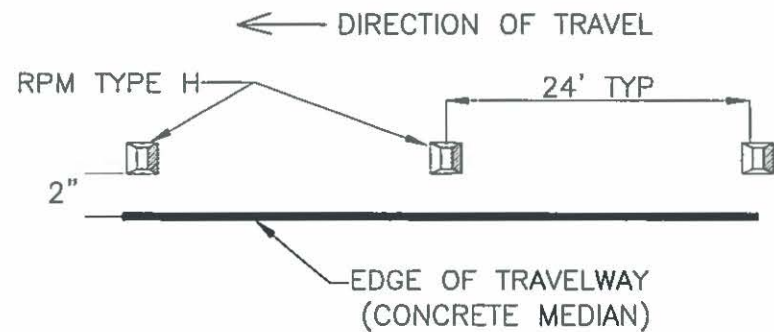
APPROVED BY: DATE: 12-2-21

Ben Bath
CITY ENGINEER

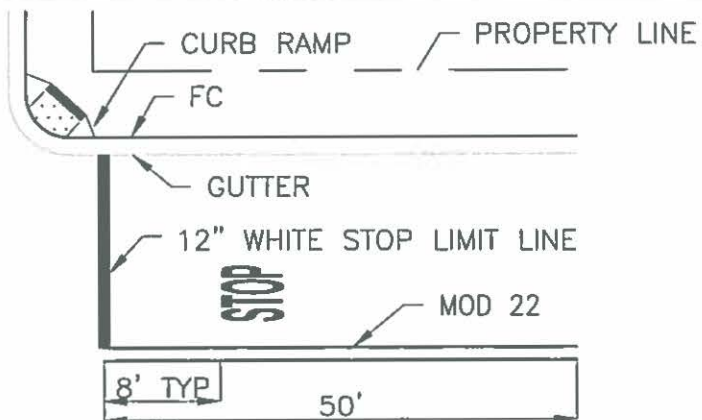
SHT 1 of 1



MODIFIED DETAIL 22
(MOD 22)



MODIFIED DETAIL 26
(MOD 26)



STOP LIMIT LINE SHALL NOT ENCROACH ONTO PRESUMED CROSSWALK.

STOP LIMIT LINE
PLACEMENT

NOTE:

SEE CALTRANS STANDARD PLANS A20-A24 FOR RAISED PAVEMENT MARKER (RPM) DETAILS.



CITY OF SAN RAMON

DETAIL R-9

DRAWN BY: RR

CHECKED BY: DF

DATE: APRIL 2020

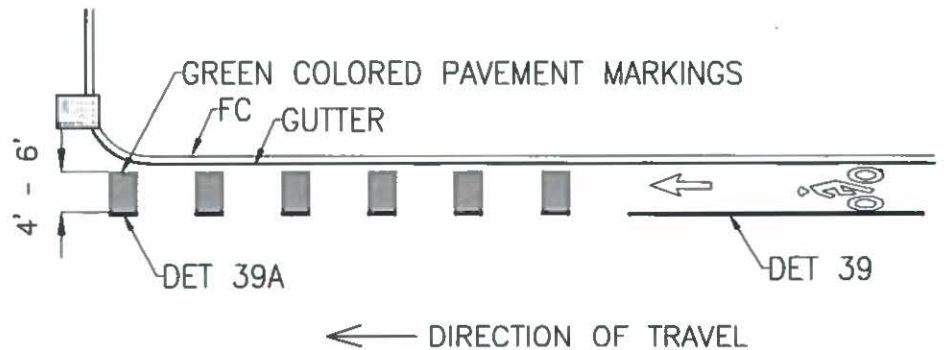
STANDARD DETAIL

TRAFFIC STRIPES

APPROVED BY: DATE: 12-2-21

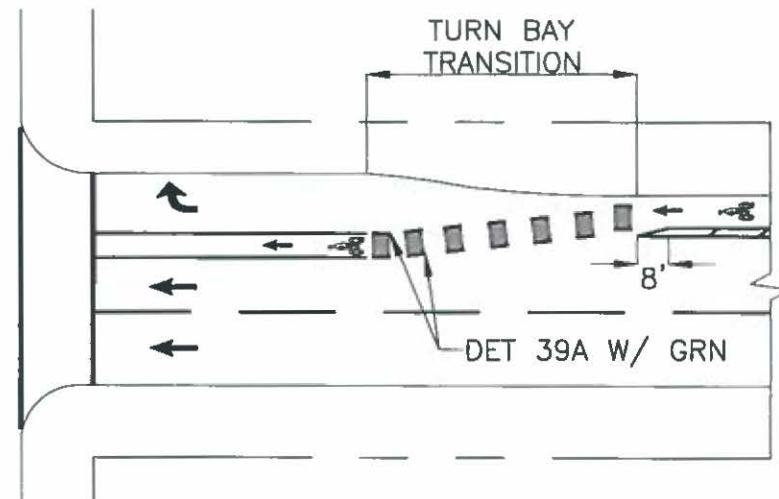
[Signature]
CITY ENGINEER

SHT 1 of 1

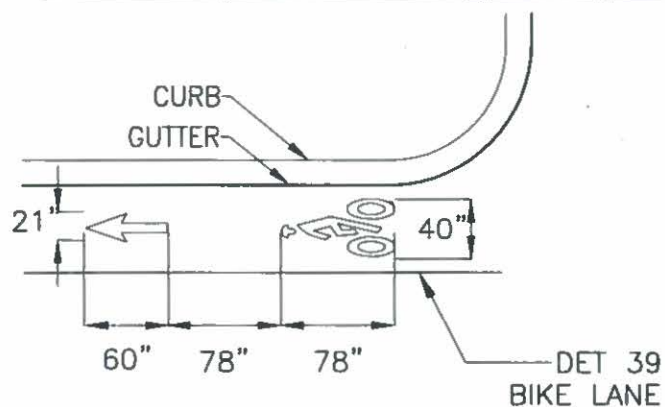


GREEN COLORED PAVEMENT MARKING SHALL BE NON-SKID, RETROREFLECTIVE, THERMOPLASTIC MATERIAL.

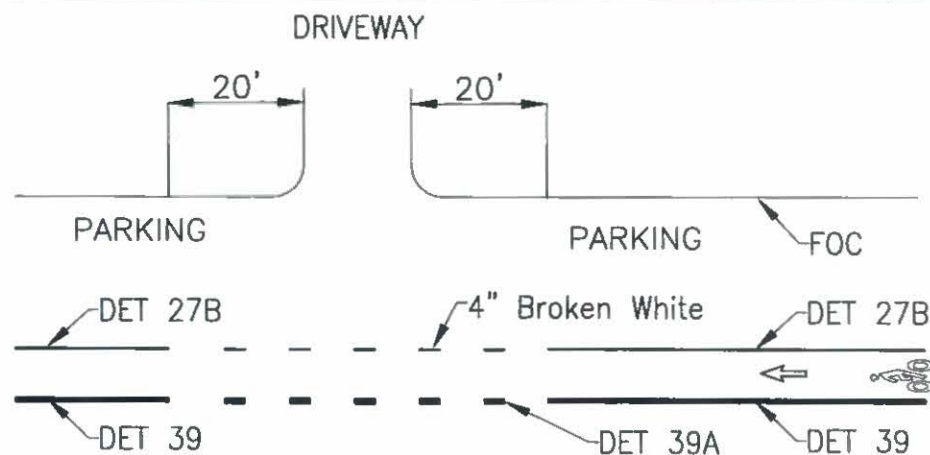
BIKE LANE CONFLICT ZONE
GREEN PAVEMENT MARKING



BIKE LANE APPROACHING
RIGHT TURN LANE



BIKE LANE
LOGO



BIKE LANE WITH PARKING
MAJOR DRIVEWAYS



CITY OF SAN RAMON

DETAIL R-10

DRAWN BY: RR

CHECKED BY: DF

DATE: APRIL 2020

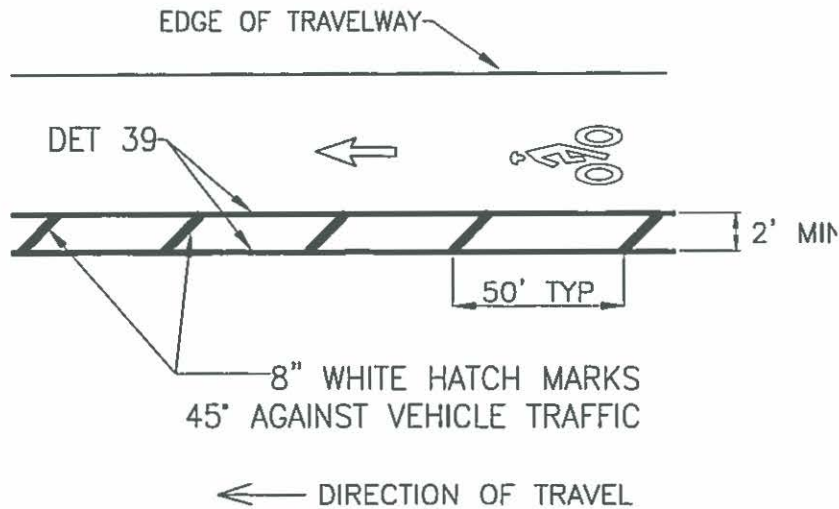
STANDARD DETAIL

BIKE LANE STRIPING

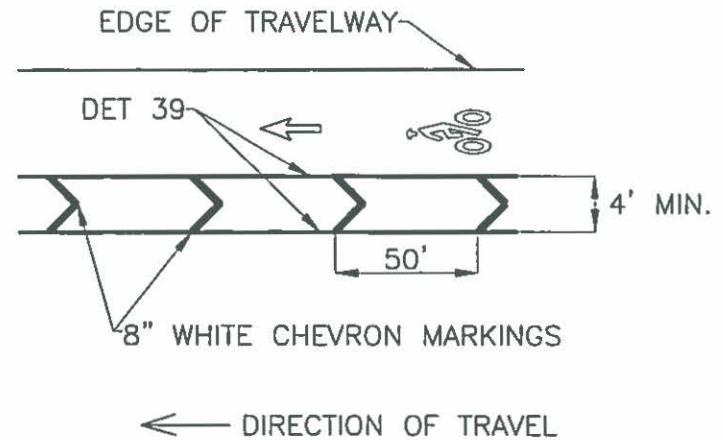
APPROVED BY: DATE: 12-2-21

R. R. B. T.
CITY ENGINEER

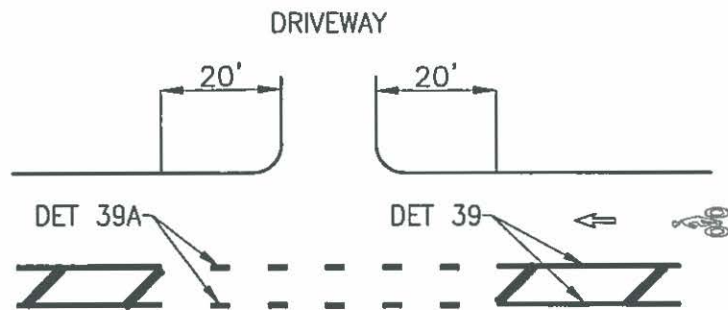
SHT 1 of 1



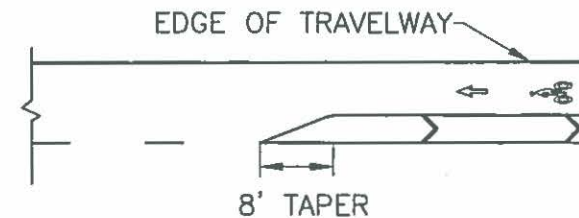
BIKE LANE
BUFFER < 4' WIDE



BIKE LANE
BUFFER ≥ 4' WIDE



BIKE LANE BUFFER
DRIVEWAY ≥ 24'



BIKE LANE
BUFFER TERMINUS



CITY OF SAN RAMON

DETAIL R-11

DRAWN BY: RR

CHECKED BY: DF

DATE: APRIL 2020

STANDARD DETAIL

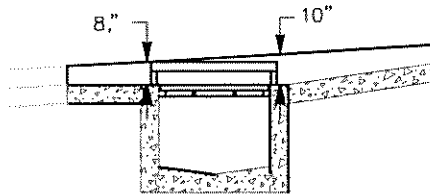
BUFFERED BIKE LANE
STRIPING DETAILS

APPROVED BY: DATE: 12-2-24

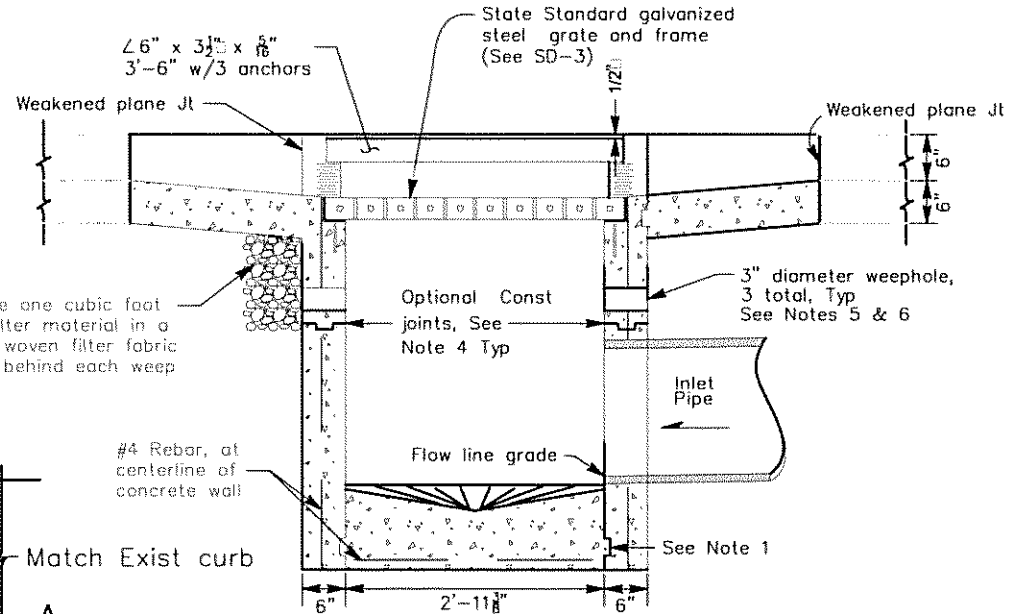
[Signature]
CITY ENGINEER

SHT 1 of 1

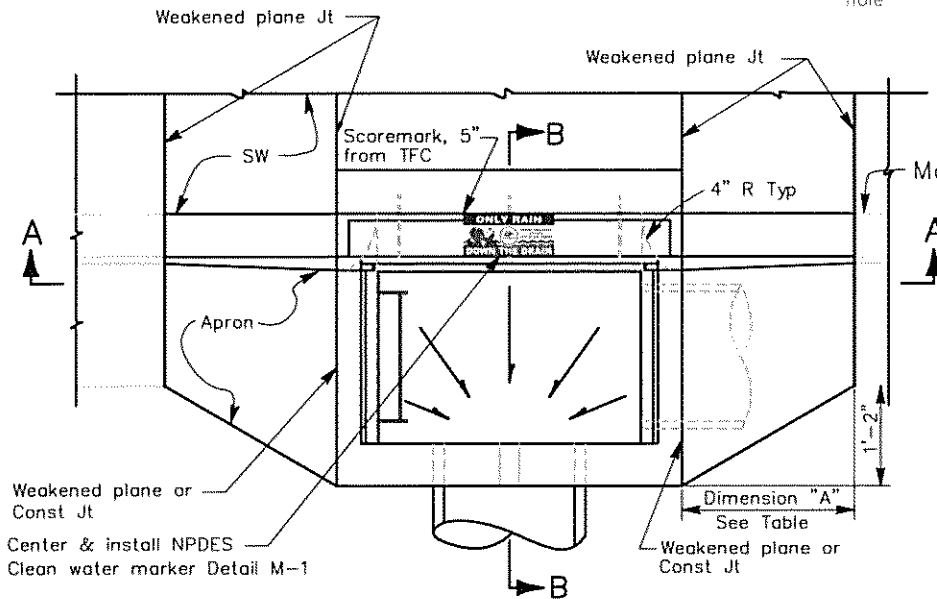
When curb grade upstream is 5% or greater depress upstream edge of grate to 10".



DETAIL FOR STEEP CURB SLOPE
N.T.S.



SECTION A-A
N.T.S.



PLAN
N.T.S.
GRATE NOT SHOWN

TABLE

DIMENSION "A" (in)

UPSTREAM CURB GRADE	"A" UPSTREAM	"A" DOWNSTREAM
2% and less	24	24
3%	36	24
4%	48	24
5%	60	24
6%	72	24
7%	84	12
8%	96	12
9%	108	12
10% and greater	120	12

See "DETAIL FOR STEEP CURB SLOPE"



CITY OF SAN RAMON

DETAIL SD-1a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

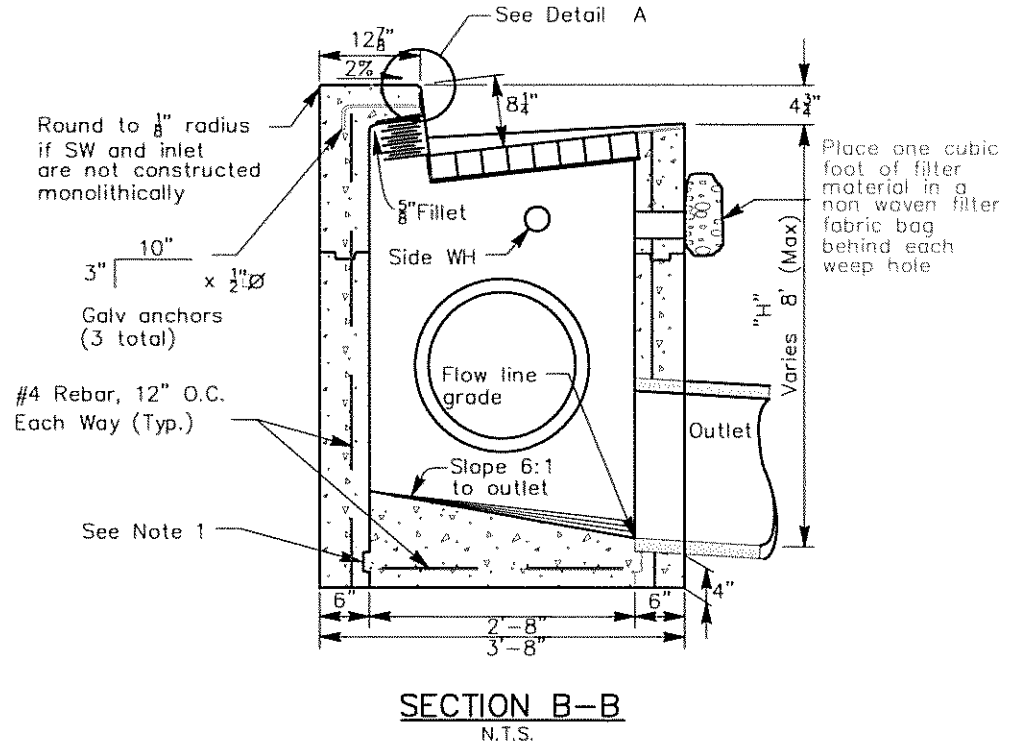
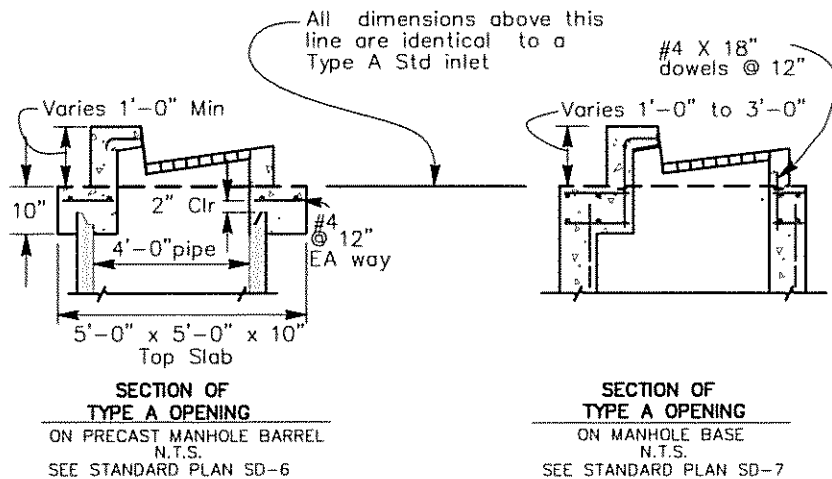
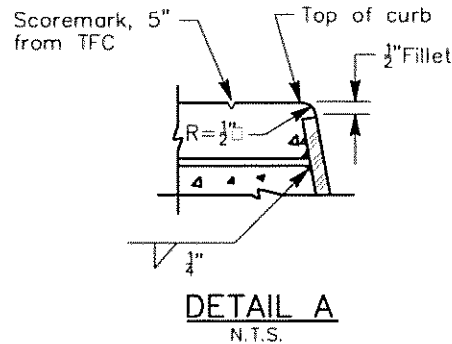
TYPE "A" INLET
CURB INLET

APPROVED BY:

DATE: 12/22/17

Barry R. Boudreau
CITY ENGINEER

SHT 1 of 2



NOTES:

- CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN; OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS - $\frac{3}{4}$ " x $2\frac{1}{2}$ ".
- WHEN DIMENSION "H" EXCEEDS 6', USE A MANHOLE WITH A TYPE "A" INLET OPENING ON TOP.
- INLET AND OUTLET PIPES SHALL NOT INTERCEPT A BOX THROUGH A CORNER. IF THE PIPE IS TOO LARGE OR THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, USE A MANHOLE BASE WITH A TYPE "A" INLET OPENING ON TOP.
- SEE CALTRANS STANDARD PLAN D77A FOR INLET FRAME AND CALTRANS STANDARD PLAN FOR D77B FOR TYPE 24-10S INLET GRATE.
- CONSTRUCTION JOINTS SHOWN ARE PERMITTED WHEN TOP PORTION OF INLET IS TO BE CONSTRUCTED MONOLITHICALLY WITH CURB AND SIDEWALK, IN WHICH CASE THE FOLLOWING SHALL APPLY:
 - CONCRETE ABOVE & BELOW CONSTRUCTION JOINT SHALL BE CSR 6 SACK CONCRETE MIX.
 - CONSTRUCTION JOINT SHALL BE LOCATED AT PAVEMENT SUBGRADE.
- WHEN INLET IS CONSTRUCTED AS A SINGLE UNIT, ALL CONCRETE SHALL BE CSR 6 SACK CONCRETE MIX.
- CLEARANCE SHALL BE $1\frac{1}{2}$ " FOR ALL REINFORCING STEEL.



CITY OF SAN RAMON

DETAIL SD-1b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: December 2017

STANDARD DETAIL

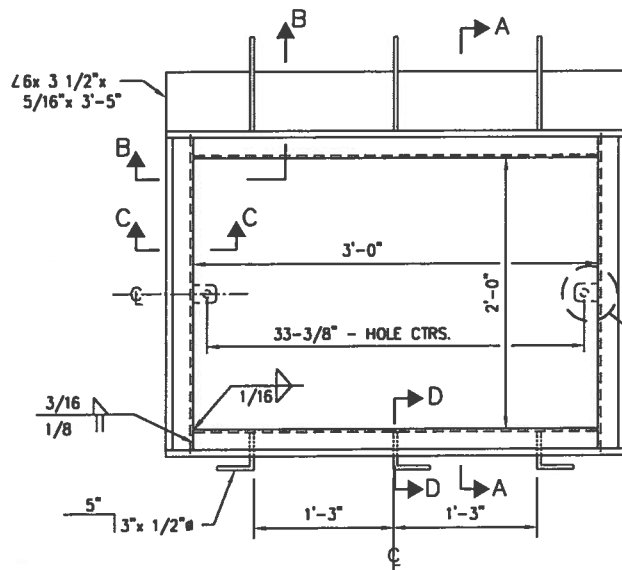
TYPE "A" INLET
CURB INLET

APPROVED BY:

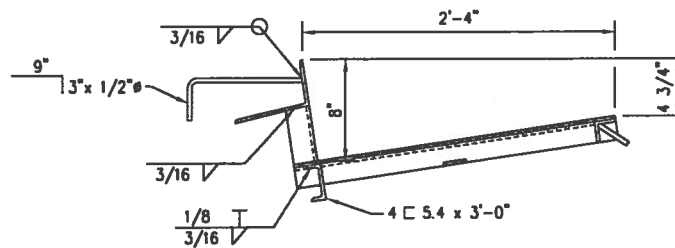
DATE: 12/22/17

Bin N. Boudin
CITY ENGINEER

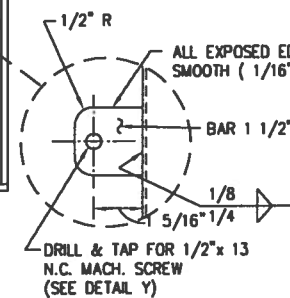
SHT 2 of 2



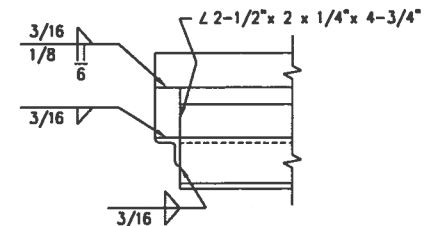
PLAN
N.T.S.



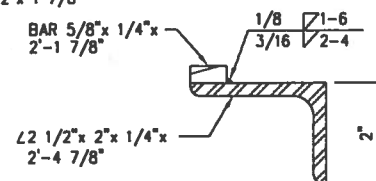
SECTION AA
N.T.S.



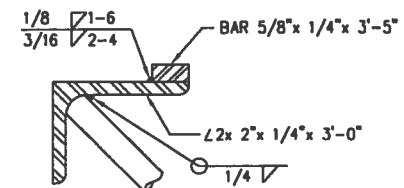
DETAIL Z
N.T.S.



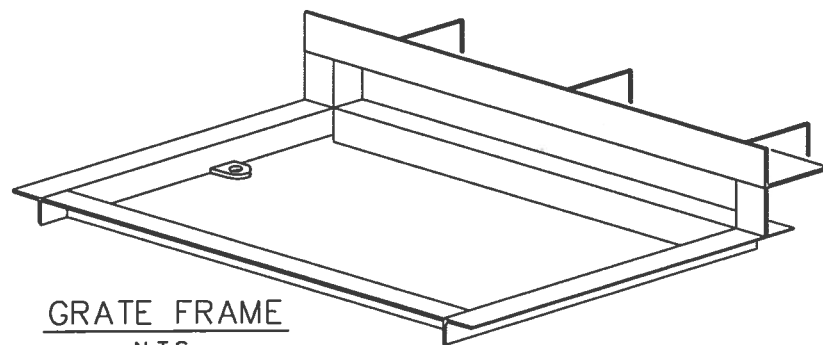
SECTION BB
N.T.S.



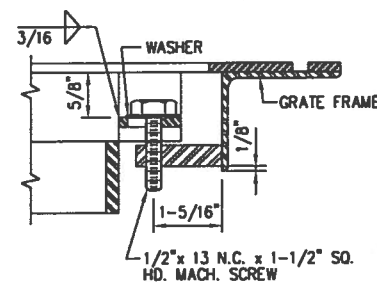
SECTION CC
N.T.S.



SECTION DD
N.T.S.



GRATE FRAME
N.T.S.



DETAIL Y
N.T.S.
GRATE FASTENING LUG
FOR INLET FRAME



CITY OF SAN RAMON

DETAIL SD-3a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: June 2016

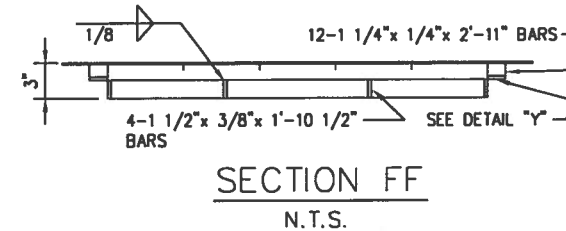
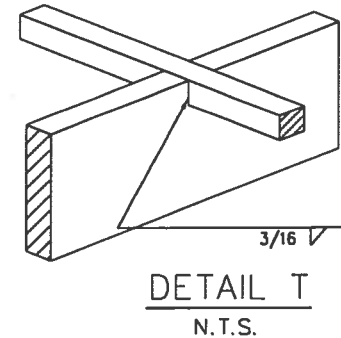
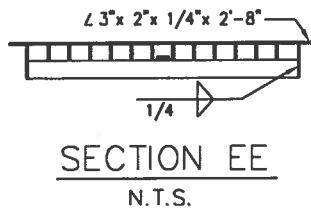
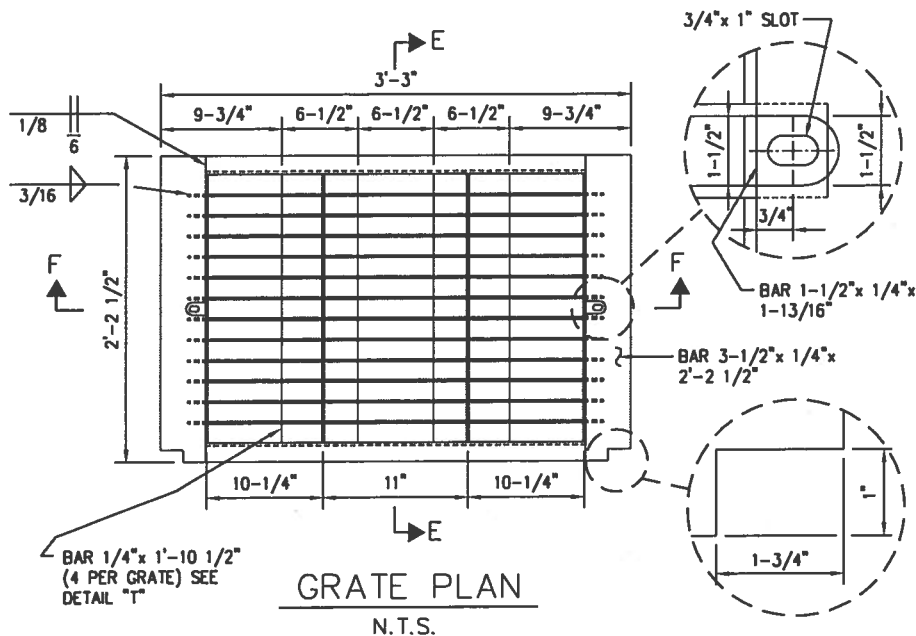
STANDARD DETAIL

CURB INLET
FRAME AND GRATE

APPROVED BY: DATE: 6-27-16

Chris R. Bonate
CITY ENGINEER

SHT 1 of 2



NOTES:

- ALL MATERIALS, FABRICATION, GALVANIZING, AND SURFACE TREATMENT SHALL BE IN ACCORDANCE WITH SECTIONS 75 AND 96 OF THE CURRENT ISSUE OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION.
- FRAMES AND COVERS SHALL FIT TOGETHER WITHOUT ROCKING.
- FABRICATOR SHALL SUPPLY FASTENING SCREWS WITH FRAMES.
- WEIGHTS: GRATE FRAME 88 lb., GRATE 94 lb.
- 1/2" x 5 1/4" NELSON-TYPE HEADED STUDS MAY BE USED IN LIEU OF 1/2" x 5" x 3" ANCHORS.
- IF THE GRATE IS IN THE BIKE LANE, A BIKE GRATE IS REQUIRED TO CURRENT CALTRANS STANDARD.
- OLD TYPE A, B AND C INLETS HAVE BEEN REPLACED WITH THE CURRENT TYPE A, B AND C INLETS RESPECTIVELY. THESE DETAILS ARE TO BE USED FOR REPAIR AND MAINTENANCE OF EXISTING INLETS, NO NEW CONSTRUCTION.



CITY OF SAN RAMON

DETAIL SD-3a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: June 2016

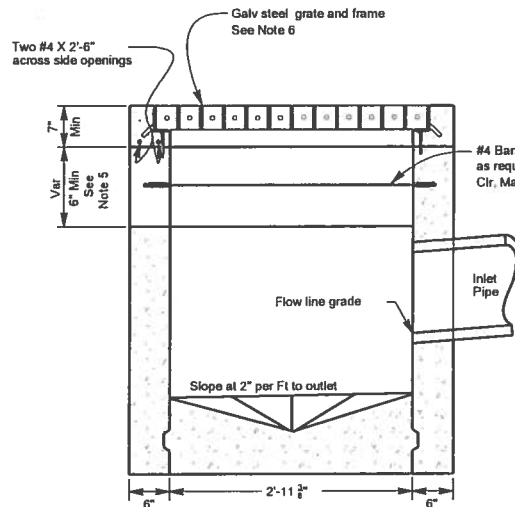
STANDARD DETAIL

CURB INLET
FRAME AND GRATE

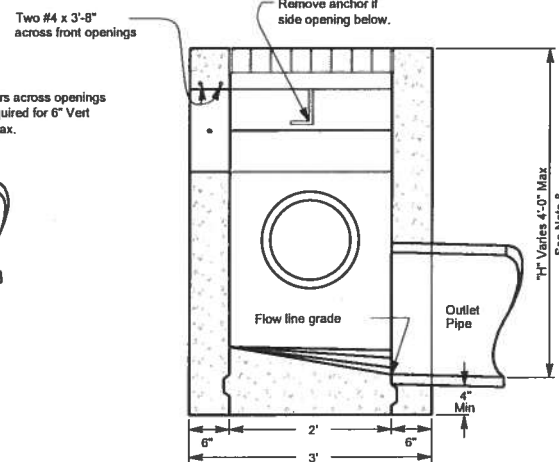
APPROVED BY: DATE: 6-27-16

Brian R. Bonaster
CITY ENGINEER

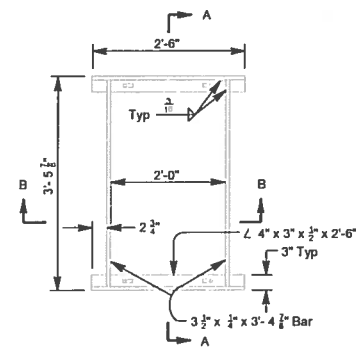
SHT 2 of 2



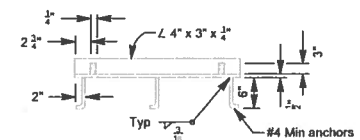
SECTION A-A
NTS



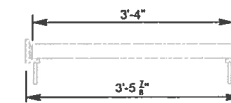
SECTION B-B
NTS



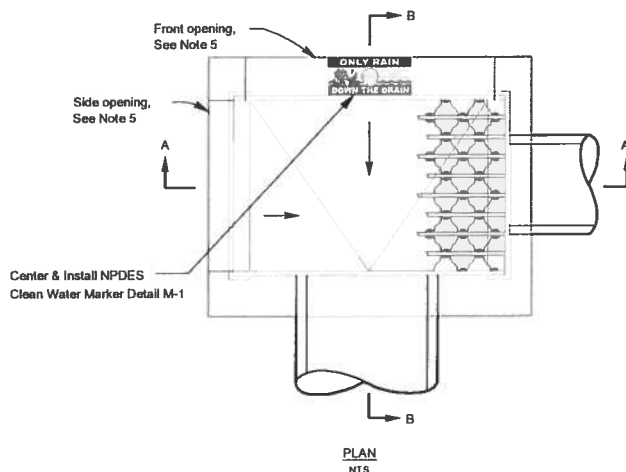
TYPE C INLET FRAME
NTS



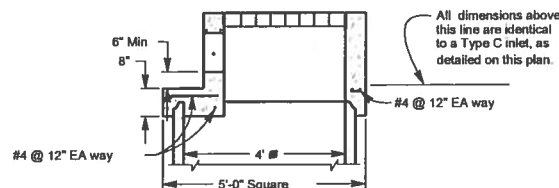
SECTION B-B
(Thru frame)
NTS



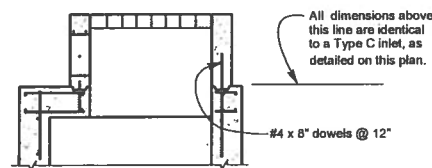
SECTION A-A
(Thru frame and grate)
NTS



PLAN
NTS



TYPE "C" OPENING ON PRECAST MANHOLE BARREL
NTS
REFER TO STANDARD PLAN SD-6



TYPE "C" OPENING ON MANHOLE BASE
NTS
REFER TO STANDARD PLAN SD-7a & SD-7b

NOTES:

1. See Detail SD 1b, 2b and 3b for Inlet General Drainage Notes.
2. Type C inlets shall not be used in pedestrian areas.
3. Construction joints are optional where shown. Other locations are subject to the approval of the Public Works Department. Key Dimensions are 2" x 2 1/2".
4. Min clearance shall be 2" for all reinforcing steel.
5. Location, flowline elevation and size of side openings to be as shown on plans, or as directed by the Public Works Department.
6. All inlets shall be constructed with Caltrans Type 24-10S grates, see Caltrans Standard Plan D77B, and Type C inlet frame shown on this plan.
7. No precast Type C inlets are allowed without prior approval of the Public Works Department.
8. Maximum depth for Type C inlet shall be 4'. For depths greater than 4' use a manhole base with a Type C top. The Type C inside wall with steps shall be flush with manhole base inside wall below.



CITY OF SAN RAMON

DETAIL SD-4

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: June 2016

STANDARD DETAIL

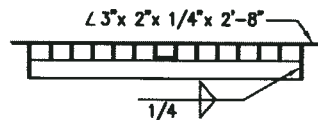
TYPE "C" INLET
(DROP INLET)

APPROVED BY:

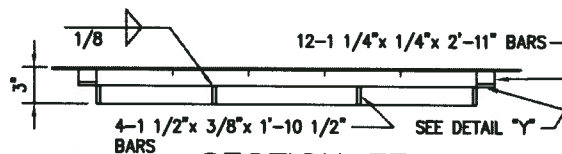
DATE: 6-27-16

Brian R. Bernstein
CITY ENGINEER

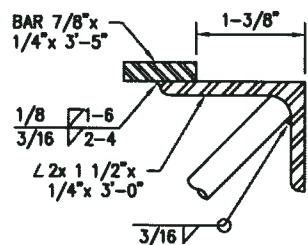
SHT 1 of 1



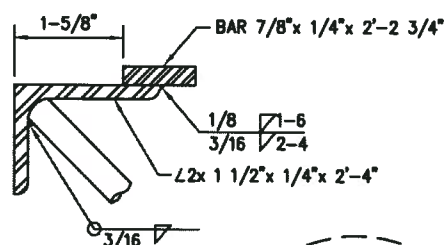
SECTION EE
N.T.S.



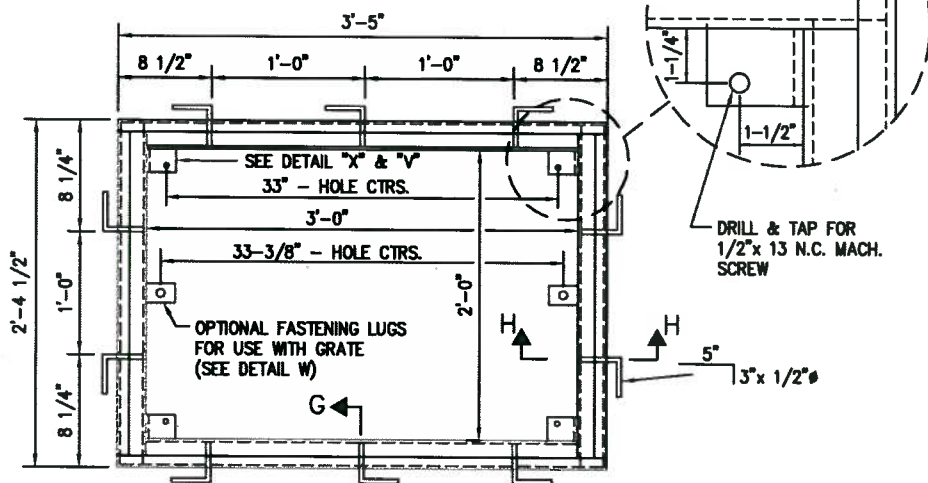
SECTION FF
N.T.S.



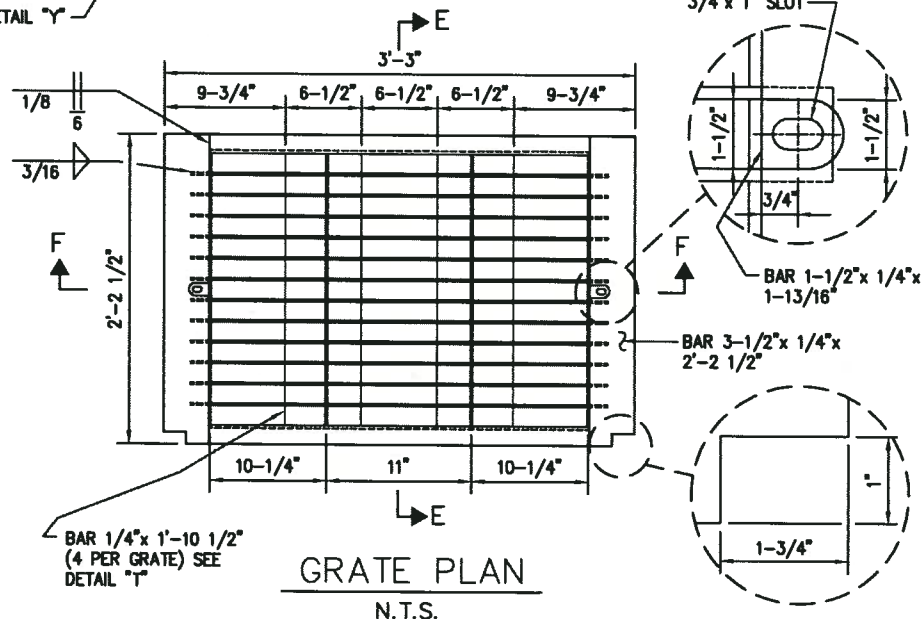
SECTION GG
N.T.S.



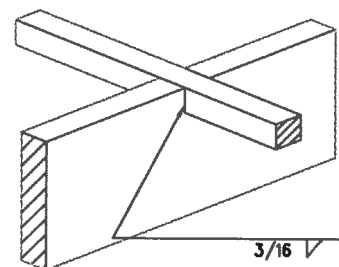
SECTION HH
N.T.S.



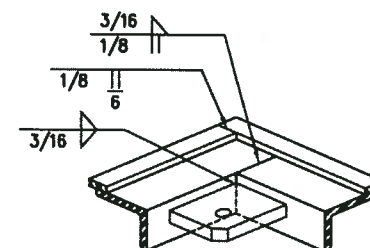
COVERPLATE FRAME
N.T.S.



GRATE PLAN
N.T.S.



DETAIL T
N.T.S.



DETAIL X
N.T.S.
ALSO SEE DETAIL V



CITY OF SAN RAMON

DETAIL SD-5a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

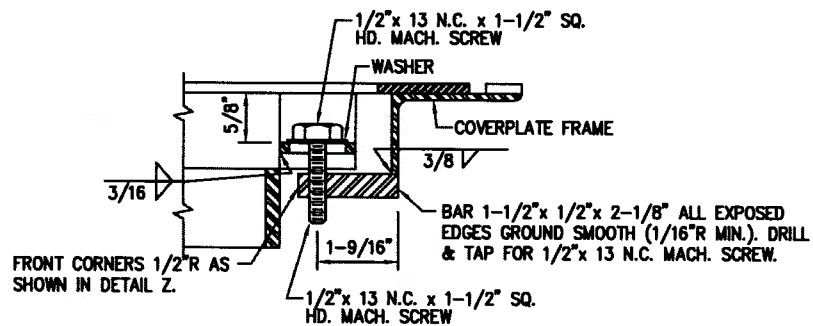
DROP INLET - FRAME &
GRATE & COVER PLATE

APPROVED BY:

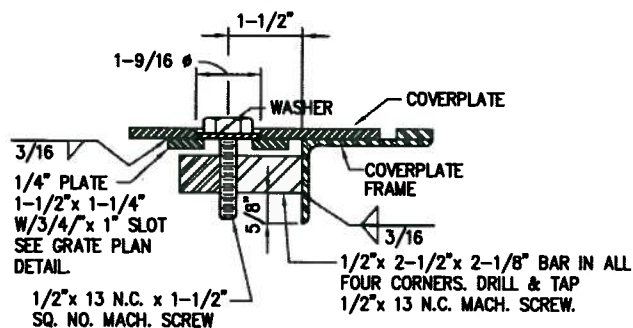
DATE: 6/1/11

Brian L. Bortman
CITY ENGINEER

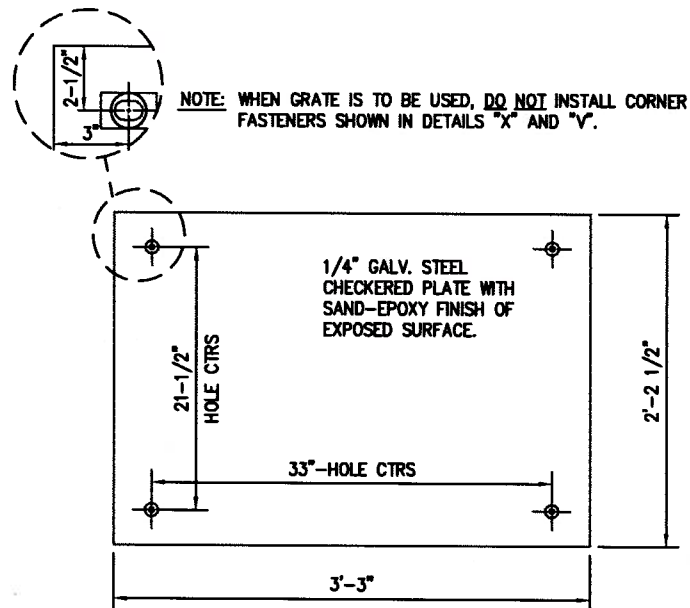
SHT 1 of 2



DETAIL W - GRATE FASTENING LUG
FOR COVERPLATE FRAME
N.T.S.



DETAIL V
N.T.S.
ALSO SEE DETAIL X
COVERPLATE
FASTENER



COVERPLATE
N.T.S.

COVERPLATE - SAND-EPOXY FINISH NOTES

1. SURFACE TO BE COATED SHALL BE SAND BLASTED THE MINIMUM REQUIRED TO OBTAIN A DULL GREY FINISH (SEE NOTE 1)
2. A 60 MIL. COAT OF BINDER (ADHESIVE), EPOXY RESIN BASE, AS PER SECTION 96-2.01 OF THE STANDARD SPECIFICATIONS SHALL BE APPLIED TO THE EXPOSED SURFACE OF THE COVER PLATE. BOLT HOLES SHALL NOT BE COATED. (SEE NOTE 1)
3. CLEAN, DRY, SILICA SAND SHALL BE APPLIED TO COMPLETELY COVER THE EPOXIED SURFACE.
4. THE SAND-EPOXY FINISH SHALL BE CURED FOR 6 HOURS AND EXCESS SAND SHALL BE REMOVED.

NOTES:

1. ALL MATERIALS, FABRICATION, GALVANIZING, AND SURFACE TREATMENT SHALL BE IN ACCORDANCE WITH SECTIONS 75 AND 96 OF THE CURRENT ISSUE OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA, BUSINESS AND TRANSPORTATION AGENCY, DEPARTMENT OF TRANSPORTATION.
2. FRAMES AND COVERS SHALL FIT TOGETHER WITHOUT ROCKING.
3. FABRICATOR SHALL SUPPLY FASTENING SCREWS WITH FRAMES.
4. WEIGHTS: GRATE FRAME 88 lb., GRATE 94lb., COVERPLATE FRAME 45lb., COVERPLATE 74 lb.
5. 1/2" x 5 1/4" NELSON-TYPE HEADED STUDS MAY BE USED IN LIEU OF 1/2" x 5" x 3" ANCHORS.



CITY OF SAN RAMON

DETAIL SD-5b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 05/20/11

STANDARD DETAIL

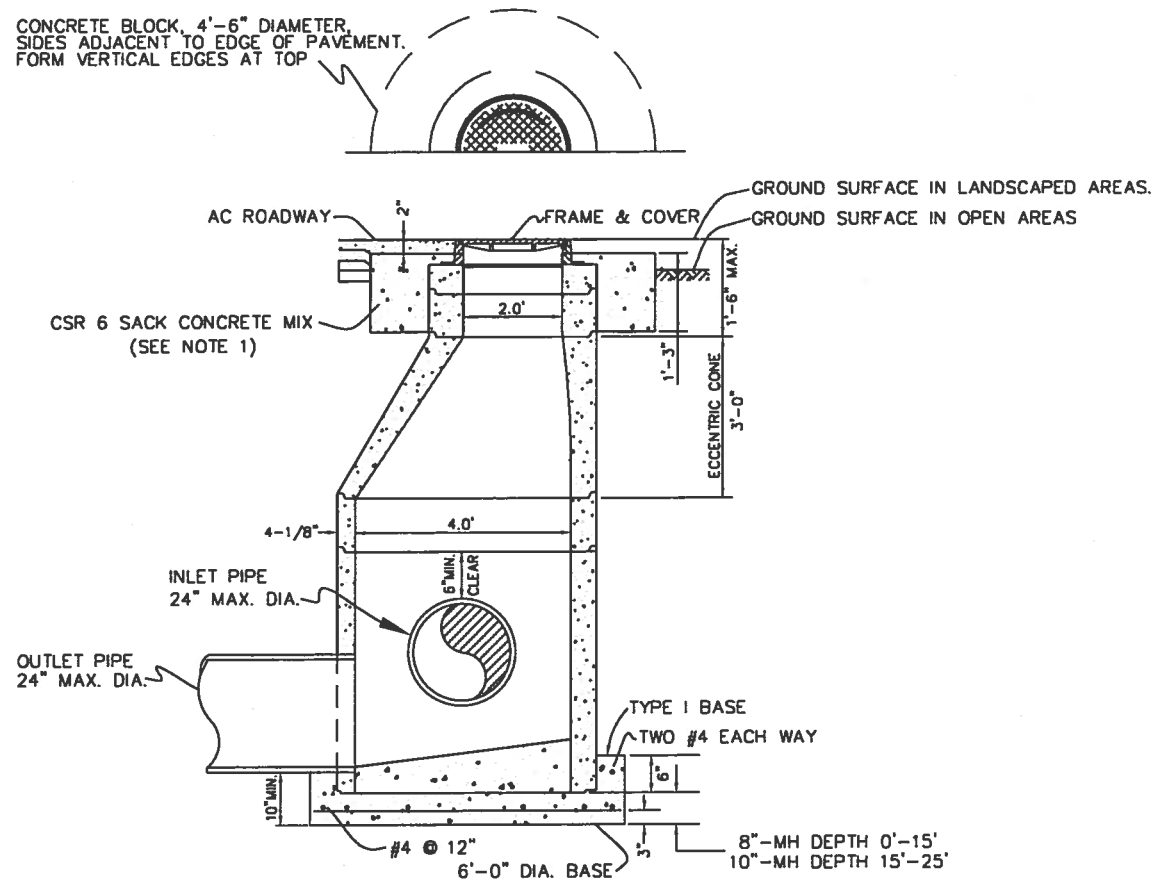
DROP INLET - FRAME,
GRATE AND COVER PLATE

APPROVED BY:

DATE: 6/1/11

David R. Bernstein
CITY ENGINEER

SHT 2 of 2



1. ALL REINFORCED CONCRETE SHALL BE CSR 6 SACK CONCRETE MIX.
2. ALL CONCRETE JOINTS SHALL BE CLEANED, WETTED, AND MORTARED PRIOR TO SETTING NEXT SECTION. JOINTS SHALL THEN BE PATCHED, TROWELED, AND BRUSHED SMOOTH.
3. TYPE "I" MANHOLE BASES ARE FOR USE WITH PIPES TO 24" IN DIAMETER AND WHERE THERE IS SUFFICIENT COVER TO USE MINIMUM LENGTH MANHOLE BARREL, ECCENTRIC CONE, AND COVER FRAME. TYPE "II" MANHOLE BASES (SD-7) ARE FOR USE WITH PIPES TO 42" IN DIAMETER. TYPE "III" MANHOLE BASES (SD-8) ARE FOR USE WITH PIPES TO 60" IN DIAMETER. MANHOLE BASES FOR PIPES LARGER THAN 60" IN DIAMETER SHALL

4. USE OF THE EXTENSION RINGS IS LIMITED TO 18" MANHOLE THROAT LENGTH.
5. FRAME AND EXTENSION RINGS MUST BE SECURED BY CONCRETE RING.
6. MANHOLE COVER FRAME SHALL BE ADJUSTED TO CONFORM TO GRADE AND CROSS-SLOPE OF PAVEMENT.
7. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD DETAIL SD-9.
8. FOR MANHOLES EXCEEDING 25 FOOT DEPTH, STRUCTURAL CALCULATIONS ARE REQUIRED.



DETAIL SD-6

CHECKED BY: ENGINEERING

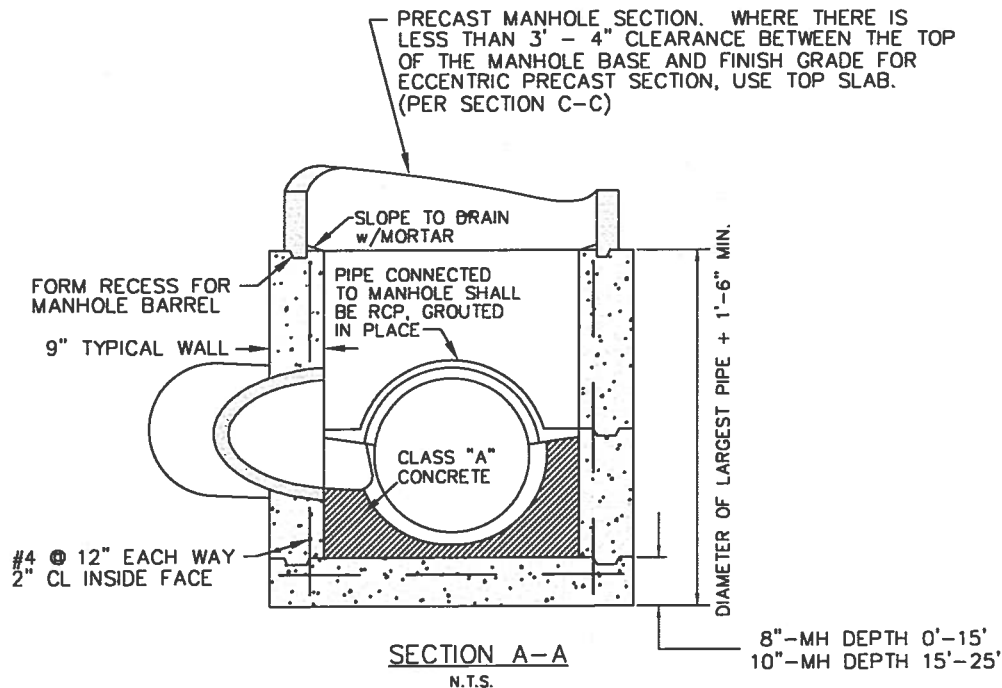
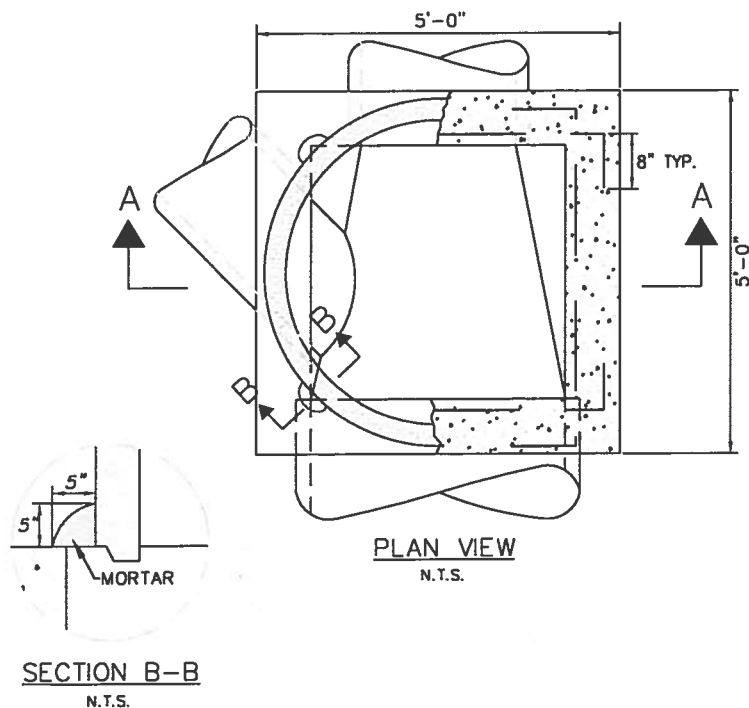
DATE: June 2016

STANDARD DETAIL

PRECAST MANHOLE AND
TYPE I BASE

Brian R Borastieri
CITY ENGINEER

SHT 1 of 1



NOTES:

1. ALL REINFORCED CONCRETE SHALL BE CSR 6 SACK CONCRETE MIX.
2. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN; OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS ARE 1 1/2"x 3 1/2".
3. INLET AND OUTLET PIPES SHALL NOT INTERCEPT A MANHOLE BASE THROUGH A CORNER. IF THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, USE A TYPE "III" MANHOLE BASE. (SEE SD-8)
4. TYPE "I" MANHOLE BASES (SD-6) ARE FOR USE WITH PIPES TO 24" IN DIAMETER AND WHERE THERE IS SUFFICIENT COVER TO USE A MINIMUM LENGTH MANHOLE BARREL,

ECCENTRIC CONE, AND COVER FRAME. TYPE "II" MANHOLE BASES (SD-7) ARE FOR PIPES TO 42" DIAMETER. TYPE "III" MANHOLE BASES (SD-8) ARE FOR USE WITH PIPES TO 60" IN DIAMETER. MANHOLE BASES FOR PIPES LARGER THAN 60" IN DIAMETER SHALL REQUIRE A SPECIAL DESIGN.

5. FOR DETAILS OF PRECAST MANHOLE, SEE STANDARD DETAIL SD-6.
6. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD DETAIL SD-9.
7. FOR MANHOLES EXCEEDING 25 FOOT DEPTH, STRUCTURAL CALCULATIONS ARE REQUIRED.



CITY OF SAN RAMON

DETAIL SD-7a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: June 2016

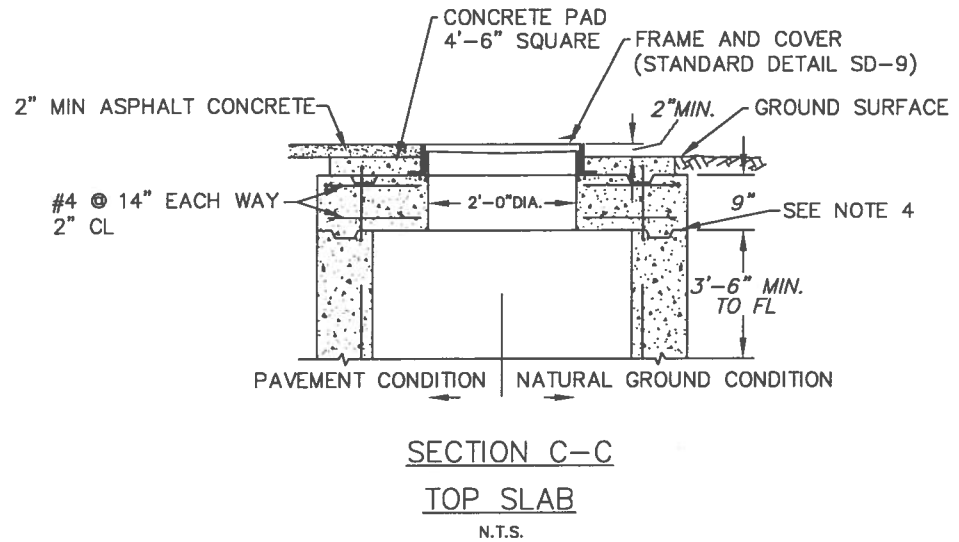
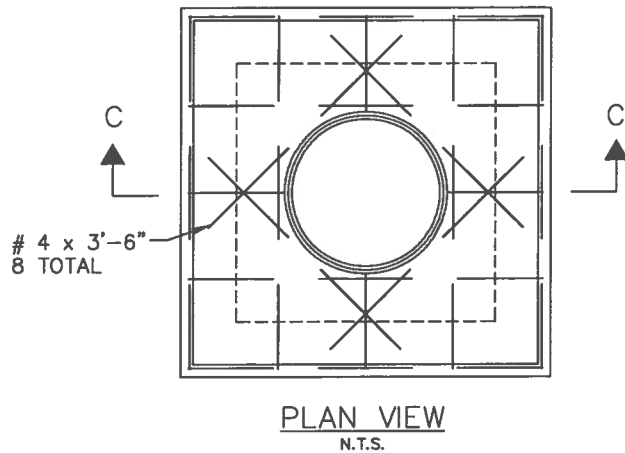
STANDARD DETAIL

TYPE II
MANHOLE BASE

APPROVED BY: DATE: 6-27-16

Brian R. Bernstein
CITY ENGINEER

SHT 1 of 2



NOTES:

1. USE WHERE THERE IS LESS THAN 3' - 4" CLEARANCE BETWEEN THE TOP OF THE MANHOLE BASE AND FINISH GRADE FOR A PRECAST SECTION AND MANHOLE COVER FRAME. ALL REINFORCED CONCRETE SHALL BE CLASS "A".
2. WHEN PLACING A TYPE "A" OR TYPE "C" INLET OPENING ON A TYPE "II" MANHOLE BASE, THE OPENING IN THE SLAB SHALL CONFORM TO THE INSIDE DIMENSIONS OF THE INLET TO BE USED.
3. ALL REINFORCED CONCRETE SHALL BE CSR 6 SACK CONCRETE MIX.
4. KEY DIMENSIONS ARE 1 1/2"x 3 1/2".
5. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD DETAIL SD-9.



CITY OF SAN RAMON

DETAIL SD-7b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

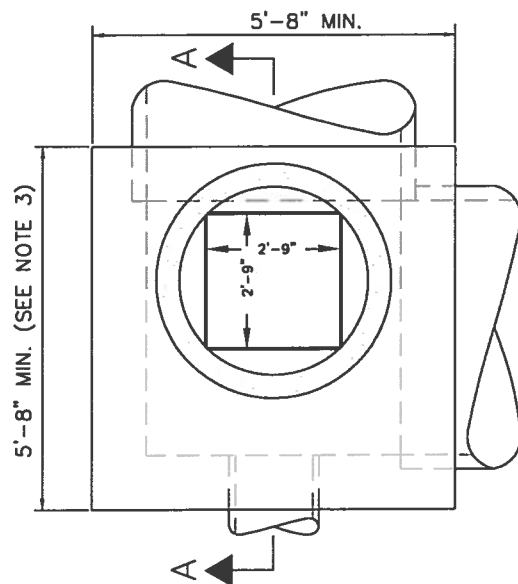
DATE: 12/17/15

STANDARD DETAIL

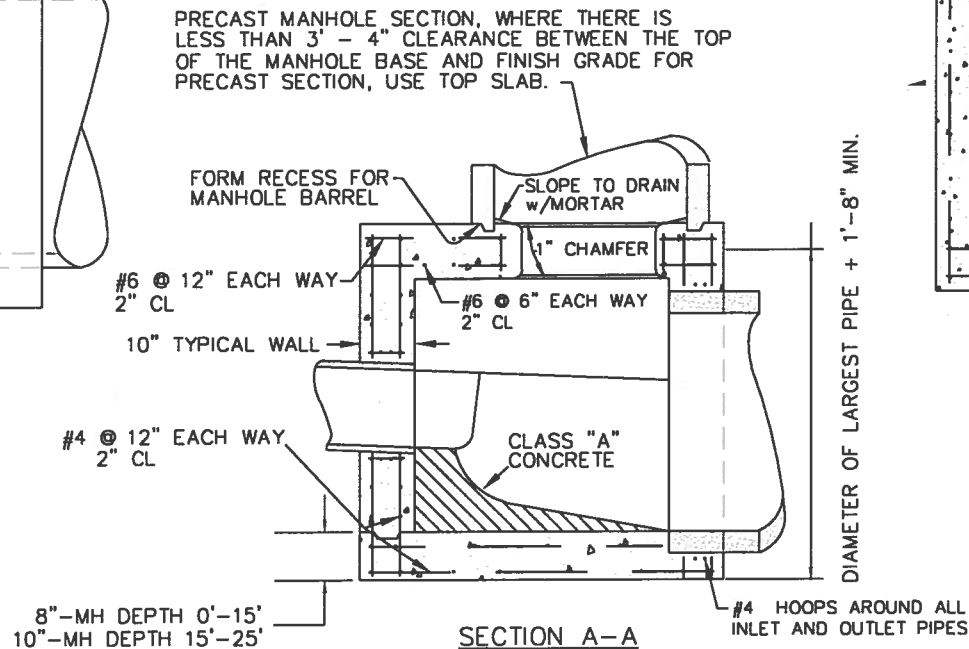
TYPE II
MANHOLE BASE

APPROVED BY: DATE: 1/25/16
Brian R. Bernstein
CITY ENGINEER

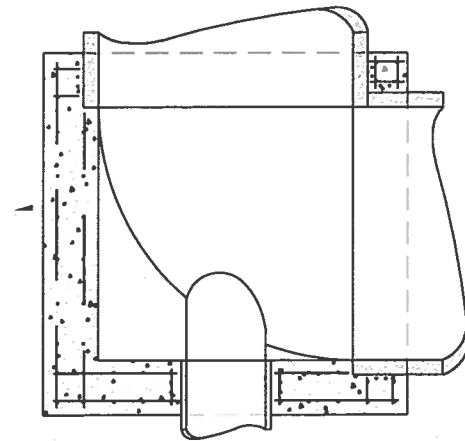
SHT 2 of 2



PLAN VIEW
N.T.S.



SECTION A-A
N.T.S.



PLAN SECTION
N.T.S.

NOTES:

- ALL REINFORCED CONCRETE SHALL BE CSR 6 SACK CONCRETE MIX.
- CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN; OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS ARE 1 1/2"x 3 1/2".
- INLET AND OUTLET PIPES SHALL NOT INTERCEPT A MANHOLE BASE THROUGH A CORNER. IF THE SKEW ANGLE IS TOO GREAT TO PERMIT THE OPENING TO BE MADE IN A SINGLE WALL, THE WALL MAY BE LENGTHENED OR RELOCATED AS EXPLAINED ON SHEET 2 OF 2.
- TYPE "I" MANHOLE BASES (SD-6) ARE FOR USE WITH PIPES TO 24" IN DIAMETER AND WHERE THERE IS SUFFICIENT COVER TO USE A MINIMUM LENGTH MANHOLE BARREL,
- ECCENTRIC CONE, AND COVER FRAME. TYPE "II" MANHOLE BASES (SD-7) ARE FOR PIPES TO 42" DIAMETER. TYPE "III" MANHOLE BASES (SD-8) ARE FOR USE WITH PIPES TO 60" IN DIAMETER. MANHOLE BASES FOR PIPES LARGER THAN 60" IN DIAMETER SHALL REQUIRE A SPECIAL DESIGN.
- FOR DETAILS OF PRECAST MANHOLE, SEE STANDARD DETAIL SD-6.
- FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD DETAIL SD-9.
- FOR MANHOLES EXCEEDING 25 FOOT DEPTH, STRUCTURAL CALCULATIONS ARE REQUIRED.



CITY OF SAN RAMON

DETAIL SD-8a

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: June 2016

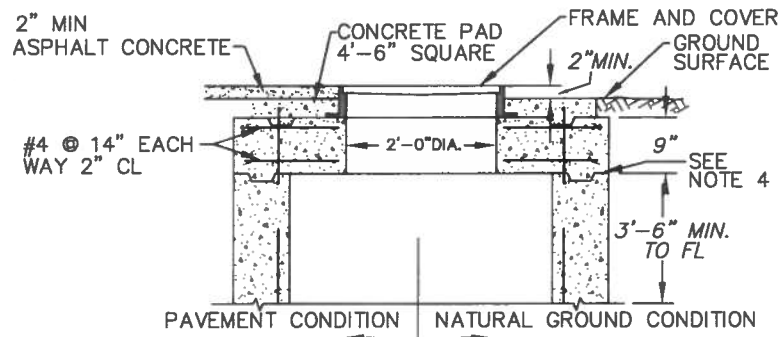
STANDARD DETAIL

TYPE III
MANHOLE BASE

APPROVED BY: DATE: 6-27-16

Brian R. Bonstetter
CITY ENGINEER

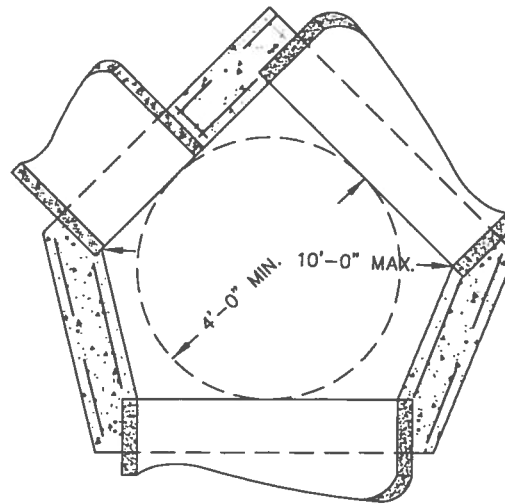
SHT 1 of 2



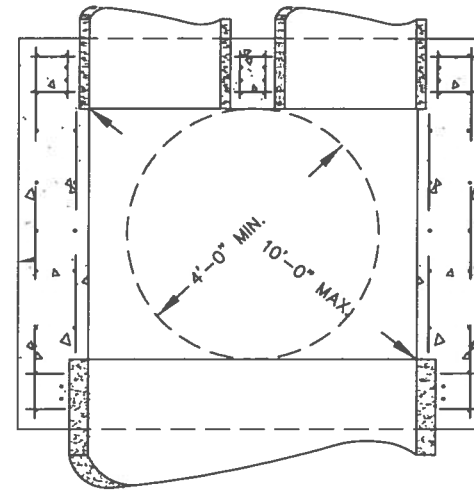
TOP SLAB
N.T.S.

TOP SLAB NOTES:

1. USE A TOP SLAB WHERE THERE IS LESS THAN 3' - 4" CLEARANCE BETWEEN THE TOP OF THE MANHOLE BASE AND FINISH GRADE FOR A PRECAST SECTION AND MANHOLE COVER FRAME.
2. ALSO USE A TOP SLAB WHEN PLACING A TYPE "A" OR TYPE "C" INLET OPENING ON A TYPE "III" MANHOLE BASE. THE OPENING IN THE SLAB SHALL CONFORM TO THE INSIDE DIMENSIONS OF THE INLET TO BE USED.
3. ALL REINFORCED CONCRETE SHALL BE CSR 6 SACK CONCRETE MIX.
4. CONSTRUCTION JOINTS ARE OPTIONAL WHERE SHOWN. OTHER LOCATIONS ARE SUBJECT TO THE APPROVAL OF THE ENGINEER. KEY DIMENSIONS ARE 1 1/2" x 3 1/2".
5. FOR DETAILS OF MANHOLE FRAME AND COVER, SEE STANDARD DETAIL SD-9.



PLAN SECTION
N.T.S.



PLAN SECTION
N.T.S.

SPECIAL APPLICATIONS OF TYPE "III" MANHOLE BASES

NOTE:

WHEN UNUSUAL CIRCUMSTANCES, SUCH AS EXCESSIVE SKEW OR PARALLEL PIPES PREVENT THE USE OF A NORMAL TYPE "III" MANHOLE BASE, THE WALLS MAY BE LENGTHENED OR RELOCATED TO ACCOMMODATE THE PIPES, PROVIDING THE FOLLOWING CRITERIA ARE MET:

1. THE INSIDE DIMENSIONS OF THE BASE SHALL BE SUCH THAT A FOUR FOOT DIAMETER CIRCLE WILL LAY FLAT ON THE FLOOR, AS SHOWN.
2. THE MAXIMUM DISTANCE BETWEEN ANY TWO INSIDE CORNERS SHALL BE 10'-0", AS SHOWN
3. REINFORCEMENT AND FLOOR, WALL, AND TOP THICKNESS SHALL REMAIN THE SAME AS FOR A NORMAL TYPE "III" MANHOLE BASE.
4. NO PIPE SHALL EXCEED 60" INSIDE DIAMETER.

IF ANY ONE OF THESE CRITERIA CANNOT BE MET, A SPECIAL DESIGN WILL BE REQUIRED.



CITY OF SAN RAMON

DETAIL SD-8b

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 12/17/15

STANDARD DETAIL

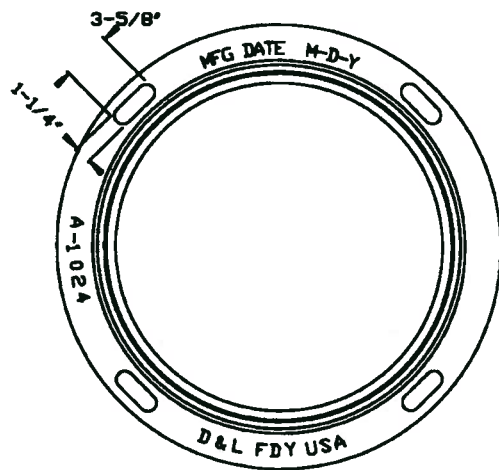
TYPE III
MANHOLE BASE

APPROVED BY:

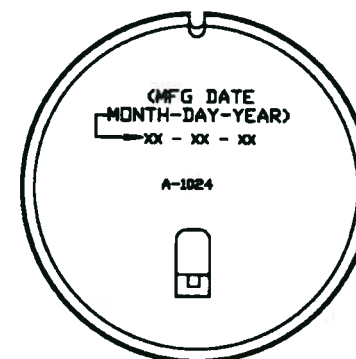
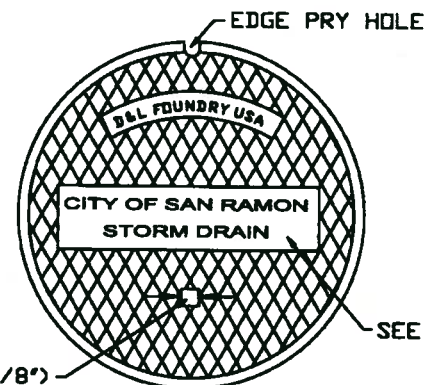
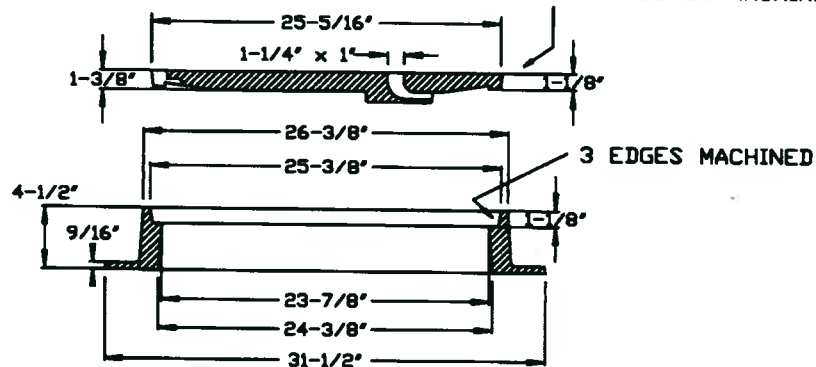
DATE: 1/25/16

Brian R. Banstein
CITY ENGINEER

SHT 2 of 2



SIDE AND BOTTOM EDGES MACHINED



NOTES:

1. ALL MANHOLE COVER CONTACT AND BEARING SURFACES SHALL BE MACHINED TO FIT ACCURATELY SO THAT COVERS WILL NOT ROCK.
2. MANHOLE FRAME AND COVER SHALL BE D&L FOUNDRY MODEL A-1040 OR APPROVED EQUIVALENT.
3. PRIVATE STORM DRAINS MUST BE NOTED AS SUCH.



CITY OF SAN RAMON

DETAIL SD-9

DRAWN BY: ELR

CHECKED BY: ENGINEERING

DATE: 12/29/08

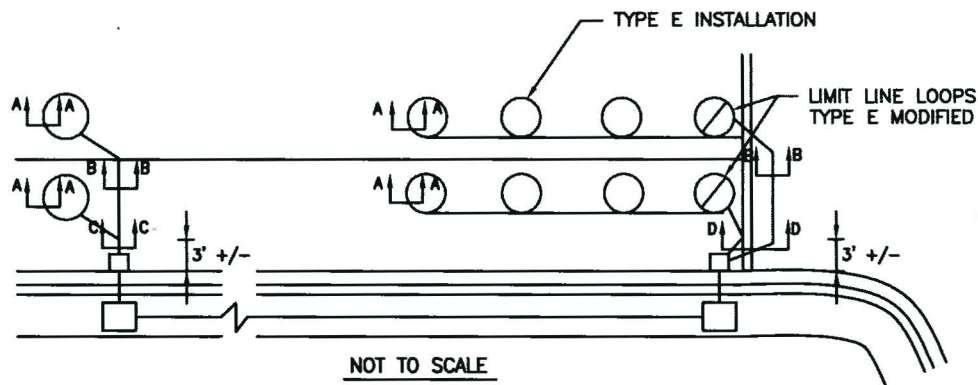
STANDARD DETAIL

STORM MANHOLE FRAME & COVER

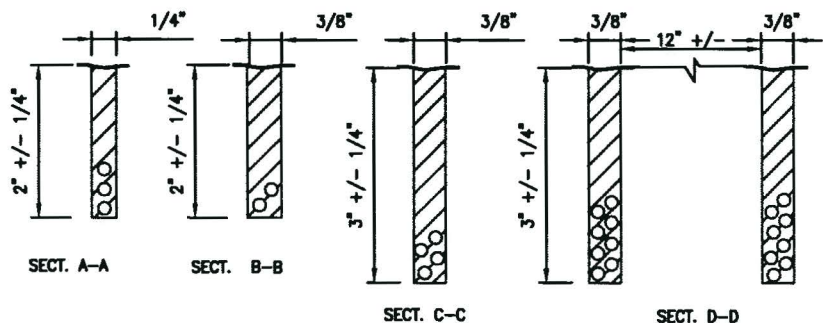
APPROVED BY: DATE: 6/15/09

Jose M. Hernandez
CITY ENGINEER

SHT 1 of 1



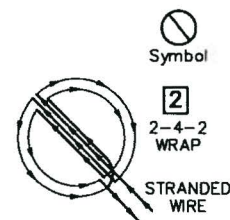
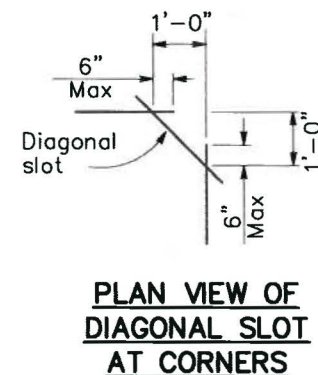
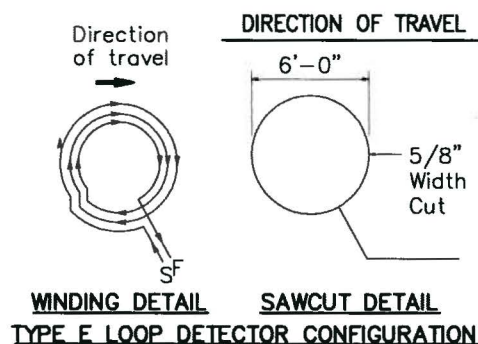
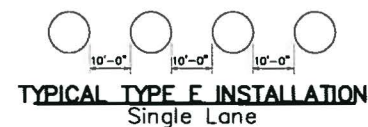
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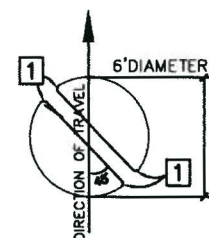
NOT TO SCALE

NOTES

1. THE TEMPERATURE OF THE LOOP SEALANT MATERIAL DURING INSTALLATION SHALL BE ABOVE 70° F. AIR TEMPERATURE DURING INSTALLATION SHALL BE ABOVE 50° F WITH NO FORECAST OF RAIN FOR AT LEAST 24 HOURS.
2. LOOP SEALANT SHALL BE FLUSH WITH PAVEMENT SURFACE.
3. MINIMUM CONDUCTOR COVERAGE SHALL BE 1-INCH.
4. LOOP SEALANT WILL NOT BE CUT OR DILUTED WITH WATER OR SOLVENT.
5. THE DEPTH OF THE HOME RUN CUT SHALL BE GRADUALLY INCREASED TO 3" AT LEAST 3' FROM LIP OF GUTTER.
6. 12" SPACING SHALL BE MAINTAINED BETWEEN ALL HOME RUN CUTS EXCEPT AT HAND HOLE.
7. AT NO TIME IS THE LOOP WIRE TO BE INSERTED INTO THE SAW CUT WITH A SHARP EDGE TOOL.
8. ALL SAWCUTS ARE TO BE BLOWN OUT WITH COMPRESSED AIR PRIOR TO RECEIVING WIRE.
9. USE TYPE E MODIFIED LOOPS AT THE LIMIT LINE.



WINDING DETAIL



SAWCUT DETAIL

TYPE E MODIFIED LOOP DETECTOR CONFIGURATION

1. ROUND CORNERS OF ACUTE ANGLES TO PREVENT DAMAGE TO CONDUCTORS.
2. INSTALL 2-4-2 TURNS WHEN ONE TYPE PHASE LOOP IS IN SERIES WITH AN ADDITIONAL CIRCULAR LOOP ON A SENSOR UNIT CHANNEL.

NOT TO SCALE



CITY OF SAN RAMON

DETAIL T-5a

DRAWN BY: ELR

CHECKED BY: MT, DF

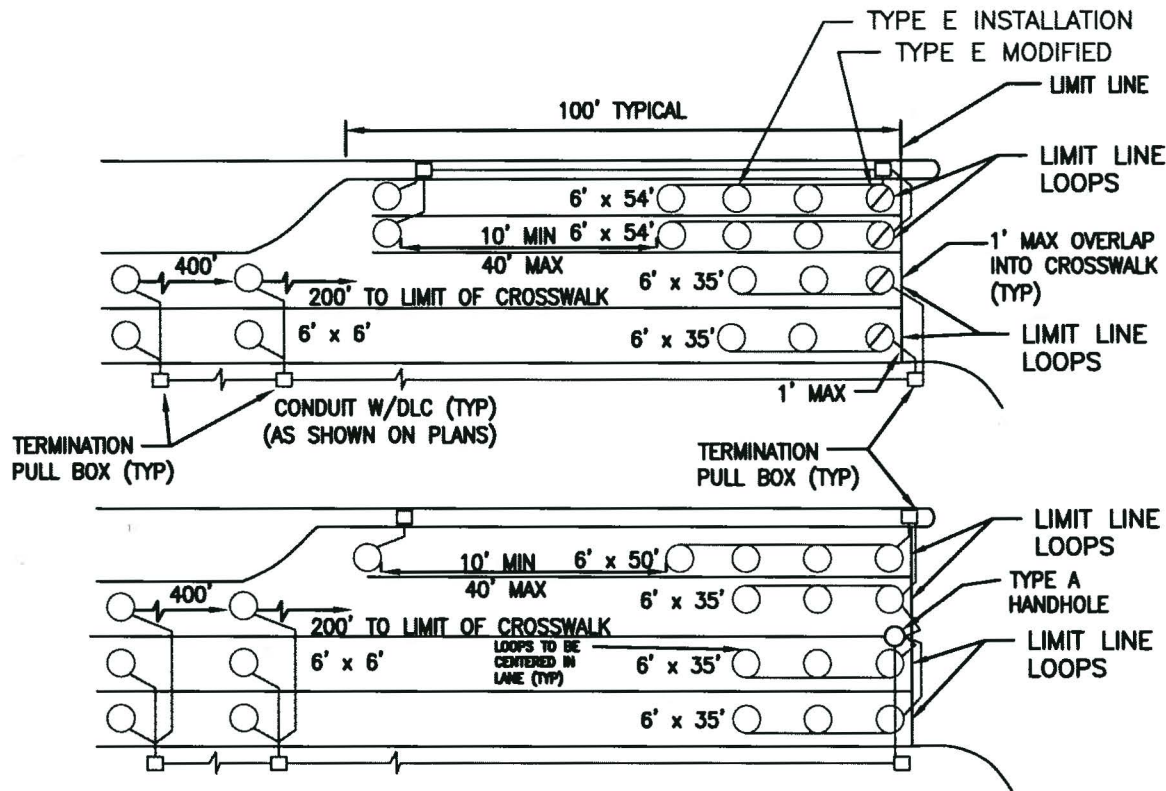
DATE: 05/20/11

STANDARD DETAIL

TRAFFIC SIGNAL DETECTOR LOOPS

APPROVED BY: DATE: 6/1/11
Brian R. Bonetelli
 CITY ENGINEER

SHT 1 of 2



ALL LOOP WIRES HOME RUNS TO BE TWISTED, (MIN. 2 TWIST/FT)
AND INDIVIDUALLY TERMINATED IN TERMINATION PULL BOX. ALL
LOOP WIRES TO BE SPLICED TO DLC CABLE IN TERMINATION PULL
BOX. USE TYPE I DLC CABLE.
LIMIT LINE = STOP BAR OR CROSSWALK STRIPE

LOOP LAYOUT DETAIL N.T.S.



CITY OF SAN RAMON

DETAIL T-5b

DRAWN BY: ELR

CHECKED BY: MT

DATE: 05/20/11

STANDARD DETAIL

TRAFFIC SIGNAL DETECTOR LOOPS

APPROVED BY: DATE: 6/1/11
Brian A. Borenstein
CITY ENGINEER

SHT 2 of 2

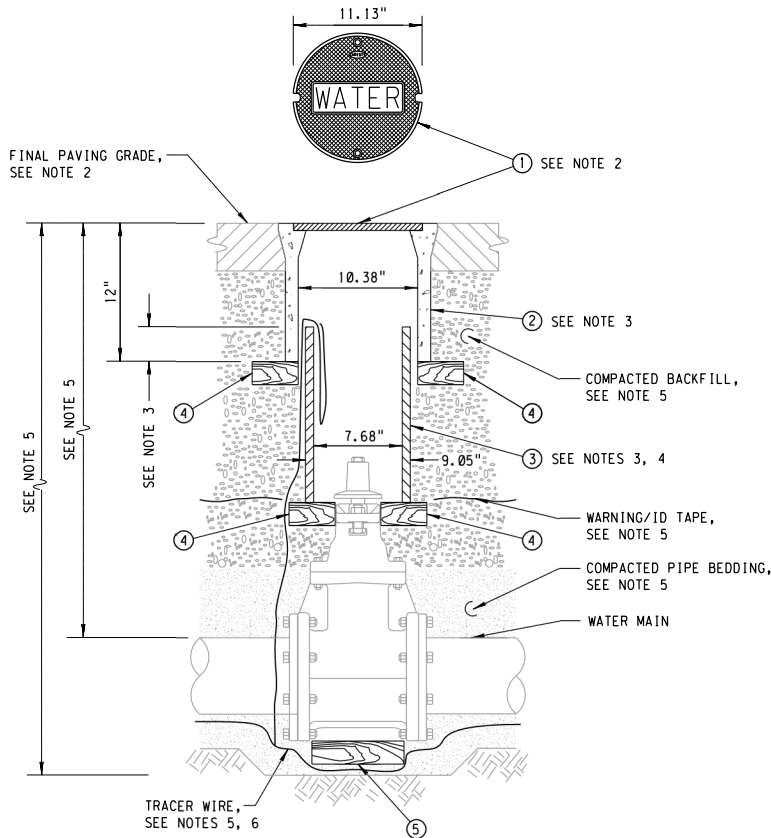
Attachment D

EAST BAY MUNICIPAL UTILITY DISTRICT STANDARD DETAILS

**CENTRAL CONTRA COSTA SANITARY DISTRICT STANDARD
DETAILS**

DUBLIN SAN RAMON SERVICES DISTRICT STANDARD DETAILS

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MATERIAL LIST		
ITEM	DESCRIPTION	QUANTITIES
①	CI COVER, CHRISTY G05	1
②	CONCRETE TRAFFIC VALVE BOX, CHRISTY G05	1
③	8" RISER PIPE, AWWA C900 DR-14 PVC PIPE	AS NEEDED
④	REDWOOD BLOCKING 2"x4"x12"	4
⑤	REDWOOD BLOCKING 2"x8"x12"	1

NOTES

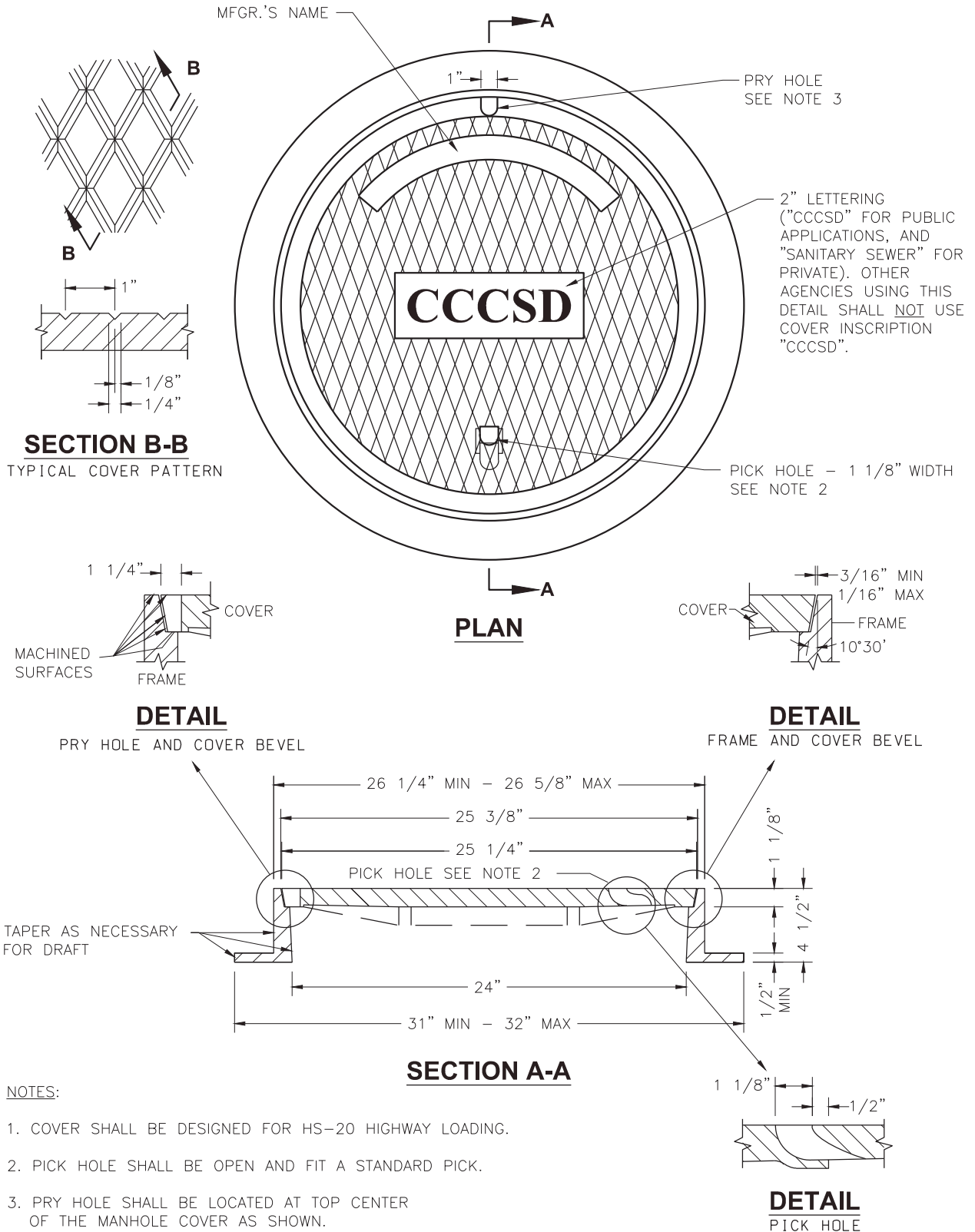
1. VALVE POT INSTALLATION INCLUDES CI COVER, CONCRETE TRAFFIC VALVE BOX, RISER PIPE AND REDWOOD BLOCKINGS, SEE MATERIAL LIST.
2. TOP OF VALVE POT COVER TO FIT FLUSH WITH SURFACE OF PAVEMENT OR FINISHED GRADE IF UNPAVED.
3. PLACE CONCRETE VALVE POT BOX WITH OVERLAP BETWEEN 2 INCHES MINIMUM AND 4 INCHES MAXIMUM WITH RISER PIPE.
4. PREVENT CONCRETE AND DEBRIS FROM SPILLING INTO RISER PIPE.
5. FOR PIPE TRENCH EXCAVATION AND BACKFILL SEE STD DWG 1992-EA AND SPEC SECTION 31 23 33P.
6. FOR TRACER WIRE AND GATE VALVE LINE INSTALLATION SEE STD DWGS 288-EA AND 288-EA-1.
7. INSTALL GATE VALVE OPERATING SHAFT EXTENSION ON GATE VALVES IF OPERATING NUT IS MORE THAN 36" BELOW GROUND LEVEL. TOP OF SHAFT EXTENSION OPERATING NUT SHALL BE BETWEEN 12" AND 24" OF FINISH GRADE, SEE STD DWG 1241-EA.
8. INSTALL BUTTERFLY VALVE OPERATING SHAFT EXTENSION WITH SHEARPIN ON ALL BUTTERFLY VALVES. TOP OF OPERATING NUT SHALL BE BETWEEN 12" TO 24" OF FINISHED GRADE. SEE STD DWG 1241-EA.
9. VALVE POT COVER COLOR CODE: RED = ZONE VALVES (ALWAYS CLOSED)
WHITE = HYDRANT VALVES
BLUE = DISTRIBUTION LINE VALVES
PURPLE = RECYCLED WATER VALVES
10. SEE SPEC SECTION 33 11 13.21P ARTICLE 3.10 - INSTALLATION OF VALVE POTS.

REDUCED DRAWING

						REVISIONS			CORR AEW			VALVE POT INSTALLATION		
4	12 AUG 2022	REVISED AND REDRAWN	RP	DSL	CAW	SUPVR. PIPELINE ENG'G R.P.E. NO. C-18774			W.L. RAMOS			STRUCTURE OR ZONE DESIGNATION ALL		
3	05 JAN 2017	UPDATE	GC	RHM	CDC	MANAGER DIST. ENG'G R.P.E. NO. C-13325			R.L. KOLM					
2	31 OCT 1997	REVISED	EBMUD	EBMUD	EBMUD	DIRECTOR OF ENG'G R.P.E. NO. C-13447			W.F. ANTON					
1	03 DEC 1987	REVISED	WB	WB	WB	APPROVED ASST. GEN. MGR. & CHIEF ENGINEER R.P.E. NO. C-7624			D. G. LARKIN			SCALE NONE DATE 30 JAN 1979		
NO.	DATE	REVISION	BY	REC.	APP.									
									321-EA					

CENTRAL CONTRA COSTA SANITARY DISTRICT MARTINEZ, CALIFORNIA

STANDARD MANHOLE FRAME & COVER



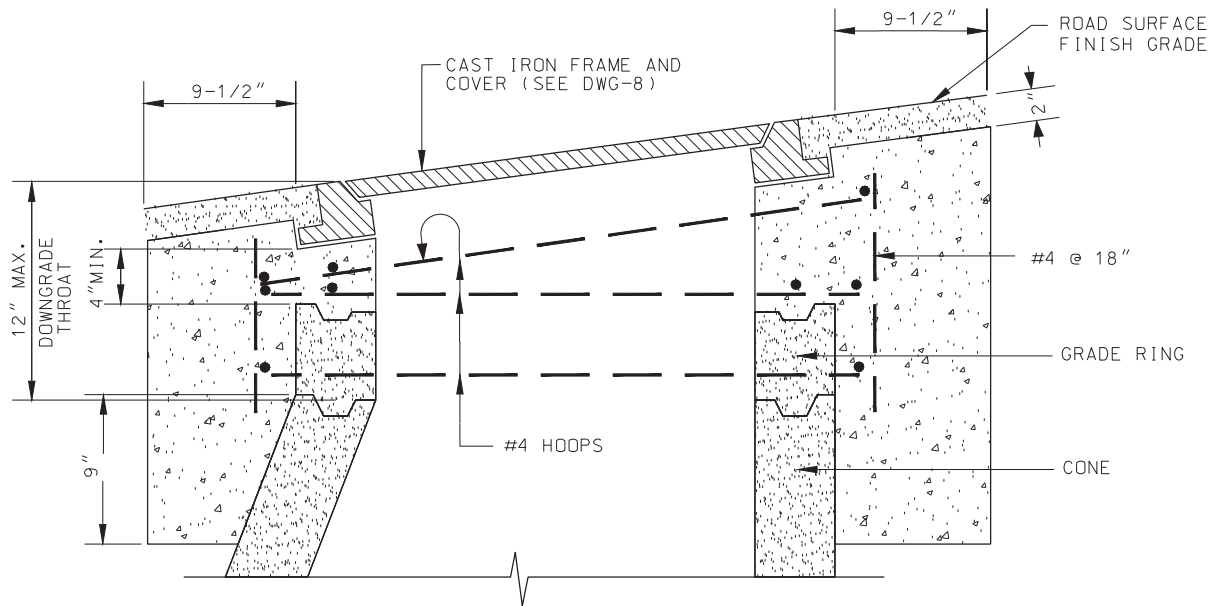
NOTES:

1. COVER SHALL BE DESIGNED FOR HS-20 HIGHWAY LOADING.
2. PICK HOLE SHALL BE OPEN AND FIT A STANDARD PICK.
3. PRY HOLE SHALL BE LOCATED AT TOP CENTER OF THE MANHOLE COVER AS SHOWN.

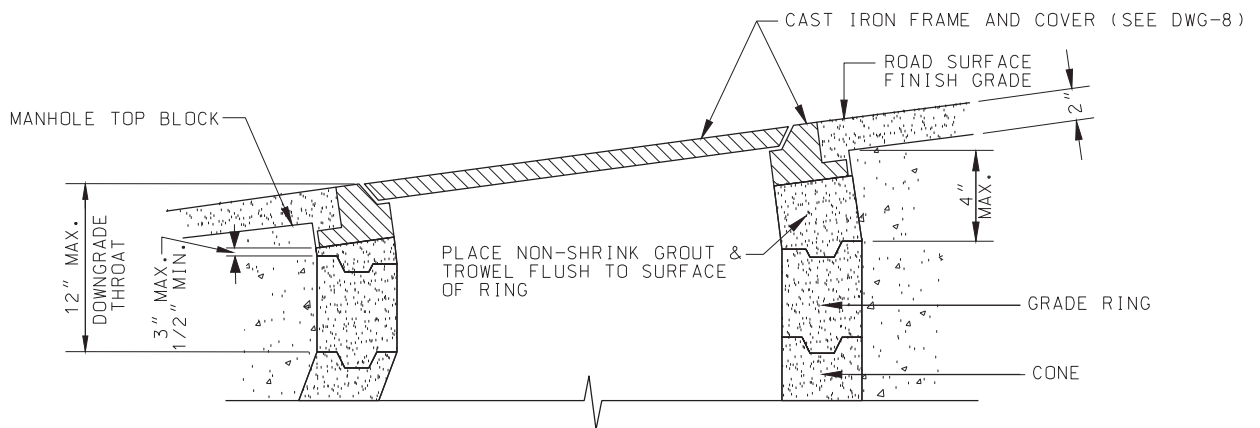
CENTRAL CONTRA COSTA SANITARY DISTRICT MARTINEZ, CALIFORNIA

MANHOLE ADJUSTMENT TO FINISH GRADE

PAVED AREAS



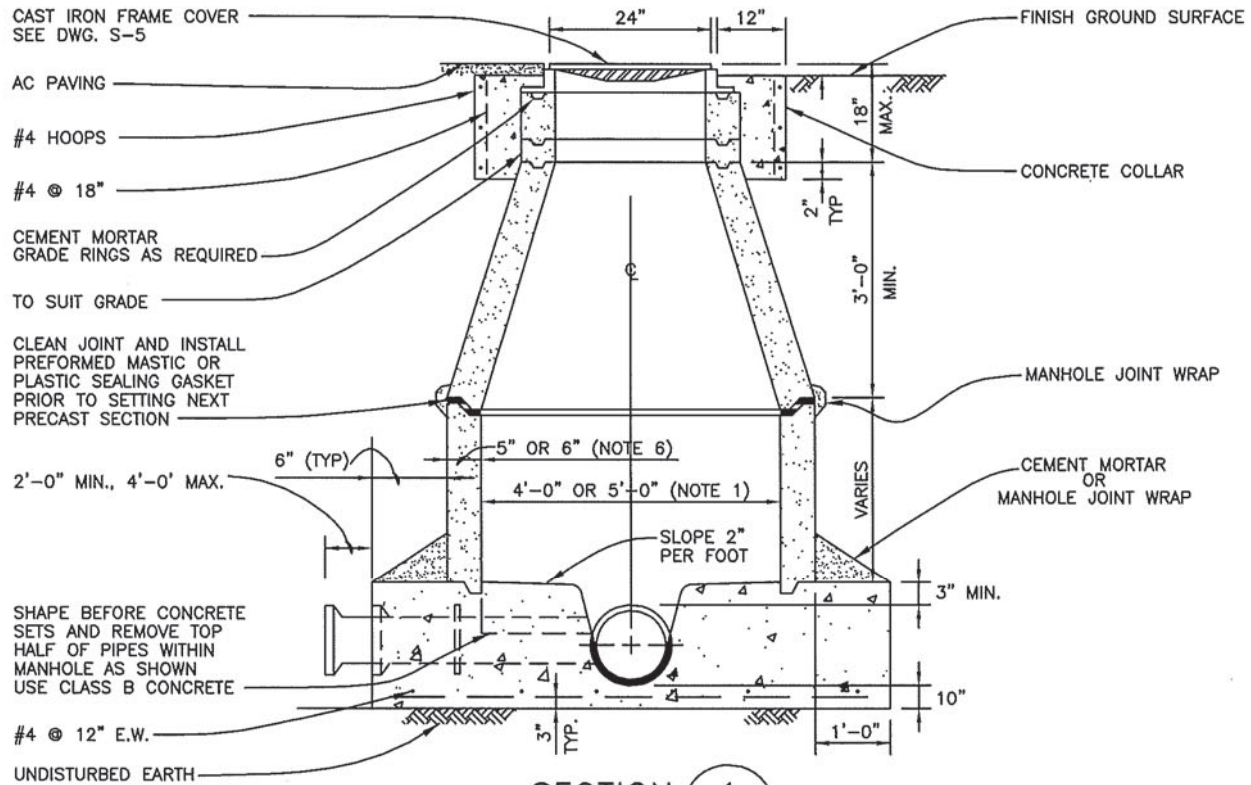
GREATER THAN 13% GRADE



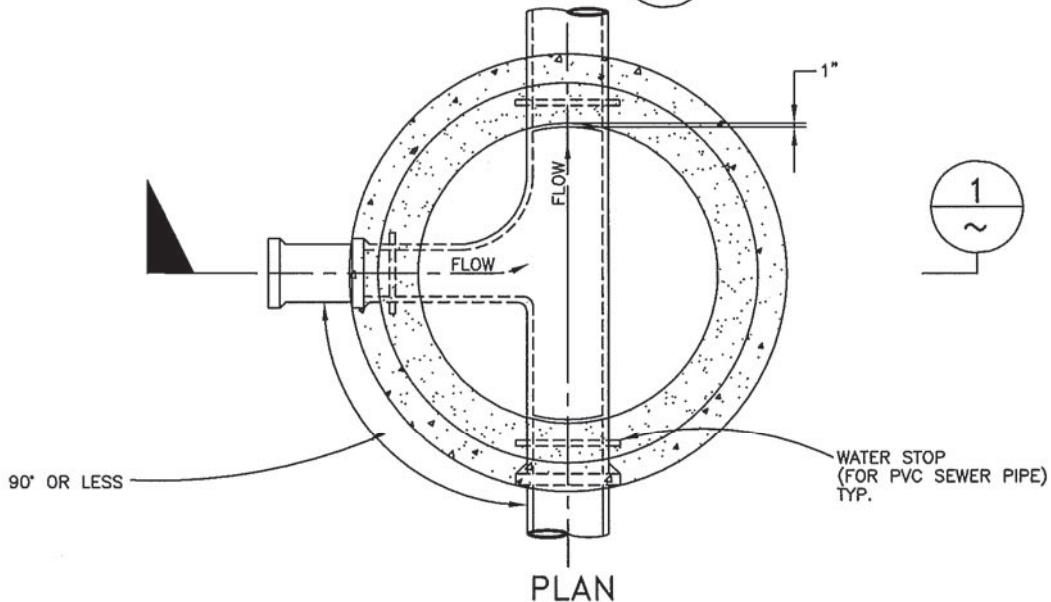
NOTE:

1. SEE DWG-1 FOR TOP BLOCK DETAILS

13% GRADE OR LESS



SECTION 1
NTS



NOTES:

1. SEE SPEC. SEC. III-A5-7 FOR CRITERIA ON MANHOLE SIZING. NTS
2. MANHOLE SHALL HAVE NO STEPS.
3. USE RAMNECK OR APPROVED EQUAL BETWEEN JOINTS. TRIM ALL JOINTS AFTER COMPLETION.
4. JOINTS SHALL BE WRAPPED WITH 9-INCH RUB'R-NEK EXTERNAL CONCRETE JOINT WRAP, OR APPROVED EQUAL.
5. ALL PIPES MUST HAVE A JOINT 2'-4' OUT FROM MANHOLE.
6. 5" WALL THICKNESS FOR MANHOLES UP TO 4-FT DIAMETER AND 6" WALL THICKNESS FOR 5-FT DIAMETER MANHOLES.

REV. 06/23/14

Dublin San Ramon Services District

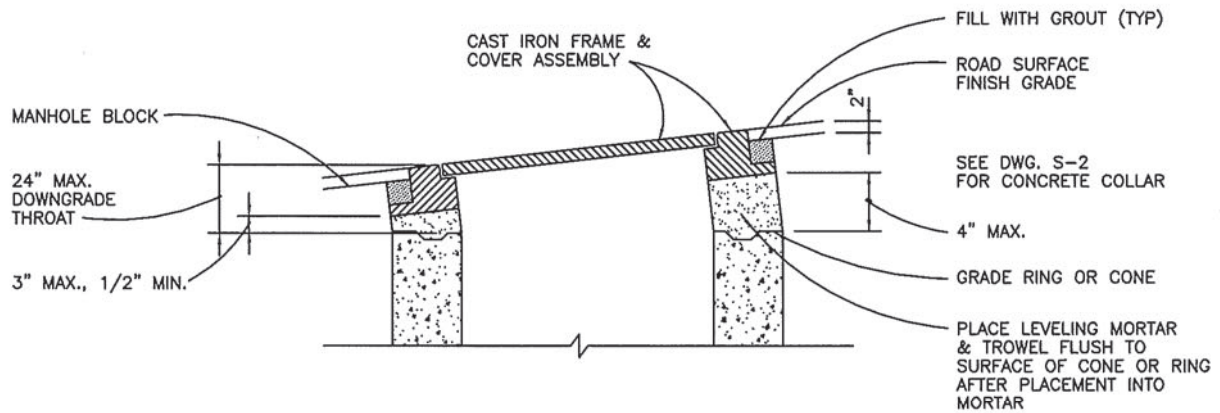
DATE
MAY 1987

STANDARD MANHOLE

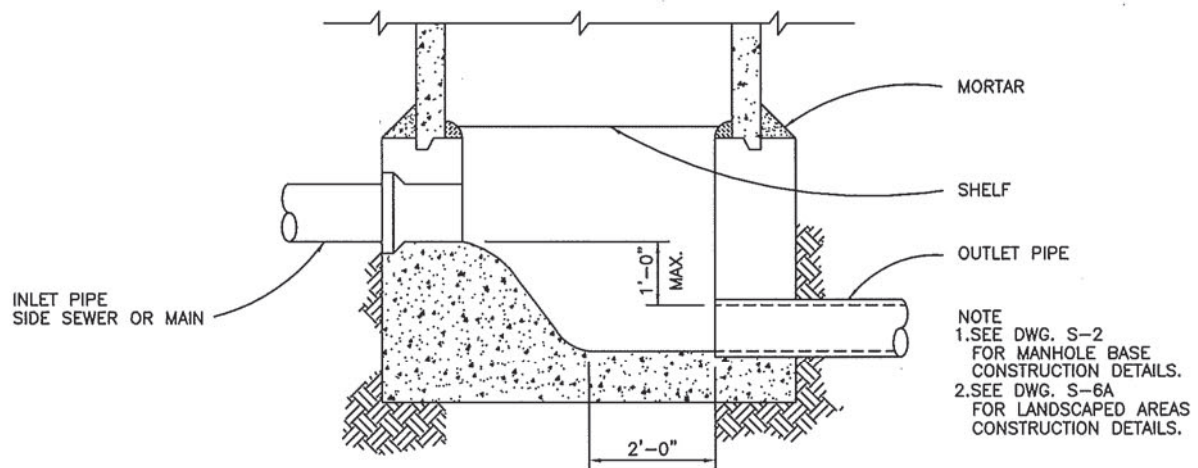
DESIGNED
SRH

SIGNED COPY ON FILE AT DISTRICT OFFICE

DRAWING
S-2



ADJUSTMENT TO FINISH GRADE DETAIL



ALLOWABLE DROP IN MANHOLES

REV. 08/11

Dublin San Ramon Services District

DATE
MAY 1987

MISCELLANEOUS MANHOLE DETAILS

DESIGNED
DJM

SIGNED COPY ON FILE AT DISTRICT OFFICE

DRAWING
S-6

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