

# INVITATION FOR BIDS



FOR CONSTRUCTION OF

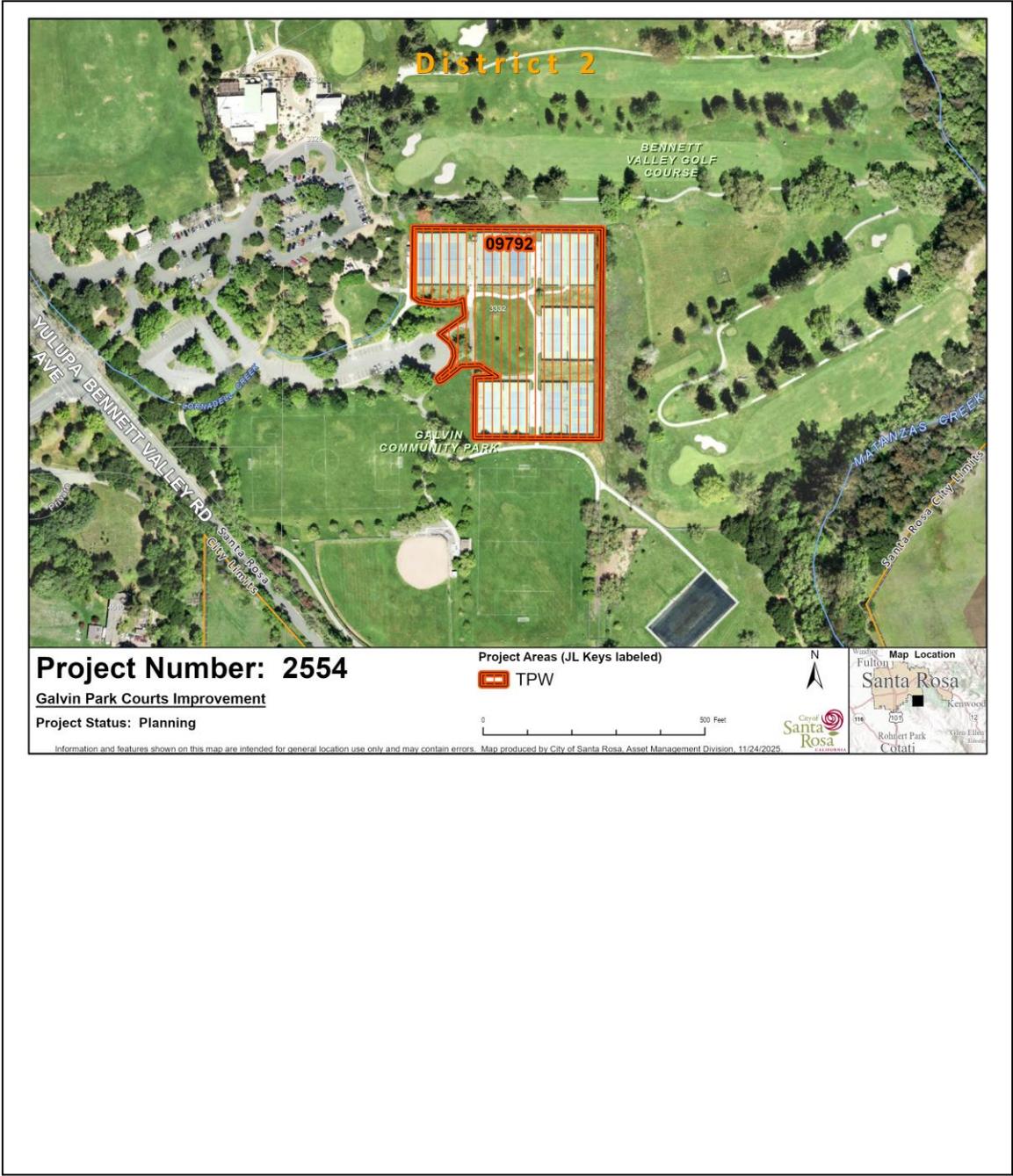
Galvin Courts Renovation

**CITY CONTRACT NUMBER  
C02554**

ISSUED BY

**CAPITAL PROJECTS ENGINEERING DIVISION  
CITY OF SANTA ROSA, CALIFORNIA**

2026



LOCATION MAP

City of Santa Rosa

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## Notice Inviting Bids

1. **Bid Submission.** City of Santa Rosa (“City”) will accept sealed bids for its Galvin Courts Renovation Project (“Project”), before February 19 2026, at 2:00 pm., at its Transportation and Public Works office, located at 69 Stony Circle, Santa Rosa, California, at which time the bids will be publicly opened and read aloud. Bidders may attend the public opening in person.
2. **Project Information.**
  - 2.1 **Location and Description.** The Project is located at the Galvin Community Park, 3332 Yulupa Ave, Santa Rosa, CA 95405, and is described as follows: This project will improve the existing tennis/pickle court facilities with the addition of a new tennis court in the center of all other existing courts.
  - 2.2 **Time for Final Completion.** The Project must be fully completed within 100 Working Days from the start date set forth in the Notice to Proceed. City anticipates that the Work will begin in May 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): Class A.
  - 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 is 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 the City’s PlanetBids portal, which may be accessed by selecting the “Bid/Proposal Opportunities” link on the City’s website at <https://www.srcity.org/165/Bids-Proposals>. A printed copy of the Contract Documents is not available.
5. **Bid Security.** The Bid Proposal must be accompanied by bid security of ten 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 days after City issues the Notice of Award, the successful bidder will execute the Contract and 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 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 <http://www.dir.ca.gov/DLSR>. 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 and 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. Bidders' Conference.** A bidders' conference will be held on February 5th, 2026, at 2:00 p.m., at the following location: 69 Stony Circle, Santa Rosa, CA 95401, to acquaint all prospective bidders with the Contract Documents and the Project site. The bidders' conference is not mandatory.
- 11. 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: Gregory Mariscal Date: 01/15/2026

Gregory Mariscal, Supervising Engineer

Publication Date: January 21, 2026

END OF NOTICE INVITING BIDS

## Instructions to Bidders

Each Bid Proposal submitted to the City of Santa Rosa ("City") for its Galvin Courts Renovation ("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, before the deadline 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 (i.e., submissions at or after the exact hour of bid opening) 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, material, supplies, and equipment and all other direct or indirect costs such as applicable taxes, insurance and overhead.
- 1.2 Vendor Registration.** To participate in the bidding process, each bidder must register as a vendor on PlanetBids, download the Contract Documents, and add itself to the "Prospective Bidders" list for the Project. If City issues an addendum, each bidder must log in to PlanetBids and acknowledge the addendum prior to the bid deadline. (See Section 8, below.)
- 1.3 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:**

Galvin Courts Renovation Contract No. C02554

Transportation and Public Works Department  
69 Stony Circle  
Santa Rosa, California 95401  
Attn: Danny Chen

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: \_\_\_\_\_

- 1.4 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).)

- 1.5 Bid Tabulation.** To access the bid tabulation when available, visit the PlanetBids portal or the Project-specific website, available at [cippublic.srcity.org/CIPList.html](http://cippublic.srcity.org/CIPList.html).
- 2. Bid Proposal Form and Enclosures.** Each Bid Proposal must be completed legibly 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 Bid Schedule, Subcontractor List, and Non-Collusion Declaration using the forms included with the Contract Documents, and any additional forms required by the Notice Inviting Bids or Instructions to Bidders.
- 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 or as otherwise authorized by law.
- 4. Bid Security.** Each Bid Proposal must be accompanied by bid security of ten 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 days after issuance of the Notice of 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 Award.
- 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 City via the PlanetBids portal. Oral responses are not authorized and are not binding on the City. Bidders should submit any such written inquiries at least five 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. Bidders should check City's PlanetBids portal periodically for any addenda or updates on the Project, which may be accessed via City's website at: <https://www.srcity.org/165/Bids-Proposals>. Each bidder is solely responsible for ensuring it has received and reviewed all addenda prior to submitting its bid and must acknowledge each addendum in the PlanetBids portal.

**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 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 City at 69 Stony Circle, Santa Rosa, CA 95401 or sent via email at [dchen@srcity.org](mailto:dchen@srcity.org) 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.** Subject to the provisions of its charter and the Santa Rosa City Code ("City Code"), 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 90 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 issuance of the Notice of Award, the successful 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) and Certificate(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 tax certificate, issued pursuant to Chapter 6.04 of the City Code, within ten days following issuance of the Notice of Award and before performing any Work on the Project. Subcontractors must also obtain a City business tax certificate 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 Award, the successful 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. **Community Workforce Agreement.** If checked below, the Project is subject to the City's Community Workforce Agreement ("CWA") and the successful bidder must comply with the requirements therein.

Select One:

- This Project is subject to the City's CWA, which is available on the City's website at <https://www.srcity.org/165/Bids-Proposals> and incorporated herein by reference. Within three Working Days following a request from City, the apparent low bidder must submit to City an executed Appendix A, Contractor Agreement to be Bound, using the form provided with the Contract Documents. Each bidder must provide a copy of the CWA to its Subcontractors, and the successful bidder and its Subcontractors must comply with the CWA. Entering into the CWA is a condition of award of the Contract for the Project.
- This Project is not subject to the City's CWA.

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.

**18.3 Bid Item Description.** The descriptions of bid items in the Specifications are not intended as exclusive descriptions of the Work. Each bidder must determine, and include in its unit pricing, all things necessary and incidental for the timely performance and completion of the Work as specified in the Contract Documents, including, but not limited to, all necessary labor, materials, supplies, tools, equipment, transportation, facilities, and utilities, unless otherwise specified.

19. **Withdrawal.** A Bid Proposal may not be withdrawn for a period of 90 days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code § 5100 et seq. In the event that a bid includes a material error, the

bidder may request to withdraw its bid in accordance with Public Contract Code § 5100 et seq. The written request must establish the elements set forth in Public Contract Code § 5103.

- 20. Additive and Deductive Alternates.** As required by Public Contract Code § 20103.8, if this bid solicitation includes additive or deductive 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 alternates included in the Bid Proposal. City reserves the right, acting in its sole discretion, to add to or deduct from the Contract any of the additive or deductive 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, the City reserves the right to incorporate one or more of the alternates that were not included in the Contract as awarded. Any such post-award addition(s) and/or deduction(s) will be added by Change Order and based on the bid price provided for each such alternate.

(A) The lowest bid will be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.

(B) The lowest bid will be the lowest total of the bid prices on the base contract and those additive or deductive items that were specifically identified in the bid solicitation or Bid Proposal as being used for the purpose of determining the lowest bid price. The following alternates will be used for the purpose of determining the lowest bid price: Alternate 1, 2, 3, and 4

(C) The lowest bid will be the lowest total of the bid prices on the base contract and those additive or deductive items taken in order from a specifically identified list of those items that, when in the solicitation, and added to, or subtracted from, the base contract, are less than, or equal to, a funding amount publicly disclosed by City before the first bid is opened.

(D) The lowest bid will be determined in a manner that prevents any information that would identify any of the bidders or the proposed subcontractors or suppliers from being revealed to City before the ranking of all bidders from lowest to highest has been determined.

END OF INSTRUCTIONS TO BIDDERS

## Bid Proposal

Galvin Courts Renovation Project ("Bidder") hereby submits this Bid Proposal to the City of Santa Rosa ("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. **Bid Alternates.** Bidder submits the following prices for the specified bid alternates:

Alternate #1: Resurface Courts 1-6  
Add: \$ \_\_\_\_\_

Alternate #2: New Tennis Courts  
Add: \$ \_\_\_\_\_

Alternate #3: Planting and Irrigation  
Add: \$ \_\_\_\_\_

Alternate #4: Upgrade Existing Court Lighting  
Add: \$ \_\_\_\_\_

3. **Addenda.** Bidder agrees that it has confirmed receipt of or access to, and reviewed, all addenda issued for this bid, as evidenced by its acknowledgement of each addendum on the City's PlanetBids portal. Bidder waives any claims it might have against the City based on its failure to receive, access, or review any addenda for any reason.
4. **Bidder's Certifications and Warranties.** By signing and submitting this Bid Proposal, Bidder certifies and warrants the following:
  - 4.1 **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.
  - 4.2 **Examination of Worksite.** Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.
  - 4.3 **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.
  - 4.4 **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.

- 4.5 **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.
  - 4.6 **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.
  - 4.7 **Agreement to be Bound by CWA.** If the Project is subject to the City's CWA, Bidder will submit an executed Appendix A, Contractor Agreement to be Bound, using the form provided with the Contract Documents, within three Working Days following a request from City. (See Section 17 of the Instructions to Bidders.)
5. **Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that, if City issues the Notice of Award to Bidder, then within ten days following issuance of the Notice of Award, Bidder will do all of the following:
- 5.1 **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;
  - 5.2 **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;
  - 5.3 **Insurance Requirements.** Submit to City the insurance certificate(s) and endorsement(s) as required by the Contract Documents; and
  - 5.4 **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.
6. **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 \_\_\_\_\_, 20\_\_.

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

BIDDER NAME: \_\_\_\_\_

This Bid Schedule must be completed legibly and included with the sealed Bid Proposal. Pricing must be provided for each Bid Item as indicated. If this Bid Schedule requests pricing for Alternates, pricing must be provided for each Alternate 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.

AL = Allowance      CF = Cubic Feet      CY = Cubic Yard      EA = Each      LB = Pounds  
 LF = Linear Foot      LS = Lump Sum      SF = Square Feet      TON = Ton (2000 lbs)

### BASE BID

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
1	Mobilization	1	LS	\$	\$
2	Traffic Control	1	LS	\$	\$
3	Water Pollution Control	1	LS	\$	\$
4	Tree Removal and Stump Grind	1	EA	\$	\$
5	Earthwork	1	LS	\$	\$
6	Soil Off-haul	250	TON	\$	\$
7	Overexcavation and Lime Treatment	2,400	CY	\$	\$
8	Irrigation System	1	LS	\$	\$
9	Container Plant, 1 Gallon	498	EA	\$	\$
10	Container Plant, 5 Gallon	404	EA	\$	\$
11	Tree, 24" Box	1	EA	\$	\$
12	Turf, Sod	11,210	SF	\$	\$
13	Turf Repair, Sod	180	SF	\$	\$
14	Mulch	11,305	SF	\$	\$
15	Plant Establishment	1	LS	\$	\$
16	Landscape Soil Preparation	1	LS	\$	\$
17	Concrete Pavement	2,085	SF	\$	\$
18	Concrete Mowband	260	LF	\$	\$
19	Court Band	320	LF	\$	\$
20	Court Pavement	43,200	SF	\$	\$
21	Tennis Court Striping	4	EA	\$	\$
22	Pickleball Court Striping	6	EA	\$	\$
23	Existing Storm Drain System Connection	1	LS	\$	\$

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
24	Catch Basin	8	EA	\$	\$
25	Drain Inlet	2	EA	\$	\$
26	Solid Drainline, 6"	38	LF	\$	\$
27	Solid Drainline, 8"	277	LF	\$	\$
28	Solid Drainline, 12"	226	LF	\$	\$
29	Trench Drain	120	LF	\$	\$
30	Trench Drain Catch Basin	1	EA	\$	\$
31	Bioretention Area	1	LS	\$	\$
32	Reinstall Salvaged Furnishings	1	LS	\$	\$
33	Tennis Net, Post, and Anchor	4	EA	\$	\$
34	Pickleball Net, Post, and Anchor	6	EA	\$	\$
35	Windscreen, Type 1	1,090	LF	\$	\$
36	Windscreen, Type 2	240	LF	\$	\$
37	Ball Wall	240	LF	\$	\$
38	Bench, Type 2	4	EA	\$	\$
39	Picnic Table	2	EA	\$	\$
40	Drinking Fountain	1	EA	\$	\$
41	Shade Structure	2	EA	\$	\$
42	Chain Link Fence, 10' Tall	80	LF	\$	\$
43	Chain Link Fence, 4' Tall	530	LF	\$	\$
44	Chain Link Single Gate, 4' Tall	6	EA	\$	\$
45	Chain Link Fence Fabric Repair	20	LF	\$	\$
46	Chain Link Gate Modification	4	EA	\$	\$
47	Existing Electrical System Modification	1	LS	\$	\$
48	Tree Protection	1	LS	\$	\$
49	Demolition	1	LS	\$	\$

\* Final Pay Quantity

TOTAL BASE BID: Items 1 through 49 inclusive: \$ \_\_\_\_\_

**ALTERNATES**

<b>ADD ALTERNATE #1: Resurface Courts 1-6</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
50	Traffic Control	1	LS	\$	\$
51	Acrylic Overlay	45,025	SF	\$	\$
52	Tennis Court Striping	6	EA	\$	\$
53	Reinstall Salvaged Furnishings	1	LS		
54	Windscreen, Type 1	1,285	LF	\$	\$
55	Chain Link Gate Modification	4	EA	\$	\$
56	Demolition	1	LS		

TOTAL FOR ADD ALTERNATE #1: Items 50 through 56 inclusive:  
 \$ \_\_\_\_\_

*Note: The amount entered as the total for this alternate should be identical to the amount entered for this alternate in Section 2 of the Bid Proposal form.*

<b>ADD ALTERNATE #2: New Tennis Courts</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
57	Traffic Control	1	LS	\$	\$
58	Tree Removal and Stump Grind	3	EA	\$	\$
59	Earthwork	1	LS	\$	\$
60	Soil Off-haul	200	TON	\$	\$
61	Overexcavation and Lime Treatment	1,600	SY	\$	\$
62	Irrigation System	1	LS		
63	Container Plant, 1 Gallon	209	EA		
64	Container Plant, 5 Gallon	53	EA		
65	Mulch	4,425	SF		
66	Plant Establishment	1	LS		
67	Landscape Soil Preparation	1	LS		
68	Concrete Pavement	625	SF		
69	Court Band	550	LF		
70	Retaining Curb	130	LF		
71	Court Pavement	14,200	SF		

<b>ADD ALTERNATE #2: New Tennis Courts</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
72	Tennis Court Striping	2	EA		
73	Pickleball Court Striping	6	EA		
74	Existing Storm Drain System Connection	1	LS		
75	Catch Basin	1	EA		
76	Dry Well	1	EA		
77	Solid Drainline, 4"	9	LF		
78	Solid Drainline, 8"	32	LF		
79	Tennis Net, Post, and Anchor	2	EA		
80	Pickleball Net, Post, and Anchor	6	EA		
81	Windscreen, Type 1	650	LF		
82	Windscreen, Type 2	240	LF		
83	Ball Wall	240	LF		
84	Bench, Type 1	2	EA		
85	Drinking Fountain	1	EA		
86	Chain Link Fence, 10' Tall	388	LF		
87	Chain Link Fence, 4' Tall	475	LF		
88	Chain Link Single Gate, 4' Tall	6	EA		
89	Chain Link Single Gate, 6'-8" Tall	3	EA		
90	New Court Lighting and Controls	1	LS		
91	Demolition	1	LS		
92	Deduct Irrigation System	1	LS		
93	Deduct Turf Repair, Sod	11,210	SF		
94	Deduct Concrete Mowband	260	LF		
95	Deduct Tennis Court Striping	2	EA		
96	Deduct Tennis Net, Post, and Anchor	2	EA		
97	Deduct Windscreen, Type 1	120	LF		
98	Deduct Chain Link Fence, 10' Tall	40	LF		
99	Deduct Chain Link Fence, 4' Tall	55	LF		
100	Deduct Gate Modification	2	EA		
101	Deduct Tree Protection	1	LS		

TOTAL FOR ADD ALTERNATE #2: Items 57 through 101 inclusive:  
\$ \_\_\_\_\_

<b>ADD ALTERNATE #3: Planting and Irrigation</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
102	Traffic Control	1	LS	\$	\$
103	Irrigation System	1	LS	\$	\$
104	Container Plant, 1 Gallon	703	EA	\$	\$
105	Container Plant, 5 Gallon	274	EA	\$	\$
106	Tree, 24" Box	2	EA	\$	\$
107	Mulch	19,460	SF	\$	\$
108	Plant Establishment	1	LS	\$	\$
109	Landscape Soil Preparation	1	LS	\$	\$
110	Demolition	1	LS	\$	\$

TOTAL FOR ADD ALTERNATE #3: Items 102 through 110 inclusive:  
\$ \_\_\_\_\_

<b>ADD ALTERNATE #4: Upgrade Existing Court Lighting</b>					
<b>ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
111	Traffic Control	1	LS	\$	\$
112	Upgrade Existing Court Lighting	1	LS	\$	\$

TOTAL FOR ADD ALTERNATE #4: Items 111 through 112 inclusive:  
\$ \_\_\_\_\_

*Note: The amount entered as the total for this alternate should be identical to the amount entered for this alternate in Section 2 of the Bid Proposal form.*

END OF BID SCHEDULE



**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 \_\_\_\_\_, 20\_\_\_\_ (“Bid”), to the City of Santa Rosa (“City”) for work on the Galvin Courts Renovation (“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 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 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
  - 2.6 **Other Submittals.** Any other documents required by the Instructions to Bidders or Notice of 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 90 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.

This Bid Bond is entered into and effective on \_\_\_\_\_, 20\_\_\_\_\_.

**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

### Galvin Courts Renovation

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

**Appendix A**

**City of Santa Rosa Community Workforce Agreement  
Contractor Agreement To Be Bound**

The undersigned, as a Contractor or Subcontractor ("Contractor") for the Galvin Courts Renovation, (hereinafter the "Covered Project"), for and in consideration of the award to it of a contract to perform work on said Covered Project, and in further consideration of the mutual promises made in the "City of Santa Rosa Community Workforce Agreement" (hereinafter "Agreement"), a copy of which was received and is acknowledged, hereby:

- (1) Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- (2) Agrees to be bound by the legally established local trust agreements as set forth in Article 17 of this Agreement.
- (3) Authorizes the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor;
- (4) Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of the Agreement.
- (5) Agrees to secure from any Contractor(s) (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, a duly executed Agreement to be Bound in form identical to this document.

The obligation to be a party to and bound by the Agreement shall extend to all work for the Covered Project undertaken by the Contractor.

This letter shall constitute a subscription agreement, to the extent of the terms of the letter.

CONTRACTOR/SUBCONTRACTOR: \_\_\_\_\_

California Contractor State License No. or Motor Carrier (CA) Permit No.: \_\_\_\_\_

Name of Authorized Person (print): \_\_\_\_\_

Signature of Authorized Person: \_\_\_\_\_

Title of Authorized Person: \_\_\_\_\_

Telephone Number of Authorized Person: \_\_\_\_\_

Address of Authorized Person: \_\_\_\_\_

State Public Works Registration Number: \_\_\_\_\_

## Contract

This public works contract ("Contract") is entered into by and between the City of Santa Rosa ("City") and \_\_\_\_\_ ("Contractor"), for work on the Galvin Courts Renovation ("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 \_\_\_\_\_, 20\_\_\_\_, 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:
  - 1.1 Alternate #1: Resurfacing Courts 1-6
  - 1.2 Alternate #2: New Tennis Courts
  - 1.3 Alternate #3: Planting and Irrigation
  - 1.4 Alternate #4: Upgrade Existing Court Lighting
  
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 Award;
  - 2.12 Notice to Proceed;
  - 2.13 City Standards and City Specifications, as applicable;
  - 2.14 City's CWA, if applicable;
  - 2.15 Caltrans Standard Specifications (excluding Division I) and Caltrans Standard Plans, as applicable; and
  - 2.16 The following: No other documents.
  
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 100 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 \$ 5,200 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 <http://www.dir.ca.gov/DLSR>.
  - 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:**

Transportation and Public Works Department.  
69 Stony Circle  
Santa Rosa, CA 95401  
(707) 543-3911  
Attn: Danny Chen/Assistant Engineer  
[dchen@srcity.org](mailto:dchen@srcity.org)

Copy to: Sheila Edwards  
[sedwards@srcity.org](mailto:sedwards@srcity.org)

**Contractor:**

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Attn: \_\_\_\_\_  
Email: \_\_\_\_\_  
Copy to: \_\_\_\_\_

12. **General Provisions.**

- 12.1 **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.
- 12.2 **Third Party Beneficiaries.** There are no intended third party beneficiaries to this Contract.
- 12.3 **Governing Law and Venue.** This Contract will be governed by California law and venue will be in the Sonoma 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 Sonoma County, California.
- 12.4 **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.
- 12.5 **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.

- 12.6 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.
- 12.7 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.
- 12.8 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 or as otherwise authorized by law.
- 12.9 Electronic Signatures.** In accordance with Government Code § 16.5 and Civil Code § 1633.1 et seq., the parties agree that this Contract may be transmitted and executed electronically and that electronic signatures will have the same force and effect as the use of manual signatures.

*[Signatures are on the following page.]*

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

**CITY:**

Approved as to form:

s/ \_\_\_\_\_

s/ \_\_\_\_\_

\_\_\_\_\_  
Name, Title

\_\_\_\_\_  
Name, Title

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attest:

s/ \_\_\_\_\_

\_\_\_\_\_  
Name, Title

Date: \_\_\_\_\_

**CONTRACTOR:**

\_\_\_\_\_ Business Name

s/ \_\_\_\_\_

Seal:

\_\_\_\_\_  
Name, Title

Date: \_\_\_\_\_

Second Signature (See Section 12.8):

s/ \_\_\_\_\_

\_\_\_\_\_  
Name, Title

Date: \_\_\_\_\_

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

END OF CONTRACT

## Payment Bond

The City of Santa Rosa ("City") and \_\_\_\_\_ ("Contractor") have entered into a contract ("Contract") for work on the Galvin Courts Renovation ("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, assigns, 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 Sonoma 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

\_\_\_\_\_  
Name, Title

END OF PAYMENT BOND

## Performance Bond

The City of Santa Rosa ("City") and \_\_\_\_\_ ("Contractor") have entered into a contract ("Contract") for work on the Galvin Courts Renovation ("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, assigns, 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 Sonoma 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 \_\_\_\_\_, 20\_\_\_\_.

**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

\_\_\_\_\_  
Name, Title

END OF PERFORMANCE BOND

## General Conditions

### 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.

**Awarding Authority** means the City Council or its authorized delegee(s) unless the Contract is awarded by the Water Department, in which case it means the Board of Public Utilities.

**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 Santa Rosa, 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).

**City Specifications** means the City’s Construction Specifications for Public Improvements, which may be accessed on the City’s website at <https://www.srcity.org/2321/Design-Construction-Standards>.

**City Standards** means the City’s Design and Construction Standards, which may be accessed on the City’s website at <https://www.srcity.org/2321/Design-Construction-Standards>.

**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 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 (or You)** means the individual, partnership, corporation, or joint venture that has signed the Contract with City to perform the Work.

**CWA** means the Community Workforce Agreement for the City.

**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.

**DIR** means the California Department of Industrial Relations.

**Drawings** has the same meaning as Plans.

**Engineer** means the City Engineer for the City of Santa Rosa 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.

**Materials Lab** means City's Materials Engineering Laboratory, which may perform quality assurance functions for a Project relating to asphalt and concrete, including inspection and/or testing of workmanship, materials, and the manner of construction.

**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 delegee(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.

**Water Department** means the City of Santa Rosa Water Department.

**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 the following holidays observed by the City:

- (A) New Year's Day, January 1;
- (B) Martin Luther King Jr. Birthday, the third Monday in January;
- (C) President's Day, the third Monday in February;
- (D) Cesar Chavez Day, March 31;
- (E) Memorial Day, the last Monday in May;
- (F) Juneteenth, June 19;
- (G) Independence Day, July 4;
- (H) Labor Day, the first Monday in September;
- (I) Veterans Day, November 11;
- (J) Thanksgiving Day, the fourth Thursday in November;
- (K) The day after Thanksgiving Day; and
- (L) Christmas Day, December 25.

**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.

## **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 and participate in a pre-construction conference, weekly Project progress meetings, and coordination meetings, as set forth herein.

(1) **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. Contractor must present City with the following information or documents at the conference, unless otherwise specified by City, for City's review and acceptance before the Work commences:

- a. Name, 24-hour contact information, and qualifications of the proposed on-site superintendent;
- b. List of all key Project personnel and their complete contact information, including email addresses and telephone numbers during regular hours and after hours;
- c. 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;
- d. If required, traffic control plans associated with the staging plans that are signed and stamped by a licensed traffic engineer;
- e. Draft baseline schedule for the Work as required under Section 5.2, to be finalized within ten days after City issues the Notice to Proceed or as otherwise specified by City;
- f. Breakdown of lump sum bid items, to be used for determining the value of Work completed for future progress payments to Contractor;
- g. Schedule with list of Project submittals that require City review, and list of the proposed material suppliers;
- h. Plan for coordination with affected utility owner(s) and compliance with any related permit requirements;
- i. Videotape and photographs recording the conditions throughout the pre-construction Project site, showing the existing improvements and current condition of the curbs, gutters, sidewalks, signs, landscaping, streetlights, structures near the Project such as building faces, canopies, shades and fences, and any other features within the Project area limits;
- j. If requested by City, Contractor's cash flow projections; and
- k. Any other documents specified by City.

(2) *Progress Meetings.* Contractor, its project manager, superintendent and any primary Subcontractors requested by City, must participate in weekly Project progress meetings scheduled with City.

(3) *Coordination Meetings.* 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 requested by City in City's notice to correct, Contractor must submit a Work plan for correcting defective Work in advance of Contractor taking corrective action. 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, copies of the insurance policies and endorsements required by the Contract Documents, 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.

(L) **Quality Control.** Contractor is responsible for developing, implementing, and maintaining a quality control plan that includes sampling, testing, and inspecting the Work to control material quality and to ensure that the Work satisfies the quality characteristics in the Contract Documents. Contractor must submit copies of the quality control plan to City, within two Working Days after the pre-construction conference, and make one copy available at each Worksite.

(1) **Records.** Contractor must prepare and maintain quality control records, including the names and qualifications of samplers, testers, and inspectors; testing laboratories' identification and certifications; testing equipment calibrations and certifications; inspection reports; sampling and testing records organized by date and type of material; test results with comparison of quality characteristic requirements; test results in relation to action and any suspension limits; and records of corrective actions and suspensions. Contractor will submit any quality control test data and test results to the Engineer within two Working Days following test completion. Contractor must immediately notify the Engineer of any noncompliant Work.

(2) **Quality Control Manager.** Unless otherwise specified in the Special Conditions or Specifications, before starting Work, Contractor will designate in writing, and provide complete contact information for, the quality control manager for the Project who will be responsible for receiving, reviewing, and approving all correspondence and submittals prior to submission to the City; signing and implementing Contractor's quality control plan; and maintaining quality control records. The quality control manager must either be an employee of Contractor, or a Subcontractor retained solely to provide quality control services for the Project. The quality control manager must not be employed or compensated by a Subcontractor who will provide other Work for the Project.

(3) **Test Modifications.** The following specific tests are modified as follows: For California Test 216 (Relative Compaction), a mechanical compactor (Ploog Engineering Co. Model M 100 or equal) with a 10-pound hammer and split compaction molds must be used in lieu of the specified manual compaction equipment. For California Test 231 (Nuclear Gage Determination of In-Place Density), in-place density and relative compaction may

be determined on the basis of individual test sites in lieu of the area concept at the discretion of the Engineer.

## 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 tax certificate 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 City work forces or 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 City work forces, 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. Contractor must provide submittals in electronic format, unless otherwise specified by the Engineer.

(C) **Required Contents.** Each submittal must be uniquely numbered and 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). Submittal resubmissions must include a revision designation.

(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. Except as required for corrections, Contractor will not make changes to a submittal upon resubmission. City reserves the right to reject a partial resubmission of a 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, Inspector, and Materials Lab.

(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 Material List.** Unless otherwise specified by City, Contractor must submit to the Engineer, at or before the pre-construction conference, a list of all materials proposed for use in the Work and any supporting documentation and samples required by the Contract Documents and source of supply. For a material listed on the "Engineer's List of Approved Items," located in the Sewer and Water sections of the City Standards, Contractor must provide the name of the manufacturer and model and part number for each material proposed for the Work, unless the item has been replaced for the Project, as specifically set forth in the Contract Documents. For all other materials, Contractor must provide the name of the manufacturer, model and part number, and supporting documentation and samples that will enable the Engineer to evaluate the material.
- 2.8 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.
- 2.9 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.

### 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 the Contractor. If Contractor proceeds with the related Work before obtaining the 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) Attachment B – Federal Contract Requirements (only if used);
- (F) Special Conditions;
- (G) General Conditions;
- (H) Payment and Performance Bonds;
- (I) Specifications;
- (J) Plans;
- (K) Notice of Award;
- (L) Notice Inviting Bids;
- (M) Attachment A – Federal Bidding Requirements (only if used);
- (N) Instructions to Bidders;
- (O) Community Workforce Agreement, if applicable;
- (P) Contractor’s Bid Proposal and attachments;
- (Q) City Standards and City Specifications, as applicable; and
- (R) 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, Caltrans Special Provisions, or Caltrans Standard Plans.

**3.3 Caltrans Standard Specifications and Standard Plans.** 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 and revisions as of the date that Contractor’s bid was submitted for this Project. Any reference to or incorporation of Caltrans’ Standard Plans means the most current edition of Caltrans’ Standard Plans, unless otherwise specified (“Caltrans Standard Plans”), including the most current amendments or revisions 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, Special Provisions, or Caltrans Standard Plans:

(A) **Limitations.** The “Division I 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. Unless otherwise specified in the Specifications, the remaining Divisions of the Caltrans Standard Specifications, i.e., Division II through Division XII, are applicable to the extent relevant to the Work and are subject to any modifications set forth in the Specifications. A specific reference in the Specifications to a section from the Caltrans Standard Specifications will not be construed as excluding other applicable sections from the Caltrans Standard Specifications.

(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” or “Director” 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.

(4) Any reference to “Laboratory” is deemed to mean the Materials Lab, or such other laboratory as may be authorized by the 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 the 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 the 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.

#### **Article 4 - Bonds, Indemnity, and Insurance**

- 4.1 Payment and Performance Bonds.** Within ten days following issuance of the Notice of 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 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, fees and costs of litigation or arbitration, and fees and expenses incurred in enforcing this Section) (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.

**4.3 Insurance.** No later than ten days following issuance of the Notice of 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. The required insurance 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, except as specified for commercial general liability insurance in subsection (A)(1), below, which requires a longer duration. 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 "VII" or better. Each certificate of insurance must identify this Contract by the Project number and state: "The listed insurance policies include endorsements as required by contract." The City may, but has no obligation to, review insurance policies submitted by Contractor. The City's failure to demand evidence of full compliance with the insurance requirements set forth in this Contract or the City's failure to identify any insurance deficiency will not relieve Contractor from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance in accordance with this Section. 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, or Contractor's failure to procure and maintain the required insurance, will not be construed to limit Contractor's liability under this Contract. The procurement of the required insurance will not be construed 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 with coverage at least as broad as ISO CG 00 01, 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 liability, completed operations, and broad form property damage, with limits of at least

\$5,000,000 per occurrence and at least \$5,000,000 general aggregate. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. 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. The products liability and completed operations coverage must continue for a period of three years following City's acceptance of the Project.

(2) *Automobile Liability Insurance:* The automobile liability insurance policy must provide coverage of at least \$3,000,000 combined single-limit per accident for bodily injury, death, or property damage, including hired, owned, and non-owned auto liability. Coverage must be at least as broad as ISO Form Number CA 00 01 covering any auto (Code 1).

(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 statute, per accident for bodily injury or disease. 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 provide coverage of at least \$1,000,000 per occurrence and \$2,000,000 aggregate for all loss arising out of claims for bodily injury, death, property damage, or environmental damage caused by pollution conditions resulting from the Work. If the Work involves lead-based paint or asbestos identification and/or remediation, the pollution liability insurance policy must not contain lead-based paint or asbestos exclusions. If the Work involves mold identification, the pollution liability policy must not contain a mold exclusion and the definition of "pollution" in the policy must include microbial matter, including mold.

(5) *Builder's Risk Insurance:* The builder's risk insurance policy must be issued on an occurrence basis, for all-risk or "all perils" coverage on a 100% completed value basis on the insurable portion of the Project for the benefit of City, without co-insurance provisions. Contractor must name City as loss payee.

(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 prior written notice to City, unless due to non-payment of premiums, in which case ten days prior 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 of Santa Rosa, 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. Coverage for an Additional Insured will not be limited to

the Additional Insured's vicarious liability. The additional insured endorsement must be provided using ISO forms at least as broad as CG 20 10 04 13 or 20 38 04 13 (ongoing operations) and CG 20 37 04 13 (completed operations), or equivalent form(s) 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. This endorsement must be provided using ISO form CG 20 01 04 13 or an equivalent form approved by the City.

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

(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. Contractor's insurance coverage applies to the full extent of the policies, and nothing contained herein will be construed to limit the application of such coverage.

(F) **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions that apply to the required insurance (collectively, "deductibles") in excess of \$10,000 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.

## 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. Contractor will diligently prosecute the Work to minimize the public's exposure to construction activities. 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. Contractor must provide the Engineer with a license for use of Contractor's scheduling software, unless otherwise specified 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).

(2) *High Dollar or Long Duration Projects.* In addition to the requirements set forth above, if the Contract Price is \$5,000,000 or more or if the Contract Time is 100 Working Days or more, Contractor's baseline (as-planned) schedule must include the following: the start and completion dates for submittal development, submittal review, milestones and constraints, equipment and plant setup, interfaces with outside entities, erection and removal of falsework and shoring, test periods, major traffic stage change, and final cleanup; logical links between time-scaled Work activities; controlling activities; at least 50 but no more than 500 activities, unless otherwise specified or authorized by the Engineer; alphanumeric activity identification and activity description system for labeling Work activities; identification code for each activity for responsibility, stage, Work shifts, location, and bid items; activity durations of at least one Working Day and no more than 20 Working Days for each activity, unless otherwise authorized by the Engineer; and float as the predecessor activity to Final Completion. Each activity description must indicate its associated scope or location of Work.

(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 or approved by City. If Contractor wants to perform non-critical Work activities that are out of sequence with the current City-accepted schedule, Contractor must notify and request approval from the Engineer in advance of performance of any such activities. Performance of any such Work must not impact the critical path Work activities. 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, to facilitate City's use of its property, or to minimize the public's exposure to construction activities. 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 observed by City, with noise generating activities limited to 7:00 a.m. to 7:00 p.m. and vehicular traffic impacts limited to 8:30 a.m. to 4:30 p.m., 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.

## 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 notify the Engineer in writing, within one Working Day following the date the Contractor first encounters the circumstances giving rise to Contractor's contention that Extra Work is necessary. Contractor's written notice must specifically identify 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, by no later than close of business on that same Working Day, a daily report of the Extra Work performed that day, signed by the City and Contractor, identifying the labor, materials, and equipment used in the Extra Work ("Extra Work Report"). The Engineer may make any adjustments to Contractor's Extra Work Report(s) based on the Engineer's records of the Work. The Extra Work Report enables the parties to document and track the Extra Work, or Work that the Contractor contends is Extra Work. City's signature on the Extra Work Report is intended solely to document City's receipt of the Extra Work Report; it does not constitute any acknowledgement, acceptance, or approval of the Extra Work by City. To request compensation for Extra Work, Contractor must comply with the requirements in Section 6.2, below, including submission of the Extra Work Reports and a breakdown of the costs related to the Extra Work, together with copies of certified payroll, invoices, and other documentation substantiating the costs. Failure to submit the Extra Work Report by close of business on the same Working Day as the Extra Work 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%:

(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 direct additional subcontract costs plus 10% markup for Work performed by Subcontractors; and

(5) Increased bond and 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.

## Article 7 - General Construction Provisions

### 7.1 Permits, Fees, Licenses, Certificates, and Taxes.

(A) **Fees, Licenses, Certificates, and Permits.** Contractor must obtain and pay for all fees, licenses, and certificates required to perform the Work, including a City business tax certificate. Contractor must obtain all permits required to perform the Work. Contractor is not responsible for the fees associated with obtaining permits unless otherwise specified in the Special Conditions or Specifications. 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 and certificates 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 are set forth in this Article 7 and may also 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 and performance of the Work, including the piping, wiring, internet and Wi-Fi connections, and any related equipment necessary to maintain the temporary

facilities. Contractor may obtain water from the City's water system or from a source other than City's water system, if approved in advance by the Engineer. Before obtaining water from the City's water system, Contractor must obtain a Water Use Permit from the Water Department and rent a hydrant or bridge meter. Contractor is responsible for the cost of all water and all related deposits, permits, and fees. Contractor is prohibited from operating gate valves or fire hydrants on the City's water system. The acquisition of water from the City's water system through un-metered hydrants or other facilities is a violation of Laws. Citations and fines may be levied for violation of these and other utility regulations and may be deducted from payment otherwise due Contractor.

(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. Property owners, tenants, and businesses must have full access to their driveways during non-Work hours. The Engineer may, at any time, direct or approve of opening completed sections of surfacing, pavement, or structure roadway surface for public use.

(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 and obtain a temporary use permit, in accordance with City Code § 20-52.040. 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, and pedestrian traffic.

(D) **Railroad Property.** Sonoma-Marin Area Rail Transit ("SMART") maintains railroad property within the City. Contractor will not interfere with railroad operations or perform Work on or adjacent to railroad property unless Contractor has obtained an encroachment permit from SMART. Contractor is responsible for obtaining an encroachment permit from SMART if necessary for the Work or for Contractor's traffic control. Contractor will not be entitled to an

extension of time or additional compensation to obtain the SMART permit. For any excavation on or affecting railroad property, Contractor must submit Work plans to the City and SMART, if requested by SMART, showing the system to be used to protect the railroad facilities. Contractor will prevent material, equipment, and debris from falling onto railroad property.

(E) **Third Party Material Sourcing and Disposal.** If Contractor intends to procure materials from or dispose of materials on any property owned by a third party, before procuring material or disposing of material, Contractor must provide City with a copy of the agreement between Contractor and the third party authorizing the use of the property and absolving the City from responsibility in connection with the property. Contractor must obtain authorization from the third party to start sourcing or disposing of material on the property. As a condition precedent to Final Completion, Contractor must submit a document to the City, signed by the third party property owner, stating that the Contractor complied with its agreement with the third party.

**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.

(6) All valves, hydrants, and other appurtenances of the City's water system that are the property of City and removed by Contractor in the performance of the Work must be delivered to City's Municipal Services Center (55 Stony Point Road) as a condition

precedent to Final Completion, unless Contractor has obtained specific written approval from the Water Department to dispose of the items.

(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, including damage to City's water system. 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.

(F) **Damage to City's Water System.** Contractor must promptly repair and remediate, at its sole expense, any damage caused by Contractor to the City's water system, in a manner satisfactory to the Water Department. This includes damage to property and facilities resulting from Contractor's failure to make a written request for a markout or starting Work without providing the Water Department a reasonable opportunity to mark facilities; Contractor's destruction of markouts; Contractor's failure to perform hand digging or probing for utilities near markouts; and Contractor's failure to use reasonable caution, regardless of whether markouts are present or clear. Reasonable caution includes any efforts to avoid damaging existing facilities, such as when excavating in the vicinity of water mains. All repairs must be witnessed, inspected, and approved by the Water Department prior to backfilling the excavation. If backfilling occurs prior to inspection and approval, City may require re-excavation by Contractor, at Contractor's sole expense. Acting in its sole discretion, City may elect to have the damage remedied otherwise, including by its own forces, and may deduct the cost thereof from payment otherwise due to Contractor. If City elects to remedy damage to the water system with its own forces, the cost thereof will be in accordance with the emergency repair rate schedule of the Water Department.

## 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. All materials, equipment, and tools furnished or installed by Contractor must meet or exceed applicable Occupational Safety and Health Administration (“OSHA”) standards. 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 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. Upon request, Contractor must provide proof of any such authorization or license to City. Contractor’s indemnity obligations in Article 4 apply to any claimed violation of intellectual property rights.

(D) **Equipment Labeling and Information.** Contractor must label each piece of equipment, except hand tools, with the following information, at a clearly visible location on each piece of equipment using a stencil or stamp: an identifying number; and for compacting equipment, its make, model number, and empty gross weight that is either the manufacturer’s rated weight or the scale weight, or for meters and on the load-receiving element and indicators of each scale, the make, model, serial number, and manufacturer’s rated capacity. Upon request, Contractor must submit the manufacturer’s information that designates portable vehicle scale capacities.

(E) **Measuring Devices.** For proportioning materials, Contractor must use measuring devices, material plant controllers, and undersupports that comply with 4 CCR § 4000 et seq. and Business and Professions Code § 12001 et seq. Measuring devices must be tested and approved under California Test 109 in the Engineer’s presence by any of the following: County Sealer of Weights and Measures; Scale Service Agency; or Official of the Division of Measurement Standards. The indicator over-travel must be at least one-third of the loading travel. The indicators must be enclosed against moisture and dust. Contractor must group the measuring system dials such that the smallest increment for each indicator can be read from the location at which proportioning is controlled.

## 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 at least four weeks in advance of Contractor’s proposed order date and sufficiently in advance of the time needed to avoid delay of the Work. A request for substitution must contain a description of any proposed changes to the Work required to accommodate the substitution and drawings and details showing all such changes.

(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 Engineer 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. City may record, including by photograph or video, all materials, equipment, and workmanship used in the Work. 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 will coordinate directly with the Engineer when scheduling

inspections or tests, unless otherwise specified in the Special Conditions or Specifications. 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. Contractor will not coordinate directly with, or provide direction to, the Materials Lab.

(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. Contractor has an independent duty to test and inspect its Work and perform quality control activities to ensure that the Work and the materials, products, and equipment incorporated into the Work comply with the Contract Documents. City is not responsible for any testing performed by Contractor or a third-party retained by Contractor. Contractor will submit its testing methodology to City for review and acceptance. 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, and 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 wastewater 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 the Contract Price. 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, in accordance with City Standards, all existing improvements that are damaged or removed during the Work, both on and off the Project site, including curbs, sidewalks, driveways, fences, gates, signs, landscaping, drainage ditches, irrigation systems, 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. Concrete surface treatment and score marks must match adjacent existing concrete 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.

(C) **Alteration or Relocation of Utilities.** If Contractor wishes to alter or relocate utilities for Contractor's convenience, and not due to a conflict that requires alteration or relocation, Contractor will be solely responsible for the time and cost required for such alteration or relocation, which may not proceed except as specified by the prior written authorization of the utility owner. Any damage to utilities or improvements caused by Contractor must be repaired by Contractor at its sole expense and to the full satisfaction of the utility owner and Engineer. Contractor will not be entitled to an extension of the Contract Time in connection with any such Work.

**7.13 Notice of Excavation.** Contractor must comply with all applicable requirements in Government Code § 4216 et seq., which are incorporated by reference herein, including, but not limited to, the requirement to notify Underground Service Alert ("USA") of a proposed excavation and provide USA all relevant data relating to the excavation, at least two Working Days before starting any excavation Work.

**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 or if the trench is expected to exceed 20 feet, the plan 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 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 unless otherwise specified in the Special Conditions. All stakes or marks must be set by a California licensed land surveyor or a California registered civil engineer. All survey monuments that may be disturbed or destroyed during performance of the Work must be tied-out by Contractor prior to the start of Work. Contractor must also file a Pre-Construction Corner Record, prepared by a California licensed land surveyor, with the County of Sonoma Surveyor's Office, prior to the start of Work. Contractor must notify the Engineer of any discrepancies found between Contractor's staking and grading and information provided by the Contract Documents. Contractor must replace any survey monuments that are disturbed, damaged, or destroyed during the Work and must file a Post-Construction Corner Record, prepared by a licensed land surveyor as required by law, with the County of Sonoma Surveyor's Office. 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.

(A) **Stormwater Permit.** Contractor must comply with all applicable conditions 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 Activity ("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.

(C) **Pest Management.** Contractor must comply with the City-Wide Integrated Pest Management ("IPM") Policy, Policy Number 000-74, which is available at <https://www.srccity.org/DocumentCenter/View/41774/Integrated-Pest-Management-Policy-030524>. Contractor will not use pesticides or herbicides in the Work without City's prior written approval. Contractor may submit a written request for use of pesticides or herbicides to the Engineer. Contractor's written request must include the location proposed for use, the proposed date and time of application, product specifications, and all other information required by the IPM policy. City reserves the right, in its sole discretion, to approve or reject the use of pesticides or herbicides, for any reason.

**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 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: <https://www.conservation.ca.gov/smgf/Pages/AB-3098-List.aspx>.

**7.22 Water Department Notification.** If Contractor requires the services of the Water Department in connection with the Work, Contractor must request such services at least two Working Days in advance of the time the services are needed. If the requested services require Water Department forces for more than eight hours or an extensive number of City-provided parts, Contractor must request services at least seven calendar days in advance of the time the services are needed.

(A) **Service Shut Down.** Contractor must minimize disruption of utility service to the greatest extent practicable. Contractor must coordinate any shut down or disruption of utility service with the Engineer, Water Department, and affected utility customers. If it is necessary to shut down or disrupt utility service to any customer of the Water Department, Contractor must request the services of the Water Department an additional three Working Days in advance of the time such services are needed, for a total of five Working Days advance notification for a standard service request, to allow affected customers a minimum of three days' advance notice. If Contractor fails to keep field appointments, Contractor will be billed for scheduled Water Department crew standby time and for costs incurred by the Water Department for re-notification of customers.

(B) **Water Department Scheduling.** Water Department crews work a 9/80 schedule. This schedule may prohibit shutdowns for tie-ins on alternating Fridays. After-hours work or weekend work may be performed if authorized in advance by the Engineer. Requests by Contractor for after-hours or weekend work are to be avoided when possible. Contractor will be responsible for any overtime costs incurred by City for such work and the cost thereof may be deducted from payment otherwise due Contractor.

**7.23 Public Safety and Traffic Control.** Contractor must undertake all required and appropriate measures to ensure public safety during construction of the Project, in accordance with Laws, including, but not limited to, the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.). Contractor will ensure the safe passage of pedestrians around the Project site at all times. If Work is within a City-owned right-of-way, Contractor will ensure the safe passage of public traffic through the Project site at all times, consistent with the requirements of City Code Chapter 13-04. Contractor is solely responsible for the costs of all public safety and traffic control measures.

(A) **Warning Devices.** Contractor must furnish, install, and maintain, at its sole expense, all fences, barricades, signs, lights, and other devices necessary to prevent accidents, injuries, death, and property damage. All such devices must conform to the requirements of the current edition of the California Manual on Uniform Traffic Control Devices ("CA MUTCD") and the directions of the Engineer. Contractor's warning and safety devices will not obscure the visibility of or conflict with existing signs and traffic control devices. Contractor may be required to cover certain signs which regulate or direct public traffic to roadways that are not open to traffic, as directed by the Engineer.

(B) **Flaggers.** Contractor must also furnish, at Contractor's sole expense, trained flaggers as necessary to provide adequate warning to the public of construction conditions that may impact pedestrian or vehicular traffic.

(C) **Project Signage.** Unless otherwise specified in the Special Conditions, Contractor must install and maintain Project identification signs at each boundary of the Project site or as directed by the Engineer. Contractor must install the signs two weeks prior to the start of Work at the Project site, using sign panels furnished by City. To mount sign panels, Contractor must furnish and install 4" X 4" posts or mount by other appropriate methods as approved by the Engineer. Upon completion of the Project, Contractor will remove Project identification signs, in a timely

manner, and return the City-furnished sign panels to the City Corporation Yard at 55 Stony Point Road.

(D) **Road Closure Signage.** If the Work requires road closures, Contractor must furnish and install advance notice signs for road closures at each boundary of the Project site. Panel construction and lettering are subject to advance approval of the Engineer. Contractor must install the signs two weeks prior to the start of Work at the Project site. The signs must remain in place for the duration of the road closure and must be removed by Contractor when no longer necessary for the Work.

(E) **Emergency Response Agencies.** Contractor is responsible for notifying emergency response agencies operating in the jurisdiction of the Worksite(s) of obstructions to roads resulting from Contractor's Work.

(F) **Additional Devices.** City reserves the right to require additional warning or safety devices for the Project at the Contractor's sole expense, but no actions by City to add to or improve signage or any other public safety requirements will waive or limit Contractor's duties under the Contract Documents.

(G) **Compliance.** If Contractor fails or refuses to comply with the requirements of this Section, the Engineer may take immediate action to protect the public, including, but not limited to, furnishing the required safety measures at Contractor's expense or suspending the Work, in addition to all other remedies available to City. Any such remedial costs incurred by City may be deducted from payment otherwise due to Contractor as specified in Section 8.3, Adjustment of Payment Application. If there are insufficient Contract funds remaining to cover the remedial costs, City is entitled to recover the balance from Contractor or its performance bond surety.

## 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.

(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.

(I) 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.

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

(K) 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 back charges. 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.

## 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 <http://www.dir.ca.gov/dlsr>. 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, to the Division of Apprenticeship Standards of the DIR, and as further required by the Labor Code.

(C) **Enforcement.** Upon notice of noncompliance with Labor Code § 1776, Contractor or Subcontractor has ten days in which to comply with the requirements of this section. If Contractor or Subcontractor fails to do so 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.

## 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.

**10.6 Confined Space Operations.** If the Work requires a confined space entry, including, but not limited to, manhole or water storage tank entry, Contractor must obtain a confined space entry permit pursuant to Cal/OSHA regulations, as set forth in 8 CCR § 5156 et seq. For any confined space entry for construction operations regulated by 8 CCR § 1502, Contractor must comply with 8 CCR § 5158. For any other confined space operations, Contractor must comply with 8 CCR § 5157. With respect to entry to any City-maintained confined space, Contractor is responsible for obtaining any available information regarding hazards and operations for any City-maintained confined spaces, pursuant to 8 CCR § 5157. The City-maintained Confined Space Entry Manual is available for viewing at the Water Department or Transportation and Public Works Department office. Contractor must immediately notify the Engineer of any previously unidentified hazards confronted or created during confined space entry.

## 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 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 pursuant to Section 11.1(C) (the "Warranty Period"),

except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions. If the City accepts the Project as complete subject to exceptions for incomplete punch list item(s) and the Contractor thereafter completes the punch list item(s), the completed punch list item(s) will be subject to the warranty provisions in this Section 11.2 for a one-year period that begins upon City's acceptance of the completed punch list item(s). 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.

## 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. However, 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) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor. 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 for 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.** City does not consent to arbitration unless required by Laws. 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.

### 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; Contractor's failure to procure, maintain, or renew insurance coverage or provide notice of any modifications or reductions in insurance coverage; 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, 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.

## 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

1. **Authorized Work Days and Hours.**
  - 1.1 **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 to Friday.
  - 1.2 **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 am to 4:30 p.m.
2. **Insurance Requirements.** The insurance requirements under Section 4.3 of the General Conditions are modified for this Contract, as set forth below. Except as expressly stated below, all other provisions in Section 4.3 are unchanged and remain in full force and effect.
  - 2.1 **Pollution Liability Insurance Waived.** The pollution liability insurance policy requirement set forth in subsection 4.3(A)(4) of the General Conditions is hereby waived and does not apply to this Contract.
3. **Normal Weather Delay Days.** This provision is intended to supplement the requirements of General Conditions Section 5.2 on Schedule Requirements and Section 5.3 on Delays and Extensions of Contract Time. Based on historic records for the Project location, Contractor's schedule should assume the following number of normal Weather Delay Days for each month:

Month	# Normal Weather Delay Days
January	10
February	10
March	12
April	8
May	4
June	2
July	1
August	1
September	2
October	5
November	8
December	13

Weather Delay Days which do not occur during a given month based on the number of days allocated for that month (above) do not carry over to another month.

4. **Advance Order Requirement.**
  - 4.1 **Materials and Equipment.** Within five days following receipt of the fully executed Contract from City, Contractor must provide to City the material and/or equipment submittal(s) for each of the following advance order items:

(A) Contract item 41, Shade Structure

- 4.2 **Advance Order.** For each material and/or equipment specified in this Section, within two days following City's written response confirming the Contractor may proceed with ordering the material and/or equipment, Contractor must order the material and/or equipment and submit documentation to City evidencing the order, including, but not limited to, the purchase order, documentation showing that the order has been accepted by supplier(s), and the anticipated shipment and delivery date for the material and/or equipment.
- 4.3 **Delivery Notification.** For each material and/or equipment specified in this Section, within two days following delivery of the specified material and/or equipment to Contractor, Contractor must provide written notice of the delivery to the Engineer. Except as set forth in this Section, Contractor will not perform any Work until the start date set forth in the Notice to Proceed. City anticipates issuing the Notice to Proceed following delivery of the materials and/or equipment set forth in this Section to Contractor.
- 4.4 **Application for Payment.** Contractor may request payment for the materials and/or equipment specified in this Section, which are delivered to a Worksite but not yet incorporated into the Work, subject to the following conditions: the materials and/or equipment must be delivered and suitably stored at a local Worksite agreed to, in writing, by City; full title vests in City at the time of delivery to the agreed upon Worksite; Contractor obtains and submits to City a negotiable warehouse receipt, endorsed over to City for materials and/or equipment stored in an off-site warehouse; the materials and/or equipment are segregated and labeled or tagged to identify the Project; the materials and/or equipment are protected from damage, weather, and contamination; if any defects or damage are discovered after delivery, Contractor agrees to replace the materials and/or equipment at Contractor's expense; and Contractor's application for payment is accompanied by a bill of sale, invoice, or other documentation warranting that City has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect City's interest therein, all of which must be satisfactory to City. If these conditions are satisfied, Contractor's application for payment may include up to 25% of the cost of the materials and/or equipment delivered but not yet incorporated into the Work.

**5. Construction Manager Role and Authority.** DCCM is the Construction Manager for this Project. The Construction Manager will assist City in the management of the construction of the Project. The Construction Manager may perform services in the areas of supervision and coordination of the work of Contractor and/or other contractors, scheduling the Work, monitoring the progress of the Work, providing City with evaluations and recommendations concerning the quality of the Work, recommending the approval of progress payments to Contractor, or other services for the Project in accordance with the Construction Manager's contract with City.

- 5.1 **Communications.** Contractor must submit all notices and communications relating to the Work directly to the Construction Manager in writing, as follows:

Mike Janet, [mjanet@dccm.com](mailto:mjanet@dccm.com)

With a copy to the Engineer:

Matt Vail, [mvail@dccm.com](mailto:mvail@dccm.com)

- 5.2 **On-Site Management and Communication Procedures.** The Construction Manager will provide and maintain a management team on the Project site to provide contract administration as an agent of City, and will establish and implement coordination and communication procedures among City, the Design Professional, Contractor, and others.
- 5.3 **Contract Administration Procedures.** The Construction Manager will establish and implement procedures for reviewing and processing requests for clarifications and interpretations of the Contract Documents, Shop Drawings, samples, other submittals, schedule adjustments, Change Order proposals, written proposals for substitutions, payment applications, and maintenance of logs.
- 5.4 **Pre-Construction Conference.** Contractor will attend the pre-construction conference, during **which** the Construction Manager will review the Contract administration procedures and Project requirements.
- 5.5 **Contractor's Construction Schedule.** The Construction Manager will review Contractor's **construction** schedules and will verify that each schedule is prepared in accordance with the requirements of the Contract Documents.
- 6. Increases or Decreases in Unit Price Work.** If the actual quantity for a bid item is increased or decreased by more than 25% of the estimated quantity on the Bid Schedule, the City may, but is not obligated to, adjust the unit price as set forth in this Section. The Engineer will determine whether a given increase or decrease in a quantity exceeds 25%, and the Engineer's determination is final. No adjustment in unit pricing will be made until after all Work involving that bid item is completed, and the final quantity has been determined by the Engineer.
- 6.1 **Increase.** For quantity increases of more than 25%, the unit price may be adjusted based on the difference between the unit price and the actual unit cost for the additional quantity. The Engineer's determination will not include fixed costs or markup for overhead, profit, or other indirect costs. For purposes of this Section, "fixed costs" means the Contractor's direct costs for labor, material, or equipment to perform or supply the bid item, which costs remain constant regardless of the item quantity.
- 6.2 **Decrease.** For quantity decreases of more than 25%, the unit price may be adjusted based on the difference between the unit price and the actual unit cost, inclusive of the item's fixed costs. Except as provided herein, 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, as set forth in Section 8.1(B) of the General Conditions.

END OF SPECIAL CONDITIONS



**TECHNICAL SPECIFICATIONS**

**FOR**

**GALVIN COURTS RENOVATION**

**CONTRACT NO. C02554**



**2026**

# 10 GENERAL CONSTRUCTION

## **10-1.00 Definitions of Amendments to Caltrans Standard Specifications:**

Amendments are identified using the following section headings:

“In Addition” – The language in the section supplements the Caltrans Standard Specifications section.

“Replace With” – The language in the section replaces the Caltrans Standard Specifications.

“Modification” – Only specific portions of the Caltrans Standard Specification section have been modified and the rest remains unchanged.

## **10-1.01 General- In Addition:**

Technical Specifications use definitions per Standard Specifications 1-1.07 and Abbreviations Standard Specification section 1-1.06.

Equipment used shall follow Standard Specification 5-1.33 “Equipment”.

The Engineer may order or consent to your request to open a completed section of surfacing, or pavement, for public use.

Before Contract acceptance, submit a document signed by the owner of the material source or disposal site, as applicable, stating that the Contractor has complied with the Contractor-owner agreement.

Unless otherwise provided hereafter, when sections and subsections of the Standard Specifications are used or attention is directed to them within the technical specifications, such direction shall not be interpreted as excluding other applicable provisions within the correlating section the Standard Specifications.

**10-5 Dust Control- In Addition:** Sweeping, covering stockpiles, applying water, and/or dust palliative, to control dust even caused by public traffic is included in the bid and not change order work.

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

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

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

**10-5.01 Payment:** Full compensation for conforming to the provisions of these specifications shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

**10-7 Mobilization:** Mobilization includes all preparatory work and operations needed to begin construction. This includes, but is not limited to, furnishing labor, tools, incidentals, facilities, equipment, materials, and supplies to the project site, as well as any other tasks or costs that must be completed before starting work on the contract items.

Mobilization shall also include advance order of any materials and contract items that require a longer lead time. Contractor shall provide material order receipts to complete as part of the submittal process. Attention is directed to the General Condition 5.2(A)(1).

**10-7.01 Payment:** **Mobilization** shall be the contract **lump sum** price, which price shall include but not limited to conforming to the provisions of this specification and doing all work involved in mobilization necessary for initial mobilization of the Contractor's forces and equipment to the project site, including establishing facilities, coordinating with utility companies, securing permits, and related startup activities.

**No additional payment will be made for, including but not limited to, the following:**

- Remobilization due to suspension, sequencing, or other reasons.
- Mobilization of subcontractors occurring after the start of construction.
- Any subsequent mobilizations following the initial mobilization.
- Mobilization due to project phasing, subcontractor scheduling, mobilization of specialized equipment, or delays caused by weather, utilities, or third parties

Any such costs shall be considered included in the original lump sum payment for Mobilization.

Payment for Mobilization will be made once, upon substantial completion of initial mobilization and commencement of construction activities, as determined by the Engineer.

# 12 TEMPORARY TRAFFIC CONTROL

## **12-1 General**

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

**12-1.04 Payment:** Furnishing flaggers shall be considered as included in the contract lump sum price paid for traffic control.

## **12-3 Traffic-Handling Equipment and Devices**

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

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

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

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

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

## **12-4 Maintaining Traffic**

### **12-4.01A General:**

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

**12-4.01A General:** You shall submit a trucking route along with the traffic controls plans for approval by the Engineer. The route must minimize traffic on residential streets that are not part of the project.

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

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

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

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

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

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

You shall keep the City of Santa Rosa Fire Department informed regarding the closure of any traveled way. At a minimum, you shall call the Fire Department at 543-3535 **and** the Communications Center at 543-3666 **daily** to report any traveled way closure. This means immediately upon closure for that day and again immediately after removal of the closure. For closures over multiple days, the daily notification still applies. This requirement does not apply for single lane closures on multiple lane streets.

You shall notify Sonoma County Transit at (707) 585-7516, Superintendent of Golden Gate Transit at (415) 257-4442, Santa Rosa City Bus at (707) 543-3922, Sonoma County Airport Express at (707) 837-8700, the local Postal Service at (707) 526-0113 and Recology at (800) 243-0291 5 calendar days prior to any lane closures or restrictions in turning movements.

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

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

Notification shall be as follows:

1. A notice placed on the front door of each home or business where curb side parking will be suspended and attempt made to notify each business or resident verbally that work will be underway within the block and that curb side parking will be suspended during stated working hours and request that vehicles be parked out of the roadway by 8:00 a.m. Service of notice shall not bar use of cars within the block, as individual plans change and emergencies arise.
2. Type 1 barricades every 50 feet adjacent to the curb where parking will be suspended with a notice posted on the barricade stating specific dates and times that curb side parking will be temporarily suspended. If work will not take place in the posted area, then Contractor shall remove "No Parking" notices.

#### **12-4.04 Temporary Pedestrian Access Routes**

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

Pedestrians shall be provided with a safe convenient and accessible path that, at a minimum, replicates the most desirable characteristics of the existing sidewalk, path or footpath.

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

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

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

**12-9.01 Payment:** Full compensation for conforming to the requirements of this Section shall be considered as paid for at the contract **lump sum** price for **Traffic Control**, which price shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, providing, placing, maintaining, and removal of temporary paths and/or ramps, temporary relocation of regulatory signs, changeable message boards, project and public notification signs, city furnished project ID signs, flagging, excavation, compaction, furnishing, and placement of asphalt concrete and/or PCC, removal and restoration of original surfaces, toe-rails, hand rails, complying with CA MUTCD Standards for pedestrian Safety, coordination efforts and any other items necessary for vehicle and pedestrian traffic control not specifically enumerated in the Project Plans or these Special Provisions, and no additional allowance will be made therefor.

## 13 WATER POLLUTION CONTROL

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

The Stormwater Pollution Prevention Plan for the City of Santa Rosa Galvin Community Park Courts Renovations project, prepared by Callander Associates Landscape Architecture.

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

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

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

### **13-2 Water Pollution Control Program**

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

**13-2.04 Payment:** The City Pays you to implement the Stormwater Pollution Prevention Plan as the lump sum price for Water Pollution Control and as follows:

### **13-3 Storm Water Pollution Prevention**

**13-3.01 General:** This project requires coverage under the State Water Resources Control Board Order No. 2009-0009-DWQ, (as amended by 2010-0014DWQ & 2012-0006-DWQ), National Pollutant Discharge Elimination System General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities (General Permit). The above referenced Orders can be found here: [https://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](https://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

Section 13-3 includes specifications for implementing and maintaining a Storm Water Pollution Prevention Plan (SWPPP) required by this General Permit.

A Notice of Intent for coverage under the General Permit will be filed and paid for by the City.

It is the Contractor's responsibility to implement the SWPPP. Included in the SWPPP is a project description, site map, erosion control plan, construction site monitoring program, reporting and inspection forms, contact list, and all other information necessary to comply with the requirements of the General Permit. The work under this section also includes updating the SWPPP.

Information on storm water best management practices (BMPs), preparing storm water pollution prevention plans, forms, reports, and other documents can be found in CASQA's Storm Water Best Management Practice Handbook Portal: Construction (January 2015). A PDF copy of this handbook is available for viewing at the City Public Works Office, 69 Stony Circle and will be made available to the Contractor.

The SWPPP references CASQA BMP fact sheets and follow the format suggested in Appendix B of the CASQA handbook. The Contractor may substitute another format if approved by the Engineer and it complies with all requirements of the General Permit.

All discharges of storm water from the project must comply with the General Permit.

A storm water annual report shall be prepared and submitted by the Contractor. The annual report must cover the preceding period from July 1th to June 30th (or Notice of Completion).

This work includes collecting and submitting all required data to SMARTS to comply with the Annual Report requirements of the General Permit and SMARTS.

Do not start job site activities until:

1. The SWPPP is authorized.
2. The waste discharge identification number (WDID) is issued.
3. SWPPP review requirements have been fulfilled. If the RWQCB requires time for review, allow 30 days for the review.

A current copy of the SWPPP shall be kept on site when the Contractor or its subs are working.

**13-3.01A Summary:** The Contractor shall be responsible for obtaining the State Water Resources Control Board General NPDES Permit for the Discharge of Storm Water related to Construction Activities (Construction General Permit). Contractor shall submit and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section 13-3, Storm Water Pollution Prevention Plan, of the Standard Specifications.

**13-3.02 SWPPP Implementation:**

The Contractor shall provide a Qualified SWPPP Practitioner (QSP), as defined in the General Permit, Section VII.B.3, to ensure full compliance with the General Permit and implementation of all elements of the SWPPP, including all storm water inspections and visual observations, Rain Event Action Plans, sampling and analysis and record keeping. The QSP shall ensure that all BMPs required by this SWPPP are implemented. The QSP shall notify the QSD of needed revisions to the SWPPP to reflect current conditions and all proposed changes.

The SWPPP shall be updated to reflect current project conditions, personnel, schedule, alterations to plans, BMP modifications or substitutions, relocation of staging and material stockpiling areas and any other changes that are not reflected in the SWPPP.

The Contractor is directed to Section A Fees and Permits for additional information.

**13-3.03 Submittals:** Within 20 days of Contract approval:

1. Submit Qualified SWPPP Practitioner (QSP) certification and contact information.

**13-3.04 Training:** Employees must receive initial water pollution control training before starting work at the job site.

For project managers, supervisory personnel, subcontractors, and employees involved in water pollution control work:

1. Provide storm water training in the following subjects:
  - a. Water pollution control rules and regulations
  - b. Implementation and maintenance for:
    - i. Temporary soil stabilization
    - ii. Temporary sediment control
    - iii. Tracking control
    - iv. Wind erosion control
    - v. Material pollution prevention and control
    - vi. Waste management
    - vii. Non-storm water management
2. Conduct weekly training meetings covering:
  - a. Deficiencies and corrective actions for water pollution control practices
  - b. Water pollution control practices required for work activities during the week
  - c. Spill prevention and control
  - d. Material delivery, storage, usage, and disposal
  - e. Waste management
  - f. Non- storm water management procedures

Storm Water training shall be documented in the SWPPP.

**13-3.05 Construction Site Monitoring Program:** The SWPPP includes a Construction Site Monitoring Program containing instructions and forms. Monitoring and inspections will take place during normal working hours

BMP inspection shall be performed by a QSP and documented on an approved form. A copy of the inspections will be kept in the SWPPP on site. An additional copy shall be given to the City. Noted deficiencies shall be brought to the Contractor's attention and Engineer and corrective action taken within 2 working days or before any rain event.

Monitor the National Weather Service's forecast on a daily basis. For the National Weather Service's forecast, go to the Web site for the National Weather Service. Printed copies of the forecast shall be kept in the SWPPP.

The QSP shall prepare all Rain Event Action Plans (REAP) 48 hours in advance of predicted rain event with a 50% or greater probability. The REAP shall be kept on site.

Use the Storm Water Site Inspection Report form for documenting site inspections.

1. Inspections of BMPs identified in SWPPP:
  - a. On a predetermined schedule of at least once a week;
  - b. Before a forecasted storm event;
  - c. After a qualifying rain event that produces site runoff;
  - d. At 24-hour intervals during extended storm events;
  
2. Daily inspections of (if applicable):
  - a. Storage areas for hazardous materials and waste
  - b. Hazardous waste disposal and transporting activities
  - c. Hazardous material delivery and storage activities
  
3. Inspections of:
  - a. Vehicle and equipment cleaning facilities:
    - i. Daily if vehicle and equipment cleaning occurs daily
    - ii. Weekly if vehicle and equipment cleaning does not occur daily
  - b. Vehicle and equipment maintenance and fueling areas:
    - i. Daily if vehicle and equipment maintenance and fueling occur daily
  
4. Pre and post rain inspections:
  - a. Pre-rain event inspection within 48 hours of predicted qualifying storm to verify the site and the BMPs are ready for the predicted rain.
  - b. Post-rain event inspection within 48 hours after a qualifying storm to observe the discharge locations and the discharge of any stored or contained rainwater; determine if BMPs functioned as designed; and identify if any additional BMPs are required.

This work includes providing a QSP, performing weekly BMP inspections, documentation, coordinating with Contractor and project inspector, providing QSD with SWPPP update information and all other work necessary to comply with the inspection requirements of the SWPPP.

Qualifying Rain Event Inspections, include both pre-rain and post-rain inspection, include providing a QSP, performing pre-rain inspections and post-rain inspections for qualified rain events as required in the SWPPP, documentation, coordinating with Contractor and project inspector and all other work necessary to comply with the qualifying rain event inspection requirements of the SWPPP.

**13-3.05a Sampling:** The QSP will sample for pH and turbidity during each qualifying rain event at all locations where runoff from the project is discharged offsite. Samples must be representative

of the runoff flow and characteristics of the site's discharges. All locations discharging runoff from the site must be sampled. Additional samples for nonvisible pollutants may be collected for lab analysis if required.

Three measurements will be taken at each discharge location for each working day of a qualified rain event. Measurements will be taken at the beginning of the work day or discharge, in the middle and one near the end of the discharge or work day. All measurements will be documented on sampling forms with a copy kept in the SWPPP and one given to the City. Discharge locations shall be marked on the site map in the SWPPP.

Measurements will be made using portable field meters. Each meter shall have been calibrated prior to use. A meter calibration log sheet shall be kept in the SWPPP. Measurements will be made during normal working hours.

This work includes collecting samples, measuring pH and turbidity, documentation, maintaining and calibrating pH and turbidity meters, submitting data to SMARTS and all other work necessary to comply with the sampling requirements of the SWPPP and the General Permit.

**13-3.06 Construction:** The SWPPP shall be updated to reflect current project conditions, personnel, schedule, alterations to plans, BMP modifications or substitutions, relocation of staging and material stockpiling areas and any other changes that are not reflected in the SWPPP or on the plans. A printed copy of the authorized SWPPP shall be at the job site whenever there is project related activity at the site.

The Contractor shall:

1. Install appropriate BMP materials and devices as listed in the SWPPP, before performing work activities.
2. Install soil stabilization materials (BMPs) in all work areas that are inactive or before storm events.
3. Repair or replace water pollution control practices within 48 hours of discovering any damage, unless a longer period is authorized by the Engineer.
4. The City does not pay for the cleanup, repair, removal, disposal, or replacement of BMP devices due to improper installation or Contractor negligence.

The QSP shall report all non-compliance to the City.

**13-3.07 Definitions:**

**Active Area:** Area where soil-disturbing work activities have occurred at least once within 15 days.

**Construction Phase:** Includes (1) construction phase for building roads and structures, (2) plant establishment and maintenance phase for placing vegetation for final stabilization, and (3) suspension phase for suspension of work activities or winter shutdown. The construction phase continues from the start of work activities to Contract acceptance.

Inactive Area: Area where soil-disturbing work activities have not occurred within 15 days.

Normal Working Hours: For purposes of the Water Pollution Control, normal working hours shall be from 7 a.m. to 4 p.m., Monday through Friday, unless otherwise approved by the Engineer.

Qualifying Rain Event: Storm that produces at least 0.5 inch of precipitation with a 48-hour or greater period between rain events.

Storm Event: Storm that produces or is forecasted to produce at least 0.10 inch of precipitation within a 24-hour period.

**13-3.10 Payment:** Full compensation for conforming to the requirements of this Section shall be considered as paid for at the contract **lump sum** price for **Water Pollution Control**, which price shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, fiber rolls, stabilized construction entrance, storm drain inlet protection, and implementing and revising the SWPPP, personnel training, monitoring, sampling, SMARTS reporting, and no additional allowance will be made therefor.

[Revised: 10/31/23 CDA STD2018]

## 14 ENVIRONMENTAL STEWARDSHIP

**14-10.01 General:** You shall dispose of all portland cement concrete and asphalt concrete, generated from removal or demolition activities on the project, at a recycler for these materials. All other excess materials from the project shall become the property of you and shall be disposed of, at your expense.

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

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

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

**14-10.02D Payment:** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

[Revised: 10/31/23-CDA STD2018]

## 15 EXISTING FACILITIES

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

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

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

**15-1.03D Responsibility of Contractor:** Except as otherwise specifically stated in the contract documents and technical specifications, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, heat, power, transportation, superintendence, temporary construction of every nature, charges, levies, fees, or other expenses incurred, and all other services and facilities of every nature whatsoever necessary for performance of the contract within the specified time.

**15-1.03E Demolition Permit and Grading Permit:** The Contractor is advised that they will be required to obtain a demolition and grading permit from the City of Santa Rosa Building Department, City Hall, Room 3, before the commencement of any work. Cost of the permit shall be considered as included in the various items of work.

**15-1.03F Scope of Work:** The provisions for demolition and removal work included in these specifications shall apply to all work performed under this contract and shall include the demolition and removal of all the items shown on the plans and all other structures, existing rubbish and debris from the site as detailed in these specifications.

Access to all of the sites of the work is available from adjacent public streets.

**15-1.03G Utilities:** All utilities within and across the project area and all utilities serving structures or facilities not under this contract but adjacent to the sites of the work shall be preserved and kept in operating condition during the progress of this contract. In addition, these utilities shall be left operable after completion of demolition and cleanup. Any damage to any utility due to the operation of the Contractor shall be repaired or replaced to the requirements of the City of Santa Rosa.

**15-1.03H Demolition and Removal:** The process of demolition, clearance, and removal by the Contractor shall be performed and supervised using employees experienced in this kind of work. The Contractor shall use care and proper precautions to insure the safety of workers, inspectors, and the public, and to insure no unreasonable disturbances to surrounding business establishments.

**15-1.03I Dust Nuisance:** The Contractor shall at all times during operations control movement of dust. Water shall be available and used to lay dust wherever necessary and at the Contractor's expense.

**15-1.03J Burning:** The site of the work is within an air pollution control district. No burning of any kind will, therefore, be permitted.

**15-1.03K Blasting:** No use of explosives will be permitted in the process of demolition.

**15-1.03L Prevention of Accidents:** The prevention of accidents shall be a prime consideration under the operations of this contract. The Contractor is instructed to take due care to comply with all provisions of these specifications as to accident prevention.

**15-1.03M Sidewalk and Street Repair:** All sidewalks adjacent to the job site which are broken as a result of the Contractor's operation and any damage to streets, curbs, or gutters shall be repaired in accordance with the Standard Specifications of the City of Santa Rosa.

**15-1.03N Temporary Construction Fencing:** A 6-foot high temporary chain link construction fence shall be installed along the entire perimeter of the project site in the approximate location shown on the plans to secure the work site and shall be maintained for the duration of the project. The temporary construction fencing shall be in good condition, staked into the ground wherever possible, and installed with a top tension wire. The fence posts shall be 2 inch diameter galvanized steel. The fence fabric shall be 11 gauge, with knuckled barbs on the top edges.

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

**15-2.10B Adjust Frames, Covers, Grates, and Manholes:** Existing manhole frames and covers, valve boxes, mainline cleanouts and monuments adjusted to grade shall conform to City Standards.

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

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

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

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

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

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

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

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

**15-4 Tree Root Pruning:** All tree roots two inches and greater which are encountered during excavation must be pruned by hand. The root shall be cut cleanly with a saw to avoid splits. When digging within the drip line of trees, you shall exercise extreme caution to avoid pulling on roots with excavation equipment. Hand dig around all roots greater than one inch in diameter. You shall notify the Engineer when encountering roots within the drip line of trees which are greater than one inch. If the Engineer elects to get direction from an arborist You shall redirect crews to other contract work after safeguarding the area. Refer to Section 112 Tree Protection of these Special Provisions for more information.

**15-5 Payment:** Full compensation for conforming to the requirements of this Section shall be considered as paid for at the contract **lump sum** price for **Demolition**, which price shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.

# 17 GENERAL EARTHWORK AND LANDSCAPE

## **17-2 Clearing and Grubbing**

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

**17-2.01A Items to be Protected:** Tree Protection must be installed prior to clearing and grubbing. Refer to Section 112, "Tree Protection" of these Special Provisions.

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

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

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

## **17-2.03 Construction:**

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

**17-2.03B Clearing:** Strip and remove vegetation and trash from unpaved areas to be improved. Leave intact shrubs and trees as identified by Engineer. The contractor shall protect surrounding areas from damage by equipment or construction operations.

**17-2.03C Grubbing:** All stumps, roots with a diameter greater than one-inch, and other objectionable material shall be removed to a depth of one foot below finished grade in the area of construction. The resulting spaces shall be backfilled with material suitable for the planned use. Such suitable material shall be placed and compacted in layers as specified in Section 19-6 "Embankment Construction" of the Standard Specifications.

**17-2.03E Tree Removal and Stump Grind:** The workmanship shall be performed to the best general standards in the industry. All precautions shall be taken to ensure the protection of existing adjacent public or private property. Refer to Section 112, "Tree Protection," of these Special Provisions for additional requirements.

**17-2.03E(1)Tree Removal:** Trees to be removed are indicated on the project plans. All tree removals shall include removal of stumps as described below.

**17-2.03E(2) Stump Grind:** All stumps encountered within the limits of clearing and grubbing are to be ground.

Stumps and roots shall be removed to a full 12-inch depth below finish grade.

The stump and root holes shall be backfilled and compacted as indicated in Section 17-2.03C above.

**17-2.04 Payment:** Full compensation for conforming to the requirements of this Section, except for Tree Removal and Stump Grind, is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

The contract price paid **per each** for **Tree Removal and Stump Grind** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.

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# 19 EARTHWORK

## **19-1 General**

**19-1.01 General:** It is assumed that the soil on the site is not contaminated. The contractor is still responsible for soil testing of offhaul material. See section 19-2.03B, Surplus Material, of these Technical Specifications.

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

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

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

**19-1.03B(1) Subgrade Stabilization:** Any area of the subgrade determined by the Engineer to be unsuitable shall be stabilized. Processing of unsuitable subgrade material is not allowed. The areas to be stabilized will be marked in the field by the Engineer after excavation of the area is complete.

Refer to Section 43 Court Surfacing of these Special Provisions for geogrid fabric stabilization under court surfacing.

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

**19-2.03A General:** The Engineer shall provide spot elevations for the excavation of the site. You shall furnish a qualified grade setter to ensure the subgrade conforms to the lines and grades established by the Engineer.

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

**19-2.03B Surplus Material:** You shall be responsible for the removal and disposal of surplus materials. You shall notify the City of the disposal location before the start of construction. Surplus material, including removal of subgrade soil, will be paid for as Soil Offhaul.

## **19-5 Compaction**

**19-5.03B Relative Compaction:** Relative compaction of subgrade and sub base materials shall be as indicated on the Plans and in the project geotechnical report.

**19-11 Payment:** Payment for the work of this Section shall be paid for at the contract price bid as included in the bid schedule and as delineated below:

1. The contract **lump sum** price paid for **Earthwork** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, rough grading of the site to achieve proposed elevations, and no additional allowance will be made therefor.
2. The contract price paid **per ton** for **Soil Offhaul** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, offhaul of existing site soil to achieve proposed grades, and no additional allowance will be made therefor.
3. The contract price paid **per cubic yard** for **Overexcavation and Lime Treatment** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, excavation and lime treatment of existing subgrade underneath court pavement to the depths shown on the plans, and no additional allowance will be made therefor.

## 20 LANDSCAPE

### 20-1 General

**20-1.02B Water:** You shall obtain water according to section 6-4.01A, construction water of these Special Provisions.

### 20-2 Irrigation

#### 20-2.01B Materials:

- A. Main lines (constant pressure) 2 inches and larger shall be polyvinyl chloride (PVC) 1120-160 psi with ring-tite connections; ½ inch to 1½ inch shall be PVC 1120 schedule 40.
  1. Join lengths of pipe by means of integrally formed bell end on pipe using rubber ring seal. Use schedule 40 PVC coupling on schedule 40 pipe.
  2. At changes in direction of branch mains and at QCV and RCV use appropriate schedule 40 PVC rubber ring seal fittings as approved by the Uniform Plumbing Code.
  3. At the location of QCV and RCV, asbestos-cement heavy tapped couplings for PVC pipe will be accepted; tapped couplings as manufactured by Johns-Manville.
- B. Lateral lines (non-pressure) shall be 1120-200 psi PVC plastic pipe with schedule 40 Type 1, Grade 1 PVC solvent weld fittings.
- C. Connections between main lines and RCV's shall be of schedule 40 hot-dipped galvanized steel nipples and fittings. Galvanized steel pipe and fittings shall be wrapped with a 40-mil thickness of self-adhesive polyethylene tape and coated with an epoxy material specifically formulated for such use.
- D. Riser stock shall be as follows:
  1. Risers connecting QCV's and sprinklers to PVC fitting shall be schedule 40 hot-dipped galvanized steel nipples and 90-degree ells as shown in construction details.
  2. Risers shall in no case be of smaller nominal diameter than the IPS size of joint provided on the head or QCV to be installed.
- E. Quick coupler valves (QCV) shall be as shown on the plans or approved equal.
- F. Remote control valves (RCV)
  1. RCV shall be as shown on the plans, or approved equal.
  2. Drip remote control zone kits shall be as shown on the plans, or approved equal.
- G. Boxes for remote control valves shall be as shown on the plans. Rubber valve markers shall be Rainbird #63100.
- H. Miscellaneous Installation Materials

1. Solvent cement for solvent weld joints shall be of make and type approved by manufacturer(s) of pipe and fittings. Cement shall be maintained at proper consistency throughout use.
2. Lubricant for assembling rubber ring seal joints shall be of make and type approved by manufacturer of pipe.
3. Pipe joint compound shall be non-hardening, non-toxic materials designed specifically for use on threaded connections in water carrying pipe. Performance shall be same as teflon tape or approved equal.

K. Miscellaneous Equipment

1. Provide all equipment called for by the plans.
2. Provide to the City, at completion of the irrigation installation, three (3) each of all operating and servicing keys and wrenches required for complete maintenance and operation of all heads and valves. Include all wrenches necessary for complete disassembly of all heads and valves.

**20-2.01B Location Markers:** You shall stake out the irrigation system as shown on the plans, using a different color flagging for heads, valves, tie-in point and trench. These areas shall be checked by you and the Engineer before construction is started. Any changes, deletions or additions shall be determined at this check. Trenching shall be started only after layout check by you and approval by the Engineer.

**20-2.01C Construction:**

- A. Preparation. Schedule and coordinate placement of materials and equipment in a manner to effect earliest completion of work in conformance with construction and progress schedule.
- B. Protect work and materials from damage during construction and storage.
- C. Layout:
  1. Layout work as accurately as possible in accordance with diagrammatic plans.
  2. Where site conditions do not permit locating piping, valves and heads where shown, notify the Engineer immediately and determine relocation in joint conference.
  3. Run pipelines and automatic control wiring in common trenches wherever practical.
- D. Install water lines in 1120-Schedule 40 PVC plastic sleeves at street crossings.
- E. Excavation and Trenching
  1. Excavation shall be in all cases ample in size to permit the pipes to be laid at the elevations intended and to permit ample space for joining.
  2. Make trenches for pipelines deep enough to provide minimum cover from finish grade as follows:
    - a. 24-inch minimum cover over main lines to control valves and quick coupling valves.
    - b. 24-inch minimum cover over control wires from controller to valves.
    - c. 16-inch minimum cover over RCV-controlled lines to sprinkler heads.
    - d. 48-inch minimum cover over all lines inside street right of way.
  3. Restore surfaces, existing underground installations, etc., damaged or cut as result of excavations to original conditions in manner approved by Engineer.
  4. Where drainage line interferes with irrigation trenching and pipe work, adjust the trench depth as instructed by the Engineer.
- F. Assembling Pipelines

1. All pipe shall be assembled free from dirt and pipe scale. Field cut ends shall be reamed only to full pipe diameter with rough edges and burrs removed.
2. Rubber ring seal joint:
  - a. Use factory-made male end or prepare field-cut male end to exact specifications of factory-made end. Beveling is to be done with a tool specifically designed for that purpose.
  - b. Carefully clean bell or coupling and insert rubber ring seal without lubricant. Position ring carefully, according to manufacturer's instructions.
  - c. Place a reference mark on each male end at the proper distance from the beveled end as indicated by the manufacturer's instructions. Lubricate male end according to manufacturer's instructions and insert male end to specified depth.
  - d. All ring-tite joints are to be left uncovered until after they have been inspected and the pressure test applied.
  - e. Form thrust blocks in such a manner to prevent any concrete from coming in contact with the pipe. Thrust blocks shall be between solid soil and the fitting.
3. Solvent weld joint:
  - a. Prepare joint by first making sure the pipe end is square, then deburring the pipe end and cleaning pipe and fitting of dirt, dust and moisture.
  - b. Dry-insert pipe fitting to check for mis-sizing. Pipe should enter fitting 1/3 to 2/3 depth of socket.
  - c. Coat the inside socket surface of the fitting and the external surface of the male end of the pipe with P-70 Primer (manufactured by Weld-On). Then without delay, apply Weld-On 711 cement liberally to the male end of the pipe and also apply 711 cement lightly to the inside of the socket. At this time, apply a second coat of the cement to the pipe end.
  - d. Insert pipe immediately into fitting and turn ¼ turn to distribute cement and remove air bubbles. The pipe must seat to the bottom of the socket fitting. Check alignment of the fitting. Pipe and fitting shall be aligned properly without strain to either.
  - e. Hold joint still for approximately thirty (30) seconds and then wipe excess cement from the pipe and fitting.
  - f. Cure a minimum of thirty (30) minutes before handling and at least six (6) hours before allowing water in the pipe.
4. Threaded joint:
  - a. Field-threading of plastic pipe or fittings is not permitted. Factory-formed threads only will be permitted.
  - b. Factory-made nipples shall be used wherever possible. Field-cut threads in metallic pipe will be permitted only where absolutely necessary. When field-threading, cut threads accurately on axis with sharp dies.
  - c. All threaded joints shall be made up with pipe joint compound. Apply compound to male threads only.
  - d. Where assembling metallic pipe to metallic fitting or valve, no more than three (3) full threads shall show when joint is made up.
  - e. Where assembling to threaded plastic fitting, take up joint no more than one full turn beyond hand tight.
  - f. Where assembling soft metal (brass or copper) to plastic pipe, use strap type friction wrench only; do not use metal jawed wrench.
5. Cap or plug openings as pipelines are assembled to prevent entrance of dirt or obstruction. Remove caps or plugs only when necessary to continue assembly.

6. Where pipes or control wires pass through sleeves, provide removable non-decaying plugs at ends of sleeve to prevent entrance of earth.
- G. Remote control valves:
1. Install where shown and group together where practical.
  2. Locate valves no closer than 24 inches from walk edges, buildings, and walls.
  3. Provide 6 inches of pea gravel in bottom of valve box. No soil shall be in contact with RCV.
  4. Support valve box with four (4) bricks (one at each corner). Maintain a minimum of 2 inches clearance between PVC pipe and valve box.
  5. Valve boxes to have a 3-inch clearance between the remote-control valve stem in the fully open position and the underside of the valve box lid.
  6. Center rubber valve marker overflow control stem.
- H. Testing: Perform test as specified. Remake any faulty joints with all new materials. Use of cement or caulking to seal leaks shall not be permitted.
- I. Backfilling:
1. Backfill only after pipe has been inspected and approved.
  2. Main line and lateral line backfill to be a 4-inch minimum sand bed on all sides of the pipe. The remaining backfill material shall be native soil excavated from the trenches.
  3. Place backfill materials in 6-inch layers and compact by jetting or tamping to a relative compaction of 90 percent.
  4. Dress off areas to finish grades and remove excess soil, rocks or debris remaining after backfill is completed.
  5. In existing turf areas, after trenches have been compacted and settled, replace all sod within a 3-foot diameter of all sprinkler heads. Dress off all other trenches and seed with perennial rye grass.
  6. If settlement occurs along trenches, and adjustments in pipes, valves and sprinkler heads, soil, sod, or paving are necessary to bring the system, soil, sod, or paving to the proper level of the permanent grade, you, as part of the work under this Contract, shall make all adjustments without extra cost to the City.
- J. Sprinkler heads and quick coupler valves.
1. Thoroughly flush lines before installing heads and QCV's.
  2. Locate heads and QCV's as shown in the Drawings and details.
  3. The lowering of the sprinkler heads to finished grade will be done by you after the turf has become well established.
  4. Adjust sprinkler heads for proper distribution and trim.

**20-2.06A Quality Assurance:** It shall be the responsibility of the irrigation Contractor to fill and repair all depressions and replace all necessary lawn and planting-loss due to the settlement of irrigation trenches for one year following completion and acceptance of the job.

You shall also guarantee all materials, equipment, and workmanship furnished by him to be free of all defects of workmanship and materials, and shall agree to replace at your expense, at any time within one year after installation is accepted, any and all defective parts that may be found.

**20-2.13B(1)c) Submittals:**

- A. You shall maintain in good order in the field office one complete set of black line print record plans of all sprinkler plans which form a part of this Contract, showing all water lines, sprinklers, valves, and stub-outs. In the event that any work is not installed as

indicated on the plans, such work shall be corrected and dimensioned accurately from adjacent features on these record plans.

- B. All underground stub-outs for future connections shall be located and dimensioned accurately from building walls on all record plans.
- C. Upon completion of the work, obtain reproducible prints from the Engineering Department and neatly correct the prints to show the as-built conditions and return to the Engineering Department.

**20-2.13(d)(iii) Quality Control:** Testing shall also include:

- 1. Notify the Engineer at least three (3) days in advance of testing.
- 2. Perform testing at your expense.
- 3. Center load piping with small amount of backfill to prevent arching or slipping under pressure. No fitting shall be covered.
- 4. Apply the following tests after welded plastic pipe joints have cured at least 24 hours.
  - a. Test live (constant pressure) and QCV lines hydrostatically at 125 psi minimum. Lines will be approved if test pressure is maintained for six (6) hours. The lines shall be restored to the original test pressure and the amount of water required to do so will be measured. Approved tables of allowable loss (Johns-Manville Installation Guide for ring-tite PVC pipe, pages 25 and 26) will be consulted, and the lines will be approved or not approved as such results may indicate. You shall make tests and repairs as necessary until test conditions are met.
  - b. Test RCV-controller lines with water at line pressure and visually inspect for leaks. Retest after correcting defects.

**20-3 Planting**

**20-3.01B Materials:**

A. Plants

- 1. Nomenclature: See list of plant materials on Landscape Planting plans.
- 2. Conditions: Plant shall be symmetrical, typical for variety and species, sound, healthy, vigorous, free from plant disease, insect pests or their eggs, excessive abrasions, or other objectionable disfigurements, and shall have healthy, normal root systems, well filling their containers, but not to the point of being root bound. Tree trunks shall be sturdy and well hardened off. Plants shall not be pruned prior to delivery except as authorized by the Engineer. In no case shall trees be topped or pruned before delivery. Plants shall be grown in nurseries which have been inspected by the State Department of Agriculture and have complied with its regulations.
- 3. Minimum Tree Sizes: In addition to the preceding specifications, all trees shall conform to the sizes indicated on the plans.
- 4. Material Source: Contractor shall inform the City of the source of all plant material allowing adequate time so that inspections of plant material may be made at the source prior to delivery to site.
- 5. Identification: Plants shall be of the variety and size shown on the plans and shall conform to the requirements herein. One of each bundle or lot shall be tagged with plant name in accord with recommendations of the American Association of Nurserymen.
- 6. Substitutions: Substitutions for the indicated plant materials will be permitted, provided the substitute materials are approved in advance by the Engineer, and the

substitutions are made at no additional cost to the City. Except for the variations so authorized, all substitute plant materials shall conform to the requirements of these specifications. If accepted substitute materials are of less value than those indicated or specified, the contract price will be adjusted in accordance with the provisions of the contract.

7. Plant Inspection and Rejection: Root condition of plants will be determined by the Engineer through the removal of earth from the roots of at least two (2) plants but not more than 2 percent of the total number of species from each source.

**20-3.01B(2)(c) Sod**: Turf repair shall be accomplished by installing sod. Sod shall be 90/10 Tall Fescue blend (90% Tall Fescue and 10% Bluegrass), as available from Delta Bluegrass, 111 N Zuckerman Rd, Stockton, CA 95206, (800) 637-8873, or approved equal.

**20-3.01B(3) Soil Amendments**: All areas to be planted and irrigated shall receive soil amendments. Refer to Section 20-6 for requirements.

**20-3.01C Construction**:

A. Scheduling

Planting shall not commence until completion of all construction work, grading, soil preparation, and irrigation installation. All container stock shall be spotted on-site by You per plans prior to planting. Set out only quantity that can be reasonably planted in one workday. Plant pits shall not be excavated until the approval of plant locations by the Engineer.

B. Soil Preparation

1. Refer to Section 20-6 for requirements.

C. Spacing

When plant material is spaced in rows, the total dimension shall be verified, and the plants equally spaced within the designated area. Where plant material is shown in loose pattern, you shall space the material as shown on plans or as directed by the Engineer. Ground cover material shall be triangularly spaced per dimensions indicated on plans (where applicable).

D. Plant Pits

Plant pits shall be dug with level bottoms two times the diameter and two times the depth of root ball. Sides of excavated plant pits shall be scarified by pry bar or shovel.

E. Removal from Containers

All canned stock 5-gallon size and under shall be vertically cut on two opposite sides with approved instrument for the purpose. Fifteen (15) gallon size containers shall be cut on four opposite sides. Cutting with an axe or spade shall NOT be permitted.

F. Handling

No canned plant material shall be planted if the ball is broken or cracked either before or during the process of planting.

G. Setting

Plant shall be same relation to soil level when planted as it was when in container. Each plant shall be placed in center of plant pit.

H. Pit Backfill

Backfill material around plants shall be free from rocks or foreign material and amended per Section 20-6.

I. Backfilling Procedure

1. Backfill pit with backfill mix halfway to finish grade and water thoroughly.
2. Commercial fertilizer in the form of 20-10-5 Agriform 21-gram tablets shall be added to the plant pits at the following rates:

1 Gallon Plant	1 Tablet
5 Gallon Plant	2 Tablets
15 Gallon Plant	5 Tablets
Larger Than 15 Gallons	1 Tablet per ½" Trunk Diameter

3. Backfill finish to grade. Backfill finish shall be tamped firm and a shallow basin formed at the perimeter of plant pit to hold enough water to saturate the root ball and backfill mix.
  4. Water immediately to saturate entire root ball and backfill.
  5. Remove watering basins prior to hydroseeding.
- J. Tree Staking  
Stake all trees as shown in the details on the Plans. Drive stakes into firm soil next to root ball on windward side of tree and backfill with prepared soil mix. Tree and stakes shall be vertical in all cases.

## **20-4 Plant Establishment**

**20-4.01E: Schedule:** Work in this section will not begin until the irrigation audit is complete.

- A. Time Limits: The plant establishment period shall commence from the date of substantial completion of planting as defined below, and extend for a ninety (90) day period thereafter, or until Contract Acceptance. Attention is directed to section 5, "Control of Work" of the standard specifications.
- B. Substantial Completion: Shall be deemed as the time all major plantings, including container plantings, trees, and sod, are installed, and when all other work is satisfactorily completed (with the exception of minor items to be completed as noted upon a checklist compiled by the Engineer). Establishment period shall not commence until work is deemed substantially complete by the Engineer.

**20-4.02A(1) Quantities:** In all cases, quantities of plant material shall be furnished as needed to complete work as indicated on plans, including maintenance (replacements) during the contract period.

**20-4.02A General:** During the course of the plant establishment period, water shall be paid for by the Contractor.

**20-4.02B Fertilizers:** Fertilizers used during the plant establishment period shall be as follows:

- A. Calcium Nitrate (15.5-0-0)
- B. 15-15-15 Fertilizer

**20-4.02C Herbicide/Fungicide/Insecticide:** Shall be a commercially available chemical recommended for this project and these plantings by a State of California appropriately licensed individual. The licensed individual shall review all planting, including but not limited to seed, sod, groundcovers, shrubs, and trees, the types and extent of soil preparation, the irrigation systems, drainage patterns, and other project characteristics to verify type, compatibility, and recommend

the appropriate chemical(s) for use. The Contractor shall be responsible for all overspray, spreading, runoff, plant health, and other impacts from the use of the chemical(s).

**20-4.03A General:** All planting areas shall be kept weed-free at all times during the plant establishment period. All pest and disease control shall be the Contractor's responsibility. All planting areas shall be kept at optimum moisture for plant growth. Settlement of soil and plants and soil erosion shall be repaired and areas replanted as required. Dying or deficient plants shall be replaced as soon as they become apparent

**20-4.03A(1) Protection:** You shall carefully and continuously protect all areas included in the contract, including lawn areas, plant materials, supports, etc., until final acceptance of the work by the City.

**20-4.03C Fertilizing:** Fertilizers used during the maintenance period shall be applied as follows:

- A. Beginning 45 days after planting, apply calcium nitrate at a rate of 7 pounds per 1000 square feet with reapplication every 45-60 days. Once plants are performing satisfactorily, the frequency of fertilization may be decreased if the color and rate of growth in the plant material is in good health.
- B. During the early fall and spring, substitute the above fertilization program with 15-15-15 fertilizer and apply at a rate of a 6 pound per 1000 square feet.

**20-4.03D Weed Control:** Herbicide shall not be used until all plant material has been planted a minimum of 20 days. All planting areas shall be kept weed free by non-herbicide methods during this time period. Contractor must apply the material in conformance with the written recommendations of the State appropriately licensed individual.

**20-4.03H Cleanup:** After all planting operations are completed Contractor shall remove all trash, excess soil, empty plant containers, or other accumulated debris from the site at no extra cost to City. Contractor shall repair all scars, ruts, or mars in area caused by work operations. Areas shall be left in a neat and orderly condition.

**20-4.03I Inspections:**

- A. Contractor shall give forty-eight (48) hour notice and set appointment for all inspections by the Engineer.
- B. Inspections and/or field supervision by the Engineer shall be scheduled for the following operations:
  1. Approval of all plant material.
  2. Tree and shrub replacement PRIOR to digging holes and placement planting.
  3. Approval of ground cover and hydroseed lines PRIOR to planting.
  4. Final inspection.
- C. Inspection shall be called for at the end of all planting operations for the purpose of determining compliance with plans and specifications, intent, workmanship, and cleanup. Contractor shall secure written verification of inspection data, any corrections required to work, and limits of inspected area before beginning the described maintenance work.
- D. A final inspection shall be made at the end of the maintenance period for full approval of the work area.
- E. In the event you request inspection of work, and said work is substantially incomplete, you shall be responsible for inspection costs.

#### **20-4.03J Guarantee:**

- A. All shrubs, ground covers, and lawn areas shall be guaranteed as to growth and health for a period of ninety (90) days after final acceptance by the City; all trees shall be guaranteed for a period of one (1) year.
- B. Plants which die or lose more than 30 percent of their original leaves shall be replaced under this section.
- C. You, within fourteen (14) days of written notification by the City, shall remove and replace all guaranteed plant materials which for any reason fail to meet the requirements of the guarantee. All plant material replaced shall be guaranteed for the original period, starting from the date of replacement.

#### **20-5 Landscape Elements:**

**20-5.04B(1) General:** Mulch for all planting areas shall be Shredded Bark Mulch per 20-5.04B(4) of the Standard Specifications. Mulch within bioretention areas shall be Bioretention Mulch per 20-5.04B(6).

**20-5.04B(6) Bioretention Mulch:** Mulch in bioretention areas shall be an organic float-resistant product that resists migration during flooding conditions, such as Z-Best Organic Float-Resistant Bio Retention Mulch, (408) 846-1577, or approved equal.

#### **20-6 Landscape Soil Preparation**

##### **20-6.01 General**

##### **20-6.01A Scope**

Furnish and install all landscape soil preparation as shown on the plans and as specified herein including, but not necessarily limited to, the following:

1. Stockpiling of native soil
2. Topsoil placement
3. Organic amendment
4. Fertilizer
5. Plant pit preparation
6. Finish grading

##### **20-6.01B Quality Control**

Reviews: Contractor shall specifically request at least three (3) working days in advance of the following reviews prior to progressing with the work:

1. Completion of rough grading
2. Verification of amendment incorporation depths
3. Finish grade

Certification: Written certificates stating quantity, type, and composition, weight and origin for all amendments and chemicals shall be delivered to the Engineer before the material is used on the site.

Amendment Samples: Provide an analysis of the amendment from a Seal of Testing Assurance (STA) Certified Compost Lab, designated by the U.S. Composting Council (USCC). Or, send a one-gallon sample of each proposed amendment to Soil Control Lab of Watsonville (831) 724-5422, for their testing for conformance to this specification.

1. No material shall be delivered to the site until the Engineer approves the samples.
2. Testing costs shall be paid for by the Contractor.
3. If an alternate laboratory is used, the laboratory must be STA certified by the USCC, using test methods described in the "Test Methods of the Examination of Composting and Compost" (TMECC) test methods manual.

Biotreatment Soil Mix Submittals: Submit to the Engineer for approval:

1. A one-gallon size sample of biotreatment soil.
2. Certification from the soil supplier or an accredited laboratory that the biotreatment soil mix meets the requirements of this specification.
3. Grain size analysis results of the fine sand component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils or Caltrans Test Method (CTM) C202.
4. Quality analysis results for compost performed in accordance with Seal of Testing Assurance (STA) Standards.
5. Organic content test results of biotreatment soil mix. Organic content test shall be performed in accordance with Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, "Loss-On-Ignition Organic Matter Method.
6. Grain size analysis results of compost component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
7. A description of the equipment and methods used to mix the sand and compost to produce biotreatment soil mix.
8. Provide the name of the testing laboratory(s) and the following information:
  1. Contact person(s)
  2. Address(es)
  3. Phone contacts(s)
  4. E-mail address(es)
  5. Qualifications of laboratory(s) and personnel including date of current certification by U.S. Composting Council (USCC), ASTM, Caltrans, or approved equal.

Planting Areas: All areas to be planted, whether in container stock, sod, or otherwise, are defined as planting areas in these documents.

## **20-6.02 Materials**

### **20-6.02A General**

Native Topsoil: Shall be the existing surface layer of soil on-site. this layer typically will be a different color and texture than the subsoil, and may be of varying thicknesses. the contractor shall be responsible for reviewing the area limits and depths of native topsoil on-site with the Engineer.

Fertilizer: Shall be 15-15-15 Fertilizer.

Organic Amendment: The following materials shall be used as soil amendment.

1. Compost: Shall be Z-Best's Organic Compost available through Z-Best Composting (408) 846-1574 and shall conform to:
  1. Seal of Testing Assurance Program from the U.S. Composting Council.
  2. Compost parameters, below:

Property	Test Method	Unit of Measurement	Requirement
pH	TMECC 04.11-A Elastomeric pH 1:5 slurry method pH	units	6–8.5
Soluble salts	TMECC 04.10-A Electrical conductivity 1:5 slurry method	dS/m (mmhos/cm)	0–10
Moisture content	TMECC 03.09-A Total solids & moisture at 70 ± 5 °C	% wet weight basis	30-60
Organic matter Content	TMECC 05.07-A Loss-on-ignition organic matter method (LOI)	% dry weight basis	30–60
Maturity	TMECC 05.05-A Germination and vigor	% relative to positive control	Seed emergence 80 or above Seedling vigor 80 or above
Stability	TMECC 05.08-B Carbon dioxide evolution rate	mg CO <sub>2</sub> -C/g OM per day	4 or below
Pathogen	TMECC 07.01-B Salmonella < 3 MPN per 4 grams, dry weight basis	Pass/ Fail	Pass
Pathogen	TMECC 07.01-B Fecal coliform bacteria < 1,000 MPN per gram, dry weight basis	Pass/ Fail	Pass
Physical contaminants	TMECC 02.02-C Man-made inert removal and classification: Plastic, glass, and metal % > 4 mm fraction	% dry weight basis	combined total: < 0.5%
Physical contaminants	TMECC 02.02-C Man-made inert removal and classification: Sharps (sewing needles, straight pins and hypodermic needles) % > 4mm fraction	% dry weight basis	none detected
Particle size fine for compost used as soil amendment	TMECC 02.02-B Sample sieving for aggregate Size classification	% dry weight basis	Pass 2 inch sieve 98% min., Pass 3/8 inch sieve 95% min.

Property	Test Method	Unit of Measurement	Requirement
Heavy metals	PASS / FAIL	mg/kg (ppm), dry weight basis	All EPA 503 metal contaminant limits
Carbon:Nitrogen Ratio		Carbon:Nitrogen	≤25:1
Note: TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC). (Table modified from the US Composting Council Landscape Architectural Specifications 2005.)			

2. Nitrogen-treated Fir Bark shall conform to:

1. Physical Properties

- a. 95% -100% passing, sieve size 6.35 mm (1/4 inch)
- b. 80% - 100% passing, sieve size 2.38 mm (No. 8, 8 mesh)
- c. 0% - 30% passing, sieve size 500 micron (No. 35, 32 mesh)

2. Chemical Properties

- a. Nitrogen Content (dry weight basis): 0.4% - 0.6%
- b. Iron Content: minimum 0.08% dilute acid soluble Fe on dry weight basis
- c. Soluble Salts: maximum 3.5 millimhos/cm at 25 degrees C. as determined by saturation extract method
- d. Ash: 0 - 6.0%

Biotreatment Soil Mix: Shall meet the following criteria:

1. General Requirements: Biotreatment soil mix shall achieve a long-term, in-place infiltration rate of at least 5 inches per hour. Biotreatment soil mix shall also support vigorous plant growth.
  1. Biotreatment soil mix shall be a mixture of fine sand and compost, measured on a volume basis:
    - a. 60% - 70% Sand
    - b. 30% - 40% Compost
2. Sand for Biotreatment Soil Mix:
  1. General: Sand shall be free of wood, waste, coating such as clay, stone, dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be non-plastic.
  2. Sand for Biotreatment Soil Mix Texture: Sand for Biotreatment Soil Mix shall be analyzed by an accredited lab using #200, #100, #40 or #50, #30, #16-, #8-, #4-, and 3/8 inch sieves (ASTM D 422, CTM 202 or as approved by municipality), and meet the following gradation:

<b>Sieve Size</b>	<b>Percent Passing (by weight)</b>
3/8 inch	100
No. 4	90 - 100
No. 8	70 - 100
No. 16	40 - 95
No. 30	15 - 70
No. 40 or No. 50	5 - 55
No. 100	0 - 15
No. 200	0 - 5

- a. Note: All sands complying with ASTM C33 for fine aggregate comply with the above gradation requirements.
3. Compost for Biotreatment Soil Mix: Compost shall conform to the Seal of Testing Assurance Program from the U.S. Composting Council and to the parameters below:
    1. Organic Matter Content: 35% - 75% by dry wt.
    2. Carbon and Nitrogen Ratio: C:N < 25:1 and C:N > 15:1
    3. Maturity/Stability: Any one of the following is required to indicate stability:
      - a. Oxygen Test < 1.3 O<sub>2</sub>/unit TS/hr.
      - b. Specific Oxy. Test < 1.5 O<sub>2</sub>/unit BVS
      - c. Respiration Test < 8 C/unit VS/day
      - d. Dewar Test < 20 Temp. rise (°C)
      - e. Solvita® > 5 Index value
    4. Toxicity: Any one of the following measures is sufficient to indicate non-toxicity.
      - a. NH<sub>4</sub><sup>+</sup> : NO<sub>3</sub>-N < 3
      - b. Ammonium < 500 ppm, dry basis
      - c. Seed Germination > 80% of control
      - d. Plant Trials > 80% of control
      - e. Solvita® > 5 Index value
    5. Nutrient Content: Provide analysis detailing nutrient content including N-P-K, Ca, Na, Mg, S, and B.
      - a. Total Nitrogen content 0.9% or above preferred
      - b. Boron: Total shall be < 80 ppm
    6. Salinity: Must be reported, < 6.0 mmhos/cm
    7. PH shall be between 6.2 and 8.2 (may vary with plant species)
    8. Compost Quality Analysis by Compost Supplier: Before delivery of the compost to the soil supplier the Compost Supplier shall verify the following:

- a. Weed seed/pathogen destruction: provide proof of process to further reduce pathogens (PFRP). For example, turned windrows must reach min. 55 C for 15 days with at least 5 turnings during that period.
4. Compost for Biotreatment Soil Mix Texture: Compost for biotreatment soil mix shall be analyzed by an accredited lab using #200, 1/4 inch, 1/2 inch, and 1 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

<b>Sieve Size</b>	<b>Percent Passing (by weight)</b>
1 inch	99 - 100
1/2 inch	90 - 100
1/4 inch	40 - 90
No. 200	2 - 10

1. Bulk Density: Shall be between 500 and 1,100 dry lbs./cubic yard
2. Moisture Content: Shall be between 30% - 55% of dry solids
3. Inerts: Compost shall be relatively free of inert ingredients including glass, plastic, and paper, < 1% by weight or volume
4. Select Pathogens: Salmonella < 3 MPN/4 grams of TS, or Coliform Bacteria < 10,000 MPN/gram
5. Trace Contaminants Metals (Lead, Mercury, etc.) Products: Must meet U.S. EPA, 40 CFR 503 regulations.

### **20-6.03 Construction**

#### **20-6.03A Limits and Grades**

Grade Review: Prior to commencing soil preparation operations, Contractor shall request a review by the Engineer to verify specified limits and grades of work completed to date and soil preparation work to commence. Complete the rough grading as necessary to round the top and toe of all slopes, providing naturalized contouring to integrate newly graded areas with the natural topography. Finish grading under this section shall be completed in accordance with the grades indicated on the plans.

Grading at Existing Trees: Soil work within the dripline of existing trees shall be performed in accordance with tree protection requirements indicated on the plans and Section 112 Tree Protection.

#### **20-6.03B Stripping And Stockpiling Of Existing Topsoil**

Excavation Areas: The native topsoil shall be stripped and stockpiled on-site in sufficient quantities to provide a 6-inch layer throughout all planting areas. Topsoil to be stripped and stockpiled shall be taken from the surface layer after all organic litter and foreign debris has been removed and properly disposed of.

Existing Grade Unchanged: In those areas where grades are not proposed to be modified (areas of no excavation or fill) the native topsoil shall be left in place. All debris, as well as all rocks over 3/4 inches in diameter, shall be removed from the surface of planting areas.

### **20-6.03C Topsoil Placement**

Soil Moisture: If soils are saturated, suspend soil work operations until the soil moisture drains to below field capacity.

Subgrade Preparation: Excavate planting areas to the proposed subgrade and remove all construction debris and materials.

1. Do not over excavate compacted subgrades of adjacent pavement or structures.
2. Subgrades shall slope approximately parallel to the finished grade and/or toward the subsurface drain lines as shown on the plans.
3. Scarify or rip subgrade to a depth of 7 inches and protect from compaction.

Topsoil incorporation: uniformly distribute a 3-inch layer of topsoil and incorporate it into the top 6 inches of subsoil by ripping, scraping, or tilling to mix the subsoil with the topsoil into a homogeneous mixture. Repeat until the total depth of topsoil placed is as indicated on the plans. The final layer of topsoil shall be uniformly distributed in the planting areas and compacted in place to 85% compaction.

Existing topsoil to remain: except within tree protection zones, in those planting areas where native topsoil is to be left in place, cross rip to a depth of 10 inches. Then incorporate the amendments to a homogeneously blended soil depth of 6 inches.

### **20-6.03D Biotreatment Soil Mix Placement**

Do not excavate, place soils, or amend soils during wet or saturated conditions.

Operate equipment adjacent to (not in) the biotreatment soil mix facility. If machinery must operate in the facility, use lightweight, low ground-contact pressure equipment.

Place soil in 12-inch lifts with machinery adjacent to the facility. If working within the facility, to avoid over-compacting, place the first lifts at the far end from the entrance and place subsequent lifts backwards toward the entrance.

Allow biotreatment soil mix lifts to settle naturally. Boot pack (walk around to firm) lifts to achieve 85% compaction. After all lifts are placed, wait a few days to check for settlement and add additional media as needed.

Verify Biotreatment Soil Mix Elevations Before Applying Mulch Or Installing Plants.

### **20-6.03E Organic Amendment And Fertilizer Incorporation**

Organic amendment: After topsoil placement and compaction, spread organic amendment at a rate of 6 cubic yards per 1000 square feet.

Fertilizer: Spread uniformly on top of compost at the following rate:

1. 10 pounds 15-15-15 Fertilizer per 1000 square feet

Incorporate organic amendment and fertilizer into the top 8 inches of topsoil, until homogeneously blended.

**20-6.03F Plant Pits**

Plant Pit Preparation: Plant pits shall have their sides and bottoms loosened or otherwise broken to prevent glazed or compacted surfaces, and shall be as shown on the planting detail.

**20-6.03G Backfill**

Backfill Material and Placement: Only unamended soil shall be used beneath the root ball. Cultivate the bottom of plant pits to improve porosity. Backfill around sides of the rootball shall be the amended soil taken from adjacent prepared areas. Spread material excavated from plant pits onto adjacent areas as replacement. Should additional backfill be necessary, a mixture of one third organic amendment/fertilizer mix and two thirds topsoil may be used for the top 12 inches of backfill.

**20-6.03H Plant Packets**

Packet Quantities: All container plants shall receive plant packets as follows:

<b>Container Size</b>	<b>Number of Packets</b>
one-gallon plants	one 10-gram packet
five-gallon plants	two 10-gram packets
fifteen-gallon plants	nine 10-gram packets
24-inch box trees	sixteen 10-gram packets
36-inch box trees	twenty-four 10-gram packets

1. Space the packets evenly around the root ball in the backfill, 6 - 8 inches from soil surface and 1 inch away from root ball. The Engineer may require excavation of up to 5% of all plants selected at random for conformance review.

**20-6.03I Finish Grading**

Grading Operations: Finish grade all irrigated planting areas unless otherwise noted, and remove all rocks and clods over 1 cubic inch to a depth of 1 inch below finish grade. All areas shall be smooth and uniformly graded. All erosion damage during the construction period shall be repaired by the Contractor.

Finish Grades: Unless otherwise noted, all soil finish grades shall be 1 inch below finish grade of walks, pavements, and curbs.

**20-7 Payment:** Payment for the work of this Section shall be paid for at the contract price bid as included in the bid schedule and as delineated below:

1. The contract **lump sum** price paid for **Irrigation System**, which price shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
2. The contract price paid **per each** for **Container Plant, 1 Gallon** shall include full compensation for all material, equipment, labor and work required as specified herein,

including but not limited to, provision and installation of plant, and no additional allowance will be made therefor.

3. The contract price paid **per each** for **Container Plant, 5 Gallon** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, provision and installation of plant, and no additional allowance will be made therefor.
4. The contract price paid **per each** for **Tree, 24" Box** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, provision and installation of tree stakes and ties, and no additional allowance will be made therefor.
5. The contract **square foot** price paid for **Turf, Sod** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
6. The contract **square foot** price paid for **Turf Repair, Sod** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, removal of existing turf as required to accommodate installation of new sod, and no additional allowance will be made therefor.
7. The contract **square foot** price paid for **Mulch** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
8. The contract **lump sum** price paid for **Plant Establishment** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
9. The contract **lump sum** price paid for **Landscape Soil Preparation** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.

## 24 STABILIZED SOILS

**24-2.01A Summary:** Lime treatment shall be constructed in accordance with Section 24 of the Standard Specifications, Section 24 of the City Specifications, and these Special Provisions and the Geotechnical Report for the project.

**24-2.02 Materials:** Lime to be used shall be granular quicklime and shall conform to Section 24-1.02 of the City Standards and shall be added to the existing material at the approximate rate of 5.5% by weight of the dry material, the exact percentage to be determined by the Engineer based on the laboratory test results required under 24-2.01D(1)(b) Applying Lime.

**24-2.03 Construction:** Lime treated material shall be to the depth shown on the plans, and finished to the lines and grades as shown on the plans.

**24-2.03G Curing:** Curing of lime treated material shall be in accordance with Section 24-1.06 of the City Standards.

You may, at this option, omit the curing seal if the first lift of A.C. Base is placed within 24 hours after the final compaction of the lime treated material.

**24-2.04 Payment:** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

## 26 AGGREGATE BASE

### **26-1.01 General**

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

Recycled material cannot be used.

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

### **26-1.02 Materials**

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

### **26-1.03 Construction**

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

**26-1.04 Payment** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

## 39 HOT MIX ASPHALT

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

Asphalt concrete shall be placed as shown on the Project Plans.

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

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

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

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

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

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

A tack coat of SS-1h or SS-1 emulsified asphalt shall be applied to all asphalt concrete and concrete surfaces and allowed to break immediately in advance of placing all lifts of asphalt concrete. Unless otherwise shown on the Plans, tack coat shall also be applied to all vertical mating surfaces and conforms to existing pavement, curbs, bands, and construction joints, and allowed to break immediately in advance of placing all lifts of asphalt concrete. The tack coat shall be reapplied 1) where it becomes contaminated, and 2) where it is significantly tracked (removed) from the surface.

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

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

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

**39-2.01B Materials**

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

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

The amount of asphalt binder to be mixed with the aggregate shall be specified by the Engineer at the time of paving. Different asphalt binder content may be specified for each lift and each location.

Liquid anti-stripping agent (LAS) shall be added to the asphalt binder at a rate of 0.4 to 1.0% by weight of asphalt binder as specified by the Engineer at the time of paving. The LAS shall be AD-here LOF 65-00 or equivalent, and shall be stored, measured, and blended with the asphalt binder in accordance with the anti-stripping agent manufacture's recommended practice. The LAS can be added at the asphalt plant or at the refinery. When added at the asphalt plant, the equipment shall indicate and record the amount of LAS added. If added at the refinery, the shipping ticket from the refinery shall certify the type and amount of LAS added.

**39-2.02B(4) Aggregates**

**39-2.02B(4)a General:** The aggregate grading of the asphalt concrete shall conform to the following:

Surface or Leveling Course..... 1/2-inch Medium HMA Type A  
Base Course.....3/4-inch HMA Type A

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

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

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

Quality characteristic	Test method	HMA Type A
------------------------	-------------	------------

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

<sup>a</sup> Reported value must be the average of 3 tests from a single sample.

<sup>b</sup> Minimum Sand Equivalent of 45 for asphalt concrete base.

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

**Aggregate Gradation  
(Percentage Passing)  
HMA Types A  
3/4-inch HMA Type A**

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

**1/2-inch Medium HMA Type A**

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	--
1/2"	95-100	--
3/8"	80-95	--
No. 4	59-66	TV ± 5
No. 8	43-49	TV ± 5
No. 30	22-27	TV ± 5
No. 200	2.0–8.0	--

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

use of any equipment that leaves ridges, indentations or other objectionable marks in the asphalt concrete shall be discontinued, and acceptable equipment shall be furnished by you.

**39-2.02B(6)(a) Straightedge:** The HMA pavement top layer must not vary from the lower edge of a 10-foot long straightedge. Refer to Section 43 Court Surfacing of these Special Provisions for tolerances and flood testing requirements.

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

Corrected HMA pavement areas must be uniform rectangles with edges:

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

Measure the corrected HMA pavement surface with a straightedge and correct the pavement to within specified tolerances. If a must-grind area or straight edged pavement cannot be corrected to within specified tolerances, remove and replace the pavement. On all ground areas, apply fog seal coat per Standard Specifications Section 37-1, "Seal Coats."

**39-2.02B(7) Acceptance Criteria Testing:** HMA shall be approved on the basis of the attainment of 93% relative compaction and a satisfactory surface condition following final rolling. The number of coverages required shall be the minimum number required to obtain 93% relative compaction. Relative density shall be the ratio of in-place density (ASTM Test Method D2950) to test maximum density (California Test 309, Method of Test for Determining Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt) determined during production paving.

**39-2.02D Payment:** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

## 40 CONCRETE PAVEMENT

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

All P.C.C. pavement shall be constructed of 6.5 sack "Type II Modified" concrete, containing not less than 611 pounds of Portland cement per cubic yard, and conforming to the provisions in Section 90 of the Standard Specifications. Traffic shall not be allowed on new P.C.C. until the P.C.C. has attained a minimum compressive strength of 3,500 pounds per square inch (psi). Track-mounted construction equipment will not be allowed on the new P.C.C at any time.

All concrete to be removed shall be disposed of by you away from the site of work. All concrete shall become your property and shall be immediately off-hauled. None of the removed concrete shall be dumped or stockpiled on the work site. You shall dispose of all removed concrete at a recycler for this material. Your attention is directed to Section 14, Environmental Stewardship, of these Special Provisions.

For each concrete paving phase, you shall provide:

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

**40-1.01C Submittals:** At least one week prior to the placement of the concrete, you shall submit for review and approval, a calibration chart for the mix design strength versus concrete temperature and a copy of the mix design proportions and proposed admixture(s) together with all supporting technical data. Submittal must be reviewed and approved by the City of Santa Rosa Material Lab before concrete can be poured.

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

Two weeks prior to the start of work, you shall submit a color chart, or sample chip set, to the Engineer for determining the pigment color(s) to be used for the test panels. Within two weeks of start of work, you shall pour the test panels using the pigment color(s) chosen from the submittals. The first test panel set shall consist of four (4) separate minimum size 2.5x2.5 foot panels with a minimum thickness of three inches.

The test panels shall be poured adjacent to one another at a location on the project chosen by the Engineer. The concrete mix used for the test panels shall be “ready mix” concrete from the same supplier and batch plant that will be used to supply concrete for P.C.C. curbs, bands, and P.C.C. pavement. Concrete from other suppliers or field mixed concrete will not be allowed for pouring test panels. The submitted pigment color shall be added to the concrete mix by the supplier at the batch plant for each test panel. The pigment dosage rate for each test panel shall be determined by the Engineer. The test panels shall have a medium broom finish, and be cured with Davis Color Seal in a matching color. Do not cure with plastic sheeting, membrane paper, or intermittent wetting and drying.

The test panels shall be used to find a color for the finished concrete that matches the color of the existing concrete pavement. The test panels shall be allowed to cure for up to 5 days before PCC paving will start before the determination of a color match is made. After a test panel is determined to be acceptable by the Engineer, the pigment color, dosage rate and curing method used for that test panel shall be applied to all concrete mix for P.C.C.

**40-1.01C(13) Grade Tolerance:** The aggregate base to receive P.C.C., immediately prior to placing, shall conform to the compaction and elevation tolerances specified, and shall be free of loose or extraneous material. Aggregate base shall be uniformly moist, and any excess water standing in pools or flowing on the surface shall be removed prior to placing concrete.

Establish and maintain the required lines and grades, including cross-slope during construction operations. All concrete shall slope to drain with no ponding of water.

**40-1.02E Joint Filler:** Expansion joint filler shall be Fibre Joint, manufactured by W.R. Meadows Seal Tight, conforming to ASTM D-1751, or approved equal.

**40-1.03A General:** Construct concrete surface course only when atmospheric temperature is above 40 degrees F., when the underlying base is dry, and when weather is not rainy.

**40-1.03B(2) Construction Joints:** Score joints shall be constructed in accordance with the details shown on the Plans.

**40-1.03F Placing Concrete:** Pavement smoothness requirements specified in Section 40-1.01D(8)(c) will not apply to the pavement surface unless otherwise specified. When a straightedge 12-feet-long is laid on the finished surface and parallel with the centerline, the concrete surface shall not vary more than 0.01-foot from the lower edge of the straightedge. The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02-foot are present when tested with a straightedge 12-feet-long laid in a direction transverse to the centerline and extending from edge to edge of a 12-foot lane.

Spreading, compacting and shaping shall also conform to the provisions in Section 40-1.03F(4) of the Standard Specifications

Immediately in advance of placing concrete, and after all aggregate base operations are completed, side forms shall be trued and maintained to the required line and grade for a distance sufficient to prevent delay in placing concrete..

**40-1.03H(3) Final Finishing:** In advance of curing operations, the pavement surface shall be finished to grade and cross section with a float, and troweled smooth. Concrete adjacent to the joints shall be finished with an edger tool.

Surfaces of concrete pavement shall be broom finished transversely to the line of traffic. If water is necessary, the water shall be applied immediately in advance of brooming.

Surfaces of mow bands, court bands and retaining curbs shall be troweled smooth, parallel to the longest surface direction.

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

**40-1.03I Curing:** The P.C.C. shall be cured using the same methods used during implementation of Section 40-1.01C(7) of these Special Provisions.

You shall use a pre-approved concrete admixture to obtain the necessary strength within the specified timeframe.

Concrete that is uncured at the end of the work day shall be protected in a manner approved by the Engineer, this may require trench plates.

**40-1.03P Operational Constraint:** You shall complete each concrete installation location such that the concrete reaches 3,500 psi within 3 days (72 hours).

**40-1.03Q Measurement:** Quantities of P.C.C. Pavement to be paid for will be the area of the completed work in place, measured by the square foot.

**40-1.04 Payment:** Payment for the work of this Section shall be paid for at the contract price bid as included in the bid schedule and as delineated below:

1. The contract **square foot** price paid for **Concrete Pavement** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, rebar, aggregate base, and no additional allowance will be made therefor.
2. The contract **linear foot** price paid for **Concrete Mowband** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
3. The contract **linear foot** price paid for **Court Band** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, rebar and aggregate base, excluding fence posts and footings, and no additional allowance will be made therefor.
4. The contract **linear foot** price paid for **Retaining Curb** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, subgrade preparation and rebar, excluding fence posts and footings, and no additional allowance will be made therefor.

# 43 COURT SURFACING

## **43-1.01 General**

### **43-1.01A Scope**

Furnish and install all court surfacing as shown on the plans and as specified herein including, but not necessarily limited to, the following:

1. Textured colored acrylic
2. Crack repair
3. Court surfacing pre-treatment
4. Court surfacing related items
5. Geogrid fabric under court pavement

### **43-1.01B References**

The following references shall be used to establish the standards of the work:

1. National Asphalt Paving Association (NAPA)
2. United States Tennis Association (USTA)
3. International Tennis Federation (ITF)
4. "Tennis Courts: A Construction and Maintenance Manual" Current Edition, published by American Sports Builders Association (ASBA), as it pertains to asphalt pavement construction.
5. "Pickleball Courts: A Construction and Maintenance Manual" Current Edition, published by American Sports Builders Association (ASBA), as it pertains to asphalt pavement construction.

### **43-1.01C Quality Assurance**

Surfacing shall conform to the guidelines of the ASBA for planarity.

All court surfacing pre-treatment and court surfacing products shall be supplied by a single manufacturer.

The contractor shall record the batch number of each product used on the site and maintain records of it through the warranty period and submit to Engineer within one (1) week of substantial completion.

The contractor shall provide the inspector, upon request, an estimate of the volume of each product to be used on the site.

The manufacturer's representative shall be available to help resolve material questions.

All surfacing materials shall be non-flammable and have a VOC content of less than 100g/L. Measured by EPA method 24.

### **43-1.01D Submittals**

Manufacturer specifications for components, color chart and installation instructions, maintenance instructions and warranty information.

ITF pace rating classification certificate for the system to be installed.

Submit list of projects noted in 43-1.01G Installer Qualifications below.

Current Material Safety Data Sheets (MSDS).

Submit product data for Geogrid fabric.

Product substitution: If other than the product specified, the contractor shall submit within ten (10) calendar days from date of Award a complete type written list of proposed substitutions with sufficient data, drawings, samples, and literature to demonstrate to the City's satisfaction that the proposed substitution is of equal quality and utility to that originally specified. Approved surfaces must meet or exceed the following minimum standards:

1. QUV (Q-panel laboratory U.V.) weathering test of at least 1,000 hours illustrating UV stability of the system
2. Solar reflectance >0.30
3. VOC under 100 g/l, measured by EPA method 24

### **43-1.01E Material Handling and Storage**

Store materials in accordance with manufacturer specifications and MSDS.

Deliver product to the site in original unopened containers with proper labels attached.

All surfacing materials shall be nonflammable.

### **43-1.01F Guarantee**

The Contractor shall warrant the court surfacing against settlement, peeling of surface, surface cracking, and any other defects of materials or workmanship for a period of three (3) years from date of acceptance.

### **43-1.01G Installer Qualifications**

Installer shall be actively engaged in construction and surfacing of acrylic courts, play courts or similar surfaces.

Installer shall be a builder member of ASBA.

Reference list from the installer of at least 5 tennis/pickleball projects successfully completed for a public agency in California in the past 5 years of similar scope. Each listed project shall equal or exceed 10,000 sf in size. Provide project location, date of installation, square footage of court surfacing for each project, and project contact name, address, and phone number with each installation listed.

### **43-1.01H Manufacturer Qualifications**

Installer shall provide documentation that the finished surface to be installed has been classified by the ITF as a medium pace surface rating between 35 and 39.

System manufacturer shall be a member of ASBA.

System manufacturer shall be a US owned company.

### **43-1.01I Tolerances**

The finished surface of the courts shall not vary more than 1/4" in 10'-0' when measured in any direction using a straight edge. At no point shall the surface fail to drain.

### **43-1.02 Materials**

#### **43-1.02A Crack Repair**

Crack Filler: To fill fine cracks 1/16-inch or less, shall be Laykold Acrylic Resurfacer by Advanced Polymer Technology, a division of Sport Group, or approved equal.

Court Patch Binder: To fill cracks, holes, depressions, and other surface imperfections greater than 1/16-inch, shall be Laykold Acrylic Deep Patch court patch slurry by Advanced Polymer Technology, a division of Sport Group, or approved equal.

Concrete Primer: To prepare concrete valve boxes within the court, shall be Laykold Masters Bond-Kote by Advanced Polymer Technology, a division of Sport Group, or approved equal.

#### **43-1.02B Court Surfacing**

Acrylic Resurfacer (no asphaltic emulsions will be permitted). Shall be Laykold NuSurf, by Advanced Polymer Technology, a division of Sport Group, or approved equal, and mixed as follows:

<b>Material</b>	<b>Quantity</b>
Acrylic Resurfacer	55 gals.
Water	25 gals.
Sand (60 - 80 Mesh)	600 - 900 lbs.

Filled Acrylic Finish Color: Shall be Laykold ColorFlex, by Advanced Polymer Technology, a division of Sport Group, or approved equal, and mixed as follows:

<b>Material</b>	<b>Quantity</b>
Filled Acrylic Finish Color	55 gals.
Water	38 - 41 gals.
Sand (70 - 100 Mesh)	225 - 300 lbs.

Colors shall be areas as follows:

1. Tennis
  1. Outside: Grass Green
  2. Playing Area: Light Blue
  
2. Pickleball
  1. Outside: Grass Green
  2. Backcourt: Royal Purple
  3. Kitchen: Silver

Playing Lines: Shall be Laykold Line Primer and Laykold Textured White Line Paint, by Advanced Polymer Technology, a division of Sport Group, or approved equal. Court line paint color shall be textured white. No oil-based paint shall be allowed.

Sand (used for mixing/dilution): Shall be clean, bagged silica sand, of the specified gradation for each mixture.

Water (used for mixing/dilution): Potable water.

#### **43-1.02C Geogrid Fabric**

Geogrid under court pavement shall be InterAx NX750 Geogrid manufactured by Tensar Corporation, or approved equal, and installed per geotech report and manufacturer's instructions.

#### **43-1.03 Construction**

##### **43-1.03A Weather Limitations**

Do not install surfacing when rainfall is occurring or is imminent.

Do not apply unless surface and air temperature are 50°F and rising.

Do not apply if surface temperature is in excess of 140°F.

##### **43-1.03B Preparation**

Cleaning: Fully cured asphalt pavement court surface, and existing court surface in overlay areas, shall be clean, free of dirt, water, soil, and other foreign materials. Asphalt shall be allowed to cure a minimum of 14 days. Pressure wash to adequately clean areas to be coated so it is clean and dust free. Surface must be thoroughly dried prior to application. Any area showing algae growth shall be treated with Clorox or approved equal to kill organisms and then the court shall be properly rinsed.

Holes and cracks: Cracks and holes shall be cleaned and a suitable soil sterilant, as approved by the Engineer, shall be applied to kill all vegetation 14 days prior to use of Crack Repair products according to manufacturer's specifications for various sized cracks.

Flood testing: Flood test the cleaned asphalt pavement to identify birdbaths. No birdbaths shall be present on the pavement surface throughout the courts. Birdbaths are defined as areas with standing water deeper than a US five-cent piece after 60 minutes of drying at 70 degrees

Fahrenheit in sunlight. Define and mark with chalk the perimeter of all birdbaths. Clean these areas and allow them to completely dry, then prime with a Tack Coat Mixture, and fill with Court Patch Binder Patching Mix as described below under "Depressions", before leveling with a straightedge. Perform subsequent flood tests and repair low areas until no birdbaths remain in the pavement surface.

Depressions: Perform flood testing as described above to identify birdbath depressions. If depressions are found in the pavement surface, they shall be primed with a Tack Coat Mixture and filled with a Court Patch Binder Mix.

1. Tack Coat Mixture shall consist of a 50/50 mixture of Court Patch Binder and water. Brush into place and allow tack coat to dry completely.
2. Court Patch Binder Patching Mix
  1. For patches 3/4-inch or less shall consist of:
    - a. 2-3 gallons of Court Patch Binder
    - b. 5 gallons of 60 mesh dry silica sand
    - c. 1 gallon of dry Portland Cement (Type I)
  2. For patches greater than 3/4-inch, patch in successive lifts, each no greater than 3/4-inch. Follow the previous mixing instructions and leave the first coat in a rough condition to provide an additional mechanical bond. It is imperative that each coat is fully cured prior to application of the second coat.
  3. Spread Court Patch Binder Patching Mix true to grade using a straight edge (never a squeegee) for strike off. Steel trowel or wood float the patch so that the texture matches the surrounding area. Never add water to mix. Light misting on surface and edges to feather in is allowed as needed to maintain workability. Allow to dry thoroughly and cure.

All valve boxes within the court shall have concrete lids. Prepare the concrete lids for proper adhesion to the court surfacing by grinding the surface to achieve a Concrete Surface Profile grade 3 (CSP3) level of roughness as defined by the ICRI (International Concrete Repair Institute). After the surface has been profiled and cleaned, apply one coat of Concrete Primer with a roller brush to fully coat the surface. Concrete Primer shall be diluted to achieve a ratio of 1 part primer and 5 parts water, prior to application. Allow the primer to dry before court surfacing is applied over the top of the utility box.

Contractor shall notify the Engineer at the completion of each stage of the operation and shall allow reasonable time for testing and inspection prior to proceeding with each following stage until authorization to proceed has been received from the Engineer.

### **43-1.03C Court Surfacing**

Court Surfacing Application:

1. Acrylic Resurfacer

1. Apply one coat to the clean underlying surface to obtain a total quantity of 0.05 to 0.07 gallons per square yard of undiluted Acrylic Resurfacer material.
  2. After the first coat of Acrylic Resurfacer has dried, apply a second coat of Acrylic Resurfacer at the same application rate as the first coat.
  3. Additional coats of Acrylic Resurfacer shall be used to properly fill all voids in the surface if asphalt is very porous. Each coat shall be completely dry before applying subsequent coats.
  4. Mix the ingredients thoroughly using accepted mixing devices and use a 70 Durometer rubber bladed squeegee to apply each coat of Acrylic Resurfacer as required.
  5. Allow the application of Acrylic Resurfacer course to dry thoroughly. Scrape off all ridges and rough spots prior to any subsequent application of Acrylic Resurfacer or subsequent Filled Acrylic Finish Color.
2. Acrylic Finish Color
1. After the Acrylic Resurfacer has been completed and allowed to cure a minimum of 48 hours, Acrylic Finish Color shall be applied.
  2. Two (2) coats of Acrylic Finish Color shall be applied at an application rate of 0.04 to 0.05 gallons per square yard of undiluted Acrylic Finish Color material per coat. Each coat shall be completely dry before applying subsequent coats.
  3. Application shall be made by 50 durometer rubber faced squeegees. The fortified mixture should be poured on to the court surface and spread to a uniform thickness in a regular pattern.
3. Playing Lines
1. Wait a minimum of 24 hours after applying Acrylic Finish Color before applying line paint.
  2. Lines shall be 2" wide unless otherwise noted on the drawings.
  3. Lines shall be carefully laid out in accordance with ASBA guidelines.
  4. The area to be marked shall be taped to insure a crisp line.
  5. The line paint shall have a texture similar to the surrounding play surface.
  6. Application shall be as follows:
    - a. Prime taped lines with Line Primer and allow a minimum drying time of 1-hour.
    - b. Apply 1 to 2 coats as needed of Line Paint with a brush or roller.
    - c. Remove masking tape immediately after lines are dry.
    - d. Allow lines to dry a minimum of 24 hours undisturbed.
4. Contractor shall notify the City at the completion of each stage of the operation and shall allow reasonable time for testing and inspection prior to proceeding with each following stage until authorization to proceed has been received from the Engineer.

### **43-1.03D Protection**

The area shall be protected from traffic during all operations and shall not be opened for use for at least 24 hours after the finished surface has dried completely.

Protect adjacent areas and structures which are not to be coated. In the event that coatings are applied, remove immediately before drying is complete.

### **43-1.03E Clean-Up**

Remove all containers, surplus materials and debris. Dispose of materials in accordance with local, state and Federal regulations.

Remove residual chalk from line marking.

Leave site in a clean, safe, and orderly condition each day.

**43.1.04 Payment:** Payment for the work of this Section shall be paid for at the contract unit price bid as indicated in the bid schedule and as described below:

1. The contract price paid per **square foot** for **Acrylic Overlay** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, court surface preparation and court surfacing components, and no additional allowance will be made therefor.
2. The contract price paid per **square foot** for **Court Pavement** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, subgrade preparation, geogrid fabric, aggregate base, asphalt pavement, and court surfacing components, and no additional allowance will be made therefor.
3. The contract price paid per **each** for **Tennis Court Striping** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, all playing lines associated with each court, and no additional allowance will be made therefor.
4. The contract price paid per **each** for **Pickleball Court Striping** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, all playing lines associated with each court, and no additional allowance will be made therefor.

## 51 CONCRETE STRUCTURES

**51-7.01A General:** Minor concrete structures are drain inlets, catch basins, and dry wells.

Concrete shall be cured in accordance with Section 90-1.03B of the Standard Specifications.

Minor Concrete shall conform to the provisions of Section 90-2 of the Standard Specifications.

Placing of concrete under water will not be permitted.

**51-7.01D Payment:** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

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# 62 SITE DRAINAGE UTILITIES

## **62-1.01 General**

### **62-1.01A Scope**

Furnish and install all storm drain lines and appurtenances as shown on the plans and as specified herein including, but not necessarily limited to, the following:

1. Connections to the existing storm drain system
2. Catch basins
3. Drain Inlets for bioretention areas
4. Dry wells
5. Solid drainline
6. Trench drains
7. Trench drain catch basins
8. Bioretention areas

### **62-1.01B Standards**

Unless otherwise specified or shown, all materials and methods shall conform to the appropriate current sections of the State of California, Department of Transportation Standard Specifications (DTSS) as they reasonably apply to this work, except for payment requirements.

### **62-1.01C Tolerances**

Tolerances for pipe trenches, pipe placement, and catch basins shall be as specified by the DTSS. No combination of high and low tolerances that compromise the lines and grades as shown will be permitted.

### **62-1.01D Reviews**

24 hours prior to placement of backfill above the pipe bedding, the Engineer shall be notified by the contractor, and shall be allowed a reasonable amount of time to inspect the placement of the pipe and pipe bedding.

### **62-1.01E Record Drawings**

The contractor shall maintain a daily log of on-site installation and changes from the contract documents on a set of prints provided to the contractor by the City for record purposes. A clearly legible and detailed print of said log, acceptable to the Inspector, shall be submitted to the City prior to final payment.

## **62-1.02 Materials**

### **62-1.02A Drainage Materials**

Site drainage materials shall be as follows:

1. Catch Basin: Christy V-64 with cast iron grate and appropriate extensions to extend 2 inches below invert elevations as shown on the plans.

2. Drain Inlet: For bioretention area, shall be Oldcastle Precast, Inlet with Side Opening, model DROPIN SO, with pedestrian frame and grate. Height as required to achieve the depths indicated on the plans.
3. Drywell: Christy V-05 with cast iron grate and appropriate extensions to extend 2 inches below invert elevations as shown on the plans.
4. Drain Pipe: PVC Sewer Pipe, SDR-35, size as indicated on the plans, conforming to ASTM D3034 for 4-inch to 15-inch diameter size, and ASTM F679 for 16-inch to 24-inch diameter size.
5. Trench Drain and Trench Drain Catch Basin: Trench drain shall be NDS Dura Slope Channel Drains or approved equal. High points of trench drain shall be model DS-090N and maintain a built-in 0.7% slope along the bottom of the channel towards the in-line catch basin. Trench drain in-line catch basin shall be NDS Dura Slope In-Line Catch Basin or approved equal. Grate for trench drain shall be NDS Standard Grate DS-232, ductile iron and ADA compliant.
6. Bioretention Area
  - a. Biotreatment Soil Mix: Refer to Section 20-6 Landscape Soil Preparation.
  - b. Bioretention Moisture Barrier: Shall be per plans.
  - c. Pipe Flared End Section: Shall be per plans.
7. Filter Fabric: For drywell and pipe flared end section shall be Mirafi 140N, or approved equal.
8. Drain Rock: For drywell shall be, Class 1 permeable material per Section 68-2.02F(2) of the Standard Specifications.
9. Rock Cobble: For pipe flared end section shall be Tri-Color County Cobble Landscape Rock, available from Shamrock Building Materials, (707) 792-4695, or approved equal.

### **62-1.03 Construction**

#### **62-1.03A Trench Excavation**

Excavation of pipe trenches shall conform to DTSS Section 19-3 "Structure Excavation and Backfill".

#### **62-1.03B Installation**

Pipes, catch basins, and appurtenances shall be installed to the lines and grades shown and in accordance with applicable sections of the DTSS.

Install biotreatment soil mix per Section 20-6 Landscape Soil Preparation.

**62-1.04 Payment:** Payment for the work of this Section shall be paid for at the contract unit price bid as indicated in the bid schedule and as described below:

1. The contract **lump sum** price paid for **Existing Storm Drain System Connection** shall include full compensation for all material, equipment, labor and work required as specified herein, including connections to existing catch basins and storm drain lines, and no additional allowance will be made therefor.
2. The contract price paid **per each** for **Catch Basin** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, grate, extensions, and concrete bottom, and no additional allowance will be made therefor.
3. The contract price paid **per each** for **Drain Inlet** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, grate, extensions, and concrete bottom, and no additional allowance will be made therefor.
4. The contract price paid **per each** for **Dry Well** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, risers, extensions, and drain rock base, filter fabric, subgrade preparation, and no additional allowance will be made therefor.
5. The contract **linear foot** price paid for **Solid Drainline, 4"** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
6. The contract **linear foot** price paid for **Solid Drainline, 6"** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
7. The contract **linear foot** price paid for **Solid Drainline, 8"** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
8. The contract **linear foot** price paid for **Solid Drainline, 12"** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
9. The contract **linear foot** price paid for **Trench Drain** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, grate, pre-sloped sections, and surrounding concrete, and no additional allowance will be made therefor.
10. The contract price paid **per each** for **Trench Drain Catch Basin** shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.
11. The contract **lump sum** price paid for **Bioretention Area** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, biotreatment soil mix, moisture barrier, pipe flared end section, and fine grading, and no additional allowance will be made therefor.

# 79 SITE FURNISHINGS

## **79-1.01 General**

### **79-1.01A Scope**

Furnish and install all site furnishings as shown on the plans and as specified herein including, but not necessarily limited to, the following:

1. Reinstall Salvaged Furnishings
2. Tennis Net, Post, and Anchor
3. Pickleball Net, Post, and Anchor
4. Windscreen, Type 1
5. Ball Wall
6. Bench, Type 1
7. Bench, Type 2
8. Picnic Table
9. Accessible Picnic Table
10. Drinking Fountain
11. Shade Structure

### **79-1.01B Acceptance**

Prior to the purchase of the items and within ten (10) working days after award of the contract, the Contractor shall supply the Engineer with samples of the finishes for approval. No materials for this Section shall be purchased until such approval is granted.

### **79-1.01C Certification**

Delivery schedules shall be verified and certified in writing to the Engineer within ten (10) working days after award of the contract.

### **79-1.01D Submittals**

Submit catalog information for items:

1. Tennis Net, Post, and Anchor
2. Pickleball Net, Post, and Anchor
3. Windscreen, Type 1
4. Ball Wall
5. Bench, Type 1
6. Bench, Type 2
7. Picnic Table
8. Accessible Picnic Table
9. Drinking Fountain
10. Shade Structure

Submit shop drawings for items:

1. Shade Structure

## 2. Ball Wall

### **79-1.02 Materials**

#### **79-1.02A Site Furnishings**

Site furnishings materials shall be the following:

1. Tennis Net, Post, and Anchor:
  - a. Tennis Net: Shall be model TN-30, net measuring 42" high x 42' long with center strap, consisting of 3.0mm solid core knotted braided polyethylene and 32 oz. single ply vinyl coated polyester headband as manufactured and available from Douglas Industries, Inc., 3441 S. 11th Avenue, Eldridge, IA 52748, (800) 553-8907, or approved equal.
  - b. Tennis Posts and Sleeves: Posts shall be Premier SQ, 3" x 3" square 11-gauge steel posts with internal wind 30:1 self-locking gears, welded lacing rods, die cast zinc caps and gear housings, black powder coat finish installed in aluminum ground sleeves, #GS-24SQ/AL as manufactured and available from Douglas Industries, Inc., 3441 S. 11th Avenue, Eldridge, IA 52748, (800) 553-8907, or approved equal.
  - c. Tennis Net Anchor: Shall be universal center tie-down anchor as manufactured and available from Douglas Industries, Inc., (800) 553-8907, or approved equal.
2. Pickleball Net, Post, and Anchor
  - a. Pickleball Net: Shall be model JTN-30, net measuring 36" high x 21'-9" long with center strap consisting of 3.0mm solid core knotted braided polyethylene and 32 oz. single ply vinyl coated polyester headband as manufactured and available from Douglas Industries, Inc., 3441 S. 11th Avenue, Eldridge, IA 52748, (800) 553-8907, or approved equal.
  - b. Pickleball Post and Sleeve: Posts shall be model SW-36 Deluxe Pickleball Posts, 2-7/8" OD round 8-gauge steel posts with external gear, welded steel lacing rods, side-mount removable handle, and black powder coat finish. Installed in aluminum ground sleeves model GS-24RD, as manufactured and available from Douglas Industries, Inc., 3441 S. 11th Avenue, Eldridge, IA 52748, (800) 553-8907, or approved equal.
  - c. Pickleball Net Anchor: Shall be universal center tie-down anchor as manufactured and available from Douglas Industries, Inc., (800) 553-8907, or approved equal.
3. Windscreen, Type 1: Shall be Douglas VCP Windscreen, 9'-0" height, black color, and standard air vents, with weight not less than 8 oz. per sq yard. As manufactured by Douglas Sports, 3441 S 11th Ave, Eldridge, IA 52748, (800) 553-8907, or approved equal.
4. Windscreen, Type 2: Shall be Douglas Privacy Screen, 92 inch height, black color, 100% HDPE fiber with 85-90% knit raschel. As manufactured by Douglas Sports, 3441 S 11th Ave, Eldridge, IA 52748, (800) 553-8907, or approved equal.
5. Ball Wall: Shall be Bakko Backboard Professional Flat Series with 10' high, 2.5" thick fiberglass panels, or approved equal. Number of panels as required to span the total ball

wall width indicated on the plans. Panel color to be standard green. Available from National Sports Products, P.O. Box 407, Eldridge, IA 52748, (800) 478-6497, or approved equal.

6. Bench, Type 1: Shall be Ultra Site, Extra Heavy-Duty Bench with Back, 8' long, surface mounted, thermoplastic finish, diamond pattern, green frame and seat color, or approved equal. Available from Miracle Play Systems, or approved equal. Contact Shana Friesen, (510) 514-5212, shana@miracleplaygroup.com.
7. Bench, Type 2: Shall be Green Theory, Kingston Double Backed Planter Bench, surface mounted, customized to have a solid metal top between the bench backs that is covered in wood slats. Bench body to be aluminum with Metallic Silver powder coat color and thermally modified Ash wood slats. Available from Green Theory, 1515 Broadway St #804, Port Coquitlam, BC V3C 6M2, (844) 747-9283, or approved equal.
8. Picnic Table: Shall be Green Theory, Versa Table with two (2) Versa Backless Benches. Surface mounted and constructed from an aluminum body with Metallic Silver powder coat color, and thermally modified Ash wood slats. Available from Green Theory, 1515 Broadway St #804, Port Coquitlam, BC V3C 6M2, (844) 747-9283, or approved equal.
9. Accessible Picnic Table: Shall be Green Theory, Versa Table with one (1) standard length Versa Backless Bench and one (1) custom 40-inch length Versa Backless Bench. Surface mounted and constructed from an aluminum body with Metallic Silver powder coat color, and thermally modified Ash wood slats. Available from Green Theory, 1515 Broadway St #804, Port Coquitlam, BC V3C 6M2, (844) 747-9283, or approved equal.
10. Drinking Fountain: Shall be manufacturer and model as shown on the plans, with one-piece stainless steel body, stainless steel basin, and stainless steel surface carrier. Finish shall be Green colored powder coat. Available from Most Dependable Fountains, 5705 Commander Drive, Arlington, TN 38002, (901) 867-0039, or approved equal.
11. Shade Structure: Shall be USA Shade, Single Post Pyramid Double Fabric Shade Structure, Model# 145.1, or approved equal. Shade fabric to be Shadesure type in Navy Blue color. Post and all steel components to have Tele-Grey powder coat color. As available from USA Shade, DFW International Commerce Park, 2580 Esters Blvd., Suite 100, DFW Airport, TX 75261, (800) 966-5005, or approved equal.

### **79-1.03 Construction**

#### **79-1.03A Layout**

Prior to commencing installation, the Contractor shall stake the site furnishing layout and request a review by the Engineer to determine adjustments on-site from locations shown on the plans.

#### **79-1.03B Installation**

All site furnishings shall be installed as shown on the plans and per the manufacturer's specifications.

Existing site furnishings that have been salvaged shall be reinstalled using the same method and materials that existed prior to their removal.

**79-1.04 Payment:** Payment for the work of this Section shall be paid for at the contract unit price bid as indicated in the bid schedule and as described below:

1. The contract **lump sum** price paid for **Reinstall Salvaged Furnishings** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, salvaging and reinstalling existing benches, trash receptacles, bleachers, tennis court nets, and landscape boulders, and no additional allowance will be made therefor.
2. The contract price paid **per each** for **Tennis Net, Post, and Anchor** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
3. The contract price paid **per each** for **Pickleball Net, Post, and Anchor** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
4. The contract **linear foot** price paid for **Windscreen, Type 1** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
5. The contract **linear foot** price paid for **Windscreen, Type 2** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
6. The contract **linear foot** price paid for **Ball Wall** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, panels, support posts and footings, channels, pins, connectors, and chain link fabric on the back side, and no additional allowance will be made therefor.
7. The contract price paid **per each** for **Bench, Type 1** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
8. The contract price paid **per each** for **Bench, Type 2** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
9. The contract price paid **per each** for **Picnic Table** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.

10. The contract price paid **per each** for **Accessible Picnic Table** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
11. The contract price paid **per each** for **Drinking Fountain** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.
12. The contract price paid **per each** for **Shade Structure** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation as shown on the plans and per manufacturer's specifications, and no additional allowance will be made therefor.

## 80 FENCES

**80-1.01 General:** Refer to Section 15 Existing Facilities of these Special Provisions for temporary construction fencing and Section 112 Tree Protection for tree protection fencing.

**80-1.03 Connections:** Existing cross fences shall be connected to the new fences. Corner posts with braces for every direction of strain shall be placed at the junction with existing fences. The wire in the new and existing fences shall be fastened to the posts.

**80-3.02C:** Fence fabric shall have knuckle selvages. Fabric shall be 9-gauge with a uniform square mesh measuring approximately 1-3/4" inches between its parallel sides, constructed out of woven galvanized wire with a minimum of 1.20 oz. per square foot.

**80-3.02F:** Concrete mix for fence footings shall be per Section 90 of these Special Provisions.

**80-3.04 Payment:** Payment for the work of this Section shall be paid for at the contract unit price bid as indicated in the bid schedule and as described below:

1. The contract **linear foot** price paid for **Chain Link Fence, 10' Tall** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, all fence components and concrete footings for fence posts, excluding court bands and retaining curbs surrounding fence posts, and no additional allowance will be made therefor.
2. The contract **linear foot** price paid for **Chain Link Fence, 4' Tall** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, all fence components and concrete footings for fence posts, excluding court bands surrounding fence posts, and no additional allowance will be made therefor.
3. The contract price paid **per each** for **Chain Link Single Gate, 4' Tall** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, all gate components and concrete footings for gate posts, and no additional allowance will be made therefor.
4. The contract price paid **per each** for **Chain Link Single Gate, 6'-8" Tall** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, all gate components and concrete footings for gate posts, and no additional allowance will be made therefor.
5. The contract **linear foot** price paid for **Chain Link Fence Fabric Repair** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, new fence fabric and rail installation on existing fence posts, and no additional allowance will be made therefor.
6. The contract price paid **per each** for **Chain Link Gate Modification** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, installation of kick plate and relocation of latch and strike plate, and no additional allowance will be made therefor.

## **86 GENERAL ELECTRICAL WORK**

### **86-1.01 General**

#### **86-1.01A Scope**

The work of this Section consists of providing all required labor, supervision, materials and equipment to satisfactorily complete all electrical installations that are shown on the Drawings, included in these specifications, or otherwise needed for a complete and fully operating facility.

Furnish and install all required in-place equipment, conduits, conductors, cables and any miscellaneous materials for the satisfactory interconnection and operation of all associated electrical systems.

#### **86-1.01B Related Work**

This Section provides the basic Electrical Requirements which supplement the General Requirements and apply to all the items in Section 87 Electrical Systems.

#### **86-1.01C Submittals**

Submit shop drawings, manufacturer's data and certificates for equipment, materials and finish, and pertinent details for each system specified. Information to be submitted includes manufacturer's descriptive literature of cataloged products, equipment, drawings, diagrams, performance and characteristic curves as applicable, test data and catalog cuts. Obtain written approval before procurement, fabrication, or delivery of the items to the job site. Partial submittals are not acceptable and will be returned without review. Furnish manufacturer's name, trade name, catalog model or number, nameplate data, size, layout dimensions, capacity, project specification and paragraph reference, applicable Federal, Industry and Technical Society Publication References, and years of satisfactory service of each item required to establish contract compliance. Photographs of existing installations and data submitted in lieu of catalog data are not acceptable and will be returned without approval.

Organize submittals for equipment and items related to each specification section together as a package.

Proposed substitutions of products will not be reviewed or approved prior to awarding of the Contract.

Substitutions shall be provided to the Engineer to be equal or superior to the specified product. City's decision is final. The Contractor shall pay all costs incurred by the Engineer in reviewing and processing any proposed substitutions whether or not a proposed substitution is accepted.

If a proposed substitution is rejected, the contractor shall furnish the specified product at no increase in contract price.

If a proposed substitution is accepted, the contractor shall be completely responsible for all dimensional changes, electrical changes, or changes to other work which are a result of the substitution. The accepted substitution shall be made at no additional cost to the owner or design consultants.

### **86-1.01D Quality Assurance**

Codes: All electrical equipment and materials, including installation and testing, shall conform to the latest editions following applicable codes:

1. California Electrical Code (CEC).
2. Occupational Safety and Health Act (OSHA) standards.
3. All applicable local codes, rules and regulations.
4. Electrical Contractor shall possess a C-10 license and all other licenses as may be required. Licenses shall be in effect at start of this contract and be maintained throughout the duration of this contract.

Variances: In instances where two or more codes are at variance, the most restrictive requirement shall apply.

Standards: Equipment shall conform to applicable standards of American National Standards Institute (ANSI), Electronics Industries Association (EIA), Institute of Electrical and Electronics Engineers (IEEE), and National Electrical Manufacturers Association (NEMA).

Underwriter Laboratories (UL) listing is required for all equipment and materials where such listing is offered by the Underwriters Laboratories. Provide service entrance labels for all equipment required by the NEC to have such labels.

The electrical contractor shall guarantee all work and materials installed under this contract for a period of one (1) year from date of acceptance by owner.

All work and materials covered by this specification shall be subject to inspection at any and all times by representatives of the owner. Work shall not be closed in or covered before inspection and approval by the Engineer. Any material found not conforming with these specifications shall, within 3 days after being notified by the owner, be removed from premises; if said material has been installed, entire expense of removing and replacing same, including any cutting and patching that may be necessary, shall be borne by the contractor.

### **86-1.01E Contract Documents**

Drawings and Specifications:

1. In the case of conflict between the drawings and specifications, the specifications shall take precedence.
2. Drawings and specifications are intended to comply with all law, ordinances, rules and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, said laws, ordinance, rules and regulations shall be considered as a part of said Contract Documents within the limits specified. The Contractor shall bear all expenses of correcting work done contrary to said laws, ordinance, rules and regulations if the Contractor knew or should have known that the work as performed is contrary to said laws, ordinances, rules and regulations and if the Contractor performed same (1) without first consulting the Engineer for further instructions regarding said work and/or (2) disregarded the Engineer's instructions regarding said work.

Drawings: The Electrical Drawings shall govern the general layout of the completed construction.

1. Locations of equipment, panels, pullboxes, conduits, stub-ups, ground connections are approximate unless dimensioned; verify locations with the Engineer prior to installation.
2. Review the Drawings and Specification Divisions of other trades and perform the electrical work that will be required for those installations.
3. Should there be a need to deviate from the Electrical Drawings and Specifications, submit written details and reasons for all changes to the Engineer for approval.
4. The general arrangement and location of existing conduits, piping, apparatus, etc., is approximate. The drawings and specifications are for the assistance and guidance of the contractor, exact locations, distances and elevations are governed by actual field conditions. Accuracy of data given herein and on the drawings is not guaranteed. Minor changes may be necessary to accommodate work. The contractor is responsible for verifying existing conditions. Should it be necessary to deviate from the design due to interference with existing conditions or work in progress, claims for additional compensation shall be limited to those for work required by unforeseen conditions as determined by the Engineer.
5. All drawings and divisions of these specifications shall be considered as whole. The contractor shall report any apparent discrepancies to the Engineer prior to submitting bids.
6. The contractor shall be held responsible to have examined the site and compared it with the specifications and plans and to have satisfied himself as to the conditions under which the work is to be performed. They shall be held responsible for knowledge of all existing conditions whether or not accurately described. No subsequent allowance shall be made for any extra expense due to failure to make such examination.

#### **86-1.01F Closeout Submittals**

Manuals: Furnish manuals for equipment where manuals are specified in the equipment specifications and as specified in these Special Provisions.

#### **86-1.01G Coordination**

Coordinate the electrical work with the other trades, code authorities, utilities and the Engineer.

Provide and install all trenching, backfilling, conduit, pull boxes, splice boxes, etc. for all Utility Company services to the locations indicated on the Drawings. All materials and construction shall be in accordance with the requirements for all the Utility Companies. Prior to performing any work, the Electrical Contractor shall coordinate with the various Utility Companies and obtain utility company engineering drawings. Verify that all such work and materials shown on the Drawings are of sufficient sizes and correctly located to provide services on the site. The Electrical Contractor shall verify with all the Utility Companies that additional contractor furnished and installed work is not required. If additional work, materials, or changes are required by any of the Utility Companies, the Electrical Contractor shall advise the Engineer of such changes and no further work shall then be performed until instructed to do so by the Engineer. The Electrical Contractor shall coordinate with the various Utility Companies to schedule inspections and to obtain service connections.

The Electrical Contractor shall schedule all utility work necessary for utility inspections, connections, cable installation, etc. for the new electrical service to meet the construction schedule.

Utility Company charges shall be paid by the Owner.

Contractor shall pay all inspection and other applicable fees and procure all permits necessary for the completion of this work.

Where connections must be made to existing installations, properly schedule all the required work, including the power shutdown periods.

When two trades join together in an area, make certain that no electrical work is omitted.

### **86-1.01H Job Conditions**

Operations: Perform all work in compliance with these Special Provisions.

1. Keep the number and duration of power shutdown periods to a minimum.
2. Show all proposed shutdowns and their expected duration on the construction schedule. Schedule and carry out shutdowns so as to cause the least disruption to operation of the Owner's facilities.
3. Carry out shutdown only after the schedule has been approved, in writing, by the owner. Submit power interruption schedule 15 days prior to date of interruption.

Construction Power: Unless otherwise noted in Division 01 of these specifications, contractor shall make all arrangements and provide all necessary facilities for temporary construction power from the owner's on-site source. Energy costs shall be paid for by the Owner.

Storage: Provide adequate storage for all equipment and materials which will become part of the completed facility so that it is protected from weather, dust, water, or construction operations.

### **86-1.01I Damaged Products**

Notify the Engineer in writing in the event that any equipment or material is damaged. Obtain approval from the City before making repairs to damaged products.

### **86-1.01J Locations**

General: Use equipment, materials and wiring methods suitable for the types of locations in which they are located.

Dry Locations: All those indoor areas which do not fall within the definition below for Wet Locations and which are not otherwise designated on the Drawings.

Wet Locations: All locations exposed to the weather, whether under a roof or not, unless otherwise designated on the Drawings.

### **86-1.01K Safety and Indemnity**

The Contractor is solely and completely responsible for conditions of the job site including safety of all persons and property during performance of the work. This requirement will apply continually and not be limited to normal working hours. The contractor shall provide and maintain throughout the work site proper safeguards including, but not limited to, enclosures, barriers, warning signs, lights, etc. to prevent accidental injury to people or damage to property.

No act, service, drawing review or construction review by the City or their Consultants is intended to include reviews of the adequacy of the Contractors safety measures in or near the construction site.

The Contractor performing work under this Division of the Specifications shall hold harmless, indemnify, and defend the City, their consultants, and each of their officers, agents and employees from any and all liability claims, losses, or damage arising out of or alleged to arise from bodily injury, sickness, or death of a person or persons and for all damages arising out of injury to or destruction of property arising directly or indirectly out of or in connection with the performance of the work under this Division of the Specifications, and from the Contractor's negligence in the performance of the work described in the construction contract documents, but not including liability that may be due to the sole negligence of the City, their Consultants or their officers, agents and employees.

If a work area is encountered that contains hazardous materials, the contractor is advised to coordinate with the City and its abatement consultant for abatement of hazardous material. "Hazardous materials" means any toxic substance regulated or controlled by OSHA, EPA, State of California or local rules, regulations and laws.

## **86-1.02 Materials**

### **86-1.02A Standard of Quality**

Products that are specified by manufacturer, trade name or catalog number establish a standard of quality and do not prohibit the use of equal products of other manufacturers provided they are established to be equal to the specified product and approved by the Engineer prior to installation.

Material and Equipment: Provide materials and equipment that are new and are current products of manufacturers regularly engaged in the production of such products. The standard products shall have been in satisfactory commercial or industrial use for two years prior to bid opening. The two-year period includes use of equipment and materials of similar size under similar circumstances. For uniformity, only one manufacturer will be accepted for each type of product.

Service Support: Submit a certified list of qualified permanent service organizations including their addresses and qualification for support of the equipment. These service organizations shall be convenient to the equipment installation and able to render service to the equipment on a regular and emergency basis during the warranty period of the contract.

Manufacturer's Recommendations: Where installation procedures are required to be in accordance with manufacturer's recommendations, furnish printed copies of the recommendations prior to installation. Installation of the item shall not proceed until recommendations are received. Failure to furnish recommendation shall be cause for rejection of the equipment or material.

### **86-1.02B Nameplates**

For each piece of electrical equipment, provide a manufacturer's nameplate showing their name, location, the pertinent ratings, the model designation, and shop order number.

Identify each piece of equipment and related controls with a rigid laminated engraved plastic nameplate. Unless otherwise noted, nameplates shall be melamine plastic 0.125-inch-thick, white with black center core. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the core. Minimum size of nameplates shall be 0.5 by 2.5 inches unless otherwise noted. Where not otherwise specified, lettering shall be a minimum of 0.25-inch-high normal block style. Engrave nameplates with the inscriptions indicated on the Drawings and, if not so indicated, with the equipment name. Securely fasten nameplates in place using two stainless steel or brass screws.

### **86-1.02C Fasteners**

Fasteners for securing equipment to walls, floors and the like shall be either hot-dip galvanized after fabrication or stainless steel.

### **86-1.02D Finish Requirements**

Equipment: Refer to each electrical equipment section of these Specifications for painting requirements of equipment enclosures. Repair any final paint finish which has been damaged or is otherwise unsatisfactory, to the satisfaction of the Engineer.

Wiring System: In finished areas, paint all exposed conduits, boxes and fittings to match the color of the surface to which they are affixed.

### **86-1.03 Construction**

#### **86-1.03A Workmanship**

Ensure that all equipment and materials fit properly in their installation.

Perform any required work to correct improperly fit installation at no additional expense to the owner.

All electrical equipment and materials shall be installed in a neat and workmanship manner in accordance with the "NECA-1 Standard Practices for Good Workmanship in Electrical Contracting". Workmanship of the entire job shall be first class in every respect.

#### **86-1.03B Equipment Installations**

Provide the required inserts, bolts and anchors, and securely attach all equipment and materials to their supports.

Do all the cutting and patching necessary for the proper installation of work and repair any damage done.

Earthquake restraints: all electrical equipment, including conduits over 2 inches in diameter, shall be braced or anchored to resist a horizontal force acting in any direction as per CBC Section 1616A Title 24, part 2 and ASCE7-10, Sections 13.3 and 13.6 and Table 13.6-1.

### **86-1.03C Field Test**

Test shall be in accordance with Acceptance testing specifications issued by the National Electrical Testing Association (NETA).

Perform equipment field tests and adjustments. Properly calibrate, adjust and operationally check all circuits and components, and demonstrate as ready for service. Make additional calibration and adjustments if it is determined later that the initial adjustments are not satisfactory for proper performance. Perform equipment field test for equipment where equipment field tests are specified in the equipment Specifications. Give sufficient notice to the Engineer prior to any test so that the tests may be witnessed.

Provide instruments, other equipment and material required for the tests. These shall be of the type designed for the type of tests to be performed. Test instrument shall be calibrated by a recognized testing laboratory within three months prior to performing tests.

Operational Tests: Operationally test all circuits to demonstrate that the circuits and equipment have been properly installed and adjusted and are ready for full-time service. Demonstrate the proper functioning of circuits in all modes of operation, including alarm conditions.

Re-testing will be required for all unsatisfactory tests after the equipment or system has been repaired. Re-test all related equipment and systems if required by the Engineer. Repair and re-test equipment and systems which have been satisfactorily tested but later fail, until satisfactory performance is obtained.

Maintain records of each test and submit five copies to the Engineer when testing is complete. All tests shall be witnessed by the Engineer. These records shall include:

1. Name of equipment tested.
2. Date of report.
3. Date of test.
4. Description of test setup.
5. Identification and rating of test equipment.
6. Test results and data.
7. Name of person performing test.
8. Engineer's initials.

Items requiring testing shall be as noted in the additional electrical sections of these specifications.

### **86-1.03D Cleaning Equipment**

Thoroughly clean all soiled surfaces of installed equipment and materials.

### **86-1.03E Painting of Equipment**

Factory Applied: Electrical equipment shall have factory applied painting system which shall, as a minimum, meet the requirements of NEMA ICS 6 corrosion-resistance test and the additional requirements specified in the technical section.

Field Applied: Paint electrical equipment as required to match finish of adjacent surfaces.

### **86-1.03F Records**

Maintain one copy of the contract Drawing Sheets on the site of the work for recording the "as built" condition. After completion of the work, the Contractor shall carefully mark the work as actually constructed, revising, deleting and adding to the Drawing Sheets as required. The following requirements shall be complied with:

1. Cable Size and Type: Provide the size and type of each cable installed on project.
2. Substructure: Where the location of all underground conduits, pull boxes, stub ups and etc. where are found to be different than shown, carefully mark the correct location on the Drawings. Work shall be dimensioned from existing improvements.
3. Size of all conduit runs.
4. Routes of concealed conduit runs and conduit runs below grade.
5. Homerun points of all branch circuit.
6. Location of all switchgear, panels, MCC, lighting control panels, pullcans, etc.
7. Changes made as a result of all approved change orders, addendums, or field authorized revisions.
8. As Built: At the completion of the Work the Contractor shall review, certify, correct and turn over the marked-up Drawings to the Engineer for their use in preparing "as built" plans.
9. As built Drawings shall be delivered to the Engineer within ten (10) days of completion of construction.

### **86-1.03G Cleanup**

Upon completion of electrical work, remove all surplus materials, rubbish, and debris that accumulated during the construction work. Leave the entire area neat, clean, and acceptable to the Engineer.

### **86-1.04 Payment**

Payment for the work of this Section shall be paid for at the contract unit price bid as indicated in the bid schedule and as described below:

1. The contract **lump sum** price paid for **Existing Electrical System Modifications** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, modifications to existing electrical conduit and wiring to avoid bioretention areas, and push button controls on courts 7-12, and no additional allowance will be made therefor.
2. The contract **lump sum** price paid for **New Court Lighting and Controls** shall include full compensation for all material, equipment, labor and work required as specified herein, including but not limited to, conduit, wiring and pull boxes for new tennis court lights, new tennis court light poles, footings, and fixtures, push button controls for new tennis courts, and new connections to the existing electrical panel, and no additional allowance will be made therefor.
3. The contract **lump sum** price paid for **Upgrade Existing Court Lighting** shall include full compensation for all material, equipment, labor and work required as specified herein,

including but not limited to, furnishing and installing new light fixtures on existing light poles, and no additional allowance will be made therefor.

# 87 ELECTRICAL SYSTEMS

## **87-1 Line Voltage Wire and Cable**

### **87-1.01 General**

#### **87-1.01A Scope**

The work of this Section consists of providing all wire and cable rated 600 volts or less, including splices and terminations, as shown on the Drawings and as described herein.

#### **87-1.01B Quality Assurance**

Field tests shall be performed as specified in paragraph 87-1.03D of this Section.

### **87-1.02 Materials**

#### **87-1.02A Conductors**

Conductors shall be copper, type THHN/THWN/MTW oil and gasoline resistant, 90°C, 600 volt rated insulation.

Conductors shall be stranded copper.

Minimum power and control wire size shall be No. 12 AWG unless otherwise noted.

All conductors used on this Project shall be of the same type and conductor material.

#### **87-1.02B Cables**

All individual conductors shall be copper with type THHN/THWN, 90°C, 600 volt rated insulation.

Insulation Marking - All insulated conductors shall be identified with printing colored to contrast with the insulation color.

Color Coding - As specified in paragraph 3.03.

Special Wiring - Where special wiring is proposed by an equipment manufacturer, submit the special wiring requirements to the Owner's Representative and, if approved, provide same. Special wire shall be the type required by the equipment manufacturer.

Other Wiring - Wire or cable not specifically shown on the Drawings or specified, but required, shall be of the type and size required for the application and as approved by the Owner's Representative.

Manufacturer - Acceptable manufacturers including Cablec, Southwire, or equal.

#### **87-1.02C Terminations**

Manufacturer - Terminals as manufactured by T&B, Burndy or equal.

Wire Terminations – Stranded conductors shall be terminated in clamping type terminations which serve to contain all the strands of the conductor. Curling of a stranded conductor around a screw type terminal is not allowed. For screw type terminations, use a fork type stake-on termination on the stranded conductor. Use only a stake-on tool approved for the fork terminals selected.

End Seals - Heat shrink plastic caps of proper size for the wire on which used.

### **87-1.02D Tape**

Tape used for terminations and cable marking shall be compatible with the insulation and jacket of the cable and shall be of plastic material.

### **87-1.03 Construction**

#### **87-1.03A Cable Installation**

Clean Raceways - Clean all raceways prior to installation of cables as specified in Section 87-4 Conduits Raceway and Fittings.

All line voltage wiring shall be installed in conduit.

All feeder conductors shall be continuous from equipment to equipment. Splices in feeders are not permitted unless specifically noted or approved by the Engineer.

All branch circuit wiring shall be run concealed in ceiling spaces, walls, below floors or in crawl spaces unless noted otherwise.

Cable Pulling - Exercise care in pulling wires and cables into conduit or wireways so as to avoid kinking, putting undue stress on the cables or otherwise abrading them. No grease will be permitted in pulling cables. Only soapstone, talc, or UL listed pulling compound will be permitted. The raceway construction shall be complete and protected from the weather before cable is pulled into it. Swab conduits before installing cables and exercise care in pulling, to avoid damage to conductors.

Bending Radius - Cable bending radius shall be per applicable code. Install feeder cables in one continuous length.

Equipment Grounding Conductors - Provide an equipment grounding conductor, whether or not it is shown on the Drawings, in all conduits or all raceways.

Panelboard Wiring - In panels, bundle incoming wire and cables which are No. 6 AWG and smaller, lace at intervals not greater than 6 inches, neatly spread into trees and connect to their respective terminals. Allow sufficient slack in cables for alterations in terminal connections. Perform lacing with plastic cable ties or linen lacing twine. Where plastic panel wiring duct is provided for cable runs, lacing is not necessary when the cable is properly installed in the duct.

#### **87-1.03B Cable Terminations and Splices**

Splices - UL Listed wirenuts.

Terminations - Shall comply with the following:

1. Make up and form cable and orient terminals to minimize cable strain and stress on device being terminated on.
2. Burnish oxide from conductor prior to inserting in oxide breaking compound filled terminal.

**87-1.03C Circuit and Conductor Identification**

Color Coding - Provide color coding for all circuit conductors. Insulation color shall be white for neutrals and green for grounding conductors. Conductor colors shall be as follows:

<b>Voltage</b>	<b>208/120V</b>	<b>480/277V</b>
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Grey
Ground	Green	Green

Color coding shall be in the conductor insulation for all conductors #10 AWG and smaller; for larger conductors, color shall be either in the insulation or in colored plastic tape applied at every location where the conductor is readily accessible.

Circuit Identification - All underground distribution and service circuits shall be provided with plastic identification tags in each secondary box and at each termination. Tags shall identify the source transformer of the circuit and the building number(s) serviced by the circuit.

**87-1.03D Field Tests**

All systems shall test free from short circuits and grounds, shall be free from mechanical and electrical defects, and shall show an insulation resistance between phase conductors and ground of not less than the requirements of the CEC. All circuits shall be tested for proper neutral connections.

Insulation Resistance Tests: Perform insulation resistance tests on circuits with #2 AWG and larger conductors to be energized with a line-to-neutral voltage of 120 volts or more. Make these tests before all equipment has been connected. Test the insulation with a 500Vdc insulation resistance tester with a scale reading 100 megohms. The insulation resistance shall be 2 megohms or more. Submit results for review.

**87-1.04 Payment**

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

**87-2 Grounding**

**87-2.01 General**

### **87-2.01A Scope**

This section includes conduits, wires, ground rods and other materials for the electrical grounding system.

### **87-2.02 Materials**

#### **87-2.02A Ground Rod**

"Copper weld" ground rod conforming to or exceeding requirements of U.L. Specification No. 467 (ANSI C 33.8). Rod shall be 3/4" diameter and 10' in length, unless otherwise noted on the Drawings.

#### **87-2.02B Below Grade Connections**

Compression fittings, Thomas & Betts, Series 52000, 53000 or 54000 or approved equal.

#### **87-2.02C Hardware**

Bolts, nuts and washers shall be bronze, cadmium plated steel or other non corrosive materials, approved for the purpose.

#### **87-2.02D Waterproof Sealant**

Use Kearney "Aqua Seal" mastic sealant on all below grade clamp or compression type connections.

### **87-2.03 Construction**

#### **87-2.03A Grounding and Bonding**

Grounding and bonding shall be as required by codes and local authorities.

All electrical equipment shall be grounded, including, but not limited to, panel boards, terminal cabinets and outlet boxes.

The ground pole of receptacles shall be connected to their outlet boxes by means of a copper ground wire connecting to a screw in the back of the box.

A green insulated copper ground wire, sized to comply with codes, shall be installed in all conduit runs.

All metal parts of pull boxes shall be grounded per code requirements.

All ground conductors shall be green insulated copper.

The ground system electrodes shall be tested for resistance before the equipment ground conductors are connected. Maximum ground system resistance shall be 25 ohms. Install up to two additional ground rods to meet the 25-ohm requirement. Multiple ground rods shall not be less than 10 feet apart.

Grounding of the panels, buildings and relocatable shall be completed as indicated on the Drawings.

#### **87-2.04 Payment**

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

#### **87-3 Outlet, Junction and Pull Boxes**

##### **87-3.01 General**

##### **87-3.01A Scope**

The work of this Section consists of providing all required labor, supervision, materials and equipment to satisfactorily complete all electrical installations shown on the drawings, included in these Specification, or otherwise needed for a complete and fully operating facility. The work shall include but not be limited to the following:

Furnish and install all required material, supports and miscellaneous material for the satisfactory interconnection of all associated electrical systems.

##### **87-3.02 Materials**

##### **87-3.02A Outlet Boxes, Junction, and Pull Boxes**

Switch boxes: Minimum box size shall be 4 inches square by 1-1/2 inches deep with mud rings as required. Install multiple switches in standard gang boxes with raised device covers suitable for the application indicated.

Conduit bodies: Cadmium plated, cast iron alloy. Conduit bodies with threaded conduit hubs and neoprene gasketed, cast iron covers. Bodies shall be used to facilitate pulling of conductors or to make changes in conduit direction only. Splices are not permitted in conduit bodies. Crouse-Hinds Form 8 Condulets, Appleton Form 35 Unilets or equal.

Sheet Metal Boxes: Use standard outlet or concrete ring boxes wherever possible; otherwise use a minimum 16-gauge galvanized sheet metal, NEMA I box sized to Code requirements with covers secured by cadmium plated machine screws located six inches on centers. Circle AW Products, Hoffman Engineering Company or equal.

Flush Mounted Pull boxes and Junction boxes: Provide overlapping covers with flush head cover retaining screws, prime coated.

##### **87-3.03 Construction**

##### **87-3.03A Junction and Pull Boxes**

General:

1. Install junction or pull boxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Note that these boxes are not shown on the Drawings.
2. Locate pull boxes and junction boxes in concealed locations above accessible ceilings or exposed in electrical rooms, utility rooms or storage areas.
3. Install raised covers (plaster rings) on boxes in stud walls or in furred, suspended or exposed concrete ceilings. Covers shall be of a depth to suit the wall or ceiling finish.
4. Leave no unused openings in any box. Install close-up plugs as required to seal openings.
5. Identify circuit numbers and panel on cover of junction box with black marker pen.

#### Box Layouts:

1. Boxes above hung ceilings having concealed suspension systems shall be located adjacent to openings for removable recessed lighting fixtures.

#### Supports:

1. Boxes installed in metal stud walls shall be equipped with brackets designed for attaching directly to the studs or shall be mounted on specified box supports.
2. Boxes installed in suspended ceilings of gypsum board or lath and plaster construction shall be mounted to 16-gauge metal channel bars attached to main ceiling runners.
3. Boxes installed in suspended ceilings supporting acoustical tiles or panels shall be supported directly from the structure above.
4. Boxes mounted above suspended acoustical tile ceilings having exposed suspension systems shall be supported directly from the structure above.

### **87-3.04 Payment**

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

### **87-4 Conduits, Raceways and Fittings**

#### **87-4.01 General**

##### **87-4.01A Scope**

The work of this section consists of furnishing and installing conduits, raceways and fittings as shown on the Drawings and as described herein.

##### **87-4.02 Materials**

###### **87-4.02A Conduits and Raceways**

Electrical Metallic Tubing (EMT) shall be hot-dip galvanized after fabrication. Couplings shall be compression or set-screw type.

Flexible Conduit: Flexible metal conduit shall be galvanized steel.

Galvanized Rigid Steel Conduit (GRS) shall be hot-dip galvanized after fabrication. Couplings shall be threaded type.

Rigid Non-metallic Conduit: Rigid non-metallic conduit shall be PVC Schedule 40 (PVC-40 or NEMA Type EPC-40) conduit approved for underground use and for use with 90° C wires.

#### **87-4.02B Conduit Supports**

Supports for individual conduits shall be galvanized malleable iron one-hole type with conduit back spacer.

Supports for multiple conduits shall be hot-dipped galvanized Unistrut or Superstrut channels, or approved equal. All associated hardware shall be hot-dip galvanized.

Supports for EMT conduits shall be galvanized pressed steel single hole straps.

Clamp fasteners shall be by wedge anchors. Shot in anchors shall not be allowed.

#### **87-4.02C Fittings**

Provide threaded-type couplings and connectors for rigid steel conduits; provide steel compression (watertight), or steel set-screw type for EMT, (die-cast zinc or malleable iron type fittings are not allowed). Provide threaded couplings and Meyers hubs for rigid steel conduit exposed to weather.

Fittings for flexible conduit shall be Appleton, Chicago, IL, Type ST, O-Z Gedney Series 4Q by General Signal Corp., Terryville, CT, T & B 5300 series, or approved equal.

Fittings for use with rigid steel shall be galvanized steel or galvanized cast ferrous metal; access fittings shall have gasketed cast covers and be Crouse Hinds Condulets, Syracuse, NY, Appleton Unilets, Chicago, IL, or approved equal. Provide threaded-type couplings and connectors; set-screw type and compression-type are not acceptable.

Fittings for use with rigid non-metallic conduit shall be PVC and have solvent-weld-type conduit connections.

Union couplings for conduits shall be the Erickson type and shall be Appleton, Chicago, IL, Type EC, O-Z Gedney 3-piece Series 4 by General Signal Corp., Terryville, CT, or approved equal. Thread less coupling shall not be used.

Bushings:

1. Bushings shall be the insulated type.
2. Bushings for rigid steel shall be insulated grounding type, O-Z Gedney Type HBLG, Appleton Type GIB, or approved equal.

Conduit Sealants:

1. Fire Retardant Types: Fire stop material shall be reusable, non-toxic, asbestos-free, expanding, putty type material with a 3-hour rating in accordance with UL Classification 35L4 or as specified on the Drawings.

## **87-4.03 Construction**

### **87-4.03A Conduit, Raceway, and Fitting Installation**

For conduit runs exposed to weather provide rigid metal (GRS).

For conduit run underground, in concrete or masonry block wall and under concrete slabs, install minimum ¾" size nonmetallic (PVC) with PVC elbows. Where conduits transition from underground or under slab to above grade install wrapped rigid metal (GRS) elbows and risers.

For conduit runs concealed in steel or wood framed walls or in ceiling spaces or exposed in interior spaces above six feet over the finished floor, install EMT.

Flexible metal conduit shall be used only for the connection of recessed lighting fixtures and motor connections unless otherwise noted on the Drawings. Liquid-tight steel flexible conduit shall be used for motor connections.

The minimum size raceway shall be 1/2-inch unless indicated otherwise on the Drawings.

Installation shall comply with the CEC.

From pull point to pull point, the sum of the angles of all of the bends and offset shall not exceed 360 degrees.

Conduit Supports: Properly support all conduits as required by the NEC. Run all conduits concealed except where otherwise shown on the drawings.

1. Exposed Conduits: Support exposed conduits within three feet of any equipment or device and at intervals not exceeding NEC requirements; wherever possible, group conduits together and support on common supports. Support exposed conduits fastened to the surface of the concrete structure by one-hole clamps, or with channels. Use conduit spacers with one-hole clamps.
  1. Conduits attached to walls or columns shall be as unobtrusive as possible and shall avoid windows. Run all exposed conduits parallel or at right angles to building lines.
  2. Group exposed conduits together. Arrange such conduits uniformly and neatly.
2. Support all conduits within three feet of any junction box, coupling, bend or fixture.
3. Support conduit risers in shafts with Unistrut Superstrut, or approved equal, channels and straps.

Moisture Seals: Provide in accordance with NEC paragraphs 230-8 and 300-5(g).

Where PVC conduit transitions from underground to above grade, provide rigid steel 90's with risers. Rigid steel shall be half-lap wrapped with 20 mil tape and extend minimum 12" above grade.

Provide a nylon pull cord in each empty raceway.

Provide galvanized rigid steel factory fittings for galvanized rigid steel conduit.

Slope all underground raceways to provide drainage; for example, slope conduit from equipment located inside a building to the pull box or manhole located outside the building.

Conduits shall be blown out and swabbed prior to pulling wires, or installation of pull cord in empty conduits.

#### **87-4.04 Payment**

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

#### **87-5 Underground Ducts**

##### **87-5.01 General**

##### **87-5.01A Scope**

The work of this section consists of furnishing and installing raceways, and raceway spacers with necessary excavation.

##### **87-5.01B Standards and Codes**

Work and material shall be in compliance with and according to the requirements of the latest revision of the following standards and codes.

1. National Electrical Code (NEC) (Latest Revision)
2. California Electrical Code (CEC).
3. Underground Installations CEC - Article 300.5
4. Rigid NonMetallic Conduit CEC - Article 347

##### **87-5.02 Materials**

##### **87-5.02A Raceways**

As specified in Section 87-4 Conduits, Raceways and Fittings.

##### **87-5.03 Construction**

##### **87-5.03A Excavation**

Shall be as required for the work as shown on the Drawings.

##### **87-5.03B Install Raceways**

Install as indicated on the drawings.

##### **87-5.03C Sand Encasement**

Shall be as indicated on the drawings.

### **87-5.03D Backfill**

Shall be as indicated on the drawings.

### **87-5.04 Payment**

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

### **87-6 In Grade Pull Boxes**

#### **87-6.01 General**

##### **87-6.01A Scope**

The work of this section consists of providing all labor, supervision, tools, materials, and performing all work necessary to furnish and install pre-cast concrete vaults, and pull boxes with necessary excavation.

##### **87-6.01B Submittals**

Catalog Data: Provide manufacturer's descriptive literature - Pre-cast Vaults, Pull Boxes and Accessories.

#### **87-6.02 Materials**

##### **87-6.02A Materials and Equipment**

General Requirements:

1. Pull boxes for electrical power, controls and other communication circuits shall consist of pre-cast reinforced concrete boxes, extensions' bases, and covers as specified herein and as indicated on the Drawings. Pre-cast units shall be the product of a manufacturer regularly engaged in the manufacture of pre-cast vaults and pull boxes. Acceptable manufacturers are Christy, Utility Vault, Brooks, Associated Concrete or equal.

Construction:

1. Pre-cast concrete vaults and pull boxes for electrical power distribution and communication circuits with associated risers and tops shall conform to ASTM C478 and ACI 318. Pull boxes shall be the type noted on the Drawings and shall be constructed in accordance with the applicable details as shown. Tops and walls shall consist of reinforced concrete. Walls and bottom shall be of monolithic concrete construction. Duct entrances and windows shall be located near the corners of structures to facilitate cable racking.

Covers:

1. The word "ELECTRICAL" shall be cast in the top face of all electrical cable boxes. The word "Signal" or "Fire Alarm" shall be cast in the top of the boxes utilized for these systems.

## **87-6.03 Construction**

### **87-6.03A Installation**

Install pull boxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Note that these boxes are not shown on the Drawings.

Pre-cast pull boxes shall be installed approximately where indicated on the Drawings. The exact location of each pull box shall be determined after careful consideration has been given to the location of other utilities, grading, and paving. All cable boxes and secondary pull boxes shall be installed with a minimum of 6-inch thick crushed rock or sand bedding.

Paved areas - Vaults and pull boxes located in areas to be paved shall be installed such that the top of the cover shall be flush with the finished surface of the paving.

Unpaved Areas - In unpaved areas, the top of vaults and pull box covers shall be approximately 2 inches above finished grade.

Joint Seals - Section joints of pre-cast vaults and pull boxes shall be sealed with compound as recommended by the manufacturer.

Trenching, Backfilling, and Compaction - Trenching, backfilling and compaction shall be as indicated on the plans.

## **87-6.04 Payment**

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

## **87-7 Circuit Breakers**

### **87-7.01 General**

#### **87-7.01A Scope**

The work of this Section consists of providing circuit breakers as shown on the Drawings and as described herein.

#### **87-7.01B Submittals**

Shop Drawings - Submittals shall be for each circuit breaker furnished under this Contract, submit manufacturer's name, catalog data, and the following information:

1. Terminal connection sizes.
2. Voltage rating.
3. Breaker manufacturer, types, trip ratings and interrupting ratings.

Single Submittal - A single complete submittal is required for all products covered by this Section.

Closeout Submittals: Submit in accordance with and Section 870500, operation and maintenance data for circuit breakers including nameplate data, parts lists, manufacturer's circuit breaker timer, current, coordination curves, factory and field test reports and recommended maintenance procedures.

## **87-7.02 Materials**

### **87-7.02A Circuit Breaker**

Each circuit breaker shall consist of the following:

A molded case breaker with an over center toggle-type mechanism, providing quick-make, quick-break action. Each circuit breaker shall have a permanent trip unit containing individual thermal and magnetic trip elements in each pole. Multipole circuit breakers shall have variable magnetic trip elements which are set by a single adjustment to assure uniform tripping characteristics in each pole. Circuit breakers shall be of the bolt-on type unless otherwise noted.

Breaker shall be calibrated for operation in an ambient temperature of 40°C.

Each circuit breaker shall have trip indication by handle position and shall be trip-free.

Three pole breakers shall be common trip.

The circuit breakers shall be constructed to accommodate the supply connection at either end of the circuit breaker. Circuit breaker shall be suitable for mounting and operation in any position.

Breakers shall be rated as shown on Drawings.

Circuit breaker and/or Fuse/circuit breaker combinations for series connected interrupting ratings shall be listed by UL as recognized component combinations for use in the end use equipment in which it is installed. Any series rated combination used shall be marked on the end use equipment per CEC section 110-22.

Breakers shall be UL listed. Circuit breakers shall have removable lugs.

Lugs shall be UL listed for copper and aluminum conductors.

Breakers shall be UL listed for installation of mechanical screw type lugs.

Circuit breakers serving HACR rated loads shall be HACR type. Circuit breakers serving other motor loads shall be motor rated.

## **87-7.03 Construction**

### **87-7.03A Mounting**

The highest breaker operating handle shall not be higher than 72 inches above the floor.

## **87-7.04 Payment**

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

## **87-8 Lighting**

### **87-8.01 General**

#### **87-8.01A Scope**

The work of this section consists of providing and installing a complete lighting system, including fixtures, LED light module, hangers, reflectors, glassware, lenses, auxiliary equipment, heat management components, LED driver (integral or remote), and housing.

#### **87-8.01B Submittals**

Submit descriptive data, photometric curves for each fixture configuration proposed.

Submit shop drawings showing proposed methods for mounting lighting fixtures.

Seismic Requirements: Submit:

1. Sketch or description of the anchorage system if not provided on construction documents.

Submit Operation and Maintenance Data.

#### **87-8.01C Warranty**

LED light module, LED driver, batteries or other luminaire components which fail within the first year after final acceptance shall be replaced by the Contractor with the warranty clause of the General Provisions.

Replacement components provided under warranty to be provided by contractor, not taken from project spare stock.

### **87-8.02 Materials**

#### **87-8.02A General**

Fixtures shall be of the types, wattages and voltages shown on the Drawings and be UL or equivalent classified and labeled for the intended use.

Substitutions will not be considered unless the photometric distribution curve indicates the proposed fixture is equal to or exceeds the specified luminaire and the substitution is consistent with the design intent.

Luminaire (factory or field installed) wire, and the current carrying capacity thereof shall be in accordance with the CEC.

Luminaires and lighting equipment shall be delivered to the project site complete, with suspension accessories, aircraft cable, stems, hangers' canopies, hickey, castings, sockets, holders, LED light engine, diffusers, frames, and related items, including support and braces.

### **87-8.02B Light Emitting Diode (LED) Light Sources and Luminaires**

General:

1. Provide identical power supply and driver within each luminaire type. Provide power supplies and drivers that are suitable and UL-listed for the electrical characteristics of the supply circuits to which they are to be connected and which are suitable for operating LED or relevant light sources.
2. Unless otherwise specified, provide power supplies of same type and same manufacturer for ease of stocking and replacement.
3. Components shall be configured and installed in luminaire by the luminaire manufacturer.
4. Luminaire housing shall be constructed of painted metal with no sharp edges unless otherwise noted.
5. Provide only luminaires whose design, fabrication and assembly prevent overheating or cycling of light engines or drivers/power supplies under any condition of use.
6. Electronic ballasts shall meet the requirements of the Federal Communications Commission Rules and Regulations, Part 18, Part C (RF Lighting Devices) Non-consumer equipment, regarding radio frequency interference (RFI) (radiated) and electromagnetic interference (EMI) (power line conducted).
7. Submit light fixture details with luminaire shop drawings.

LED Performance and component manufacturer requirements.

1. All color characteristics, SPD (Special Power Distribution) CCT, CRI, CIE Chromaticity Coordinates shall be consistent across the entire dimming range.
2. LEDs shall comply with ANSI/NEMA/ANSI C78.377-2008 – Specifications for the Chromaticity of Solid-State Lighting Products. Color shall remain stable throughout the life of the source. The chromaticity of the installed product shall match IES LM-80 data showing that the LED's do not shift more than .005 DuV from submitted documentation.
3. White LEDs shall have a minimum rated source life of 50,000 hours or as specified: Luminaire Schedule. Multicolor LEDs shall have a minimum rated source life of 100,000 hours. LED "rated source life" shall be determined per IES TM-21 - Projecting Long Term Lumen Maintenance of LED Light Sources based on LM-80 test data. Calculated lifetimes exceeding testing hours per TM-21 are not accepted.
4. Luminaire assembly shall include a method of dissipating heat so as to not degrade life of source, electronic equipment, or lenses. LED luminaire housing shall be designed to transfer heat from the LED board to the outside environment. Luminaire housing shall have no negative impact on life of components. Manufacturer shall provide Luminaire

Efficacy (lm/W), total luminous flux (lumens), luminous intensity (candelas), chromaticity coordinates, CCT, CRI, optical performance, polar diagrams, and relevant luminance and illuminance photometric data. Provide data in IES file format in accordance with testing standards IES LM-79-08 and IES LM-82-12, based on test results from an independent Nationally Recognized Testing Laboratory or National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.

5. Manufacturer will keep record of original chromaticity coordinates for each LED module and have replacement modules or luminaires from within three (3) MacAdamEllipses/ steps of the same coordinates available for the duration of the warranty period.
6. Manufacturer's LED light engine or equivalent system will be available for ten (10) years: Manufacturer will provide exact replacement parts, complete replacement luminaires, or provide upgraded parts that are designed to fit into the original luminaire and provide equivalent distribution and lumen output to the original, without any negative consequences.
7. All LED sources used in the LED luminaire shall be of proven quality from established and reputable LED manufacturers and shall have been fabricated within 12 months before installation per the date code on the module. Acceptable LED component or module manufacturers unless otherwise noted are:
  1. Cree, Inc.
  2. Lumileds
  3. Nichia Corporation
  4. Norlux
  5. Lextar
  6. Osram Optronics Semiconductors
  7. Xicato
  8. Bridgelux
  9. Epistar
  10. San'an
  11. Citizen Electronics
  12. General Electric Company
  13. Sora
  14. Samsung
  15. Seoul Semiconductor
  16. Lumenetix
  17. Ledengin

#### **87-8.02C LED Power Supplies / Drivers**

LED driver shall have a minimum 50,000 hour published life while operating at maximum case temperature and 90 percent non-condensing relative humidity.

Driver shall be Sound Rated A+.

Driver shall be > 80% efficient at full load across all input voltages.

Driver shall include ability to turn off at low control input rather than holding at a minimum dimming level, and shall consume 0.5 Watts or less in standby/off mode. Control dead band at low control input shall be included to allow for voltage variation of incoming signal without causing noticeable variation in luminaire to luminaire output.

Drivers shall track evenly across multiple luminaires at all light levels, and shall have an input signal to output light level that allows smooth adjustment over the entire dimming range.

Control Input:

1. 4-Wire (0-10V DC Voltage Controlled) Dimming Drivers
  1. Must meet IEC 60929 Annex E for General White Lighting LED drivers.
  2. Connect to devices compatible with 0 to 10V Analog Control Protocol, Class 2, capable of sinking 0.6 ma per driver at a low end of 0.3V.
  3. Must meet ESTA E1.3 for RGBW LED drivers.
2. Digital (DALI Low Voltage Controlled) Dimming Drivers
  1. Must meet IEC 62386.
3. Digital Multiplex (DMX Low Voltage Controlled) Dimming Drivers
  1. Must meet DMX / RDM: USITT DMX512A and ANSI E1.20 (Explore & Address).
  2. Must be capable of signal interpolation and smoothing of color and intensity transitions.

Power Factor: The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.

THD: Total harmonic distortion (current and voltage) induced into an AC power line by luminaire shall not exceed 10 percent at any standard input voltage and meet ANSI C82.11 maximum allowable THD requirements at full output. THD shall at no point in the dimming curve allow imbalance current to exceed full output THD.

In Rush Current: Meet or exceed NEMA 410 driver inrush standard of 430 Amps per 10 Amps load with a maximum of 370 Amps 2 – seconds.

RF Interference: The luminaire and associated on-board circuitry must meet Class A emissions limits referred in Federal Communications Commission (FCC) Title 47, Subpart B, Section 15 Non-Consumer requirements for EMI/RFI emissions.

Light engines shall be 3500°K and 80CRI minimum, U.O.N. on drawings.

Drivers shall be accessible for maintenance or replacement without removal of recessed light fixture and without destruction of the ceiling.

### **87-8.03 Construction**

#### **87-8.03A Installation**

General:

1. All fixtures and luminaires shall be clean and lamps shall be operable at the time of acceptance.
2. Install luminaires in accordance with manufacturer's instructions, complete with lamps, ready for operation as indicated.
3. Align, mount, and level the luminaires uniformly.
4. Avoid interference with and provide clearance for equipment. Where an indicated position conflicts with equipment locations, change the location of the luminaire by the minimum distance necessary.
5. Recessed light fixtures in fire rated assemblies shall be installed per an approved UL rated fire rated penetration detail.

#### Mounting and Supports:

1. Mounting heights shall be as shown on the Architectural and Electrical Drawings. Unless otherwise shown, mounting height shall be measured to the centerline of the outlet box for wall mounted fixtures and to the bottom of the fixture for suspended fixtures and to the bottom of the fixture for all other types.
2. Luminaire supports shall be anchored to structural members.
3. Pendant stem mounted luminaires shall be provided with ball aligners to assure a plumb installation and shall have a minimum 45-degree clean swing from horizontal in all directions. Sway bracing shall be installed as required to limit the movement of the fixture. Fixtures shall be allowed to sway a maximum of 45° without striking any object.
4. Fixture supports shall be designed to resist earthquake forces of seismic zone 4.
5. Refer to fixture mounting details on drawings for installation requirements.
6. Pendant cable mounted luminaries shall be provided with fully adjustable stainless-steel aircraft cable hangers unless otherwise noted on the Drawings.

#### **87-8.04 Payment**

Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

## 90 CONCRETE

**90-1.01A Summary:** The concrete mix for concrete pavement, concrete mowband, court band, and retaining curb shall comply with Section 40 of these Special Provisions. Concrete footings for shade structures, light poles, ball walls, and 10' tall chain link fence shall comply with the specifications on the structural plan sheets.

**90-1.01C(6) Mix Design:** The proportions of the water, sand and aggregate shall be regulated so as to produce a plastic, workable and cohesive mixture.

**90-1.01D(2) Cementitious Material Content:** Concrete shall contain a minimum of 564 pounds of cementitious material per cubic yard. The amount of cement by weight of the specified cementitious material shall be 75 to 85 percent.

**90-1.01D(5) Compressive Strength:** The 28 day compressive strength of concrete shall be 4000 pounds per square inch (psi) or greater.

**90-1.01D(6) Curing Compound:** Concrete shall be cured per Section 90-1.03B of the Standard Specifications. Pigmented curing compound or any other material that will leave a noticeable residue shall not be allowed.

**90-1.02E(2) Chemical Admixtures:** An admixture shall not be used to reduce the amount of cementitious material content.

**90-1.04 Payment:** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

# 112 TREE PROTECTION

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

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

Tree surgery may be necessary, requiring work ranging from minor root pruning and top thinning to complete removal. Each tree will be evaluated and the necessary work determined by the Engineer. Work required herein does not include removal of trees, stumps or roots indicated on the project plans for removal under Section 125, Special Conditions for Demolition and Site Clearance.

**112-1.01A Qualifications:** The successful bidder or the successful bidder's subcontractor must be able to demonstrate knowledge and abilities to perform the required work by possessing a valid California D49 Tree Service Contractor's License and possess the tools and equipment necessary to perform the required work.

**112-1.01B Certified Arborist:** The contractor shall retain a Certified Arborist as required to perform the work shown in the project plans and these special provisions. The Certified Arborist shall hold one or more of the following qualifications: Certified Arborist with the International Society of Arboriculture (ISA), ISA Board Certified Master Arborist, or American Society of Consulting Arboriculture (ASCA) Registered Consulting Arborist.

**112-1.01C Disposal:** All debris from tree surgery shall become the property of the contractor and shall be disposed of by the contractor at a site away from the work area.

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

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

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

Underground trenching for utilities and irrigation shall avoid major support and absorbing tree roots of protected trees. If avoidance is impracticable, tunnels shall be made below the roots. Trenches shall be consolidated to serve as many units as possible. Trenching within the drip line of the tree shall be avoided and only be done at the approval and direction of the Engineer. Where approved by the Engineer, root pruning shall be performed in accordance with Section 112-1.03, "Tree Surgery," of this special provision.

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

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

### **112-1.03 Tree Surgery**

**112-1.03A Tree and Stump Removal:** If required as a result of utility trenching operations, shall be per Section 17 General Earthwork and Landscape of these special provisions.

**112-1.03B Root Pruning with Top Thinning or Pollarding:** The work shall be performed to the best general standards in the industry. Materials shall be of first quality. All precautions shall be taken to ensure the protection of existing adjacent public or private property.

All root pruning shall be accomplished by use of sharp tools appropriate for the size of root to be cut. Each cut shall be clean with no torn bark or splintered wood remaining on the tree. All cuts shall be sealed with an approved wound dressing.

At the discretion of the Engineer, in cases where root pruning is done, symmetrical top pruning may be required so as to maintain a balance between root system and above ground branching. Above ground cuts do not require sealing.

**112-1.03 Tree protection fencing:** Tree protection fencing shall be as shown in the details on the plans.

**112-1.04 Payment:** Full compensation for conforming to the requirements of this Section, except for Tree and Stump Removal, shall be considered as paid for at the contract **lump sum** price for **Tree Protection**, which price shall include full compensation for all material, equipment, labor and work required as specified herein, and no additional allowance will be made therefor.

## 121 NOTIFICATION

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

**121-3.01 Payment:** Full compensation for conforming to the requirements of this Section is considered as included in the contract prices paid for various contract items of work involved and no additional allowance will be made therefor.

[Version: 10/13/14-CDA STD2010]

## 124 MATERIAL RECYCLING

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

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

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

[Version: 11/6/14CDA STD2010]

## **A1 - FEES AND PERMITS**

The Contractor shall obtain all necessary and required permits for the project. All permits issued by the City Building Department will be issued at no cost to the Contractor; these fees will be paid by an appropriate City department. All other required permits shall be obtained at the Contractor's expense.

[Version: 2/2/15CDA STD2010]

## **B1 - SHOP DRAWINGS**

The Contractor shall submit shop drawings and/or manufacturer's specifications for all items listed in the applicable sections of the Standard Specifications and these Special Provisions.

The Contractor shall prepare or secure and submit five copies of each submittal for review by the Engineer. All submittals shall be approved by the Engineer prior to manufacture, fabrication, or shipment.

After approval of the drawings by the Engineer, the Contractor shall submit copies of purchase orders for items of equipment and material to the Engineer as proof of placing the order. Each copy of a purchase order shall be submitted immediately after the order has been placed and will clearly indicate the date the order was placed. Copies of purchase orders shall be submitted on the following items:

- A. Shade Structures
- B. Ball Walls
- C. Site furnishings (nets and posts, windscreen, benches, picnic tables, and drinking fountain)
- D. Fence and gate materials
- E. All electrical equipment

## **B2 - DESCRIPTION OF WORK**

The work to be done consists, in general, of reconstruction and resurfacing of existing tennis and pickleball courts at Galvin Community Park and Howarth Park. New tennis courts will be constructed at Galvin.

Improvements associated with the courts include: demolition of existing courts, site grading, storm drainage provisions, bioretention areas, concrete pavement, asphalt court pavement with court surfacing, ball walls, chain link fencing, shade structures, site furnishings, light poles, electrical system modifications, irrigation, and planting.

The work to be done consists of supplying all labor, methods or processes, implements, tools, machinery, equipment, and materials to construct the improvements, and including protection of new work, and other work not mentioned herein which, required by the Special Provisions or special instructions, are to be furnished and installed, all as specified herein or as directed by the Engineer.

[Version: 2/2/15CDA STD2010]

## **C1 - TESTS AND INSPECTIONS**

All materials, equipment, installation, and workmanship included in this contract, if so required by the Engineer, shall be tested and inspected to prove compliance with the contract requirements.

All mechanical and electrical equipment shall be tested by the Contractor to the satisfaction of the Engineer before any facility is put into operation. Tests shall be as specified herein and shall be made to determine whether the equipment has been properly assembled, aligned, adjusted, and connected. Any changes, adjustments, or replacements required to make the equipment operate as specified shall be carried out by the Contractor as part of the work.

At least 60 days before the time allowed in the construction schedule for commencing testing and start-up procedures, the Contractor shall submit to the Engineer, in duplicate, details of the procedures being proposed to adopt for testing and start-up of all mechanical and electrical equipment to be operated singly and together, excepting when such procedures have been covered in the specifications.

During the testing of mechanical, instrumentation, and electrical equipment, the Contractor shall make available experienced factory trained representatives of the manufacturers of all the various pieces of equipment, or other qualified persons, who shall instruct the City's personnel in the operation and care thereof. Instruction shall include step-by-step troubleshooting procedures with all necessary test equipment.

If, under test, any portion of the work shall fail to fulfill the contract requirements and is altered, renewed, or replaced, tests on that portion when so altered, removed, or replaced, together with all other portions of the work as are affected thereby, shall, if so required by the Engineer, be repeated within reasonable time and in accordance with the specified conditions, and the Contractor shall pay to the City all reasonable expenses incurred by the City as a result of the carrying out of such tests.

Where, in the case of an otherwise satisfactorily installed test, any doubt, dispute, or difference should arise between the Engineer and the Contractor regarding the test results or the methods or equipment used in the carrying out of the test by the Contractor, then the Engineer may order the test to be repeated. If the repeat test, using such modified methods or equipment as the Engineer may require, substantially confirms the previous test, then all costs in connection with the repeat test will be paid by the City; otherwise the costs shall be borne by the Contractor. Where the results of any installed test fail to comply with the contract requirements for such test, then such repeat tests as may be necessary to achieve the contract requirements shall be made by the Contractor at their own expense.

As soon as possible after each Contractor's submittal for equipment defined herein has been approved by the Engineer, and no later than the time of delivery of that equipment to the job site, a single copy of operating and maintenance instructions and procedures shall be presented to the Engineer for review and acceptance. Since such instructions are considered to be an integral part of the equipment provided, ten percent of the materials and labor costs for each such item of equipment will be withheld from payment to the Contractor until the instructions have been accepted by the Engineer.

Items or assemblies requiring operating and maintenance instructions shall include all mechanical equipment, electrical, and instrumentation equipment, and, in addition, any other items specifically noted in the specifications.

The operating and maintenance instructions shall include, as a minimum, the following data for each item of equipment.

- A. An itemized list of all data provided.
- B. Name and location of the manufacturer, the manufacturer's local representative, the nearest supplier, and spare parts warehouse.
- C. Approved submittal information applicable to operation and maintenance.
- D. Recommended installation, adjustment, start-up, calibration, and troubleshooting procedures.
- F. Recommended step-by-step procedures for all modes of operation.
- G. Complete internal and connection wiring diagrams.
- H. Recommended preventive maintenance procedures and schedule.
  - I. Complete parts lists, by generic title and identification number, with exploded views of each assembly.
- J. Recommended spare parts.
- K. Disassembly, overhaul, and reassembly instructions.

Following completion of installation of an item of equipment, operating and maintenance instructions and procedures shall be modified by the Contractor to reflect field changes and corrections made by the Engineer. After corrections have been made, four complete copies shall be submitted.