



CUPERTINO

PUBLIC WORKS DEPARTMENT
10300 TORRE AVENUE
CUPERTINO, CALIFORNIA 95014

PROJECT MANUAL

FOR THE

S. DE ANZA BOULEVARD MEDIANS- PHASE 1

Bid Date:

February 13, 2018

Project Number: 2015-21.02


PROJECT MANUAL FOR
S. De Anza Boulevard Medians-Phase 1
PROJECT NO. 2015-21.02

REVIEWED BY:



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Timm Borden
Director of Public Works

PROJECT DIRECTORY

Project Name: S. De Anza Boulevard Medians-Phase 1

Project Number: 2015-21.02

Location: South De Anza Boulevard between Bollinger Road and Rodrigues Avenue

City Representative:

City of Cupertino

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Cupertino, CA 95014
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City of Cupertino

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Structural Engineer of Record:

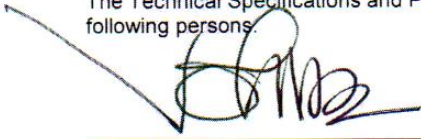
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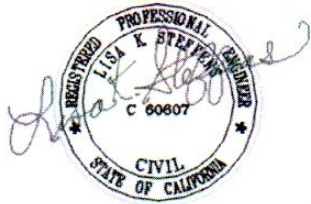
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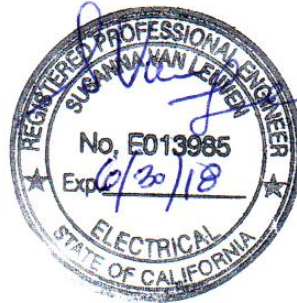
The Technical Specifications and Plans have been prepared by or under the direction of the following persons



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Landscape Architect



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CUPERTINO

Notice Inviting Bids

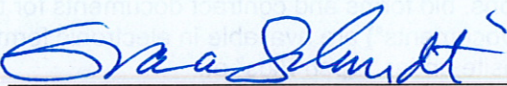
1. **Bid Acceptance.** The City of Cupertino (“City”) will accept sealed bids for its S. De Anza Boulevard Medians-Phase 1 Project (“Project”), by or before February 13, 2018, at 2:00 p.m., at the City Clerk’s Office, located at 10300 Torre Avenue, Cupertino, California, 95014 at which time the bids will be publicly opened in the City Hall lobby and read aloud. The City may, acting in its sole discretion, reject any and all bids, and may waive any immaterial deviation from the bid requirements to the full extent permitted by law.
2. **Project Information.**
 - 2.1 **Location and Description.** The Project is located on De Anza Boulevard, between Bollinger Road and Rodrigues Avenue, and is described as follows: Landscape renovations within the two existing medians including preservation of selected existing trees, removal of trees and other vegetation, removal of earthen berms, and the removal of existing and construction of new arbor structures. Work also includes irrigation and electrical construction.
 - 2.2 **Time for Completion.** The planned timeframe for commencement and completion of construction of the Project is: 50 working days from the date of the Notice to Proceed.
 - 2.3 **Estimated Cost.** The estimated construction cost is \$920,000
3. **License and Registration Requirements.**
 - 3.1 **License.** This Project requires a valid California contractor’s license for the following classification(s): A-General Engineering Contractor.
 - 3.2 **DIR Registration.** City will 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 under Labor Code section 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”) are available in electronic form only, and may be downloaded from City’s website under “Open Bids” at: <http://www.cupertino.org/i-want-to/bid-on/open-bids> and may also be available from a local or regional plan room or trade journal.
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 and insurance certificates and endorsements and any other submittals as required by the Contract Documents and specified in the notice of award.
6. **Prevailing Wage Requirements.**
 - 6.1 **General.** 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. These prevailing rates are on file with the City and 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 section 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.
8. **Substitution of Securities.** Substitution of appropriate securities in lieu of retention amounts from progress payments is permitted under Public Contract Code section 22300.
9. **Subcontractor List.** 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) for each Subcontractor that will perform work or service or fabricate or install work for the prime contractor in excess of one-half of 1% of the bid price or, for construction of streets and highways, \$10,000 (whichever is greater), using the Subcontractor List form included with the Contract Documents.
10. **Subcontractor Limit.** The prime contractor is required to self-perform at least 51% of the Work on the Project, as further specified in the Instructions to Bidders.
11. **Site Visit.** A site visit will be held on January 31, 2018 at 10:00 a.m., starting at the intersection of De Anza Boulevard and Rodrigues Avenue for the purpose of acquainting all prospective bidders with the Contract Documents and the Worksite. The site visit is not mandatory.
12. **Instructions to Bidders.** All bidders should carefully review the Instructions to Bidders before submitting a Bid Proposal.

By:  Date: 1/5/18

Grace Schmidt, City Clerk

Publication Date: 1/12/18

END OF NOTICE INVITING BIDS

Instructions to Bidders

Each Bid Proposal submitted to the City of Cupertino ("City") for its S. De Anza Boulevard Medians-Phase 1 Project ("Project") must be submitted in accordance with the following instructions and requirements:

1. Bid Submission.

1.1 General. The Contract for the Project will be awarded, if at all, to the lowest responsible bidder, as determined by City. Each Bid Proposal must be signed, sealed and submitted to City, using the form provided in the Contract Documents, by or before the date and time set forth in the Notice Inviting Bids, or as amended by subsequent addendum. Faxed or emailed Bid Proposals will not be accepted, unless otherwise specified. Late submissions will be returned unopened. City reserves the right to postpone the date and 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 Bid Envelope. The envelope containing the sealed Bid Proposal and all required forms and attachments must be clearly labeled and addressed as follows:

BID PROPOSAL:

S. De Anza Boulevard Medians-Phase 1 Project
Project No. 2015-21.02

City Clerk's Office
Cupertino City Hall
10300 Torre Avenue
Cupertino, CA 95014
Attn: John Raaymakers

The envelope must also be clearly labeled, as follows, with the bidder's name and address:

[Contractor company name]
[street address]
[city, state, zip code]

1.3 DIR Registration. City will not accept a Bid Proposal from or enter into the Contract with a bidder without proof that the bidder is registered with the DIR to perform public work under Labor Code section 1725.5, subject to limited legal exceptions. If City is unable to confirm that the bidder's DIR registration is current at the time of bidding, City must disqualify the bidder and return its bid.. (Labor Code section 1725.5.)

2. Bid Proposal Form and Enclosures. Each Bid Proposal must be completed in ink using the Bid Proposal form included in 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 in the Project manual as directed.

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 Corporation Code section 313.
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, certified check, 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, made payable to City. 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; and submit the insurance certificates and endorsements and any other submittals, if any, required by the Contract Documents or the notice of award.
5. **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.

5.1 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), unless the cumulative amount of correction changes the total amount of the base bid or bid alternate. 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 section 5100 et seq.

5.2 Estimated Quantities. 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.

6. **Subcontractor Work Limits.** The prime contractor must perform at least the percentage of the Work on the Project specified in the Notice Inviting Bids, which is calculated as a percentage of the base bid price, with its own forces, except for any Work identified as "Specialty Work" in the Bid Schedule. The total bid amount for any such Specialty Work, as shown on the Bid Schedule, may be deducted from the base bid price before computing the percentage the contractor must self-performance. The remaining Work may be performed by qualified Subcontractor(s).

7. **Bidder's Questionnaire.** A completed, signed Bidder's Questionnaire using the form provided with the Contract Documents and including all required attachments must be submitted within two working days following a request by City. A bid submitted by a bidder that does not fully comply with this requirement may be rejected as nonresponsive. A bidder who submits a Bidder's Questionnaire which is subsequently determined to contain false or misleading information, or material omissions, may be disqualified as non-responsive.

8. **Pre-Bid Investigation**

8.1 General. Each bidder is solely responsible at its sole expense for diligent and thorough review of the Contract Documents and documents provided "For Reference Only," which may include geotechnical reports, as-built or record drawings, utility diagrams, or other such information. Each bidder is also responsible for appropriate 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 City's property or the Project site without prior written authorization from City, and subject to the site investigation requirements set forth below. Bidders are responsible for reporting any errors or omissions in the Contract Documents to City prior to submitting a Bid Proposal, subject to the limitations of Public Contract Code section 1104.

8.2 Project Site. Soil and soil test data, water table elevations, and soil analyses for test holes, if any, may be available for inspection at the City's offices or as otherwise specified in the Contract Documents. Any subsurface exploration at the Project site must be done at the bidder's expense, but only with prior written authorization from City, and as further specified below in subsection 8.4. All soil data and analyses available for inspection or provided in the Contract Documents or in documents provided "For Reference Only," 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 Project 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. City expressly disclaims responsibility for assumptions a bidder might draw from the presence or absence of information provided by City. City does not warrant the accuracy of any representation of visible, above-ground conditions that may be independently investigated and verified by the bidder. The City disclaims responsibility for the accuracy of information regarding subsurface conditions that has been provided to City by others, such as utility owners.

8.3 Utilities. The Project must be completed in a manner that satisfies the standards and requirements of the affected utility companies or agencies (collectively, "utility owners"). The successful bidder may be required by the 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 utility owners about their requirements before submitting a Bid Proposal.

8.4 Site Investigation Requirements. Potential bidders will be required to execute an agreement to indemnify City and hold it harmless against any liability arising from site

investigation, testing or inspection using City's form Indemnity Agreement (Site Inspection) included with the Project Forms provided with the Contract Documents. The prospective bidder must ensure that any such site investigation is conducted in a manner to avoid endangering persons or damaging property, and must promptly and fully restore the site to its pre-investigation condition, including filling in holes and cleaning up. City reserves the right to impose additional conditions to site access or investigation in order to protect persons or property, including, but not limited to limitations on machinery used during the site investigation.

9. **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, and may also submit a Bid Proposal as a prime contractor.
10. **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 John Raaymakers, Public Works Project Manager, at johnr@cupertino.org. 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.
11. **Addenda and Plan Holder's List.** Any addenda issued prior to the bid opening are part of the Contract Documents. Subject to the limitations of Public Contract Code section 4104.5, City reserves the right to issue addenda prior to bid time. Addenda will be posted electronically on the City's website at: <http://www.cupertino.org/i-want-to/bid-on/open-bids>. Notifications will also be transmitted to known plan holders. To be included on the plan holder's list for this Project, email the following information to capitalprojects@cupertino.org: bidder's name, address, phone number and email address, with the Project title included in the subject bar. Each bidder is responsible for ensuring it has received and reviewed all addenda prior to submitting its bid. All bidders, including bidders on the plan holder's list, should regularly check City's website for any addenda or updates on the Project.
12. **Pre-Bid Substitution Requests.** 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. A pre-bid request for substitution must be submitted no later than ten working days before the scheduled bid opening, using the City's Substitution Request Form. All data substantiating the proposed substitute as an equal item must be submitted with the written request for substitution, and all such requests are subject to the requirements and limitations applicable to substitution requests under Section 7.7 of the General Conditions, on Substitutions. These substitution provisions do not apply to materials, products, things, or services that may lawfully be designated by a specific brand or trade name under Public Contract Code section 3400(c).
13. **Withdrawal of Bid Proposals.** 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 section 5100 et seq.
14. **Bid Protest.** Any bid protest must be in writing and received by City at 10300 Torre Avenue, Cupertino, CA 95014 or via email at johnr@cupertino.org before 5:00 p.m. no later than two Working Days following bid opening (the "Bid Protest Deadline") and must comply with the following requirements:

14.1 Eligibility. Only a bidder who has actually submitted a responsive Bid Proposal, as determined by City, 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, a "Working Day" means a day that City is open for normal business, and excludes weekends and holidays observed by City.

14.2 Protest Contents. The bid protest must contain a complete statement of the basis for the protest and 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 representing the protesting bidder.

14.3 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.

14.4 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 include 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 representing the protested bidder if different from the protested bidder.

14.5 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.

14.6 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.

14.7 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.

- 15. Reservation of Rights.** To the full extent permitted by law, City reserves the right, acting in its sole discretion, to waive or to decline to waive any immaterial bid irregularities, to accept or reject any and all bids, or to abandon the Project entirely. 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 date given for planned commencement of the Project given in Section 2.2 of the Notice Inviting Bids is provided as informative of 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 commencement date, and reserves the right to issue the Notice to Proceed when the City determines, in its sole discretion, the appropriate time for commencing the Work.

16. **Bonds.** The successful bidder is required to submit payment and performance bonds as specified in the Contract Documents using the bond forms included in the Contract Documents, within ten days following City's issuance of the notice of award. All required bonds must be calculated on the maximum total Contract Price as awarded, including additive alternates, if applicable.
17. **License(s).** The successful bidder and its Subcontractor(s) must possess the California contractor's license(s) in the classification(s) required by law to perform the Work and must also obtain a City Business License before beginning Work on the Project, unless its sole business contact within the City is the sale of goods or services to the City itself.
18. **Ineligible Subcontractor.** Any Subcontractor who is ineligible to perform work on a public works project under Labor Code sections 1777.1 or 1777.7 is prohibited from performing work on the Project.
19. **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 section 6707.

END OF INSTRUCTIONS TO BIDDERS

Bidder's Name: _____

Bid Proposal

S. De Anza Boulevard Medians-Phase 1 Project

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

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

2. **Addenda.** Bidder agrees that it has confirmed receipt of or access to, and reviewed, all addenda issued for this Bid. Bidder specifically acknowledges receipt of the following addenda:

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

3. **Bidder's Warranties.** By signing and submitting this Bid Proposal, Bidder warrants the following:

3.1 **Examination of Contract Documents.** Bidder has thoroughly examined the Contract Documents and represents that, to the best of Bidder's knowledge, there are no errors, omissions, or discrepancies in the Contract Documents, subject to the limitations of Public Contract Code section 1104.

3.2 **Examination of Worksite.** Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.

3.3 **Bidder is Qualified.** Bidder is fully qualified to perform the Work.

3.4 **Responsibility for Bid.** Bidder has carefully reviewed this Bid Proposal and is solely responsible for any errors or omissions contained in its completed Bid.

4. **Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that if Bidder is awarded the Contract for the Project, within ten days following issuance of the notice of award to Bidder, Bidder will do all of the following:

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

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

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

Bidder's Name: _____

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

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

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

This Bid Proposal is hereby submitted on _____, 20__.

Bidder Business Name

Date

Signature

Signature

Name/Title (If Corporation: Chairman, President or Vice President)

Name/Title (If Corporation: Secretary, Assistant Secretary, Chief Financial Officer or Assistant Treasurer)

License #, Expiration Date, and Classification

DIR Registration #

Address

Phone

City, State, Zip

Contact Name/Title

Contact Phone

Contact Email

END OF BID PROPOSAL

Bidder's Name: _____

Bid Schedule

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

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

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
1	Mobilization	1	LS	\$	\$
2	Temporary Water Pollution Control	1	LS	\$	\$
3	Traffic Control and Construction Area Signage	1	LS	\$	\$
4	Clearing and Grubbing	1	LS	\$	\$
5	Remove Tree	15	EA	\$	\$
6	Excavate and Dispose of Soil (Final Pay Item)	558	CY	\$	\$
7	Remove and Dispose of Existing Arbor Structures	2	EA	\$	\$
8	Concrete Maintenance Strips	3,772	SF	\$	\$
9	Boulders	25	TON	\$	\$
10	Headerboard at Berms	400	LF	\$	\$
11	Arbor Pier Footings	16	EA	\$	\$
12	Arbor Stone Bases	16	EA	\$	\$
13	Arbor Precast Concrete Columns	16	EA	\$	\$
14	Arbor Steel Structure incl. Prime & Paint	2	EA	\$	\$
15	Metal Vine Screens	300	LF	\$	\$
16	Electrical Systems	1	LS	\$	\$
17	Arbor Downlights	20	EA	\$	\$
18	Column Sconces	32	EA	\$	\$
19	Irrigation System	1	LS	\$	\$
20	Imported Topsoil 6"	193	CY	\$	\$
21	Soil Preparation, Final Grading	10,461	SF	\$	\$
22	Tree 24" Box	19	EA	\$	\$
23	Shrub 5 Gal	575	EA	\$	\$
24	Shrub 1 Gal	375	EA	\$	\$

Bidder's Name: _____

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
25	Vines 5 Gal	16	EA	\$	\$
26	Bark Mulch	10,461	SF	\$	\$
27	Jute Mesh	2,500	SF	\$	\$
28	90 Day Plant Establishment Period	1	LS	\$	\$

TOTAL BASE BID: Items 1 through 28 inclusive: \$_____

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

BIDDER NAME: _____

END OF BID SCHEDULE

Bidder's Name: _____

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.

This declaration is intended to comply with California Public Contract Code section 7106 and Title 23 U.S.C section 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 City of Cupertino (“City”) for work on the S. De Anza Boulevard Medians-Phase 1 Project (“Project”). Under this duly executed bid bond (“Bid Bond”), Bidder as Principal and _____, its surety (“Surety”), are bound to City as obligee in the penal sum of ten 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; and
 - 2.4 **Insurance.** The insurance certificate(s) and endorsement(s) required by the Contract Documents, and any other documents required under the Instructions for Bidders.
3. **Enforcement.** If Bidder fails to execute the Contract and to submit the bonds and insurance certificates 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; 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 award of the Contract or until this Bid Bond is returned to Bidder, whichever occurs first. Surety waives the provisions of Civil Code sections 2819 and 2845.

[Signatures are on the following page.]

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

SURETY: _____

Business name

s/ _____

Name/Title

(Acknowledgement with Notary Seal for Surety, and Surety's Power of Attorney-In-Fact Certificate must be attached.)

BIDDER: _____

Business name

s/ _____

Name/Title

END OF BID BOND

Bidder's Questionnaire

S. DE ANZA BOULEVARD MEDIANS-PHASE 1 PROJECT

Within 2 working days following a request by the City of Cupertino ("City"), a bidder must submit to City a completed, signed Bidder's Questionnaire using this form and including all required attachments. City may request the Questionnaire from one or more of the apparent low bidders following the bid opening, and may use the completed Questionnaire 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 1: General Information

Bidder's Full Legal (Business) Name: _____
("Bidder")

Check One: ___ Corporation
 ___ Partnership
 ___ Sole Proprietorship
 ___ Joint Venture of: _____ *

 ___ Other: _____

Address: _____

Phone: _____

Owner of Business: _____

Contact Person: _____

Email: _____

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

Bidder's Federal I.D. Number: _____

** If Bidder is a joint venture identify each member and the role of each member of the joint venture, and provide a completed Bidder's Questionnaire for each member of the joint venture.*

Part 2: 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 on grounds that it is not responsible?
____ Yes ____ No

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

of the project, the reasons that Bidder was disqualified as not responsible, and the month and year in which the disqualification occurred.

4. Has Bidder ever been terminated from a construction project, either as a general contractor or as a subcontractor?

Yes No

If yes, provide additional information on a separate sheet of paper 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. Has Bidder's contractor's license(s) ever been revoked?

Yes No

If yes, provide additional information on a separate sheet of paper regarding each revocation, including the license classification and license number, the reason(s) the license was revoked, the date of revocation, and the date of reinstatement.

6. Has Bidder ever been fined or disbarred for failure to comply with state or federal prevailing wage requirements?

Yes No

If yes, provide additional information on a separate sheet of paper regarding each fine or disbarment, including the reason(s) for the fine or disbarment, the agency that imposed the fine or disbarment, the date(s) of the fine or disbarment, and identify the project and project owner for which the Bidder was determined to be non-compliant with prevailing wage requirements.

7. Has Bidder ever been subject to civil or criminal penalties or other adverse action for violation(s) of health, safety or environmental laws or regulations?

Yes No

If yes, provide additional information on a separate sheet of paper regarding each such violation, including the reason(s) for the determination against Bidder, the agency that determined Bidder to be in violation, the nature and date(s) of such penalty or other adverse action, and identify the project and project owner for which the Bidder was determined to be in violation of health, safety or environmental laws or regulations.

8. Has Bidder ever been fined or convicted for unlawful labor practices, including, but not limited to, employment of undocumented workers?

Yes No

If yes, provide additional information on a separate sheet of paper regarding each such fine or conviction, including the nature and date(s) of the violation(s), the agency that determined Bidder to be in violation, and identify the project and project owner in relation to which the Bidder was fined or convicted of unlawful labor practices.

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

- 9.1 Three most recently completed public works projects within the last three years;
- 9.2 Two largest completed projects within the last three years; and
- 9.3 Any project which is similar to this Project including magnitude and character of the Work.

10. Use separate sheets of paper to provide all of the following information for each project identified in response to the above three categories, under section 10:

- 10.1 Project name
- 10.2 Location
- 10.3 Owner
- 10.4 Owner contact (name and current phone number)
- 10.5 Architect or engineer name
- 10.6 Architect or engineer contact (name and current phone number)
- 10.7 Project manager (name and current phone number)
- 10.8 Description of project and scope of work performed
- 10.9 Initial contract value (at time of bid award)
- 10.10 Final cost of construction (including change orders)
- 10.11 Original scheduled completion date
- 10.12 Time extensions granted (number of days)
- 10.13 Actual date of completion
- 10.14 Number and amount of stop notices or mechanic's liens filed
- 10.15 Amount of liquidated damages assessed against Bidder
- 10.16 Nature and resolution of any claim, lawsuit, and/or arbitration between Bidder and the owner.

Part 3: Bonds and Insurance

- 1. Bidder's current bonding capacity is: \$_____.
- 2. Provide the following information regarding Bidder's bond surety and bond agent:

Surety's Name: _____

NAIC#: _____

Address: _____

Phone: _____

Surety's A.M. Best Ratings for financial size and strength: _____

Is surety an admitted surety in California? Yes No

Bond agent name, address and phone:

Percentage rate paid for payment, performance and warranty bonds: ____%

3. Provide the following information regarding Bidder's insurance policies and insurers:

Commercial General Liability:

Insurer name, address and phone: _____

NAIC#: _____

Insurer A.M. Best's rating for financial size and financial strength: _____

Policy number and expiration date: _____

Coverage limits: \$_____ per occurrence, and \$_____ aggregate

Automobile Liability:

Insurer name, address and phone: _____

NAIC#: _____

Insurer A.M. Best's rating for financial size and financial strength: _____

Policy number and expiration date: _____

Coverage limits: \$_____ per occurrence, and \$_____ aggregate

Workers' Compensation:

Insurer name, address and phone: _____

NAIC#: _____

Insurer A.M. Best's rating for financial size and financial strength: _____

Policy number and expiration date: _____

Coverage limits: \$_____ per occurrence, and \$_____ aggregate

Excess or Umbrella Liability:

Insurer name, address and phone: _____

NAIC#: _____

Insurer A.M. Best's rating for financial size and financial strength: _____

Policy number and expiration date: _____

Coverage limits: \$_____ per occurrence, and \$_____ aggregate

Part 4: 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. City is hereby authorized to obtain a credit report(s) or conduct additional investigation to verify the information provided above or additional information that City deems relevant to its determination of whether Bidder is a "responsible bidder," as that term is defined in Public Contract Code section 1103. **I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.**

Signature: _____ Date: _____

By: _____
Name and Title

END OF BIDDER'S QUESTIONNAIRE

Contract

This public works contract ("Contract") is entered into by and between the City of Cupertino ("City"), a municipal corporation, and _____ ("Contractor"), for work on the S. De Anza Boulevard Medians-Phase 1 Project ("Project").

The parties agree as follows:

1. **Award of Contract.** In response to the Notice Inviting Bids, Contractor has submitted a Bid Proposal and accompanying Bid Schedule, a copy of which is attached for convenience as Exhibit A, to perform the Work to construct the Project. On _____, 20____, City authorized award of this Contract to Contractor for the amount of Contractor's bid.

2. **Contract Documents.** The Contract Documents incorporated into this Contract include and are comprised of all of the following:
 - 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 Bond, Performance Bond and, if required, a Warranty Bond;
 - 2.7 General Conditions;
 - 2.8 Special Conditions;
 - 2.9 Project Drawings and Specifications;
 - 2.10 Change Orders, if any;
 - 2.11 Notice of Award;
 - 2.12 Notice to Proceed;
 - 2.13 The following:

_____. <List additional documents here, if any, including the document date if there are multiple versions. If there are no additional documents, write "No other documents" in the space above.>

3. **Contractor's Obligations.** Contractor agrees to 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, and utilities, unless otherwise specified in the Contract Documents. Contractor must use its best efforts to 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 \$_____ (the "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 within 50 working days from the commencement date given in the Notice to Proceed ("Contract Time"). By signing below, Contractor expressly waives any claim for delayed early completion.

6. **Liquidated Damages.** If Contractor fails to complete the Work within the Contract Time, City will assess liquidated damages in the amount of \$1,500.00 per day for each day of unexcused delay in 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.
 - 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 will 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 under Labor Code section 1725.5, subject to limited legal exceptions.
8. **Workers' Compensation Certification.** Under Labor Code section 1861, by signing this Contract, Contractor certifies as follows: "I am aware of the provisions of Labor Code section 3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and 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 policy or in violation of any California law, including under Government Code section 1090 et seq. and under the Political Reform Act as set forth in Government Code section 81000 et seq. and its accompanying regulations. No officer, official, employee, consultant, or other agent of the City ("City Representative") may have, maintain, or acquire a "financial interest" in the Contract, as that term is defined under the Political Reform Act (Government Code section 81000, et seq., and regulations promulgated thereunder); or under Government Code section 1090, et seq.; or in violation of any City ordinance or policy while serving as a City Representative or for one year thereafter. 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 (or comparable) file. Notice is deemed effective upon delivery unless otherwise specified. Notice for each party must be given as follows:

City:

Name: City of Cupertino
Address: 10300 Torre Avenue
City/State/Zip: Cupertino, CA 95014
Phone: (408) 777-3354
Attn: Director of Public Works
Email: johnr@cupertino.org
Copy to: PWInvoices@cupertino.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 except as expressly provided in the General Conditions or Special Conditions.
- 12.3 Governing Law and Venue.** This Contract will be governed by California law and venue will be in the Superior Court of Santa Clara County, and no other place.
- 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; Severability.** 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. If any provision of the Contract Documents, or portion of a provision, is determined to be illegal, invalid, or unenforceable, the remaining provisions of the Contract Documents will remain in full force and effect.
- 12.6 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 Corporation Code section 313.

[Signatures are on the following page.]

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

CONTRACTOR

<insert full name of Contractor above>

CITY OF CUPERTINO
A Municipal Corporation

By _____
Name _____
Title _____
Date _____

By _____
Timm Borden
Director of Public Works
Date _____

By _____
Name _____
Title _____
Date _____

APPROVED AS TO FORM:

By _____
Name _____
City Attorney
Date _____

ATTEST:

Grace Schmidt
City Clerk
Date _____

Contract Amount: _____
P.O. No. _____
Account No. _____

END OF CONTRACT

Payment Bond

The City of Cupertino ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20__ ("Contract") for work on the S. De Anza Boulevard Medians-Phase 1 Project ("Project"). The Contract is incorporated by reference into this Payment Bond ("Bond").

1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee in an amount not less than \$ _____, under California Civil Code sections 9550, et seq.
2. **Surety's Obligation.** If Contractor or any of its Subcontractors fails to pay any of the persons named in California Civil Code section 9100 amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for 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 section 13020, with respect to the work and labor, then Surety will pay for the same.
3. **Beneficiaries.** This Bond inures to the benefit of any of the persons named in California Civil Code section 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 sections 2819 and 2845. City waives requirement of a new bond for any supplemental contract under Civil Code section 9550. 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: _____

6. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court of Santa Clara County in which the Project is located, 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.

7. **Effective Date; Execution.** This Bond is entered into and is effective on _____,
20__.

SURETY: _____
Business Name

s/ _____

Name/Title

(Acknowledgment with Surety's Notary Seal and Surety's Power of Attorney must be attached.)

CONTRACTOR: _____
Business Name

s/ _____

Name/Title

s/ _____

Name/Title

END OF PAYMENT BOND

Performance Bond

The City of Cupertino ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20____ ("Contract") for work on the S. De Anza Boulevard Medians-Phase 1 Project ("Project"). The Contract is incorporated by reference into this Performance Bond ("Bond").

1. **General.** Under this Bond, Contractor as Principal and _____, its surety ("Surety"), are bound to City as obligee for an amount not less than \$_____. By executing this Bond, Contractor and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, to the provisions of this Bond.
2. **Surety's Obligations; Waiver.** 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 upon recordation of the notice of completion, provided Contractor has timely provided a warranty bond as required under the Contract. 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 sections 2819 and 2845.
3. **Application of Contract Balance.** Upon making a demand on this Bond, 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.
4. **Contractor Default.** Upon written notification from City that Contractor is in 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:
 - 4.1 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;
 - 4.2 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
 - 4.3 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.
5. **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.

6. **Notice.** 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: _____

7. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court for Santa Clara County in which the Project is located, 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.

8. **Effective Date; Execution.** This Bond is entered into and effective on _____, 20____.

SURETY: _____
Business Name

s/ _____

Name/Title [print]

(Acknowledgment with Notary Seal for Surety and Surety's Power of Attorney must be attached.)

CONTRACTOR: _____
Business Name

s/ _____

Name/Title

s/ _____

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. Defined terms and titles of documents are capitalized in the Contract Documents, with the exception of the following (in any tense or form): “day,” “furnish,” “including,” “install,” “work day” or “working day.”

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

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

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

City means the City of Cupertino, acting through its City Council, officers, employees, City Engineer, and any other authorized representatives.

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

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

Contract means the signed agreement between City and Contractor.

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, performance and warranty bonds; the General Conditions; the Special Conditions; the Project Drawings and Specifications; any Change Orders; and any other documents expressly made part of the Contract Documents.

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

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

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

Day means a calendar day unless otherwise specified.

Design Professional means the licensed individual(s) or firm(s) retained by City to provide architectural or engineering 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 means the City-provided plans and graphical depictions of the Project requirements, and does not include Shop Drawings.

Engineer means the City Engineer for the City of Cupertino and his or her authorized delegates.

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; 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, including all punch list items, any required commissioning or training, and has provided all required submittals, including the warranty bond, instructions and manuals, product warranties and as-built drawings to City's satisfaction.

Final Payment means payment to Contractor of the unpaid Contract Price, including release of undisputed retention, less amounts withheld pursuant to the Contract Documents, including liquidated damages, up to 125% of the amount of any unreleased stop notice, amounts subject to setoff, up to 150% of any unresolved third-party claim for which Contractor is required to indemnify City, and up to 150% of any amount in dispute as authorized by Public Contract Code section 7107.

Furnish means to purchase and deliver to the Worksite designated for installation.

Hazardous Materials means any substance or material identified now or in the future as hazardous under any federal, state, or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirements 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 applicable codes, regulations, and permits.

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

Plans has the same meaning as Drawings.

Project means the public works project referenced in the Contract.

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.

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

Section as used in these General Conditions, means a numbered Section of the General Conditions, unless otherwise indicated by the context, e.g., statutory references.

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 Drawings and Specifications.

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

Specifications means the technical, text specifications describing the Project requirements, which are prepared for and incorporated into this Project 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, suppliers, fabricators, and equipment lessors of all tiers, unless otherwise indicated by the context.

Technical Specifications means Specifications.

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

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

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 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 such authority to the Engineer.

(B) **Engineer.** The Engineer, acting within the authority conferred by the City Council, has primary responsibility 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) **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 Contract Documents. The Design Professional's interpretation of the Drawings or Specifications is final and conclusive.

2.2 Contractor.

(A) **General.** Contractor must provide all labor, materials, supplies equipment and services and incidentals necessary to perform and timely complete the Work in strict accordance with the Contract Documents, and in an economic 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, 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 the Work site, by any cause including fire, earthquake, wind, weather, vandalism or theft.

(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. 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 the 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; Compliance.** Contractor must, at all times, ensure that the Work is performed in a good, workmanlike manner following best practices and in full compliance with the Contract Documents and all applicable laws, regulations, codes, standards, and permits, including City's municipal code, rules, and regulations, and any orders of the administrative or judicial bodies with jurisdiction over the Work.

(F) **Meetings.** Contractor, its superintendent, and its major Subcontractors and suppliers will be required to attend a Preconstruction Conference before beginning Work on the Project, and will also be required to attend regular progress meetings, as further specified below. City will notify Contractor in advance of the date, time, place and required attendees for the Preconstruction Conference and progress meetings and will provide and administer the agenda. Contractor is responsible for notifying its major Subcontractors and suppliers, and other required attendees, as applicable, of the date, time and place for the Preconstruction Conference and progress meetings; for providing them with the City's agenda; and for requiring their attendance at these meetings.

(1) **Preconstruction Conference.** The Preconstruction Conference agenda items may include schedules, personnel and vehicle permit procedures, use of the premises, locations for staging area(s) and jobsite trailers, security, housekeeping, submittal and RFI procedures, Project forms and procedures, inspection and testing procedures, utility shutdown procedures, control and

reference point procedures, injury and illness prevention program, Contractor's schedule of values, Contractor's schedule of submittals, and such other matters that the City deems necessary to address before the Work begins.

(2) *Progress Meetings.* During the course of the Project, progress meetings will be conducted on a weekly basis by the City and at Contractor's on-site office, unless otherwise specified. Progress meeting agenda items may include review of past meeting minutes, review of Work in progress since previous progress meeting, schedule status and updates, status of submittals or change orders, worker safety, and other such matters pertaining to the progress of the Work.

(G) **Responsible Party.** Contractor is solely responsible to City for the acts or omissions of any Subcontractor(s), 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.

(H) **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 or equipment that do not conform to the requirements under the Drawings, Specifications and every other Contract Document, 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. However, City retains the right, but not the obligation, to retain defective Work, and deduct the difference in value, as determined by the Engineer, from payments otherwise due to Contractor.

(I) **Contractor's Records.** Contractor must maintain all of its records relating to the Project in any form, including paper documents, photos, videos and electronic records. Project records subject to this provision include, but are not limited to, Project cost records and records relating to preparation of Contractor's bid.

(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 records in an organized manner for a period of four 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 Project records relating to the Project or to investigate Contractor's plant or equipment during Contractor's normal business hours.

(J) **Copies of Contract Documents.** Contractor and its Subcontractors must keep copies, at the Project site, of the Work-related documents, including the Contract, permit(s), Drawings, Specifications, Addenda, Contract amendments, Change Orders, RFIs and RFI responses, Shop Drawings, and any related written interpretations. The Contract Documents, as-built drawings, and all Worksite copies must be available to City for reference at all times.

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.

(B) **Contractual Obligations.** Contractor must require every Subcontractor to be bound to the provisions of the Contract Documents as they apply to the Subcontractor's portion(s) of the Work, and to likewise bind their subcontractors or suppliers. 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, provided that City accepts 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 section 4107, Contractor is solely responsible for all costs City incurs in responding to the request, including legal fees and costs to conduct a hearing.

2.4 Coordination of Work.

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

(B) **Defects.** 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 such known 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.

2.5 **Submittals.** Unless otherwise specified, Contractor must submit to the Engineer for review and acceptance of 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 in the Special Conditions or elsewhere in the Contract Documents.

Unless otherwise specified, all submittals should be transmitted electronically using standard commercial software programs.

(A) **General.** Contractor is responsible for ensuring that its submittals are complete, legible, accurate and conform to the Contract Documents. Incomplete or illegible submittals will be rejected and returned for resubmission. Contractor must use the applicable forms provided or specified for use by the City, including the Project Forms provided with the Contract Documents, and forms provided by City at the pre-construction conference.

(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 elsewhere in the Contract Documents, or if no time is specified, in such time and sequence so as not to delay the performance of the Work or completion of the Project.

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

(D) **Required Corrections.** If corrections are required, Contractor must promptly make and submit any required corrections as specified in full conformance with the requirements of this Section, or other requirements that apply to that submittal. If a submittal remains non-compliant after being re-submitted for a second time, City may back-charge Contractor for all further review time and additional administrative costs. For City employees the hourly amount charged will be 2.5 times the employee's direct hourly payroll cost to the City. For consultants, the amount charged will be 1.25 times the amount billed to the City for additional review and administrative time.

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

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

(G) **Excessive RFIs.** A Request for Information (RFI) will be considered excessive or unnecessary if City determines that the explanation or response to the RFI is clearly and unambiguously discernable in the Contract Documents. City's costs to review and respond to excessive or unnecessary RFIs may be deducted from payments otherwise due to Contractor, on the same basis as excessive submittal review, under subsection (D) (Required Corrections).

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 and 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 such responsibility.

Article 3 - Contract Documents

3.1 Interpretation of Contract Documents.

(A) **Drawings and Specifications.** The Drawings 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 Drawings 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 Drawings and Specifications, the Specifications will control. Detailed Drawings take precedence over general Drawings, and large scale Drawings take precedence over smaller scale Drawings.

(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 under the Drawings or Specifications, Contractor must immediately submit a Request for Information to the Engineer and wait for a response from City before proceeding further with the related Work. The RFI must notify City of the issue and request clarification, interpretation or direction. The Engineer's clarification, interpretation or direction will be final and binding on Contractor. If Contractor proceeds with the related Work before obtaining City's response, Contractor will be responsible for any resulting costs, including the cost of correcting any incorrect or defective Work that results. City will not extend the Contract Time due to Contractor's failure to submit a timely RFI to the Engineer.

(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 at the Worksite before ordering any material or performing any Work, and will be responsible for the correctness of those measurements.

(F) **Limitations.** Any arrangement or division of the Drawings and Specifications into sections is for convenience and is not intended to limit the Work required by separate trades. A conclusion presented in the Drawings 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.

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:

- (A) Change Orders;
- (B) Addenda;
- (C) Contract;
- (D) Notice to Proceed;
- (E) Notice of Award;
- (F) Special Conditions;
- (G) General Conditions;
- (H) Payment, Performance and Warranty Bonds;
- (I) Specifications;
- (J) Drawings;
- (K) Contractor's Bid Proposal and attachments;
- (L) Notice Inviting Bids;
- (M) Instructions to Bidders;
- (N) the City of Cupertino's Standard Details; and
- (O) Any documents prepared by and on behalf of a third party, that were not prepared specifically for this Project, such as the Caltrans Standard Specifications or Caltrans Special Provisions.

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

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

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

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

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

3.4 For Reference Only. Contractor is responsible for the careful review of any document, study, or report provided by City or appended to the Contract Documents solely for informational purposes and identified as "For Reference Only." Nothing in any document, study, or report so appended and identified is intended to supplement, alter, or void any provision of the Contract Documents. Contractor is advised that City or its

representatives may be guided by information or recommendations included in such reference documents, particularly when making determinations as to the acceptability of proposed materials, methods, or changes in the Work. Any record drawings or similar final or accepted drawings or maps that are not part of the Contract Documents are deemed to be For Reference Only. The provisions of the Contract Documents are not modified by any perceived or actual conflict with provisions in any document that is provided For Reference Only.

- 3.5 Current Versions.** Unless otherwise specified by City, any reference to standard specifications, technical specifications, or any City or state codes or regulations means the latest specification, code or regulation in effect at the time the Contract is signed.
- 3.6 Conformed Copies.** If City prepares a conformed set of the Contract Documents following award of the Contract, it will provide Contractor with a 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.

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, using the bond forms included with the Contract Documents.

(A) **Surety.** Each bond must be issued by a surety admitted in California, and the surety must have a financial rating from A.M. Best Company of B+, class 7 or better, or as otherwise acceptable to the City. 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, costs and expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with the acts or omissions of Contractor, its employees, Subcontractors, representatives, or agents, in bidding or performing the Work or in failing to comply with any obligation of Contractor under the Contract, except such Liability caused by the active negligence, sole negligence, or willful misconduct of an Indemnitee. This indemnity requirement applies to any Liability arising from alleged defects in the content or manner of submission of Contractor's bid for the Contract. Contractor's failure or refusal to timely accept a tender of defense pursuant to this Contract will be deemed a material breach of the Contract. City will timely notify Contractor upon receipt of any third-party claim relating to the Contract, as required by

Public Contract Code section 9201. Contractor's indemnity obligations under this Contract will survive the expiration or any early termination of the Contract.

4.3 Insurance.

(A) **Policies and Limits.** Within ten days following issuance of the Notice of Award, Contractor must provide City with satisfactory proof, using the specified insurance forms, that Contractor has procured insurance policies for the following classes of insurance in the form and with limits and deductibles specified below:

(1) *Comprehensive General Liability Insurance* covering claims for personal injury, bodily injury and property damage arising out of the Work and in a form providing coverage not less than that of a standard commercial general liability insurance policy ("occurrence form"). Such insurance must provide for all operations and include independent contractors, products liability, completed operations for one year after City accepts the Project. The limits of such insurance must be at least \$2,000,000 each occurrence, \$4,000,000 general aggregate limit. The policies must be endorsed to provide broad form property damage coverage. 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 herein.

(2) *Comprehensive Automobile Liability Insurance* covering all owned, non-owned, and hired vehicles. Such insurance must provide coverage not less than the standard comprehensive automobile liability policy with limits not less than \$1,000,000 each person bodily injury, \$1,000,000 each occurrence bodily injury, and \$1,000,000 each occurrence property damage.

(3) *All-Risk Course of Construction Insurance (Builder's Risk)* for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and must insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws, water damage, flood, and damage caused by frost and freezing, in the amount of 100 percent of the completed value of the Work to be performed under this Contract. Deductible must not exceed \$25,000. Each loss must be borne by Contractor.

(4) *Workers' Compensation Insurance* for all persons whom the Contractor may employ in carrying out Work contemplated under Contract Documents, in accordance with the Act of Legislature of State of California, known as "Workers' Compensation Insurance and Safety Act," approved May 26, 1913, and all acts amendatory or supplemental thereto, in the statutory amount, \$1,000,000 each occurrence.

(B) **General.** All policies of insurance must be placed with insurers acceptable to City. The insurance underwriter(s) must have an A. M. Best Company Financial Strength rating of A or better and Financial Size rating of VII or higher, or otherwise acceptable to the City. Required minimum amounts of insurance may be increased should conditions of Work, in opinion of City, warrant such increase. Contractor must increase required insurance amounts upon direction by City.

(C) **Required Endorsements.** The policies required under subsections (A)(1)-(3), above, must be endorsed as follows, using the forms specified:

(1) Name the City of Cupertino, a municipal corporation of the State of California, its City Council, and their employees, representatives, consultants (including without limitation Design Professional), and agents, as additional insureds, but only with respect to liability arising out of the activities of the named insured.

(2) Each such policy must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limit of the insurance company's liability required under subsections (A)(1)-(3), above.(Endorsement of aggregate limits of insurance per project)

(3) Insurance must be primary and no other insurance or self-insured retention carried or held by City must be called upon to contribute to a loss covered by insurance for the named insured.

(4) Insurance must contain a provision requiring the insurance carriers to waive their rights of subrogation against City and all additional insureds, as well as other insurance carriers for the Work.

(D) **Documentation.** Proof of insurance and endorsements must be provided using the form titled "*Certificate of Insurance to the City of Cupertino*" and completing the endorsement forms provided with the Contract Documents. Written notice of cancellation, non-renewal, or reduction in coverage of any policy must be mailed to City pursuant to Section 11 of the Contract (Notice), address to the attention of: Contract Administration/Inspection, 30 days in advance of the effective date of the cancellation, non-renewal, or reduction in coverage. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract, through the date of City's acceptance the Project. Contractor must keep insurance in force during warranty and guarantee periods, except that Contractor may discontinue All-Risk Course of Construction Insurance (Builder's Risk) after Final Payment. At the time of making application for extension of time, and during all periods exceeding the Contract Time resulting from any cause, Contractor must submit evidence that insurance policies will be in effect during requested additional period of time. Upon City's request, Contractor must submit to City, within 30 Days, copies of the actual insurance policies or renewals or replacements.

(E) **Payment of Premiums.** Contractor must pay all insurance premiums, including any charges for required waivers of subrogation or the endorsement of additional insureds. If Contractor fails to maintain insurance, City may take out comparable insurance, and deduct and retain amount of premium from any sums due Contractor under Contract Documents.

(F) **Workers' Compensation.** If injury occurs to any employee of Contractor, Subcontractor or sub-subcontractor for which the employee, or the employee's dependents in the event of employee's death, is entitled to compensation from City under provisions of the Workers' Compensation Insurance and Safety Act, as amended, or for which compensation is claimed from City, City may retain out of sums due Contractor under Contract Documents, amount sufficient to cover such compensation, as fixed by the Act, as amended, until such compensation is paid, or until it is determined that no compensation is due. If City is compelled to pay compensation, City may, in its

discretion, either deduct and retain from the Contract Price the amount so paid, or require Contractor to reimburse City.

(G) **No Limitation of Liability.** Nothing in this Section 4.3 must be construed as limiting in any way the extent to which Contractor or any Subcontractor may be held responsible for payment of damages resulting from their operations.

(H) **Subcontractors.** All Subcontractors must maintain the same insurance required to be maintained by Contractor with respect to their portions of the Work, except that Subcontractors need to obtain coverage of not less than \$2,000,000 each occurrence, \$4,000,000 general aggregate limit of comprehensive general liability insurance. Contractor must require each Subcontractor to furnish proof thereof to City within ten days of City's request.

(I) **Professional Liability.** The following provisions apply to any licensed professional engaged by Contractor to perform portions of the Work ("Professional").

(1) Each Professional must maintain the following insurance at its sole cost and expense:

(a) Provided such insurance is customarily required by City when professionals engaged in the profession practiced by Professional contract directly with City, professional liability insurance, insuring against professional errors and omissions arising from Professional's work on the Project, in an amount not less than \$1,000,000 combined single limit for each occurrence. If Professional cannot provide an occurrence policy, Professional must provide insurance covering claims made as a result of performance of Work on this Project and must maintain such insurance in effect for not less than two years following Final Completion of the Project.

(b) All insurance required by subsections (A)(1)-(2) & (4), above. Professional must satisfy all other provisions of subsections (A)-(F) of this Section 4.3 relating to that insurance, including without limitation providing required insurance certificates (containing the required endorsements) before commencing its Work on the Project.

(J) **Pollution Insurance.** If required by City, Contractor must obtain and maintain contractor's pollution legal liability insurance in a form, with limits, and from an insuring entity reasonably satisfactory to City.

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) **Notice to Proceed.** 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. The Notice to Proceed will not be issued until Contractor has executed and returned the Contract, the required bonds, insurance certificates and endorsements and any other submittals required prior to issuance of the Notice to Proceed, subject to City's approval of all such

documents. Contractor may not begin performing Work on the Project Site before the date authorized in the Notice to Proceed. After receiving the Notice to Proceed, Contractor must notify the City in writing of the date Contractor intends to begin Work on the Project, at least 24 hours in advance of beginning the Work. 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 that must be provided or performed before issuance of the Notice to Proceed.

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

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

(A) **Baseline (As-Planned) Schedule.** Within ten calendar days following City's issuance of the Notice to Proceed (or as otherwise specified in the Special Conditions), 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 orders date(s).

(B) **City's Review of Schedules.** City will review and may note exceptions to the baseline schedule, and to the progress schedules submitted as required below, to assure completion of the Work within the Contract Time. Contractor is solely responsible for resolving any exceptions noted in a schedule and must, within seven days, correct the schedule to address them.

(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 ten 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 waiver of any claims for Excusable Delay or loss of productivity arising when Contractor is out of compliance, subject only to the limits of Public Contract Code section 7102.

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

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

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

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

(H) **Authorized Working Days and Times.** Contractor is limited to working Monday through Friday, excluding holidays, during City's normal business hours, except as provided in the Special Conditions or as authorized in writing by City. City reserves the right to charge Contractor for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in the Contract Documents, including reimbursement of costs incurred for inspection, testing, and construction management services.

5.3 Delay and Extensions of Contract Time.

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

(B) **Excusable Delay.** The Contract Time may be extended if Contractor encounters "Excusable Delay," which is an unavoidable delay in completing the Work within the Contract Time due to causes completely beyond Contractor's control, and which Contractor could not have avoided or mitigated through reasonable care, planning, foresight, and diligence. 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.

(C) **Non-Excusable Delay.** Delay which Contractor could have avoided or mitigated through reasonable care, planning, foresight and 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 timely completion of the Work;
- (3) Contractor's failure to provide adequate notification to utility companies or agencies for connections or services necessary for the timely performance and completion of the Work;
- (4) foreseeable conditions which Contractor could have ascertained from reasonably diligent inspection of the Worksite or review of the Contract Documents or other information provided or available to Contractor; or
- (5) Contractor's financial inability to perform the Work, including insufficient funds to pay its Subcontractors or suppliers.

(D) **Compensable Delay.** Pursuant to Public Contract Code section 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").

(E) **Concurrent Delay.** Contractor is not entitled to an extension of Contract Time or recovery of costs for any Compensable Delay that is concurrent with Non-Excusable Delay.

(F) **Weather Delay.** 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 Worksite 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.

(1) Based on historic records for the Project location from the Western Regional Climate Center, Contractor's schedule should assume the following number of normal Weather Delay Days and precipitation for each month:

Month	# Normal Weather Delay Days	Precipitation
January	6	2.86
February	6	2.66
March	6	2.29
April	3	1.20
May	1	0.44
June	0	0.10
July	0	0.02
August	0	0.07
September	1	0.19
October	2	0.76
November	4	1.51
December	5	2.43
Total	34	14.53

(2) 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 set forth in Section 5.3(F)(1) above, subject to the following limitations:

- a. Contractor must fully comply with the applicable procedures in Article 5 and 6 of these General Conditions regarding requests to modify the Contract Time.
- b. Normal Weather Delay Days which do not occur during a given month do not carry over to another month.
- c. 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.

(G) **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.

(H) **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 ten 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 or Compensable Delay, as defined above; 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 section 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 working 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 section 7203, if Contractor fails to achieve Final Completion within the Contract Time, City will charge Contractor in the amount specified in the Contract for each day that Final Completion is delayed beyond the Contract Time, as liquidated damages and not as a penalty.

(A) **Liquidated Damages.** Liquidated damages will not be assessed for any Excusable 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 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, or for defective materials or workmanship.

Article 6 - Contract Modification

6.1 Contract Modification and Changes in Work. Modifications to the Contract are valid and legally binding only pursuant to a written, duly authorized and signed Change Order. City also reserves the right to make changes in the Work without invalidating the Contract. City may direct changes in the Work, which may include Extra Work as set forth in subsection (B) below, deletion or modification of portions of the Work, or other modifications determined by City, acting in its sole discretion, to be in City's best interest. Pursuant to section 3.23.170 of the Cupertino Municipal Code, City reserves the right to delete up to 25% of the Work. Any change in the Work, whether directed by City or pursuant to Contractor's request for a Change Order under Section 6.2 below, will not be a valid and binding change to the Contract unless it is formalized in a Change Order, which may include commensurate changes in the Contract Price or Contract Time as applicable. 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 pursuant to Public Contract Code section 7101 based on cost reduction changes or "value engineering," unless otherwise specified in the Special Conditions, or unless expressly authorizing in advance in writing by City.

(A) **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. 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. 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.

(B) **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. Contractor must maintain detailed daily records that itemize the cost of each element of Extra Work, and sufficiently distinguish the direct cost of the Extra Work from the cost of other Work performed. For each day that Contractor performs Extra Work, or Work that Contractor contends is Extra Work, Contractor must submit no later than the following Working Day, a daily report of the Extra Work performed that day and the related costs, together with copies of certified payroll, invoices, and other documentation substantiating the costs ("Extra Work Report"). The Engineer will make any adjustments to Contractor's Extra Work Report(s) based on the Engineer's records of such Work. When an Extra Work Report(s) is agreed on and signed by both City and Contractor, the Extra Work Report(s) will become the basis for payment under a duly authorized and signed Change Order. Failure to submit the required documentation by close of business on the next Working Day is deemed a full and complete waiver for any change in the Contract Price or Contract Time for any Extra Work performed that day.

(C) **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 ten 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, and 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.

(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 costs, expenses, or time extension request not included herein is deemed waived. Contractor understands that submission of claims which have no basis in fact or which Contractor knows to be false may violate the False Claims Act, as set forth in Government Code sections 12650 et seq."

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, but in the order provided with unit pricing taking precedence over the other methods:

(A) **Unit Pricing.** Amounts previously provided by Contractor in the form of unit prices, either in a bid schedule or schedule of values, will apply if unit pricing has previously been provided in Contractor's accepted bid schedule or schedule of values for the affected Work. No additional markup for overhead, profit, or other indirect costs will be added to the calculation.

(B) **Lump Sum.** A mutually agreed upon lump sum 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, including allowed markup for overhead, profit, and all other indirect costs, and which may include a not-to-exceed limit, calculated as the total of the following sums:

- (1) All direct labor costs plus 15% markup;
- (2) All direct material costs, including sales tax, plus 15% markup;
- (3) All direct plant and equipment rental costs, plus 15% markup;
- (4) All direct subcontract costs plus ten percent markup; and
- (5) Increased bond or insurance premium costs computed at 1.5% of 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, dispute over the value of deleted or changed Work, disputes as to what constitutes Extra Work, or disputes as to 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 up to the amount 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 and Taxes.

(A) **General.** Contractor must obtain and pay for all permits, fees, or licenses required to perform the Work, except that if a City building permit is required, no fee will be charged. 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 notices, permits, licenses, and renewals required for the Work.

(B) **Federal Excise Tax.** 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 material 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 utility services incidental thereto. The location of all temporary facilities must be approved by the City prior to installation.

(A) **Standards.** Temporary facilities must be safe and adequate for the intended use, and installed and maintained in accordance with all applicable federal, state, and local laws, codes, and regulations.

(B) **Screening.** Contractor must fence and screen the Project site and staging area, and its operation must minimize inconvenience to neighboring properties and be approved by the City.

(C) **Utilities.** Contractor must install and maintain the light, power, water and all other utilities required for the Project site, including the piping, wiring, lamps and related equipment necessary to perform the Work.

(D) **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.

(E) **Additional Requirements.** Additional provisions pertaining to temporary facilities may be included in the Specifications or Special Conditions.

- 7.3 Noninterference and Additional Work Areas.** 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 notify the affected parties of the pending

closure and allow them to remove vehicles. Private driveways, residences and parking lots must have access to a roadway during non-Work hours.

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

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

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

7.5 Worksite 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 notice of completion has been recorded. Except as specifically authorized by City, Contractor must confine its operations to the area of the Project site indicated in the Drawings. 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 (including real property, improvements and utilities and personal property, and the work or personal property of other contractors working for City. In addition, Contractor is responsible for damage caused by its 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, the Project site, City's real or personal property, and the real or personal property of adjacent or nearby property owners.

(2) Cupertino Sanitary District and the City of Sunnyvale own and operate wastewater systems within Cupertino and they may not be interrupted. If the Work disrupts existing sewer facilities, Contractor must immediately notify City to determine who owns the system and establish a plan, subject to the systems owner'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(s).

(4) If directed by Engineer, Contractor must promptly repair or replace any such 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.

(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 Drawings or apparent from inspection of the Project site, Contractor must immediately notify the City and promptly submit a Request for Information to 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 law.

7.6 Materials and Equipment.

(A) **General.** Unless otherwise specified, all materials and equipment required for the Work must be new, free from defects, and of the best grade for the intended purpose, and furnished in sufficient quantities to ensure the proper and expeditious performance of the Work. Contractor must employ measures to preserve the specified quality and fitness of the materials and equipment. Unless otherwise specified, all materials and equipment required for the Work are deemed to include all components required for complete installation and intended operation, and must be installed in accordance with the manufacturer's recommendations or instructions. Contractor is responsible for all shipping, handling, and storage costs associated with the materials and equipment required for the Work, and 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 below. 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 of such items in accordance with the Contract Documents. Contractor must promptly notify City of any defects discovered in City-provided materials or equipment. 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) **Existing City Equipment.** Contractor will carefully remove all existing equipment from the Worksite. If the City specifies or indicates that equipment is to be salvaged and reused or to remain the property of City then the Contractor will reuse or return the equipment to the City. Contractor will store and protect salvaged equipment specified to be reused in the Work. Contractor will delivery to the City in good condition the equipment that is to remain City property but not be reused in the Work.

(1) If an item specified to be salvaged is damaged during its removal, storage, or handling through carelessness or improper procedures, then Contractor will replace that equipment in kind or with a new item. For those items specified to be salvaged Contractor may choose to instead furnish and install new equipment, in which case the original, removed items will become Contractor's property. Existing materials and equipment removed by Contractor will only be reused in the Work if so specified or indicated by the City.

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

(E) **Certificate of Compliance.** When a Certificate of Compliance is specified, or for any material or item ("material") produced or assembled outside of the United States, Contractor must submit a Certificate of Compliance before incorporating that material into the Project. A Certificate of Compliance must be submitted for each lot of material delivered to the Project site, and in a form acceptable to the Engineer, identifying the material, its source, and the lot. Each Certificate of Compliance must be signed by the material producer stating that the material fully complies with the applicable requirements of the Specifications. Submission of a Certificate of Compliance will not limit Contractor's continuing obligation to use only materials that conform with the requirements of the Contract Documents. Any materials furnished pursuant to a Certificate of Compliance may be inspected or tested at any time by City, subject to the inspection and testing provisions of Article 7, and defective or non-conforming material may be rejected at any time, even if already installed.

(F) **Site Materials.** Except as otherwise specified, City retains full ownership of and all rights to use any water, soil, stone, gravel, sand, minerals or other materials ("Site Materials") on City property, including the Project site, and including any site materials that have been extracted, excavated, or otherwise affected or made accessible by performance of the Work. However, City, acting in its sole discretion, may provide written authorization in the Specifications or in a Change Order for Contractor to make use of or incorporate specified Site Materials in the Work.

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.

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

(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, including testing using methods acceptable to City. 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 Inspection and Testing.

(A) **General.** All materials, equipment, and workmanship used in the Work are subject to inspection and testing by City at all times and locations during construction and/or fabrication and at any Work site, including at shops and yards as well as at the Project site, or at the plant of a manufacturer of materials or items to be incorporated into the Work. All manufacturers' application or installation instructions must be provided to the Inspector at least ten days prior to the first such application or installation. Contractor must, at all times, make the Work available for inspection.

(B) **Scheduling and Notification.** Contractor must cooperate with City in coordinating the inspections and testing. Contractor must submit samples of materials, and schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor must notify the Engineer in writing no later than two Working Days before any inspection or testing is being requested, 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 seek, in writing, Engineer's approval at least two Working Days in advance. 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 and Inspector, may be deducted from payments otherwise due to Contractor.

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

(1) Contractor will be responsible for the costs of any subsequent inspections and/or tests which are required to substantiate compliance with the Contract Documents, and any associated remediation costs.

(2) Contractor will be responsible for inspection and testing costs, at the rate charged by the consultant retained by the City to provide inspection and testing services, and for inspection and testing 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.** All Work and materials must conform with the lines, grades, typical cross sections, dimensions, material requirements, and tolerances shown or described by the Drawings and Specifications. City, acting in its sole discretion, will determine whether Work or materials conform with the Drawings and Specifications, including allowable deviations. City's determination as to conformity or allowable deviations is final. Contractor is solely responsible for any delay occasioned by remediation of defective or noncompliant Work or material. Inspection of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified. Any Work done without the required inspection(s) will also 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) **Plant Inspection.** If specified in the Contract Documents, or upon written request by City, Contractor must use its best efforts to facilitate and arrange for City's inspection, sampling or testing of materials or items required for the Work at the plant or facility from which the materials or items are to be obtained. Contractor's best efforts must include contacting the producer or manufacturer on a timely basis to schedule inspection by City's selected representative, including appropriate access and any safety equipment, all at no cost to City. The inspection must be scheduled sufficiently in advance of the planned shipping or production date to allow for alternative arrangements if the City determined that the materials or items do not meet the requirements of the Drawings and Specifications. Nothing in this provision obligates City to inspect materials or items at the source plant or facility.

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

7.9 Worksite 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 and neat condition and in compliance with all regulatory requirements for air quality and dust control. 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. Project site maintenance expenses are deemed to have been included in Contractor's Bid Proposal.

(A) **Protection of Existing Property, Structures, and Utilities.** If the Drawings indicate existing above-grade and below-grade structures, drainage lines, storm drains, sewers, water, gas, electrical, phone and data cable, and other similar items or utilities known to the City, then Contractor will locate these known existing installations before proceeding with trenching or other operations which may cause damage, will maintain them in service where appropriate, and will repair any damage caused to them by the Work, at no increase in the Contract Price.

(1) The Contractor may temporarily mark or paint the ground, pavement, sidewalk, or any other improvements, but must not do so in a public right-of-way or on the Site more than 30 days prior to the commencement of excavation work performed in connection with an installation. Any mark or paint must be removed from all surfaces, including any decorative work, within 30 days of the completion of the excavation work. The Contractor is responsible for any expense associated with damages caused by the Contractor's mark or paint, including the removal thereof.

(2) The Contractor will record the location and existence of pavement markers and striping prior to construction, and will provide such records to the Engineer. The Contractor will replace in kind any permanent paving marker or striping that it removes or damages, or as marked in the Plans, at its expense.

(B) **Air Emissions Control.** Contractor must not discharge smoke or other air contaminants into the atmosphere in violation of any applicable law, regulation or rule.

(C) **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 the Engineer 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 Worksite and any dirt deposited on public streets.

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

(E) **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 City's storm drain system.

(F) **Completion.** At the completion of the Work, Contractor must remove from the Worksite all of its equipment, tools, surplus materials, waste materials and debris, presenting a clean and neat appearance. Before demobilizing from the Worksite, Contractor must ensure that all surfaces are cleaned, sealed, waxed, or finished as applicable, and that all marks, stains, paint splatters, and the like have been properly removed from the completed Work and the surrounding areas. Contractor must ensure that all parts of the construction are properly joined with the previously existing and adjacent improvements and conditions. Contractor must provide all cutting, fitting and patching needed to accomplish that requirement. Contractor must also repair or replace

all existing improvements that are damaged or removed during the Work, both on and off the Project site, including curbs, sidewalks, driveways, fences, signs, 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.

(G) **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 the cost will be deducted from any amounts due or to become due to Contractor.

7.10 Instructions and Manuals. Contractor must provide to City two bound copies and an electronic PDF copy of 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.** All manufacturers' application or installation instructions must be provided to City at least ten days prior to the first such application. The instructions and manuals, along with any required guarantees, must be delivered to City for review.

(B) **Training.** Contractor or its Subcontractors must instruct City's personnel in the operation and maintenance of any complex equipment 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 Drawings which will be used solely for the purpose of recording changes made in any portion of the original Drawings 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. Progress payments may be delayed, in whole or in part, 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 Drawings 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 approval as a condition precedent to Final Completion and Final Payment.

7.12 Existing Utilities. As required by Government Code section 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 such

utility facilities not indicated in the Drawings 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 such delay was caused by City's failure to provide for removal or relocation of the utility facilities.

7.13 Notice of Excavation. Contractor must comply with all applicable operator requirements in Government Code sections 4216 through 4216.5. Government Code section 4216.2 requires that, except in an emergency, Contractor must contact the appropriate regional notification center, or Underground Services Alert, at least two working days but not more than 14 calendar days before starting any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations, and, if practical, Contractor must delineate with white paint or other suitable markings the area to be excavated. Contractor may not begin excavation until it has obtained and submitted to Engineer an inquiry identification number from Underground Services Alert.

7.14 Trenching and Excavations of Four Feet or More. As required by Public Contract Code section 7104, if the Work includes digging trenches or other excavations that extend deeper than four feet below the surface, the following 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 section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law;

(2) Subsurface or latent physical conditions at the Worksite differing from those indicated by information about the Worksite made available to bidders prior to the deadline for submitting bids; or

(3) Unknown physical conditions at the Worksite 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 do materially differ or do 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 (A) above, 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 law which pertain to the resolution of disputes between Contractor and City.

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

hazard of caving ground during the excavation. If the plan varies from the shoring system standards, it must be prepared by a California registered civil or structural engineer. Use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders is prohibited.

7.16 New Utility Connections. 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. All stakes or marks must be set by a California licensed surveyor or a California registered civil engineer. Contractor must notify the Engineer of any discrepancies found between Contractor's staking and grading and information provided by the Contract Documents. Upon completion, all Work must conform to the lines, elevations, and grades shown in the Plans.

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. Any suspension of Work required due to discovery of Historic or Archeological Items will be treated as a suspension for convenience under Article 13.

7.19 Recycling and Waste Disposal.

(A) **Approved Recycling Facility.** Contractor must dispose of all recyclable materials at a recycling facility approved by the Engineer.

(B) **Inert Solids and Plant Materials.** Contractor must remove all asphalt concrete, Portland cement concrete, aggregate base material, inert solids and any plant material from the Project site and deposit at an approved recycling facility. Contractor must conform the above material to an acceptable size and composition for recycling.

(C) **Recyclable Materials.** Contractor must recycle at least 65% of all materials at an approved recycling facility.

(D) **Waste Management Plan and Disposal Report.** If the California Green Building Standards Code applies to the Project, Contractor must submit to the City a waste management plan prior to starting work. A disposal report is required upon completion of the Project, for materials that are hauled by Contractor or by the City's franchised hauler. If a waste management plan is required it must be available

throughout the duration of the Project for examination by the City. Electronic submittals are acceptable. The waste management plan must include the following:

- (1) Project title and number;
- (2) Identify the construction methods that will be employed to reduce waste;
- (3) Type of material(s) to be recycled, salvaged or landfilled;
- (4) Specify if the waste will be sorted onsite or bulk-mixed; and
- (5) Name and address of recycling facilit(ies) and landfill(s) to be used;

The disposal report must include the following:

- (1) Project title;
- (2) Date and time of disposal;
- (3) Truck number;
- (4) Type of material recycled, salvaged, or landfilled;
- (5) Weight of material recycled, salvaged, or landfilled;
- (6) Name and address of recycling facility or landfill;
- (7) Certification or weight tags from facility;
- (8) Weight tags for all material landfilled; and
- (9) If the recycling goal is not met, provide an explanation, to be approved by City, for why it was not met.

(E) **Collection of Waste and Debris.** Collection of garbage, mixed non-organic recyclables, organic waste, and any construction or demolition materials in debris boxes, compactors, or bin-by-the-day services that are not City franchisees or otherwise agents of the City is prohibited. Notwithstanding the above, Contractor must dispose of debris from the Project in one of the following:

- (1) Franchised hauler bin;
- (2) A bin owned by Contractor or a demolition Subcontractor provided that it is hauled by an employee of the Contractor or the demolition Subcontractor and by a vehicle owned and registered to the Contractor or the demolition Subcontractor; or
- (3) Private truck with a bed.

(F) **Recycling Containers.** The disposal of garbage in containers designated for compostable waste recycling is prohibited.

7.20 Storm Water Pollution Control

(A) **Storm Drains.** Contractor will comply with all state and federal storm water regulations. Contractor will not allow any waste materials or pollutants to enter the storm drainage system.

(B) **Best Management Practices.** Contractor must remove any waste found or generated at the Project site using the appropriate Best Management Practices (BMPs), and must properly dispose of the waste or pollutants off-site. If solid or liquid waste materials or pollutants from the Project enter the storm drain system, Contractor must immediately notify the City's Environmental Services Division, and thoroughly clean up the affected catch basins, storm sewer, and storm manholes to the satisfaction of the Engineer. If Contractor fails to meet the requirements of this section, the City may issue a stop-work notice and take necessary action to require Contractor to set up preventive measures or clean up the storm drainage system. Contractor will bear all costs related to the stop-work action and corrective work, and will not be entitled to an extension of the Contract time for any resulting delay.

(C) **Stormwater Permit.** Contractor must control all water pollution pursuant to the Contract Documents, the State Water Resources Control Board National Pollutant Discharge Elimination System ("NPDES") General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities ("Stormwater Permit"). 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 the same 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 applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of stormwater, including applicable municipal stormwater management programs.

(D) **Failure to Comply with Stormwater Permit.** Contractor must pay all costs and liabilities imposed by law as a result of Contractor's failure to comply with the provisions set forth in the Contract Documents. Such costs and liabilities include, but are not limited to, fines, penalties, and damages, whether assessed against the City or Contractor, including those levied under the Federal Clean Water Act and the State Porter Cologne Water Quality Act.

(E) **Storm Water Pollution Prevention Plan Preparation.** Contractor must incorporate the following BMPs, as applicable, into a site-specific Storm Water Pollution Prevention Plan (SWPPP) if required for this Project. The SWPPP must be approved by the Engineer prior to construction.

(1) *Non Hazardous Material/Waste Management.*

a. Contractor must designate areas of the Project site suitable for material delivery, storage, and waste collection that, to the maximum extent practicable, are near construction entrances and away from catch basins, gutters, drainage courses, and creeks.

b. Contractor must store granular material at least 10 feet away from catch basin and curb returns.

c. Contractor must prevent granular material to enter the storm drains or creeks.

d. During wet weather and when rain is forecast in the next 24 hours, Contractor must cover granular material with a tarpaulin and

surround the material with sand bags or other weights to ensure that tarpaulin does not expose the material during wind and rain.

e. Contractor will use minimal amounts of water to control dust on a daily basis or as directed by the Engineer.

f. At the end of each working day or as directed by the City, Contractor must clean and sweep roadways and on-site paved areas of all materials on or adjacent to the Worksite.

g. Throughout the working day and at the end of each working day, or as directed by the City, Contractor must pick up litter, trash, scrap, waste material, and debris from the Project site and any adjacent sidewalk, curb, and gutter area. Contractor must keep the site and perimeter free from cigarette butts and other litter.

h. Contractor must ensure that lids for trash receptacles are kept closed and that trash receptacles are maintained in a manner that prevents overflows.

i. Contractor must maintain a clean and litter-free area around all trash receptacles on the site.

j. Contractor will not use water to flush down streets in place of street sweeping or other dry methods of spill cleanup such as applying absorbent, sweeping up material and disposing it in a waste bin.

k. In addition to Contractor's obligation to recycle materials pursuant to Section 7.19 of the General Conditions, Contractor must, to the maximum extent practicable, reuse or recycle any useful construction materials generated during the Project.

l. Contractor must inspect any waste and recycling receptacles for leaks, and must contact the City's trash hauling franchisee to immediately replace or repair any leaking receptacles.

m. Contractor will not discharge water on-site as a result of cleaning recycling or trash receptacles.

n. Contractor must arrange for regular waste collection before receptacles overflow, and must adjust the frequency of service or the receptacle size as needed to ensure that overflows do not occur.

(2) *Hazardous Material/Waste Management.*

a. Contractor must label and store all hazardous materials including but not limited to pesticides, paints, thinners, solvents, and fuels; and all hazardous wastes, including but not limited to waste oil and antifreeze; in accordance with the City's Hazardous Materials Storage Ordinance and all applicable state and federal regulations.

b. Contractor must keep an accurate, up-to-date inventory, including Materials Safety Data Sheets (MSDSs), of hazardous materials and hazardous wastes stored on-site.

c. When rain is forecast within 24 hours or during wet weather, the Contractor must not apply chemicals such as pesticides and cleaners, or any materials that may potentially enter the storm drain system, in outside areas.

d. Contractor must not over-apply pesticides or fertilizers and must follow materials manufacturer's instructions regarding uses, protective equipment, ventilation, flammability, and mixing of chemicals. Over-application of a pesticide constitutes a "label violation" subject to an enforcement action by the Santa Clara County Agriculture Department.

e. Contractor must arrange for regular hazardous waste collection to comply with all applicable time limits on storage of hazardous wastes.

f. Contractor must dispose of hazardous waste only at authorized and permitted treatment, storage and disposal facilities, and must use only licensed hazardous waste haulers to remove the waste off-site, unless quantities to be transported are below applicable threshold limits for transportation specified in state and federal regulations.

g. If Contractor's business office is located in Santa Clara County, Contractor may dispose of this waste through the Countywide Hazardous Waste Program. Businesses generating less than 27 gallons or 220 pounds of hazardous waste per month are legally classified as conditionally exempt small quantity generators (CESQGs). Information on the CESQG program may be requested by calling the County at (408) 299-7300.

(3) *Spill Prevention and Control.*

a. Contractor must keep a stockpile of spill cleanup materials, such as rags or absorbents, readily accessible on-site.

b. Contractor must immediately contain and prevent leaks and spills from entering storm drains, and properly clean up and dispose of the waste and cleanup materials, using dry methods to the extent feasible. If the waste is hazardous, Contractor must handle the waste as described in subsection (2) above.

c. Contractor will not wash any spilled material into streets, gutters, storm drains, or creeks and will not bury spilled hazardous materials.

d. Contractor must report any hazardous materials spill by calling 911 and must notify the City's Public Works Environmental Division at 408-777-3354.

(4) *Vehicle/Equipment Cleaning.*

a. Contractor will not perform vehicle or equipment cleaning on-site or in the street using soaps, solvents, degreasers, steam cleaning equipment, or equivalent methods.

b. Contractor must perform vehicle or equipment cleaning, with water only, in a designated, bermed, pervious area that will not allow rinse water to run offsite or into streets, gutters, storm drains, or creeks.

(5) *Vehicle/Equipment Maintenance and Fueling.*

- a. Contractor will not perform maintenance and fueling of vehicles onsite.
- b. Contractor must perform maintenance and fueling of equipment only when necessary, and in a designated, bermed area or over a drip pan that will not allow run-on of storm water or runoff of spills.
- c. Contractor must use secondary containment, such as a drip pan, to catch leaks or spills any time that equipment fluids are dispensed, changed, or poured.
- d. Contractor must keep a stockpile of spill cleanup materials, such as rags or absorbents, readily accessible on-site to clean up drips and spills.
- e. Contractor must clean up leaks and spills of vehicle or equipment fluids immediately and dispose of the waste and cleanup materials as hazardous waste, as described above.
- f. Contractor will not wash any spilled material into streets, gutters, storm drains, or creeks and shall not bury spilled hazardous materials.
- g. Contractor must report any hazardous materials spill by calling 911. After the emergency has been reported, Contractor must notify the City's Public Works Environmental Division.
- h. Contractor must inspect vehicles and equipment arriving on-site for leaking fluids and shall promptly repair leaking vehicles and equipment. Drip pans must be used to catch leaks until repairs are made. Shut-off valves on equipment must be working properly.
- i. Contractor must comply with federal, state and City requirements for above-ground storage tanks.

(6) *Contractor Training and Awareness.*

- a. Contractor must train all employees and Subcontractors on the SWPPP requirements contained in these General Conditions.
- b. Contractor must include appropriate provisions in its subcontracts to ensure that these SWPPP requirements are met.
- c. Contractor must post warning signs in areas treated with chemicals.
- d. Contractor must paint City-approved stencil or, preferably, apply steel medallions to, any new catch basins with the "No Dumping, Flows to Creek" stencil or medallion markers available from the City's Public Works Environmental Division.

(7) *Activity-Specific Requirements.* The following requirements apply if the Project includes the listed activities.

- a. Dewatering or Pumping Operations.

(i) Contractor must not discharge water to the storm drain system. Water discharges must be directed to a pervious, landscaped, or bioretention area where water will be infiltrated without causing runoff, or routed to the sanitary sewer system after obtaining a permit from Cupertino Sanitary District or Sunnyvale Sanitary, depending on which has jurisdictional authority, or contained using a Baker tank or other means to collect the water for re-use or safe and legal disposal. Contractor may contact the City's Environmental Division for more information on these control measures.

(ii) Contractor must obtain approval of the Engineer for any control measure in advance.

(iii) Contractor must reuse water for other needs, including but not limited to dust control or irrigation, to the maximum extent practicable.

b. Paving Operations.

(i) When rain is forecast within 24 hours or during wet weather, the Engineer may require that paving be delayed for more suitable conditions.

(ii) The Engineer may direct Contractor to protect drainage courses by using control measures, including but not limited to, earth dike, straw bale, and sand bag, to divert runoff or trap and filter sediment. Contractor must refer to California Storm Water Best Management Practice Handbook for these control measures.

(iii) Contractor must place drip pans or absorbent material under paving equipment when not in use.

(iv) Contractor must securely cover catch basins and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.

(v) Contractor must remove, clean and reapply or replace catch basin covers as often as needed to ensure protection of the storm drain system from any material other than rain.

(vi) Before Final Completion, Contractor must remove and dispose of all catch basin covers and material trapped by the covers. If Contractor fails to remove and dispose of the covers and materials trapped, City reserves the right to delay final inspection and/or deduct monies from payments due Contractor to compensate the City for its additional costs for removal and disposal of catch basin protection (BMPs).

(vii) If the paving operation includes an on-site mixing plant, Contractor must comply with Santa Clara County General Industrial Activities Storm Water Permit requirements.

(viii) Contractor must preheat, transfer or load hot bituminous material away from drainage systems or watercourses.

(ix) Contractor will not sweep or wash down excess sand (placed as part of a sand seal or to absorb excess oil) into streets, gutters, storm drains, or creeks. Contractor must either collect the sand and return it to the stockpile, or dispose of it in a trash container. Contractor will not use water to wash down fresh asphalt concrete pavement.

c. Saw Cutting.

(i) Contractor must use as little water as possible during saw cutting and grinding operations.

(ii) Contractor must cover or barricade catch basins using control measures, including but not limited to as filter fabric, straw bales, sand bags, and fine gravel dams, to keep slurry out of the storm drain system. When protecting a catch basin, Contractor must ensure that the entire opening is covered. Contractor must refer to California Storm Water Best Management Practice Handbook for these control measures.

(iii) Contractor must remove, clean and reapply or replace catch basin covers.

(iv) Before Final Completion, Contractor must remove and dispose of all catch basin covers.

(v) Contractor must shovel, absorb or vacuum saw cut slurry and pick up the waste prior to moving to the next location or at the end of each working day, whichever is sooner.

(vi) If saw cut slurry enters catch basins, Contractor must remove the slurry from the storm drain system immediately.

d. Traffic Detector Loop Installation and Repair.

(i) Contractor must protect nearby storm drain inlets prior to cutting or flushing slot for traffic detector loops. Contractor must block or berm around nearby storm drain inlets using sand bags or an equivalent barrier or use absorbent materials such as pads, pillows and socks to contain slurry.

(ii) Before Final Completion, Contractor must remove all sand bags and equivalent barriers and absorbent materials from the site and sweep the area clean and away from the storm drain inlet.

(iii) Contractor must clean up residues by sweeping up as much material as possible and must dispose of material properly.

e. Concrete, Grout and Mortar Waste Management.

(i) Contractor must avoid mixing excess amounts of fresh concrete or cement mortar on-site.

(ii) Contractor must store concrete, grout and mortar away from drainage areas and ensure that these materials do not enter the storm drain system.

(iii) Contractor will not wash out concrete trucks or equipment into streets, gutters, storm drains, or creeks.

(iv) Contractor must perform washout of concrete trucks or equipment off-site or in a designated area on-site where the water will flow onto dirt or into a temporary pit in a dirt area. Contractor must let the water percolate into the soil and dispose of the hardened concrete in a trash container. If a suitable dirt area is not available, Contractor must collect the wash water and remove it off-site.

(v) Contractor will prevent creating runoff by draining water from washing of exposed aggregate concrete to a dirt area. If a suitable dirt area is not available, Contractor must collect the wash water and remove it off-site.

(vi) Before Final Completion, Contractor must remove all protective measures and treatment materials and sweep the site clean.

(vii) Contractor must collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in a trash container.

f. Painting.

(i) Contractor must conduct cleaning of painting equipment and tools in a designated area that will not allow run-on of storm water or runoff of spills.

(ii) Contractor will not allow wash water from cleaning of painting equipment and tools into streets, gutters, storm drains or creeks.

(iii) Contractor will remove as much excess paint as possible from brushes, rollers and equipment before starting cleanup.

(iv) To the maximum extent practicable and with permission from Cupertino Sanitary District, Contractor will dispose of wash water from aqueous cleaning of equipment and tools to the sanitary sewer.

(v) If Contractor cannot dispose of wash water to the sanitary sewer, Contractor must direct wash water onto dirt area and spade in.

(vi) To the maximum extent practicable, Contractor will filter paint thinner and solvents for reuse.

(vii) Contractor must dispose of thinners, solvents, oil and water-based paint, and sludge from cleaning of equipment and

tools as hazardous waste, as described in these General Conditions.

(viii) Contractor must store paint, solvents, chemicals, and waste materials in compliance with the City of Cupertino Hazardous Materials Storage Ordinance and all applicable state and federal regulations. Contractor must store these materials in a designated area that will not allow run-on of storm water or runoff of spills.

(ix) Contractor must dispose of dry or empty paint cans and buckets, old brushes, rollers, rags, and drop cloths in the trash.

g. Earthwork.

(i) Contractor must use the BMPs for erosion and sedimentation in either the California Storm Water Best Management Practice Handbook - Construction Activity or the ABAG Manual of Standards for Erosion and Sediment Control Measures.

h. Thermoplastic.

(i) Contractor must transfer and load hot thermoplastic away from drainage systems or watercourses.

(ii) Contractor must sweep thermoplastic grindings into plastic bags. Yellow thermoplastic grindings may require special handling as they may contain paint.

i. Pesticide Usage and Pest Management.

(i) Contractor must follow all federal, state, and local policies (including the City's Integrated Pest Management Policy), laws, and regulations governing the use, storage, and disposal of pesticides and training of pest control advisors and applicators.

(ii) Contractor must submit pest management control methods to Engineer for approval. Such control methods may include, but are not limited to: no controls; physical or mechanical methods; environmental controls (mulching, pest-resistant vegetation); biological controls (predators, parasites, etc.); less toxic controls (soaps, oils, etc.); and hot water.

(iii) Contractor must notify and receive permission from the Engineer and the Public Works Environmental Division before applying any pesticides.

(iv) If permitted to use pesticides, Contractor must use the least toxic pesticides available and the use and type of such pesticides must be approved by the City. The City will consider the LD50, overall risk to the applicator, and impact to the environment when approving the use of pesticides.

- (v) Contractor must apply pesticides at the appropriate time to maximize their effectiveness and minimize the likelihood of discharging non-degraded pesticides in stormwater runoff. Contractor will not apply pesticides if rain is expected.
- (vi) Contractor must mix and apply only as much material as is necessary for treatment. Contractor must calibrate application equipment prior to and during use to ensure desired application rate.
- (vii) Contractor will not mix or load pesticides in application equipment adjacent to a storm drain inlet culvert or watercourse.
- (viii) Contractor will not use Clopyralid, Diazinon, Chlorpyrifos, Chloradane, DDT, Dieldrin or other organophosphates. Fipronil and pyrethroids including, but not limited to Deltamethrin and Bifenthrin, will not be applied on City property.
- (ix) Contractor must submit monthly summaries of pesticide use to the Public Works Environmental Division on appropriate City form. Information provided must include, at a minimum, the product used, the method of application, date applied, the area to which it is applied, and the amount applied.

7.21 Traffic Control and Public Safety

- A. **Fences and Barriers.** Contractor must furnish, erect, and maintain fences, barriers, lights, and signs, and must provide flagging and guards as necessary to give adequate warning to the public of the construction and of any dangerous condition at Contractor's sole cost and expense. City must approve all signs as to size, wording, and location. City, in its sole discretion, may direct Contractor to implement additional measures. Contractor may be required to cover certain signs which regulate or direct public traffic to roadways that are not open to traffic. The Engineer will determine which signs must be covered.
- B. **Manual on Uniform Traffic Control Devices (MUTCD).** Notwithstanding the requirements of this Section 7.21, all fences, barriers, signs, lights, flags, and other warning and safety devices and their use must conform to the requirements of Part 6 of the United States Department of Transportation MUTCD and the MUTCD California Supplement.
- C. **Sign Conflicts.** Signs and other protective devices furnished and erected by Contractor will not obscure the visibility of, nor conflict in intent, meaning, and function of, existing signs, lights, and traffic control devices or any construction area signs and traffic control devices
- D. **Public Access.** Contractor must conduct operations in the manner that offers the least possible obstruction and inconvenience to the public. Contractor must complete the Work in a manner that allows for access to public rights-of-way. Unless otherwise provided in the Contract Documents, all public traffic must be permitted to pass through the Work with as little inconvenience and delay as possible. Where possible, public traffic must be routed on new or existing paved surfaces.

E. **Public Spills.** Spillage resulting from hauling operations along or across any public right-of-way must be removed immediately by Contractor at Contractor's sole cost and expense.

F. **Existing Traffic Signals.** Existing traffic signals and highway lighting must be kept in operation and available for routine maintenance during construction.

G. **Abutting Properties.** Construction operations must be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners. Contractor must maintain convenient access to driveways, houses, and buildings, and temporary approaches to crossings or intersecting highways must be provided and kept in good condition. When an abutting property owner's access across the right-of-way line is to be eliminated or replaced by other access facilities, the existing access will not be closed until the replacement access facilities are usable.

H **Lane Closures.** Lane closures are not permitted before 7:00 A.M. or after 5:00 P.M. from Monday through Friday or as otherwise specified in the Special Conditions or Specifications. City may, at its sole discretion, approve lane closures during this time upon written request from Contractor. Contractor must maintain a minimum of two travel lanes for traffic use (one in each direction) at all times.

I. **Costs.** Contractor is solely responsible for all costs for all required traffic control and public safety measures.

7.22 Noise Control. Contractor must comply with all applicable noise control laws, ordinances, regulations and rules. 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.

7.23 Fire Protection Plan. If a fire protection plan is required for this Project, within 21 days after the date of issuance of the Notice of Award, Contractor must submit to the Engineer a fire protection plan that has been reviewed and approved by the Santa Clara County Fire Department. In addition to any specified requirements for the fire protection plan, the plan should address all of the following:

- (A) Equipment spark arresters;
- (B) Fire-extinguishing equipment at the Worksite(s);
- (C) Fire response procedures;
- (D) Notification to authorities of any fire;
- (E) Fire equipment access during performance of the Work and after hours;
- (F) Educating and training workers to comply with the fire protection plan
- (G) Safe storage and transport of flammable materials; and
- (H) Equipment for ventilation and illumination.

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 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 stipulated 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 Worksite, as well as authorized and approved Change Orders. Each pay application must be supported by Contractor's Bid Schedule 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 thirty (30) days after Contractor has submitted a complete and accurate payment application, subject to Public Contract Code section 20104.50. City will deduct a percentage from each progress payment as retention, as set forth in Section 8.5, below, and may withhold additional amounts as set forth in Section 8.3, below.

8.3 Adjustment of Payment Application. City may adjust the amount requested, withhold disputed sums, or reject a payment application, including application for Final Payment, in whole or in part, or deduct or withhold from payment otherwise due based upon any of the circumstances and amounts listed below. Contractor will be notified in writing of the basis for the modification to the amount requested, and sums that have been withheld subject to performing contract requirements 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 Subcontractor(s) arising out of or relating to performance of the Work or any failure to protect the Worksite, 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;

- (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 and within the time specified in the Contract Documents, City may withhold or deduct an amount equal to five percent of the total amount requested;
- (G) For Contractor's failure to maintain or submit as-built documents in the manner and within the time specified in the Contract Documents, City may withhold or deduct an amount based on the City's continued cost to prepare the as-builts;
- (H) For Work performed without approved Shop Drawings, when approved Shop Drawings are required before proceeding with the Work, City may deduct an amount based on the estimated costs to correct unsatisfactory work or diminution in value;
- (I) For fines assessed under the Labor Code;
- (J) For any other costs or charges that may be withheld, deducted from, or offset against payments due, as provided in the Contract Documents, including liquidated damages; or
- (K) For failure to release claims as to undisputed amounts pursuant to Section 8.9, below.

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 amount due on each progress payment, or the percentage stated in the Notice Inviting Bids, whichever is greater, as retention to ensure full and satisfactory performance of the Work.

(A) **Substitution of Securities.** As provided by Public Contract Code section 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 section 22300, and will be subject to approval as to form by City's legal counsel.

(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 under Section 8.3 or Section 8.6, 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(E) below, or, if the Project has not been accepted, no later than 60 days after the Project is otherwise considered complete under Public Contract Code section 7107(c).

8.6 Setoff. City is entitled to set off any amounts due from Contractor against any payments due to Contractor. City's entitlement to setoff includes progress payments as well as Final Payment and unreleased retention.

8.7 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 Worksite by the Subcontractor or supplier during the preceding month. Such payments must be made in accordance with the requirements of the law, and those of the Contract Documents and applicable subcontract or supplier contract.

(A) **Withholding for Stop Notice.** Pursuant to Civil Code section 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 to issue joint checks made payable to Contractor and its Subcontractors or suppliers. 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 City. 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.

8.8 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. The date of Final Payment is deemed to be effective on the date that City acts to release undisputed retention as final payment to Contractor, or otherwise provides written notice to Contractor of Final Payment. 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.

8.9 Release of Claims. City may, at any time, require that payment of the undisputed portion of any progress payment or Final Payment (excepting undisputed retention subject to release under Public Contract Code section 7107) 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 limits of Public Contract Code section 7100. The waiver and release of claims must be submitted using the City's Release of Claims form. Any disputed amounts may be specifically excluded from the release.

8.10 Warranty of Title. Contractor warrants that title to all work, materials, or equipment incorporated into the Work or delivered to a Worksite, and included in a request for payment will pass over to City free of any claims, liens, or encumbrances upon any payment to Contractor pursuant to this Article 8.

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 federal and California laws, including the California Fair Employment and Housing Act (Government Code sections 12900 et seq.), Government Code section 11135, and Labor Code sections 1735, 1777.5, 1777.6, and 3077.5.

9.2 Labor Code Requirements.

(A) **Eight Hour Day.** Under Labor Code section 1810, eight hours of labor constitute a legal day's work under this Contract.

(B) **Penalty.** Under Labor Code section 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 section 1815.

(C) **Apprentices.** Contractor is responsible for compliance with the requirements governing employment and payment of apprentices, as set forth in Labor Code section 1777.5, which is fully incorporated by reference.

(D) **Notices.** Under Labor Code section 1771.4, Contractor is required to post all job site notices prescribed by law or regulation.

9.3 Prevailing Wages. Each worker performing Work under this Contract that is covered under Labor Code section 1720 or 1720.9, including cleanup at the Project site, must be paid at a rate not less than the prevailing wage as defined in sections 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 Worksite.

(A) **Penalties.** Under Labor Code section 1775, Contractor and any Subcontractor will forfeit to City as a penalty up to \$200.00 for each calendar day, or portion a day, 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 current applicable prevailing wage rates under federal law, available online at <http://www.access.gpo.gov/davisbacon/ca.html>.

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

(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 sections 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 section 1776, Contractor or Subcontractor has ten days in which to comply with 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 a day, 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 progress payments then due.

9.5 Labor Compliance. Under Labor Code section 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 safety laws, rules and regulations and seek to avoid injury, loss, or damage to persons or property by taking reasonable steps to protect its employees and other persons at the Worksite, materials and equipment stored on or off site, and property at or adjacent to the Worksite.

(A) **Reporting Requirements.** Contractor must immediately provide a written report to City of all recordable accidents and injuries occurring at the Worksite. 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 law or regulation.

(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 Worksite 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 Worksite 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 section 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 Material Safety Data Sheets ("MSDS") at the Worksite, as required by law, for materials or substances used or consumed in the performance of the Work. The MSDS 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 Worksite 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 Worksite 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. Such conditions may result from, but are not limited to, use of specified materials or equipment, the Work location, the Worksite condition, the method of construction, or the way any Work must be performed.

Article 11 - Completion and Warranty Provisions

11.1 Final Completion.

(A) **Final Inspection.** 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 items that are incomplete, incorrectly installed, or not operating as required by the Contract Documents. The omission of any such item from this punch list will not relieve Contractor from fulfilling all requirements of the Contract Documents.

(B) **Punch List.** City will deliver the punch list to Contractor and 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.

(C) **Requirements for Final Completion.** Final Completion will be achieved upon completion or correction of all punch list items, as verified by City inspection, and upon satisfaction of all other Contract requirements, including any commissioning required under the Contract Documents and submission of all final submittals, including a warranty bond as required under Section 4.4, instructions and manuals as required under Section 7.10, and as-built drawings as required under Section 7.11, all to City's satisfaction.

(D) **Acceptance.** Following Final Completion, the Project will be considered accepted upon City Council action during a public meeting to accept the Project, or if the

Engineer is authorized to accept the Project, the Project will be considered accepted upon the date of the Engineer's issuance of a written notice of acceptance.

(E) **Final Payment.** 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, acting in its sole discretion, elect to accept the Project, record the notice of completion, and withhold up to 150% of City's estimated cost to complete the remaining items from Final Payment.

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. 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 recordation of the notice of completion (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions. Contractor must obtain from its Subcontractors, suppliers and manufacturers any special or extended warranties required by the Contract Documents.

(C) **Warranty Documents.** As a condition precedent to acceptance, 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 expressly agrees to act as 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.

(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, Contractor expressly agrees that City may correct the defects to conform with the Contract Documents at Contractor's sole expense. Contractor must reimburse City for its costs within 30 days following City's submission of a demand(s) 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.

(G) **Emergency Repairs.** In cases of emergency where any delay in correcting defective Work could cause harm, loss or damage, Contractor expressly agrees that 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 within 30 days following City's submission of a demand(s) 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 immediately correct the defective Work, including any associated overtime charges.

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. City will notify Contractor in writing of its intent to occupy or make use of the Project or any portions of the Project, pursuant to this provision.

(A) **Non-Waiver.** Occupation or use 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 recordation of the notice of completion, 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) **Definition.** "Claim" means a separate demand by Contractor, submitted in writing by registered or certified mail with return receipt requested, for change in the Contract Time, including a time extension or relief from liquidated damages, or a change in the Contract Price, that has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected or disputed by City, in whole or in part.

(B) **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.

(C) **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 Section 9204 and Sections 20104 et seq., which are incorporated by reference herein.

(D) **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 the 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.

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, clearly identified as a "Claim" submitted pursuant to this Article 12, and 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 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 claimed cost. Any Claim for an extension of time or delay costs must be substantiated with schedule analysis and narrative depicting and explaining claimed time impacts.

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

(1) General introduction, specifically identifying the submission as a "Claim" submitted under this Article 12.

(2) Relevant background information, including identification of the specific demand at issue, and the date of City's rejection of that demand.

(3) Detailed explanation of the issue(s) in dispute. For multiple issues, separately number and identify each issue and include the following for each separate issue:

a. The background of the issue, including references to relevant provisions of the Contract Documents;

b. A succinct statement of the matter in dispute, including Contractor's position and the basis for that position;

c. A chronology of relevant events;

d. The identification and attachment of all supporting documents (see subsection (A), above, on Substantiation); and

e. Use of a separate page for each issue.

(4) Summary of issues and damages.

(5) 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 are true and correct. Contractor warrants that this Claim is comprehensive and complete as to the matters in dispute, and agrees that any costs, expenses, or delay claim not included herein are deemed waived. Contractor understands that submission of a Claim which has no basis in fact or which Contractor knows to be false may violate the False Claims Act (Government Code Section 12650 et seq.)."

(C) **Submission Deadlines.**

(1) A Claim must be submitted within 15 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.

(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 15 days of the effective date of Final Payment, under Section 8.8, above.

(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 section 9204. However, if City determines that the Claim is not adequately documented, 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. If Contractor fails to submit the additional documentation to City within 15 days of receipt of City's request, the Claim will be deemed waived.

(A) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor.

(B) **Non-Waiver.** Any failure by City to respond within the times specified above may 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 dispute City's response 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 disputed portion(s) 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 section 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. The parties will share the costs of mediation equally, except costs incurred by each party for its representation by legal counsel or any other consultants.

(B) **Government Code Claims.**

(1) Timely presentment of a Government Code Claim is a condition precedent to filing any legal action based on or arising from the Contract.

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

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

12.7 Arbitration. It is expressly agreed, under California Code of Civil Procedure Section 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 Damages. 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 recovery of any alleged home office overhead. The Eichleay Formula or similar formula may not be used for any recovery under the Contract. Contractor is not entitled to special, incidental, or consequential damages, including home office overhead or any form of overhead not directly incurred at the 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.

- 12.9 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, 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, City may immediately order the Work, or any portion of it, suspended until the cause for the suspension has been eliminated to City's satisfaction.
- (A) **Failure to Comply.** Contractor will not be entitled to an increase in Contract Time or Contract Price for a suspension occasioned by Contractor's failure to comply with the Contract Documents.
- (B) **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, and not due to any act or omission by Contractor or its Subcontractors. 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. The Contract Price and the Contract Time will be equitably adjusted by Change Order to reflect the cost and delay impact occasioned by such suspension for convenience. However, the Contract Time will not be adjusted if the suspension will not delay Final Completion by the Contract Time.
- 13.3 Termination for Default.** Contractor may be deemed in default for a material breach of or inability to perform the Contract, including Contractor's refusal or failure to supply sufficient skilled workers, proper materials, or equipment to perform the Work within the Contract Time; refusal or failure to make prompt payment to its employees, Subcontractors, or suppliers or to correct rejected work; disregard of laws, regulations, ordinances, rules, or orders of any public agency with jurisdiction over the Project; lack of financial capacity to complete the Work within the Contract Time; or responsibility for any other material breach of the Contract requirements.
- (A) **Notice.** Upon City's determination that Contractor is in default, City may provide Contractor and its surety written notice of default and intent to terminate the Contract.
- (B) **Termination.** Within seven calendar days after notice of intent to terminate for default has been given, unless the default is cured or arrangements to cure the default have been made and memorialized in writing, to City's satisfaction, City may terminate the Contract by written notice to Contractor with a copy to Contractor's surety.
- (C) **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, Contractor's surety will be deemed to have waived its right to complete the Work under the Contract, and 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. In addition, City will have the right to use any materials, supplies, and equipment belonging to Contractor and located at the Worksite for the purposes of completing the remaining Work.

(D) **Wrongful Termination.** 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 consequential damages, lost opportunity costs or lost profits.

13.4 Termination for Convenience. City reserves the right to terminate all or part of the Contract for convenience upon written notice to Contractor. Upon receipt of such notice, Contractor must: immediately stop the Work, including under any terms or conditions that may be specified in the notice; comply with City's instructions to protect the completed Work and materials; and use its best efforts to minimize further costs. Subject to City's directions in the notice, 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. Contractor must also promptly cancel, on the most favorable terms possible, all existing subcontracts that relate to performance of the discontinued Work.

(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 to date, 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.* Actual and substantiated demobilization costs; and
- (3) *Markup.* Five percent of the total value of the Work performed as of the date of notice of termination or five percent of the value of the Work yet to be completed, whichever is less, which is deemed to cover all overhead and profit to date.

13.5 Effect of Any Contract Termination. Upon any termination pursuant to this Article, City may enter upon and take possession of the Project and the Work. City may also take possession of, for the sole purpose of completing the Work, all of Contractor's tools, equipment and appliances, and all materials on the Work site or stored off the Work site that will be incorporated in the Work. 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, 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 section 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. section 15) or under the Cartwright Act (Chapter 2 (commencing with section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the 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 that bids were due.

END OF GENERAL CONDITIONS

Special Conditions

1. **Work Days and Hours.** Work hours and noise pose a special concern for projects in residential neighborhoods. The City is very concerned for its residents and will diligently enforce the restrictions below.
 - 1.1 **Work Hours.** 7:00 a.m.-5:00 p.m. local time, weekdays, 9:00 a.m. – 5:00 p.m. on Saturdays, 9:00 – 4:00 p.m. Sundays.
 - 1.2 **Traffic Impacts.** Contractor shall not set up or have in place traffic control or otherwise affect vehicular traffic on northbound De Anza Boulevard prior to 10:00 a.m. Contractor shall not set up or have in place traffic control or otherwise affect vehicular traffic on southbound De Anza Boulevard after 3:30 p.m.
 - 1.3 **Worker Arrival and Parking.** Workers may arrive at the Worksite no earlier than 7:00 a.m. **Violations of these requirements will result in a \$3,000 dollar penalty to Bidder/Contractor, per occurrence.**
 - 1.4 **Equipment and Material Delivery and Off-Haul Hours.** No equipment or material may be delivered or off-hauled except between the hours of 7:00 a.m. and 5:00 p.m. No equipment that has a safety back up beeper may be operated before 7:00 a.m. on any day.
 - 1.5 **Work Days Only.** Work will only be performed on Work Days, as defined in the General Conditions, unless Contractor requests otherwise from City in writing at least 2 working days in advance, and City approves the request in its sole discretion. In the case of Work by Contractor after normal working hours,
 - 1.6 **Connections to Existing Facilities.** Unless otherwise specified or indicated, Contractor will make all necessary connections to existing facilities, including structures, drain lines, and utilities such as water, sewer, gas, telephone, and electric. In each case, Contractor will receive permission from City or the owning utility prior to undertaking connections and coordinate as needed to accommodate the facilities operations. Contractor will protect facilities against deleterious substances and damage.
 - 1.7 **Road Shutdown.** Contractor will execute the Work while roads are in operation except for the periods of permitted shutdown. For shutdown periods, Contractor will prepare and submit a detailed plan that includes shutdown schedule, planned sequence of work, milestones and projected times of completions of activities, any anticipated problems, Contractor's supervisory personnel, actions desired of City and staff, and contingency plans. Contractor will allow sufficient time for review and re-submittal of the shutdown plan until acceptable to City. Contractor will employ sufficient labor, superintendence, and equipment on a 24-hour, 7 days a week basis during shutdown and other operational disruptions to complete Work within the specified periods at no additional cost to the City. Once initiated, Work may proceed on extra shift or around-the-clock basis as necessary. When required to minimize treatment process interruptions while complying with specified sequencing constraints, Contractor will provide power, lighting, controls, instrumentation, and safety devices.
 - 1.8 **Noise Limitation.** No non-construction noise will be allowed, this includes amplified music, radio or other noise not due to construction activities.
2. **Submittals for Quality Assurance.** In the Technical Specifications, the City may specify quality assurance requirements, including qualifications for special skills and

experience required of the Contractor. For any specified skill, the Contractor may use a subcontractor that specializes in the work and meets the performance requirements or the Contractor may self-perform the work, subject to demonstrating the necessary skill, experience, and/or certifications to perform the work.

The Contractor will submit verification that the materials and labor skills meet the specified requirements prior to implementing the specific work through the submittal process.

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

3.1 Name, 24-hour contact information, and qualifications of the proposed on-site superintendent;

3.2 List of all key Project personnel and their complete contact information, including email addresses and telephone numbers during regular hours and after hours;

3.3 Staging plans that identify the sequence of the Work, including any phases and alternative sequences or phases, with the goal of minimizing the impacts on residents, businesses and other operations in the Project vicinity;

3.4 If required, traffic control plans associated with the staging plans that are signed and stamped by a licensed traffic engineer;

3.5 Draft baseline schedule for the Work as required under Section 5.2, to be finalized within 10 days after City issues the Notice to Proceed;

3.6 Breakdown of lump sum bid items, to be used for determining the value of Work completed for future progress payments to Contractor;

3.7 Schedule with list of Project submittals that require City review, and list of the proposed material suppliers;

3.8 Plan for coordination with affected utility owner(s) and compliance with any related permit requirements;

3.9 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;

3.10 Any other documents specified in the Special Conditions or Notice of Award.

- 4. Construction Manager Role and Authority.** Gilbane Building Company 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 supervising 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.

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

Glenn Rock
Gilbane Building Company
1798 Technology Drive, Ste. 120
San Jose, CA 95110
(408) 609-0424
GRock@GilbaneCo.com

With a copy to the Project Manager:

John Raaymakers
City of Cupertino
10300 Torre Avenue
Cupertino, CA 95014
(408) 777-3100
johnr@cupertino.org

- 4.2 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.
- 4.3 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.
- 4.4 Pre-Construction Conference.** Contractor will attend the Pre-Construction Conference, during which the Construction Manager will review the Contract administration procedures and Project requirements.
- 4.5 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.

5. Temporary Tree and Plant Protection

5.1 Description

- A. The work when under the canopy of existing trees makes the work area a Tree Protection Zone (TPZ). Work within the TPZ will be primarily hand work.
- B. This section includes the requirements for the protection of existing trees and shrubs, including entire structure of plant material above and below ground impacted by all demolition and construction work under this contract.
- C. Contractor is prohibited from stockpiling any excavation or construction materials within the canopy of trees, on lawn areas or near shrubs.

- D. Contractor shall immediately clean and remove any construction residue that falls within the canopy of a tree or near shrubs.
- E. Work will include pre-construction meetings on-site with, ongoing consultation by, and periodic tree protection inspections and reports by the Project Arborist.

5.2 References

- A. Arboriculture – Integrated Management of Landscape Trees, Shrubs & Vines, 4th edition. Harris et al. Prentice Hall. 2004.
- B. Guide for Plant Appraisal. 9th Edition. Council of Tree & Landscape Appraisers. International Society of Arboriculture. 2000.
- C. Tree Technical Manual. Standards & Specifications. City of Palo Alto. Palo Alto Municipal Code, Chapter 8.10030. Dave Dockter, June 2001 (First edition). Palo Alto Department of Planning & Community Environment. Available online at: <http://www.cityofpaloalto.org/civica/filebank/blobload.asp?BlobID=6436>
- D. Pruning Standards:
 - 1. Best Management Practices, Tree Pruning. 2008. International Society of Arboriculture, PO Box 3129, Champaign, IL 61826-3129. 217-355-9411
 - 2. ANSI Z133.1 American National Standards for Tree Care Operations. 2006 Edition. Secretariat: National Arborist Association, Inc. American National Standards Institute, 11 West 42nd St., New York, New York, 10036
 - 3. ANSI A300 Pruning Standards. 2008 Edition. Ibid.
- E. Trees & Development. Matheny et al. International Society of Arboriculture. 1998.
- F. The Guide for Plant Appraisal, 9th edition. Council of Tree & Landscape Appraisers. International Society of Arboriculture. 2000.

5.3 Definitions

- A. 3 and 5 X DBH: DBH is trunk “diameter at breast height” (4.5 feet above the ground). 3 and 5 times DBH are used to calculate root protection distances for trees in feet from the trunk.
- B. Air spade: a commercial grade, hand-held metal probe attached to a large air compressor by a hose. Pressurized air is discharged from the tip of the probe. The air is used to excavate soil away from items such as tree roots, or to dig trenches or remove soil with minimal damage to tree roots (compared to traditional soil removal methods).
- C. Arborist Designations:
 - 1. Arborist: a person who provides advice about urban trees.
 - 2. Board Certified Master Arborist (ISA) must meet higher eligibility requirements than a Certified Arborist, pass a more comprehensive test and has a greater and more specific continuing education requirement.
 - 3. Certified Arborist: is an Arborist certified through the ISA (International Society of Arboriculture) after passing a test demonstrating basic knowledge about urban trees and their management, fulfilling an ongoing continuing education requirement and paying regularly scheduled certification fees.
 - 4. City Arborist is that person designated as such by the City of Cupertino. The City Arborist is responsible for City-owned trees.
 - 5. Project Arborist: A Qualified Arborist who is the appointed consulting arborist for the project and provided and paid for by the Contractor.
 - 6. Qualified Arborist: An ISA Board-Certified Master Arborist and/or or an ASCA RCA that has experience in working as the Project Arborist on construction projects.
 - 7. Registered Consulting Arborist (RCA) is an arborist certified by the ASCA (American Society of Consulting Arborists). This is the highest level of

arborist certification and requires a longer period of pre-certification work experience and/or formal education than an ISA Certified or Board-Certified Arborist. RCA's must have a more comprehensive knowledge of arboriculture, and demonstrate a minimum acceptable report writing proficiency.

- D. Demo: an abbreviation for Demolition.
- E. Designated Tillage Areas: Specifically designated areas within the overall fenced Tree Protection Zone in which general mechanical construction activities may occur, in contrast with the remaining non-tillage areas in which hand-work will be required in order to limit impact on the root zone of the existing trees. The areas outside the driplines of the existing trees are Designated Tillage Areas. Allowable general construction activities in these areas include but not limited to demolition, mechanical grubbing, grading, trenching, equipment cleaning, stockpiling and dumping materials (including soil fill), and equipment operation. Certain limited construction activities, mostly hand-work, including but not limited to soil preparation, paving sub-grade preparation and installation, planting, may occur in areas outside the Designated Tillage Areas with the approval of the City and the Project Arborist.
- F. Dripline (tree): the area under the total branch spread of the tree, all around the tree.
- G. Existing tree: those trees existing on project property prior to any demolition or construction for a project.
- H. Owner: is the City of Cupertino or a designated representative of the City of Cupertino
- I. Tree: a woody perennial plant usually having one dominant trunk and a mature height greater than 15 feet. Multiple-trunk trees have more than one trunk.
- J. Tree Protection Zone (TPZ) means, unless otherwise specified by the Owner, the area inside the tree protection fencing on a construction project, containing the tree trunk(s) and extending to 10 feet beyond the dripline of the tree or as close to this distance as possible, given the nature of the site and proposed improvements. The TPZ should be jointly agreed upon by the general contractor and the Owner and Project Arborist. The TPZ and tree protection fencing are put in place prior to any work on site (including demo) and remain in effect until the construction project (including landscaping) is fully completed. The TPZ may change during the span of the project (e.g. it may extend outward farther from the trunk if existing improvements are removed during demo) and more open ground space for the tree is created).
- K. Tree Service: A company that performs tree pruning and tree removals as their main business. Qualified Tree Service: A tree service with a supervising arborist who has the minimum certification level of ISA (International Society of Arboriculture) Certified Arborist, in a supervisory position on the job site during execution of the tree work. The tree service shall have at least five (5) years' experience and have a State of California Contractor's license for Tree Service (C61-D49) and provide proof of Workman's Compensation and General Liability Insurance. The person(s) performing the tree work must adhere to the most current of the following arboricultural industry tree care standards:
 - 1. Best Management Practices, Tree Pruning. International Society of Arboriculture, PO Box 3129, Champaign, IL 61826-3129. 217-355-9411

2. ANSI A300 Pruning Standards. Ibid. (Covers tree care methodology).
3. ANSI Z133.1 Safety Requirements for Arboricultural Operations. Ibid. (Covers safety).

5.4 Job Conditions

A. General:

1. These tree protection specifications apply to any existing tree on site that will not be removed and will be within or near any area where demo or construction will occur. This includes any tree that is not located in an area that is completely fenced off from construction with a perimeter construction fence. If any portion of the canopy of a tree outside the construction zone overhangs a perimeter construction fence, these specifications shall apply to such trees as well.
2. Trees have value, and a monetary value for individual trees that can be calculated by the project arborist. The contractor may be charged the full value of the tree if a tree that is supposed to be saved is removed due to contractor negligence. Tree damage due to contractor's negligence will be charged at a percentage of the tree damaged, based upon the calculated tree value, up to 100% of that tree's value, as determined by the Owner. The contractor may also be charged for work to repair damage to the tree, including soil compaction remediation.
3. Unexpected conditions occur and changes are necessary on all construction projects. Such situations may necessitate that changes or modifications be made to these Tree Protection Specifications. Any concerns or conflicts with these Specifications shall be brought to the attention of the Owner immediately so that alternate methods can be agreed upon.
4. Notify the Owner as soon as there are changes in site or construction management personnel, for example a new site superintendent. The Owner must always be provided with current contact information for the parties who are involved with the project.
5. New landscaping can severely impact existing trees. Refrain from rototilling within tree driplines. Any planting within this area should be done by hand and not using power equipment such as soil augers. Plants and new irrigation including irrigation trenching are to be kept at least 5 feet away from the trunks of existing trees, depending upon the size and type of tree, and the environmental conditions or as shown on the plans. Farther is better.
6. Underground Utilities: Every attempt should be made to keep new underground utility lines outside tree protection zones and as far away from existing trees as possible. Any utilities found within or passing through tree protection zones at any point in the construction process should be brought to the attention of the Owner. If any utility lines will pass underneath the dripline of the tree, through tree protection zones or within the 5xDBH distance to the trunk, the Project Arborist shall review the utility location and may prescribe any mitigation procedures that will reduce damage to trees and get approval from the Owner. Abandoned pipes and utilities should be cut at existing grade and not pulled out, if their removal would damage tree roots. Trenching radially toward the trunk of the tree, rather than linearly across the trunk and dripline of the tree, will often cause less root damage.
7. Construction Vehicle Access: There shall be a defined route for construction vehicles and large equipment, in order to reduce damage to trees and other vegetation. Clearly show and label the construction vehicle route on the Tree Protection Fencing Plan as well as grading and other applicable

construction plans. Preferably there should be one entrance and one exit to the site.

8. Designated Storage & Parking Areas: There must be designated storage and parking areas on site, away from protected trees.
9. The Owner may require the presence of the Project Arborist when work is being completed near driplines or in root areas. Contractor must notify the City at least 4 working days prior to such work so that Arborist can be present.

B. Pre-construction Meeting:

1. Prior to commencement of work, the Contractor shall arrange a meeting on the site with the City Representative and such others as the City Representative shall direct to review the proposed schedule, the tree and landscape protection, submittals for this Section, and the coordination with work. A copy of these Specifications shall be reviewed at the meeting and is to remain and be accessible at the site at all times.
2. Adjustments to the type and extent of the protection shall be addressed at the time of the meeting.
3. Contractor shall coordinate the meeting and inform all parties in writing (5) business days in advance of the scheduled meeting.

C. Environmental Requirements: Perform work only during suitable weather conditions. Do not disc, rototill, or work soil when frozen, excessively wet, or in otherwise unsatisfactory condition.

D. Sequencing and Scheduling: Adjust, relate together, and otherwise coordinate work of this Section with work of Project and all other Sections of Project Specifications.

E. Irrigation: Any trees that will be near work disturbance shall be well hydrated before any demolition or construction work begins. The Project Arborist will determine whether or not irrigation is required at any time before or during the project and will supply directions for irrigation. The frequency and amount of water will depend upon the weather, real or expected root damage to the tree, tree species and condition and the soil moisture status. The Contractor shall irrigate the trees if necessary 2 weeks before any work begins, or as soon as possible prior to the commencement of work, if the soil is not moist to at least 12 inches below the surface. During construction, the Contractor shall be prepared to supply the trees with non-recycled water from a water truck or other suitable water source at least several times per week during the normally dry months, as well as if there is insufficient rain during the normal wet season. Irrigation directions shall be supplied by the Project Arborist and reviewed by the Owner as necessary to keep the trees properly hydrated.

F. Pruning for site access and construction clearance:

1. Tree pruning for construction clearance shall be as little as possible, and only what is required to allow site access, demolition and construction. An exception to this would be pruning to mitigate an acute hazardous condition, which should always be done as soon as possible. Aesthetic or other pruning can be done after the project has been completed so do not mix this with site access or construction pruning.
2. The Contractor shall appoint and utilize a Qualified Tree Service to perform all tree pruning. Contractor will provide qualification to City for acceptance of the Tree Service. Tree work shall be performed according to the most current arboricultural industry standards listed below.
3. Prior to commencement of any work, the contractor shall submit a Site Access Clearance Pruning Plan for approval and use by the Owner. In order to avoid

unnecessary pruning, NO construction clearance pruning will be performed until planned improvements have been properly staked in the field. In the event of pruning required to mitigate an acute hazardous condition, contact the Owner as soon as possible for instructions. The Project Arborist may be required by the Owner to oversee the pruning work.

4. If urgent pruning is necessary for immediate construction clearance this may be done by the general or demolition contractor if approved by the Project Arborist. In this case a short stub should be left which can be removed by a qualified tree service at a later time. Notify the Owner immediately.

G. Tree Protection Fencing Requirements:

1. The entire Limit of Work area is a Tree Protection Zone to be fenced and all the trees therein shall be protected by requirements of this Specification Section. Perimeter construction fencing may be used as the overall Tree Protection Fencing. Within the overall Tree Protection Zone, a minimum 6' diameter area around each tree, or as shown on the drawings, and agreed to by the Project Arborist, is to be protected, and no construction activity may occur in any of these individual protected areas. Parking and other mobilization activities must occur outside of the overall Tree Protection Zone.
2. Within the overall Tree Protection Zone, certain of the individually protected trees may require more extensive protection as determined by the Project Arborist as conditions warrant. Contractor will be allowed to use Orange safety fence at individual trees as shown on the plans, unless this type of protection is not sufficient to keep the tree safe during construction as determined by the City and Project Arborist. If the City determines that this fencing is not working the Contractor shall be required to install alternate fencing as agreed by the Project Arborist subject to the approval of the City at no extra cost to the City.

H. Fencing Materials and Installation: The fencing shall be as Type 1 Fencing as described below unless otherwise prescribed for certain areas as directed by the Owner. If Type 1 Fencing is not possible on the project or a portion of the project, then this must be brought to the attention of the Owner and alternative fencing agreed to.

1. Type 1 Fencing: Type 1 Fencing: shall be 6-foot high chain-link fencing mounted on 2-inch diameter galvanized posts, driven into the ground to a depth of at least 2 feet and spaced no more than 10 feet apart. An 18 - 24-inch gap shall be left in the fencing for Project Arborist inspection and tree care access. There must be a fence post on either side of this gap.
2. Fencing Placement: Fencing shall be placed 10 feet beyond the dripline of the tree, or as shown on plans. If it is not possible or practical to place the tree protection fencing as directed above given the nature of the site and the proposed work, then the fencing shall be placed as far from the trunk of the tree as possible, while still allowing construction work to progress, in order to protect as much of the ground underneath the canopy of the tree as well as the canopy of the tree itself.
3. The Owner shall meet with the general contractor on the project site prior to both demolition and construction to discuss and agree upon tree protection fencing locations. Tree protection fencing locations shall be spray painted on the ground and any deviations to the Type 1 Tree Protection Fencing must be noted and agreed to by both the Project Arborist and the general contractor and the Owner.
4. The Owner shall inspect the fencing after installation. If the fencing is non-compliant then. No work (including staging of equipment or

materials) may begin on site until the Owner has approved the tree protection fencing.

5. The fencing shall not be moved from its Owner approved locations without permission. No work may occur within the fencing without the Owner permission. If contractor or others feel that the fencing must be moved or work must be done inside the fenced area call the Owner to arrange a field meeting. In some cases, this may be taken care of over the phone. Whatever the case, the Owner permission is necessary in order to move or take down the tree protection fencing.
6. Perimeter construction fencing that serves as approved tree protection fencing must have tree protection signs attached to it facing the project site, as described below.
 - I. Fencing maintenance: Fence posts must be maintained vertical, level and plumb, and shall not be allowed to lean. Fence mesh shall be taught and shall not sag. Do not lean construction equipment, materials, supplies or other items on the tree protection fencing.
 - J. Tree Protection Fencing Signage: Tree Protection Signs are required to be affixed to all tree protection fencing with four plastic wire ties; one wire tie in each corner of the sign. The City Standard Tree Protection Sign Template shall be used to order and make the Tree Protection Signs. The written portion of the sign shall face the project work area. The sign shall be a minimum 8.5 x 11 inches and be constructed of either aluminum or corrugated plastic. U Signs must be securely affixed to the Tree Protection Fencing with one plastic wire tie in each corner. The top of the sign shall be 6 inches below the top of the fence. The sign must be level and must face the construction work.
 - K. Duration of Fencing: Tree protection fencing must remain in place until final inspection of the project, including landscaping (unless otherwise authorized by the Owner). A great deal of tree damage can occur during landscaping.
 - L. Fencing Visibility: Durable neon-colored flagging tape may be woven through the top of the tree protection fencing, or about 12 inches of orange plastic ski fencing can be attached to the top of the metal chain link fencing to increase visibility to vehicle operators.
 - M. Mulching – Existing Trees to Remain. No supplemental mulching is required for existing trees to remain on this project – however; the existing natural topsoil, surface plant litter and live vegetation must remain in place until landscaping, in order to protect the root system of the trees. No site clearing or grubbing (e.g. scraping of surface of soil to remove vegetation and plant debris) shall occur except in the distinct areas where improvements will be located. Depending upon tree and site conditions, the Project Arborist may call for mulch material (tree trimming chippings from a local tree service) to be delivered to the site and spread around trees as the project progresses
 - N. Other:
 1. Do not direct vehicle or equipment exhaust toward protection zones.
 2. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.
 3. Restrict vehicular traffic to areas outside the dripline of the tree, even when the entire dripline is not surrounded by tree protection fencing, whenever possible.

5.5 Quality Assurance

- A. Contractor shall employ the Project Arborist who is a member of the American Society of Consulting Arborists, Inc. (ASCA). The name and qualifications of the Arborist shall be submitted for approval by the City Representative.
- 1. Arboricultural work including tree removal, pruning and care for trees to remain shall be performed by personnel familiar with arboricultural work, under the supervision of an experienced professional Arborist and foreman at all times.
 - a. Best Management Practices, Tree Pruning. International Society of Arboriculture, PO Box 3129, Champaign, IL 61826-3129. 217-355-9411.
 - b. ANSI Z1331 American National Standards for Tree Care Operations. Secretariat: National Arborist Association, Inc. American National Standards Institute, 11 West 42nd St., New York, New York, 10036. (Covers safety)
 - c. ANSI A300 Pruning Standards. Ibid. (Covers tree care methodology).
- 2. Work in this Section shall be by a firm which has successfully completed landscape work similar in quality and extent to that indicated for this project for a period of not less than five (5) years. Supervisory personnel with experience on projects of similar size and extent shall supervise the work.

5.6 Approval of Trenching And Excavation

- A. The contractor shall obtain written approval from the City Representative and the Project Arborist prior to start of excavation work within the drip line of trees. The Project Arborist shall be retained as needed to provide written direction at the Contractor's expense.
- B. The Contractor is prohibited from using equipment for trench and excavation work within the tree drip line.
- C. In the event pruning is required for roots greater than 2" in diameter the Contractor shall receive written direction from the City Representative in coordination with Project Arborist prior to continuation of work.

5.7 Non-Approved Trenching

- A. In the event trenching or excavation is performed by the Contractor without the approval or not as shown on the Contract Drawings; the Contractor shall be subject to a fine equal to one half (½) day liquidated damages for every 50-feet.
- B. The only exception to paragraph 1.7A above is for trenching to a maximum of 3-feet as measured horizontally without approval at any particular location for the placement of pipe fittings and quick couplers outside the drip line of any tree.

5.8 Damage to Trees and Payment for Damage

- A. Any damage or injury to trees shall be reported within 6-hours to the City Representative.
- B. If the Contractor should cause minor damage as defined by nicked tree trunks; limbs and branches or broken branches to trees or shrubs during the course of construction; or scorched leaves from equipment exhaust, the following

mitigation, damage control measures and penalties shall apply, to be paid by the Contractor at the beginning of each billing period:

1. Root injury: Bark or trunk wounding: Current bark tracing and treatment methods shall be performed by a Qualified Tree Service or the Project Arborist within two days.
 2. Scaffold branch or leaf canopy injury: Remove broken or torn branches back to an appropriate branch capable of resuming terminal growth within five days. If leaves are heat scorched from equipment exhaust pipes, consult the Project Arborist within 6 hours.
 3. Fines for damage to trees: \$100 per inch of width (e.g. for bark scraping of trunk or branches), as measured by the Project Arborist. Other damage: the full or partial value of the tree (as per Trunk Formula Method, Replacement Cost Method or Cost of Repair Method, as determined by the Owner. For soil compaction (e.g. tree protection fencing was removed and vehicles were parked in the TPZ – the Project Arborist will require water jet irrigation, radial trench mulching, regular mulching and/or other treatments.
- C. The Contractor shall replace any trees or shrubs that suffer more serious damage, including damage to roots 2-inches in diameter or larger, during construction at no additional cost to the City. The City Representative shall determine the value of such replacement trees or shrubs. In addition to the Contractor's restoration approved by the City Representative, the Contractor will be assessed damages for the difference in the dollar value of the damaged tree or other plant material, and the dollar value of the replacement.
1. The dollar value will be determined by the City Representative from the "Guide for Establishing Values of Trees and Other Plants," prepared by the Council of Tree and Landscape Appraisers, current edition. Damages assessed will be deducted from moneys due or that may become due to the Contractor.
- D. The Contractor shall in addition be liable for the cost to the City for removing the damaged tree(s). This cost will cover 1.5 times the hourly wage of all person(s) at the site for the required hours to remove the tree(s) and haul offsite as directed by the City Representative.

5.9 Manual Excavation

Throughout the TP, as directed by the City Representative, the Contractor shall manually excavate the trench. No machinery shall be used in the areas so designated for manual excavation.

5.10 Damage to Lawns, Planted Areas, and Existing Irrigation Systems

- A. The Contractor's vehicles and equipment shall not be driven off-road except along designated routes as far away as practical from tree root zones.
- B. Vehicles and equipment shall be operated in such a manner as to avoid damage to tree and bush trunks, leaves and branches.

5.11 DG and Other Paving and Trenching and Installation of Underground Utilities near Tree Roots

- A. The Contractor shall not cut any tree roots over 2-inch in diameter unless approved by the Project Arborist. The Contractor shall bend and/or transition

underground conduit and piping so that the conduit or piping will thread between tree roots. This 2-inch diameter tree root guideline is dependent of the species of tree or bush. Various trees and bushes have a more fibrous root system, consequently, severing a large number of these roots can be as detrimental to certain species of trees as severing a fewer number of larger tree roots.

- B. When possible, trenches shall not be run on the side of the tree exposed to prevailing winds as roots are primarily anchored on the windward side. Trenches shall not be cut across more than on quadrant of the tree root zone.
- C. Excavated material (fill and overlay) shall not be deposited under the leaf/needle canopy of established trees. The excavated material shall be placed in piles along one side of a paved surface. In no case shall the Contractor place the excavated material closer than 6-feet from the base of a tree.
- D. The Contractor shall be responsible for identifying all underground lighting, electrical control, and irrigation utilities within the project site area. The City will not be providing any field marking service, protecting, and warning the Contractor of the underground facilities. As-built drawings and reference drawings are not available. As part of the contract work, the Contractor shall be required to locate, probe, determine, and flag or mark all underground facilities including, but not limited to, metal and plastic conduits and pipelines, sprinkler heads, quick couplers, valves boxes, controller boxes, pull boxes, prior to excavation.
- E. The Contractor shall replace all affected areas with new plantings, decomposed granite paving, or mulch per the drawings within 10 calendar days after beginning excavation. All trenches in pathways and planting areas shall be temporarily covered for immediate use. The Contractor shall not accumulate affected areas for group planting or group paving of trench.
- F. The Contractor shall locate quick couplers and lateral lines. The Contractor shall cap tees as shown on the drawings unless located in the field directly under the tree drip line. In these cases, obtain the City Representatives approval for relocating the fitting(s).

5.12 Temporary Protection of Existing Trees and Landscape Planting

- A. Tree Protection fencing for the overall Tree Protection Zone shall be composed of 6' tall chain link fence and posts. Refer to City Standards. Individual trees within the TPZ may require additional specific protection measures as determined by the Project Arborist in consultation with the Contractor.
- B. Temporary materials, new or used, that are adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable Laws and Regulations, and shall be approved by the City Representative.

5.13 Execution

- A. Tree Protection Inspections & Documentation: The Project Arborist must supervise any work within the tree protection zone, or when roots or branches of the tree are encountered or are expected to be encountered – whether or not these are within or above the Tree Protection Zone. The Project Arborist will inspect the site for tree protection specification compliance periodically from prior to demolition until immediately after construction is completed. If it is determined that the Project Arborist is required Contractor to give City at least 4 working days' notice to coordinate having Project Arborist scheduled. The resultant Tree Protection Inspection Report will be provided to the Contractor for action. The Tree Protection Inspection Report shall include status of the following:

1. Inspector name and contact information
 2. Date and time of inspection:
 3. Date of last inspection
 4. Reason for inspection
 5. Weather (approximate temperature, any rainfall, etc.)
 6. Current demolition or construction work on site
 7. Additional demolition or construction work completed since last inspection
 8. Tree protection fencing status (including tree protection signage)
 9. Mulching status (if required)
- B. Provide protection for existing landscape planting to remain including, but not limited to, trees, shrubs, and ground cover.
- C. Contractor shall provide Temporary Protection suitable for the protection of the landscape planting immediately adjacent to the construction limit of work line, and as directed by the City Representative.
- D. The Contractor shall coordinate all other trades and work.
- E. All trees within the Limit of Work (LOW) line are within the Tree Protection Zone and are to be enclosed by the overall perimeter fencing at the LOW. Minimum additional protection of 6' diameter around individual trees within the Tree Protection Zone as directed by the Project Arborist is required prior to demolition, grubbing, or grading.
- F. Pruning of trees to be retained for clearance requires supervision of the Project Arborist.
- G. Temporary Protection shall be kept in place for the duration of the Project, maintained during construction, and temporarily relocated as required by the progress of the construction at no additional cost to the City.
- H. Except in the distinct areas where improvements will be located and soil disturbance is necessary for construction, the existing natural topsoil, surface plant litter and live vegetation must remain in place, in order to protect the root system of the trees. No site clearing or grubbing (e.g. scraping of surface of soil to remove vegetation and plant debris) shall occur except in those areas approved for soil disturbance. Depending upon tree and site conditions, the Project Arborist may call for mulch material to be delivered to the site and spread around trees as the project progresses.
- I. Structures, underground features and other improvements to be removed within any tree protection zone shall use the smallest equipment possible, and the equipment shall sit outside the tree protection zone and as far from protected trees as possible. The Project Arborist should be on site to monitor demolition activity. If it is determined that the Project Arborist is required Contractor to give City at least 4 working days' notice to coordinate having Project Arborist scheduled.
- J. Unavoidable Vehicle Traffic within Tree Protection Zones: Where vehicles or equipment must travel within tree protection zones, protection of the soil to reduce compaction must be accomplished through one or more of the following, to be approved by the Project Arborist and the Owner:
1. Apply 6-12 inches of woodchip mulch to the area

2. Lay 1-inch thick plywood or 4 x 4 inch wood beams over a 4+ inch thick layer of wood chip mulch
 3. Apply 4 to 6 inches of gravel over a taut, staked geotextile fabric
 4. Placing commercial logging or road mats on top of a 4+ inch thick mulch layer
 5. Lay steel plates on top of supportive 4x4" lumber or railroad ties to span over tree root zones.
 6. Note that all stone, and base rock, all geotextile and any mulch exceeding 4 inches in depth will need to be removed after work in the area has been completed.
- K. Unavoidable foot traffic or worker access for construction within tree protection zones: The ground surface should be cushioned with one or more of the following, agreed upon by the Project Arborist and the Owner:
1. Flakes taken from bales of hay and overlain with ¾ or 1" thick sheets of plywood. Use at least 2 layers of flakes (or as many as needed to provide a 4 to 6 inch height. Move this protection as needed, but keep as much of this protection in place as possible.
 2. 6-inches of mulch overlain by ¾-inch thick plywood
 3. 8-12 inches of mulch spread over the ground surface
- L. Dealing with Roots that are exposed, must be removed or are damaged: Any soil disturbance within the tree protection zone and/or the tree dripline (whichever is greater) should be done with great care as follows:
1. If grading (cut or fill) will occur, then hand or air-spade excavate of a root observation and root cutting trench at the edge of soil disturbance near a protected tree(s): this trench must be air spade or hand dug to the depth of the excavation at the edge of the soil disturbance. Roots that must be removed within the soil disturbance area shall be exposed and cut cleanly within this trench. The excavation of this trench must not cause the soil disturbance to come any closer to the tree than is necessary for construction of the improvement. The trench must be at least 12 inches wide. Within the trench, cut exposed roots that need to be removed cleanly with sharp pruning tools as specified. The Project Arborist should be present to inspect the exposed roots after the trench has been dug and also to observe, supervise and assist with the root cutting. If it is determined that the Project Arborist is required, Contractor is to coordinate scheduling so that City is given at least 4 working days' notice. If the Project Arborist is not present then leave cut root pieces close to the trees from which they were cut, for the arborist to check at a later time.
 2. Underground Utility Trench excavations: must be dug by hand, air spade or by mechanically tunneling under roots within the area underneath the dripline of trees or within the fenced-off TPZ for that tree. Trench cuts should be kept moist by spraying with water and covered until backfilled.
 3. When mechanical tunneling (boring) is substituted for open trenching, maintain the following depths per trunk DBH. The nearest edge of the excavation for launching and recovery pits should be located at least the 5xDBH distance from the edge of the trunk of the tree. Less root damage will occur if the tunnel is located directly underneath the trunk versus to the side of the trunk.

<9"-9" measured at 6"	2.5' deep
10"-14" measured at 54"	3.0' deep

15"-19" measured at 54"	3.5' deep
>19" measured at 54"	4.0' deep

4. Root cutting tools: The following root uncovering and cutting tools are mandatory:
 - Round-blade shovel
 - Large mattock
 - Tree pruning saws designed for root cutting
 - Pruning loppers with minimum 1-inch diameter cutting capacity
5. The following tools are recommended:
 - Hand mattock
 - Hand trowel shovel
 - Recipro-saw with wood cutting blades (especially pruning blades – have several new blades on hand)
 - Concrete circular saw (rock or root cutting saw, e.g. Stihl TS-400 with a 12-inch blade, preferably carbon or diamond-tipped – start with a new blade and have extra blades on hand).
 - Chain saw (for large roots, e.g. over 4 inches in diameter start with a new chain and have extra chains on hand)
6. Professional root cutting equipment such as a Dosco™ or Vermeer™ root cutting machine may be used for cutting roots over long linear distances, if pre-approved by the Project Arborist.
7. Cutting the roots: Roots that are 2 inches or greater in diameter that must be removed or are damaged must be cleanly cut. Roots smaller than 2 inches in diameter are encouraged to be cut. Roots larger than 4 inches in diameter should not be cut without the Project Arborist's approval. Leave existing roots in place when possible (e.g. routing pipes underneath if this is acceptable). When roots must be cut use appropriate root cutting tools, as specified above. Tools must be sharp and in good condition. Cut roots at a right angle when possible. Cut roots back to branch roots growing in a direction away from the work area when possible. When roots are cut back to a trench wall, cut them flush with the face of the wall. Do not break, tear or chop roots. Do not use a backhoe or other equipment that rips, tears, or pulls roots. Place all cut roots in a pile near the tree where they were cut so that the Project Arborist can review and document.
8. Covering exposed and/or cut roots and keeping them moist until backfill or other permanent soil covering is in place: Areas of soil disturbance with tree roots (even if roots are not visible) should be sprayed with water on at least a daily basis if necessary in order to keep the exposed soil and roots as moist as possible. On warm days several sprayings may be necessary. This wetting down should continue until permanent covering is placed on the exposed soil surface or trenches are backfilled. Mulch material placed on level areas will keep those areas moister much longer than if the soil is left bare. Trench walls should be sprayed with water and covered with 2 layers of natural (not synthetic) burlap (two or more layers are preferable), discarded carpeting, old sheets or blankets, cardboard sections, organic mulch held in place with plywood or other materials that will perform the same function and are safe for tree roots.

- M. Structure demolition: structures should be collapsed inward and/or away from adjacent trees. Demolition equipment must sit outside tree protection zones.
- N. Pavement removal: This may be done with a backhoe if done carefully so as not to damage the trunk of the tree, and to disturb the roots of the tree as little as possible. If the backhoe, excavator or heavy equipment bucket or other soil removing device is working within 6 feet of the trunk of the tree, then the trunk must have ¾-inch thick plywood placed in front of it, or the trunk must be wrapped with straw wattle. The backhoe or other equipment must sit on existing pavement or outside the TPZ and work backwards. Alternatively, pavement may be broken into manageable pieces (e.g. by hand with jackhammer) and hand placed onto a loader. Where roots larger than 2 inches in diameter have grown into the existing base course material, use the existing material as the new material and do not remove and replace it. Any roots that are exposed or damaged must be appropriately cut, covered and kept moist as described previously.

5.14 Preparation

- A. Stake the location of Temporary Protection barriers and fencing as noted above for the approval of the City Representative prior to installation of Temporary Protection fencing. Place location stakes at corners and ends and 30 feet on center maximum.
- B. Notify the City Representative at least two weeks in advance of the date for on-site review of the staking.

5.15 Installation

- A. Install Temporary Protection for tree and landscape planting, as specified herein and as approved in the field by the City Representative and the Project Arborist.
- B. Fencing to be relocated closer to trees to remain to accommodate the sequence of construction shall be reviewed by the City Representative and the Project Arborist prior to relocation. No removals or construction shall occur without the City Representative's and Project Arborist's approval of the new fence location.
- C. Completely remove Temporary Protection, including foundations, associate materials and equipment at the completion of the Project or as directed by the City Representative.
- D. Restore and recondition areas of site damaged or disturbed by barrier installation and removal.
- E. Dust Control Program. During periods of extended drought, wind or grading, spray wash trunk, limbs and foliage to remove accumulated construction dust. The Project Arborist may request that this be done at their discretion.

5.16 Prohibited Activities:

- A. The following are activities prohibited under existing tree canopies and within protected landscape planting areas:
 - 1. Excavating or trenching under tree canopies is prohibited and shall be permitted only under the following conditions:
 - a. When excavating or trenching within the canopy of trees to remain, the Owner shall be given 48 hours notice. Exercise extreme care during excavation to prevent damage to roots and in a manner that will

cause minimum damage to the root system. Such work shall not occur without the Project Arborist to perform compensatory root and branch pruning.

- b. Prune injured roots cleanly. Backfill as soon as possible.
 - c. Where tunneling around roots is not practical, roots shall be cut off approximately six inches (6") from construction.
 - d. Exposed roots shall not be allowed to dry out before permanent backfill is placed. Temporary earth cover shall be provided, or exposed roots shall be packed with wet peat moss or four (4) layers of wet untreated burlap and temporarily supported and protected from damage until permanently covered with backfill.
 - e. Thinning shall not remove more than thirty percent (30%) of the existing leaf surface.
 - f. Ripping or tearing of roots will not be allowed.
- B. Placing backfill under protected trees unless indicated otherwise. Where fill is required for grading, and as indicated on the Drawings, do not fill above existing grade line at trunks. Fill soil must percolate at a rate of 1" per hour minimum.
 - C. Damage to trunk, canopy, or limbs caused by maneuvering of vehicles or equipment, or stacking of materials and equipment.
 - D. Driving or parking vehicles; storage of vehicles, equipment, or supplies.
 - E. Disposing of paint, petroleum products, dirty water, soil sterilants, concrete slurry or other deleterious materials on or around roots or on any landscape areas. Preferably, have a designated washout pit far from landscape areas.
 - F. Changing site grades which cause drainage to flow into or to collect near protected trees.
 - G. Using protected trees as support posts, power poles, crane stays, sign posts, or anchorage for ropes, guy wires, power lines, or other similar functions.
 - H. Damage to root system from flooding, erosion, excessive wetting or drying resulting from dewatering or other operations.
 - I. Excessive water or heat from equipment, utility line construction, or burning of trash under or near shrubs or trees.
 - J. No herbicides are allowed to be used underneath pavement or in any other area on site.
 - K. Any herbicides used on site must be labeled as "safe to use around trees".
 - L. Liming of the soil for soil compaction is not allowed near trees: Liming is toxic to plant roots! If there will be any liming on site consult with the Project Arborist long beforehand in order to make sure that the lime is not anywhere near trees or other vegetation that is planned to be saved. A very large lime-free buffer zone (e.g. at least 50 feet) from the dripline of any trees or plants should be maintained between vegetation and liming.
 - M. Do not use trees as a winch support.
 - N. Do not hang, tie, attach, lean against or otherwise allow materials, supplies, debris or other things to contact trees.

- O. Trees shall not be fertilized before, during or after the construction process unless specifically prescribed by the Project Arborist. Most fertilizer applications to established trees in this area are unnecessary and often cause more harm than good. For example, nitrogen increases plant metabolism and can put additional stress on trees that are already under stress from site (environment) changes and root damage such as commonly occurs during construction projects. Fertilization can also promote unnecessary growth of foliage which removes energy reserves from roots and increases the tree water requirement. Fertilizers are salts that increase the osmotic potential of the soil and can magnify drought stress injury to plants.

5.17 Replacement of Damaged Landscape Planting

- A. Trees and plants destroyed or damaged beyond repair due to Contractor's negligence, failure to provide adequate protection, or failure to perform recommended selective pruning shall be compensated by the Contractor at no additional cost to the City.
 - 1. Damage beyond repair that requires replacement shall be determined by the City Representative.
 - 2. Replacement shall include the replacement plant material, transportation, installation, a 30-day maintenance period, and a one year warranty.
 - 3. Planting location for replacements may be different from the original location and shall be determined by the City Representative.
- B. Replace shrubs, ground cover and turf with plants similar in species, size and shape.
- C. Replace trees with plants of same species, size and shape.
- D. Replacements for trees of 2"-8" caliper shall be replaced with similar sized plants; trees over 8" caliper shall be 60" box size.
- E. Since age and size of existing tree may prohibit replacement with same size tree, the difference in caliper between size of damaged tree and replacement of tree shall be compensated by the Contractor.
- F. Contractor shall fell trees to be removed so that trees to remain are not injured.

- 6. Insurance Requirements.** The insurance requirements under Section 4.3 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.

6.1 Builders Risk Insurance Waived. The builder's risk insurance policy requirement set forth in subsection 4.3(A)(3) of the General Conditions is hereby waived and does not apply to this Contract.

END OF SPECIAL CONDITIONS

Project Forms

Contractor must use the Project forms provided with these Contract Documents, as specified in the Contract Documents, in addition to any City-required forms provided at the pre-construction conference. The following forms are included in the Project manual:

Substitution Request Form

Indemnity Agreement (Site Investigation)

Release of Claims Form

Insurance Forms:

- *Insurance Forms Instructions*
- *Certificate of Insurance to the City of Cupertino*
- *Additional Insured Endorsement/Endorsement of Primary Insurance/Notice of Policy Cancellation Endorsement*
- *Comprehensive General Liability Commercial General Liability Endorsement of Aggregate Limits of Insurance Per Project*
- *Waiver of Subrogation Endorsement Workers' Compensation Insurance*

Substitution Request Form

This Substitution Request Form must be used for each requested substitution, including pre-bid and post-award requests. Reference Section 12 of Instructions to Bidders and/or Section 7.7 of the General Conditions for applicable substitution request requirements. The form must be completed fully and legibly as directed using additional pages if needed, dated, signed and submitted with all attachments via _____ <email/mail/other> to _____ <name and title> at _____ <email/address>.

1. Bidder/Contractor Name: _____

2. Subcontractor/supplier Name (if applicable): _____

3. Precisely identify by Specification, Drawing and/or detail number(s) the specified item that is the subject of this request (the "Specified Item"): _____

4. Identify and describe the proposed substitution ("Proposed Substitution"): _____

5. Explain the reason for requesting substitution of the Specified Item: _____

6. Explain why the Proposed Substitution is equal or superior to the Specified Item. Attach manufacturer's literature, including complete technical data and laboratory test results, if applicable. _____

7. Describe the differences between the Proposed Substitution and the Specified Item:

8. Provide complete and specific information on changes to Drawings and Specifications that will be required for the Proposed Substitution, attaching separate sheets, including drawings, as needed:

9. Explain how the Proposed Substitution will affect dimensions shown on the Drawings:

10. Are the manufacturer's guarantees and warranties on the Proposed Substitution equal or superior to those on the specified items? ___ Yes / ___ No

If yes, describe each difference in detail:

11. If approved, what effect will the substitution have on other contractors, trades, or suppliers?

12. Will granting the requested substitution cause any schedule delay? ___ Yes / ___ No

If yes, explain:

13. What is the estimated increase or decrease in the Contract Price if the Proposed Substitution is approved?

Increase cost by \$ _____ or Decrease cost by \$ _____ or No change _____

14. If the Proposed Substitution has a color or pattern, provide a color board showing Proposed Substitution in relation to the other adjacent colors and patterns.

15. List each document attached to this Substitution Request Form:

_____	_____
_____	_____
_____	_____
_____	_____

By signing below, the Bidder or Contractor submitting this request for substitution certifies that the function, appearance, and quality of the Proposed Substitution is equivalent or superior to those of the Specified Item.

Submittal Date: _____

Submitted by:

Bidder/Contractor Name

For Use by City:

____ Accepted ____ Accepted as Noted

Signature

____ Not Accepted ____ Received Too Late

Name / Title

By: _____
City's Representative

Address

Date: _____

City/State/Zip

Remarks: _____

Telephone: _____

Date: _____

Email: _____

END OF DOCUMENT

**Indemnity Agreement
(Site Investigation)**

This Indemnity Agreement for site investigation ("Agreement") is entered into by and between the City of Cupertino ("City") and _____, a licensed contractor and potential bidder ("Bidder") for the City's S. De Anza Boulevard Medians-Phase 1 Project ("Project"), and is effective upon approval and execution by City, below. In consideration of City's permitting Bidder to have access to, and to conduct investigations, tests and/or inspections on, the Project Site ("Site"), Bidder hereby agrees as follows:

1. To the fullest extent permitted by law, Bidder will 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, costs and expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with investigation of the Site, including, but not limited to, testing, inspections, ingress or egress (collectively, "Site Investigation"), by Bidder, its employees, prospective or current subcontractors, representatives, or agents regardless of any contributory negligence by any Indemnitee.

2. Bidder assumes all risk for any injury or damages arising from Bidder's entry onto or activities at the Site, and fully waives and releases the City from any liability for any injury or damages arising from or pertaining to existing conditions at the Site. Bidder waives the provisions of California Civil Code Section 1542 which provides as follows:

A general release does not extend to claims that the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her, must have materially affected his or her settlement with the debtor.

3. Bidder will promptly repair any damage to the Site or adjacent property resulting from the Site Investigation, and comply with and be subject to all other requirements set forth in section 8.4, of the Instructions to Bidders (Pre-Bid Investigation).

4. Bidder has attached a certificate(s) of insurance evidencing insurance coverage that meets or exceeds the insurance requirements included in the Project General Conditions, using a form or forms acceptable to the City.

5. This Agreement is fully effective and binding on Bidder regardless of whether Bidder submits a bid for the Project, and regardless of whether Bidder is awarded a contract for the Project.

Bidder Business Name

Date

Signature

Signature

Name/Title (If Corporation: Chairman, President or Vice President)

Name/Title (If Corporation: Secretary, Assistant Secretary, Chief Financial Officer or Assistant Treasurer)

Agreed and Approved by the City of Cupertino:

Signature

Date

Name/Title

Release of Claims

Contractor Name: _____
Payment Application Number: _____
Amount Requested: \$ _____

1. Undisputed Amounts. Upon receipt of all undisputed amounts ("Undisputed Amounts") from the City of Cupertino ("City") for Work included in the above-referenced payment application, Contractor releases all claims against the City that relate to the Undisputed Amounts. Contractor's release is a full, final, and general release of all claims, demands, actions, causes of action, obligations, costs, additional compensation, extension of the Contract Time, expenses, damages, losses and liability against the City, its City Council, collectively and individually, and all of City's officers, officials, employees, consultants, inspectors, agents, representatives, assignees or transferees with respect to the Undisputed Amounts.

2. Civil Code Waiver. With respect to the above release for the Undisputed Amounts, Contractor waives the provisions of Civil Code section 1542, which states:

"A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her must have materially affected his or her settlement with the debtor."

3. Disputed Claims. Pursuant to Public Contract Code section 7100, Contractor's release and waiver of the claims related to the Undisputed Amounts does not extend to disputed contract claims in stated amount excluded by Contractor, as follows:

<u>Claim No.</u>	<u>Date</u>	<u>Amount Claimed</u>	<u>Description</u>
------------------	-------------	-----------------------	--------------------

[Information may be attached on a separate page]

4. Legal Effect. By signing below, Contractor agrees that this Release of Claims will operate as a complete defense for City against any later attempts to seek recovery or damages of any kind against City that relate to the Undisputed Amounts.

5. Authorization and Execution. This Release of Claims must be signed by Contractor's authorized representative. If Contractor is a partnership this Release of Claims must be signed in the partnership name by a general partner with authority to bind the partnership. If Contractor is a corporation this Release of Claims 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 Release of Claims, under California Corporation Code section 313. Each individual signing below warrants that he or she is fully authorized to execute this Release of Claims on behalf of Contractor and that it will be binding against Contractor.

Contractor hereby agrees to all terms and conditions of this Release of Claims:

Contractor Business Name

Date

Signature

Signature

Name/Title (If Corporation: Chairman, President or
Vice President)

Name/Title (If Corporation: Secretary, Assistant
Secretary, Chief Financial Officer or Assistant
Treasurer)

Agreed and Approved by the City of Cupertino:

Signature

Date

Name/Title

Insurance Forms

Insurance Forms Instructions

For Items 2, 3 and 4, the forms provided by the City of Cupertino must be used. Forms other than these will not be accepted.

All documents must be originals - submit in triplicate.

1. *Certificate of Insurance to the City of Cupertino* - **must** be completed by the insurance agent **or must** provide a certificate on the company's form. They **must** contain the same information.
2. *Endorsement of Additional Insured and Primary Insurance and Notice of Cancellation* - **must** be signed by the insurance agent for general liability and automobile liability only.
3. *Comprehensive General Liability/Commercial General Liability Endorsement of Aggregate Limits of Insurance Per Project* - **must** be signed by the insurance agent for general liability only.
4. *Waiver of Subrogation Endorsement Worker's Compensation Insurance* - **must** be signed by the insurance agent for worker's compensation only.

CERTIFICATE OF INSURANCE TO THE CITY OF CUPERTINO

This certifies to the City of Cupertino that the following described policies have been issued to the insured named below and are in force at this time.

Insured: _____

Address: _____

Description of operations/locations/products insured (show contract name and/or number, if any):

=====

WORKER'S COMPENSATION

* Statutory Min.

* Employer's
Liability

(name of insurer)

\$ _____ \$ _____ \$ _____

Insurance Company's State License No. _____

=====

Check Policy Type:

Each Occurrence

\$ _____

COMPREHENSIVE GENERAL LIABILITY

Premises/Operations

General Aggregate

\$ _____

(if applicable)

Owners & Contractors Protective

Aggregate

\$ _____

Contractual for Specific Contract

Personal Injury

\$ _____

Products Liability

XCU Hazards

Broad Form P.D.

Fire Damage (any one fire)

\$ _____

Severability of Interest Clause

Personal Injury with

Medical Expense

\$ _____

Employee Exclusion Removed

or

COMMERCIAL GENERAL LIABILITY

(any one person)

Self-Insured

Retention

\$ _____

(name of insurer)

Policy No. _____

Expiration

Date _____

=====

AUTOMOTIVE/VEHICLE LIABILITY
DAMAGE
Commercial Form
Liability Coverage

BODILY INJURY
Each Person

PROPERTY
Each Accident

\$ _____

\$ _____

Each Accident

(name of insurer)

\$ _____ or

Combined Single Limit

\$ _____

Policy No. _____

Expiration Date _____

=====

BUILDER'S RISK "ALL RISK"

This is to certify that the following policy has been issued by the below-stated company in conformance with the requirements of the project documents and is in force at this time.

(Name of insurer)

Policy No. _____

Expiration Date _____

Limits of Liability: _____

Deductible: _____

(agent's initial)

A copy of all Endorsements to the policy(ies) which in any way limit the above-listed types of coverage are attached to this Certificate of Insurance.

This Certificate of Insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or any other document with respect to which this Certificate of Insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

IT IS HEREBY CERTIFIED that the above policy(ies) provide liability insurance as required by the Agreement between the City and the insured.

By: _____

Dated: _____ 20____

Attach Certificate of Insurance and Additional Insured Endorsement on company forms.



**ADDITIONAL INSURED ENDORSEMENT
and
ENDORSEMENT OF PRIMARY INSURANCE
and
NOTICE OF POLICY
CANCELLATION ENDORSEMENT**

Project Title and Number: S. De Anza Boulevard Medians-Phase 1, 2015-21.02

In consideration of the policy premium and notwithstanding any inconsistent statement in the policy to which this Endorsement is attached or any other Endorsement attached thereto, it is agreed as follows:

The City of Cupertino ("City") and its directors, officers, engineers, agents and employees, and all public agencies from whom permits will be obtained and their directors, officers, engineers, agents and employees, and the State of California, and its officers, agents and employees, are hereby declared to be additional insureds under the terms of this policy, but only with respect to the operations of the Contractor at or upon any of the premises of the City in connection with the Contract with the City, or acts or omissions of the additional insureds in connection with, but limited to its general supervision or inspection of said operations.

The insurance afforded by this policy is primary insurance, and no additional insurance held or owned by the designated additional insured(s) shall be called upon to cover a loss under said additional policy.

Cancellation Notice. The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits, or materially altered, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City of Cupertino ("City"). Such notice shall be addressed to the City as indicated below.

POLICY INFORMATION

1. Insurance Company: _____
2. Insurance Policy Number: _____
3. Effective Date of this Endorsement: _____ 20 _____
4. Insured: _____

All notices herein provided to be given by the Insurance Company to the City in connection with this policy and these Endorsements, shall be mailed to or delivered to the City at 10300 Torre Avenue; Cupertino, California 95014.

[Signature on following page.]

I, _____ (print/type name)
warrant that I have authority to bind the below listed Insurance Company and by my signature
hereon do so bind this Company.

Signature of Authorized Representative: _____
(Original signature required on all Endorsements furnished to the City)

Names of
Agent/Agency: _____ Title: _____

Address: _____ Telephone: _____

_____ Facsimile: _____



**COMPREHENSIVE GENERAL LIABILITY
COMMERCIAL GENERAL LIABILITY
ENDORSEMENT OF AGGREGATE LIMITS OF
INSURANCE PER PROJECT**

Project Title and Number: S. De Anza Boulevard Medians-Phase 1, 2015-21.02

In consideration of the policy premium and notwithstanding any inconsistent statement in the policy to which this Endorsement is attached or any other Endorsement attached thereto, it is as follows:

This Endorsement modifies the insurance provided under the General Liability Coverage part of the below-referenced policy of insurance.

The general aggregate limit under LIMITS OF INSURANCE applies separately to the project described as

POLICY INFORMATION

1. Insurance Company: _____
2. Insurance Policy Number: _____
3. Effective Date of this Endorsement: _____ 20__
4. Insured: _____
5. Additional Insured: City of Cupertino, its directors, officers, agents and employees.

All notices herein provided to be given by the Insurance Company to the City in connection with this policy and this Endorsement, shall be mailed to or delivered to the City at 10300 Torre Avenue; Cupertino, California 95014.

I, _____ (print/type name)
warrant that I have authority to bind the below listed Insurance Company and by my signature hereon do so bind this Company.

Signature of Authorized Representative: _____
(Original signature required on all Endorsements furnished to the City)

Names of
Agent/Agency: _____
Title: _____
Address: _____

Telephone: _____
Facsimile: _____



**WAIVER OF SUBROGATION ENDORSEMENT
WORKER'S COMPENSATION INSURANCE**

Project Title and Number: S. De Anza Boulevard Medians-Phase 1, 2015-21.02

In consideration of the policy premium and notwithstanding any inconsistent statement in the policy to which this Endorsement is attached or any other Endorsement attached thereto, it is agreed as follows:

It is agreed that with respect to such insurance as is afforded by the policy, the Insurance Company waives any right of subrogation against the City of Cupertino, and each of its directors, officers, agents, consultants and employees by reason of any payment made on account of injury, including death resulting therefrom, sustained by any employee of the insured, arising out of the performance of the above-referenced Contract.

POLICY INFORMATION

- 1. Insurance Company: _____
- 2. Insurance Policy Number: _____
- 3. Effective Date of this Endorsement: _____ 20 _____
- 4. Insured: _____

All notices herein provided to be given by the Insurance Company to the City in connection with this policy and this Endorsement, shall be mailed to or delivered to the City at 10300 Torre Avenue; Cupertino, California 95014.

I, _____ (print/type name)
warrant that I have authority to bind the below listed Insurance Company and by my signature hereon do so bind this Company.

Signature of Authorized Representative: _____
(Original signature required on all Endorsements furnished to the City)

Names of Agent/Agency: _____ Title: _____

Address: _____ Telephone: _____

_____ Facsimile: _____

END OF DOCUMENT

DE ANZA BOULEVARD MEDIANS – PHASE 1
City of Cupertino, CA

TECHNICAL SPECIFICATIONS

December 29, 2017

Prepared by:

John Cahalan, Landscape Architect

15559 Union Avenue, Suite 206

Los Gatos, California 95032

Phone (408) 358-5122

Mobile (408) 656-2713

john.cahalan@comcast.net

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Division 16 Electrical

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SECTION 02100 CLEARING AND DEMOLITION

PART 1 - GENERAL

1.1 SCOPE

- A. This section shall consist of all clearing, grubbing, and removals as shown and specified, including but not limited to trees, shrubs, ground cover, soil berms, irrigation components, wood arbor structures, misc. asphalt paving, concrete paving, curbs, and all other existing site features indicated for removal on the "Demolition Plan".
- B. Related work specified elsewhere:
 - 1. Earthwork and Grading - Section 02210

1.2 STANDARDS

- A. All work shall conform to the codes and regulations of the City of Cupertino and to the State of California Department of Transportation Standard Specifications (DTSS), Section 16-1, except of measurement and payment requirements.

PART 2 - PRODUCTS (none)

PART 3 - EXECUTION

3.1 CLEARING

- A. Contractor shall review the exact limits of work and extent of materials to be removed with the City Representative prior to commencement of work.
- B. Strip all organic and vegetable matter from unpaved areas to be improved to a depth sufficient to remove such material. The Contractor shall protect surrounding areas from damage by equipment or construction operations.

3.2 REMOVALS

- A. Contractor shall strip the site of all materials not to remain as part of the finished work. All such materials shall be legally disposed of off-site at contractor's expense.

3.3 WORKMANSHIP

- A. Where required, saw-cut concrete or other materials in a neat, clean manner so as not to damage adjacent pavements or structures.
- B. All work within the drip line of trees to remain shall be accomplished in a careful manner. See plans and arborist report for tree preservation requirements.
- C. Where any marked or unmarked utility lines or other underground obstruction or piping may be encountered within the work area, notify the City's Representative or the agencies or service utility companies having jurisdiction thereof, and take necessary measures to prevent interruption of service.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 4, "Clearing and Grubbing," Bid Item No. 5, "Remove Tree," and Bid Item No. 7, "Remove and Dispose of Existing Arbor Structures" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02100

SECTION 02210 EARTHWORK AND GRADING

PART 1 - GENERAL

1.1 SCOPE

- A. Perform all rough grading work as shown and specified including, but not necessarily limited to, excavation, removal and off-haul of native soil and berms in all landscaped areas, including subgrade compaction. The provision and installation of the six-inch layer of import topsoil will be part of Section 02920 – Landscape Soil Preparation.
- B. Related work specified elsewhere:
 - 1. Clearing and Demolition - Section 02100
 - 2. Landscape Soil Preparation - 02920
 - 4. Poured-in-Place Concrete - Section 03300

1.2 STANDARDS

- A. Unless otherwise shown or specified, 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 measurement and payment requirements.

1.3 QUALITY CONTROL

- A. All excavation, placement and compaction and preparation of subgrade shall be reviewed by the City Representative. Contractor shall schedule work and notify City's Representative two to three working days in advance of each portion of grading operations for their review, potential testing and approval.
- C. Compaction Test Method: Where referred to in these specifications, "compaction" or "relative compaction" shall mean the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material as determined by ASTM D-1557-78.
- D. The Contractor shall provide compaction testing as required to confirm compliance with these specifications and drawings. All costs of such testing will be borne by the Contractor.
- E. Engineer shall be present during all site clearing and grading operations to test and to observe earthwork construction. This representative shall be notified at least 48 hours prior to commencement of any grading operations to allow for discussion and planning with the earthwork, underground and paving contractors.

1.4 LAYOUT & GRADING CONTROL

- A. Grade the site to the tolerances shown. Vertical control is established by the bench mark indicated on the drawings.
- B. The Contractor shall engage the services of a Land Surveyor licensed in California to lay out the work. This surveyor shall certify that the completed work is done in a manner that the City Representative can check for conformance as the work progresses.
- C. Tolerances: Site grading shall be to the lines and elevations shown on the Drawings, plus or minus 1.0 foot horizontally and plus or minus 0.1 foot vertically.
- D. Dewatering: No soil shall be compacted during periods of rain or when the ground is not drained of all free water. Soil which has been stockpiled and wetted by rain or by any other cause shall not be compacted until completely drained and until the moisture content is within the limits approved by the City Representative.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Existing material may be used for fill after removal of all debris, and after being moisture-conditioned, if it meets the criteria in paragraph B below.
- B. Soil imported to the site and used for compacted fill shall be free of perishable organic material, and shall meet the following requirements:

Physical: 100% passing 4 inch size, 10 to 75% passing the No. 200 sieve Plasticity Index of 12 maximum when tested in accordance with ASTM D 4318-75

Chemical: Salinity Limit (EC_e) saturation extract of 4.0 sodium (SAR) limit of less than 8.0.
Boron-saturation extract concentration less than 1.0 ppm.

Minor quantities of material not meeting the above gradation may be mixed and blended with other on-site material if the resulting mixture conforms to the specifications. If the quantity of material not in conformance with the specifications becomes excessive in the opinion of the Engineer, it shall be removed from the site.

- C. Topsoil: See Landscape Soil Preparation - Section 02920 for import topsoil requirements.

PART 3 - EXECUTION

3.1 ROUGH GRADING

- A. Prior to commencement of site grading work the contractor shall notify the City's Representative that the site has been cleared. The City's Representative shall have sufficient time to review the site. Site grading shall not commence until the City's Representative has completed review of the site and has given approval to proceed.
- B. Perform all cut and fill required to bring the site to the grades indicated, with proper allowances for finish materials such as paving and base. Prior to placing new fill the exposed ground surface should be scarified to a depth of six inches (or greater as indicated on plans), brought to a near optimum moisture content and compacted. Areas to be planted shall be compacted to 85 percent and areas to be paved shall be compacted to at least 90 percent relative compaction as determined from ASTM Test Method D 1557-78.
- C. Placement and Compaction: Approved fill material shall be placed in layers of six to eight inches or less in loose thickness and moisture-conditioned as necessary to achieve a moisture content suitable for recompacting. Fill material shall be compacted with equipment of such weight and design as necessary to obtain the specified compaction. Fill shall be compacted to 85 percent relative compaction in areas to be planted and at least 90 percent relative compaction in areas to be paved unless otherwise directed. In pavement areas, the upper 9 inch of subgrade shall be a minimum relative compaction of 95 percent. The resulting subgrade should be smooth and essentially unyielding, In planting areas, the upper 8 inch shall be a minimum relative compaction of 85 percent. Between successive lifts, the fill surface shall be scarified or otherwise processed to obtain satisfactory bonding between the fill lifts.
- D. Recompaction: Where, in the judgment of the City's Representative, the moisture content is not suitable or insufficient compaction has been obtained, the fill shall be reconditioned and/or recompacted to the specified density prior to placing any additional fill material. The Contractor shall be responsible for placing and compacting approved fill material in accordance with these specifications.

If the Contractor fails to meet the compaction requirements, he shall reduce his rate of haul, furnish additional spreading, moisture conditioning and/or compacting equipment or make any other adjustments necessary to produce a satisfactorily compacted fill.

- E. All excess material and all material that is unsuitable for paving subbase or finish grading shall be disposed of off-site at Contractor's expense.
- F. Where any marked or unmarked utility lines or other underground obstruction or piping may be encountered with the work area, notify the City's Representative or the Agencies or service utility companies having jurisdiction thereof, and take necessary measures to prevent interruption of service (if live). Should such lines or service be damaged, broken, or interrupted through the Contractor's own negligence, those services shall be repaired immediately and restored by him at this own expense. Abandoned lines, meters and boxes, obstructions or piping, shall be removed, plugged or capped in accordance with the requirements and approval of the agencies affected.
- G. Rock Removal: All rocks eight cubic inches or larger shall be removed completely from the top 6 inch of subgrade prior to placement of topsoil in all planting areas. (See Section 02920 - Landscape Soil Preparation, for additional requirements.) All rocks not meeting criteria for fill material shall be legally disposed of offsite as the Contractors own property.
- H. Earthen Swales: Shall be constructed as shown and described on the drawings. All swales shall provide positive drainage.

3.2 EROSION CONTROL AND CLEAN-UP

- A. Spillage: The Contractor shall prevent spillage when hauling on or adjacent to any public street or highway. In the event that such occurs, the Contractor shall remove all spillage and sweep, wash or otherwise clean such street or highways.
- B. Dust Control: The Contractor shall take all precautions needed to prevent a dust nuisance to adjacent public and private properties and to prevent erosion and transportation of soil to adjacent properties due to work under this contract. Any damage so caused by the Contractor's work under this contract shall be corrected or repaired by the Contractor at no cost to the City. In the event the Contractor fails to take such precautions or make such corrections or repairs promptly, the City may take such steps as he may deem necessary and deduct the cost of the same from the monies due to the Contractor.

- C. Clean-up: The job site shall be kept neat and clear at all times, with all public walks swept clean at the end of each day, and all materials neatly stored. Upon completion of the work under this Section, remove immediately all surplus materials, rubbish and equipment associated with or used in the performance of this work. Failure to perform such cleanup operations within 48 hours of notice by the City's Representative shall be considered adequate grounds for having the work done by others at this subcontractor's expense.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 6, "Excavate and Dispose of Soil" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02210

SECTION 02810 IRRIGATION

PART 1 - GENERAL

1.1 SCOPE

- A. Work in this section includes installation of a complete automatic irrigation system, including excavation for points of connection, trenching, piping, equipment, electrical components, maintenance of the system, and incidentals related thereto.
- B. Related work specified elsewhere:
 - 1. Site Concrete - Section 03300
 - 2. Landscape Soil Preparation - Section 02920

1.2 QUALITY CONTROL

- A. Standards: Unless otherwise shown or specified, 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 measurement and payment requirements.
- B. Reviews: Contractor shall specifically request the following reviews prior to progressing with the work:
 - 1. Layout of system
 - 2. Points-of-connection excavation
 - 3. Trenching and pipe assembly
 - 4. Coverage adjustment of all heads, valve box installation
 - 5. Operation of system

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Quality: All materials shall be new and the best quality available unless otherwise specified. All materials shall be clearly marked by manufacturer on all material, containers or certificates of contents for inspection.

- B. Plastic Pipe and Fittings: All pipe unless otherwise noted shall be polyvinyl chloride schedule 40 (CS207-60), all solvent weld fittings, if used, shall be Schedule 40, or Schedule 80 as called for on details. Solvent for piping shall be as recommended by manufacturer. All pipe shall be clearly labeled with manufacturer type and specification numbers.
- C. Control Wire: Type UF, 600 v. insulation, minimum size #14, copper, common ground white, U.L. approved for irrigation control use; splices shall be "Scotch-Lok" seal pack or equal with wire-nuts enclosed in resin-filled envelopes.
- D. Valve Boxes: precast concrete or plastic of type and size indicated. Free of all cracks, chips or structural defects. Boxes subject to vehicular traffic shall be concrete and have heavy-duty steel covers.
- E. Irrigation equipment: Refer to drawings. Any desired substitutions require submittals in duplicate for specific written approval.
- F. Thread Sealant: Permatex Thread Sealant, part #14H, white in color.

PART 3 - EXECUTION

- 3.1 GRADING: Contractor shall be responsible for installing all irrigation features to their finished grade and at depths indicated. All rough grading shall be completed before trenching commences.
- 3.2 LAYOUT AND TRENCHING: All features of the irrigation system shall be staked and pipe alignments marked prior to trenching for review by the Owner's Representative.
- 3.3 BACKFILLING: Do not cover joints until system has been reviewed by the Owner's Representative. Backfill with damaging rocks and debris shall not be permitted. Compact all backfill and eliminate settlement. Previously prepared soil is to be replaced as the top six inches of backfill
- 3.4 FABRICATION: Snake pipe from side to side when trench exceeds thirty feet in length. All manifolds shall be neat, orderly and constructed for ease in maintenance operations. Construct manifolds to allow valve boxes to be parallel to each other and to adjacent walls, walks, curbs and buildings. Cuts and joints shall be free of burrs, smooth and minimum in quantity. All pipe above finish grade shall be galvanized unless noted otherwise.
- 3.5 PIPELINES: All pipelines shown parallel on the drawing may be installed in a common trench. Where pipelines are shown parallel or adjacent to shrub or groundcover areas, they shall be installed in these areas. Where shown parallel or adjacent to lawn areas versus pavement, they shall be installed in the lawn area. All changes in depth of pipe shall be accomplished using 45-degree fittings.

- 3.6 TESTING: Test all lines before backfilling for malfunctions. Test mains under 120 psi for at least three hours.
- 3.7 CONTROL WIRE: Install control wire in pipe trenches wherever practical. Tape to underside of pipe every ten feet. All splices shall be epoxy-coated. All wire shall be installed below or level with the bottom of adjacent pipes. All wiring above finish grade shall be enclosed in steel conduit. Splices shall be installed in junction boxes.
- 3.8 ADJUSTMENTS: Adjust all heads for arc, radius, riser height, and distribution for uniform and optimum coverage. Such adjustments shall include nozzle changes without additional cost to the City.
- 3.9 FINISH GRADE: Unless otherwise noted, all heads shall be set at finish grade and on double or triple swing joints as called for on drawings. The top of all valve boxes shall be flush with finish grade.
- 3.10 CONTROLLER: Contractor shall clearly label and sequence stations for ease in maintenance operations. Station valves to operate as they are located around the site. Fasten controller and wire conduits securely to wall with conduit clamps and screws. Contractor shall complete all forms and labels shipped with and/or attached to the controller; attach his own name, address and phone number to the controller via a permanent label; and shall properly execute and file with the City the controller and valve guarantees.
- 3.11 RECORD DRAWING: Contractor shall regularly update a print of the system and any changes made to the system throughout the project. Features below ground shall be indicated with at least two measurements from surface features such as walks, building or sprinkler heads. All changes shall be recorded on this plan before trenches are backfilled. The record drawing shall be completed and submitted to the City's Representative before final payment shall be made for work installed.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 19, "Irrigation System" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02810

SECTION 02835 SITE CARPENTRY

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install all site carpentry work, including but not necessarily limited to; new wood retaining header boards at existing median berms and other miscellaneous wood features indicated on the drawings and details.
- B. Related work specified elsewhere:
 - 1. Site Concrete - Section 02630

1.2 **QUALITY ASSURANCE:** Lumber standards shall comply with Product Standard PS 20-05, "American Softwood Lumber Standard" published by the National Institute of Standards and Technology) with applicable rules of the respective grading and inspecting agencies for species and products indicated. Each piece of lumber shall be factory marked with type, grade, mill, and grading agency identification; do not use marked surfaces where wood is exposed and or will receive transparent finishes. Submit mill certificate that verifies that the material has been inspected and graded in accordance with requirements if it cannot be marked on a concealed surface.

1.3 **SUBMITTALS:** Submit manufacturer's specifications and installation instructions for materials to the City's Representative for review and approval prior to ordering.

1.4 **PRODUCT HANDLING:** Keep materials dry at all times. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber and provide air circulation within stacks.

1.5 **JOB CONDITIONS:** Fit carpentry work to other work. Scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds and similar supports to allow proper attachment to other work.

PART 2 - PRODUCT

2.1 MATERIALS

- A. Lumber: Nominal sizes are indicated, except as shown by detailed dimensions. Provide actual sizes as required by PS 20-05, for moisture content specified for each use.
- B. Provide wood member type, grade and sizes as indicated on the drawings and details.
- C. Provide seasoned lumber with 19% maximum moisture content at time of dressing.
- D. Support Anchors: steel shall be ASTM A36; use the 'American Institute of Steel Construction" (AISC) specifications.

PART 3 - EXECUTION

3.1 GENERAL

- A. Discard units of materials with defects which might impair quality of work and units which are too small to use in fabricating work with minimum joints or optimum joint arrangement. Set carpentry work accurately to required levels and lines, with members plumb and true and accurately cut and fitted. Securely attach carpentry to substrate by anchoring and fastening as shown and as required by recognized standards. Countersink nail heads on exposed carpentry work and fill holes. Use common wire nails unless otherwise indicated. Use finishing nails for finish work. Select fasteners of a size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; predrill as required.

3.2 WOOD GROUNDS, NAILERS, BLOCKING AND SLEEPERS

- A. Provide wherever shown and where required for screening or attachment of other work. Form to shapes as shown and cut as required for true lines and level or work to be attached. Coordinate location with other work involved. Attach to substrates as required to support applied loading. Countersink nuts and bolts flush with surfaces, unless otherwise shown. Build into masonry during installation of masonry work. Where possible, anchor to formwork before concrete placement.

3.3 WOOD FRAMING, GENERAL

- A. Provide framing members of sizes and spacing shown; frame openings as shown. Do not splice structural members between supports. Anchor and nail as shown and comply with "Recommended Nailing Schedule" of "Manual for House Framing" and other recommendations of the National Fire Protection Association (N.F.P.A.) standards.

3.4 TIMBER FRAMING

- A. Provide wood beams and girders of the size and spacing shown. Install with crown edge up and provide not less than 4" bearing on supports. Provide continuous members unless otherwise shown; tie together over supports if not continuous.

3.5 LAG SCREWS AND WOOD SCREWS

- A. Pre-drill holes where necessary to avoid splitting. Holes shall be slightly smaller than screw shaft. Remove and replace all split wood.

3.6 BOLTING

- A. Pre-drill holes 1/32" oversize unless otherwise noted. Tighten all nuts when first placed, re-tighten immediately before closing with finish material or completion of structure. Do no final bolting until structure has been properly aligned. Set threads after final tightening.

3.7 WASHERS

- A. Mild steel washers shall be placed under heads and nuts of all bolts, wood screws and lag screws.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 10, "Headerboard at Berms" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02835

SECTION 02920 LANDSCAPE SOIL PREPARATION

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install all landscape soil preparation as shown and specified including, but not necessarily limited to, the following: import topsoil placement, organic amendment and fertilizer placement, and finish grading.
- B. Related work specified elsewhere:
 - 1. Earthwork and Grading – Section 02210
 - 2. Irrigation – Section 02810
 - 3. Planting - Section 02950

1.2 QUALITY CONTROL

- A. Reviews: Contractor shall specifically request at least two days in advance the following reviews prior to progressing with the work:
 - 1. Completion of rough grading
 - 2. Verification of amendment incorporation depths
 - 3. Finish grade
- B. Certification: Written certificates stating quantity, type, and composition, weight and origin for all amendments and chemicals shall be delivered to the City's Representative before the material is used on the site.
- C. Native Topsoil Analysis: A composite native topsoil sample was submitted for analysis by Waypoint Analytical, San Jose, CA (408) 727-0330. The soil preparation recommendations from this report have been incorporated into this specification.
- D. Amendment Testing: Contractor shall provide a one-quart sample of each proposed amendment to a certified, independent soils testing laboratory for their testing for conformance to this specification. No material shall be delivered to the site until the City's Representative approves the materials. Testing costs shall be paid by the Contractor.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Import Topsoil for all Planting Areas: Shall be a homogeneous mineral soil classified as sandy loam, sandy clay loam, or loam. Particle size data shall be based upon standard USDA methodology. Of the material falling in the course sand category, a maximum of (15%) shall fall in the course sand range (.05 - 2.0 mm). Gravel content (*greater than 2.0mm shall be less than (15%)*). Import topsoil shall not contain more silt and clay than the on-site native soil. The sum of silt plus clay shall be not more than (20%), the soil shall be non-saline as determined on the saturation extract. Salinity shall not exceed (3.0 Ds/m @ 25 degrees C, boron shall not exceed (1.0 ppm) and the sodium absorption ratio (SAR) shall not exceed (6.0). Soil reaction as determined on a saturated paste shall fall between (5.5 and 7.5) *without high lime content*. The soil shall be free of organic herbicides, or other growth restricting chemicals. Contamination may be tested by greenhouse trials using rye grass and radish as test crops using the proposed import soil as substrate. These trials require four to five weeks for completion.

- B. Organic Fertilizers:

Blood Meal (12-0-0)
 Feather Meal (12-0-0) (organic) or approved equal
 Steamed Bone Meal (3-15-0) (organic) or approved equal
 Potassium Sulfate (0-0-50)
 Gypsum (Calcium Sulfate)

These organic fertilizers are available from: Target Specialty Products, San Jose, or approved equal. <http://www.target-specialty.com>

- C. Organic Amendment: Shall be (*nitrogen-treated redwood sawdust*) or (*fir bark*) conforming to:

Physical Properties: (95%-100%) passing, sieve size (6.35mm) (1/4"), (80%100%) passing, sieve size (2.38mm) (No. 8, 8 mesh) and (0%-30%) passing, sieve size (500 micron) (No. 35, 32 mesh).

Chemical Properties: Nitrogen Content (dry weight basis) - (0.4-0.6%) iron content - minimum (0.08%) dilute acid soluble Fe on dry weight basis, soluble salts - maximum (3.5 millimhos/centimeter @ 25 degrees C.) as determined by saturation extract method; ash - (0-6.0%).

PART 3 - EXECUTION**3.1 LIMITS AND GRADES**

- A. Prior to commencing soil preparation operations, Contractor shall request a review by the City's Representative to verify specified limits and grades of work completed to date and soil preparation work to commence. Contractor shall 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 landscape drawings.

3.2 STRIPPING AND STOCKPILING OF EXISTING TOPSOIL

- A. Not applicable.

3.3 IMPORT TOPSOIL PLACEMENT

- A. After all planting areas have been excavated, they shall be ripped to a depth of (*seven inches*). Next, a (*three-inch*) layer of import topsoil shall be uniformly distributed over these areas and thoroughly incorporated into the top (*six inches*) of subsoil by ripping, scraping, or tilling to mix the subsoil with the topsoil into a homogeneous mixture. The remaining layer of topsoil shall then be uniformly distributed in the planting areas and compacted in place to 85% compaction. The total depth of topsoil to be distributed shall be as indicated on the drawings.
- B. In those planting areas where native topsoil is to be left in place (bermed areas with mature existing trees), all new tree and shrub plant pits shall receive amended backfill. Do not cross-rip or cause compaction in these areas.

3.4 ORGANIC AMENDMENT AND FERTILIZER INCORPORATION

- A. For Mass Planting: Materials determined from the soils test shall be uniformly distributed throughout all irrigated planting areas and incorporated to a homogeneously blended soil depth of (*six inches*). For bidding purposes, assume per 1000 square feet:

Six-inch layer of import topsoil (where indicated on the drawings).	
4 cubic yards	Nitrogen Stabilized Organic Amendment.
6 pounds	Blood Meal (12-0-0)
14 pounds	Feather Meal (12-0-0)
7 pounds	Steamed Bone Meal (3-15-0)
15 pounds	Potassium Sulfate (0-0-50)
70 pounds	Gypsum (Calcium Sulfate)

3.5 PLANT PITS

- A. 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.

3.6 BACKFILL

- A. Only un-amended soil shall be used beneath the root ball; cultivate bottom of plant pit to improve porosity. Backfill around the top 12-inches of the sides of root ball shall be the soil taken from adjacent prepared areas blended with the following amendments and fertilizers:

4 parts Site Soil
 1 part Nitrogen Stabilized Organic Amendment

Uniformly blended with:

<u>Amount per Cubic Yard of Backfill Organic</u>	
1/3 pound	Blood Meal (12-0-0)
3/4 pound	Feather Meal (12-0-0)
1/3 pound	Steamed Bone Meal (3-15-0)
3/4 pound	Potassium Sulfate (0-0-50)
3 3/4 pounds	Gypsum (Calcium Sulfate)

3.7 FINISH GRADING

- A. Contractor shall finish grade all irrigated planting areas unless otherwise noted, and shall remove all rocks and clods over one cubic inch to a depth of 4 inches. All areas shall be smooth and uniformly graded. All erosion damage during the construction period shall be repaired by the Contractor.
- B. Unless otherwise noted, all soil finish grades shall be one inch below finish grade of walks, pavements and curbs.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 20, "Imported Topsoil 6'" and Bid Item No. 21, "Soil Preparation, Final Grading" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02920

SECTION 02950 PLANTING

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install all container plantings, including trees, shrubs, vines and groundcover, staking, and related work thereto.
- B. Coordinate and provide all services as required to contract grow plant material indicated on the drawings.
- C. Related work specified elsewhere:
 - 1. Irrigation - Section 02810
 - 2. Landscape Soil Preparation - Section 02920
 - 3. Landscape Maintenance - Section 02970

1.2 QUALITY CONTROL

- A. Reviews: The Contractor shall specifically request the following reviews prior to progressing with the work:
 - 1. Plant material approval
 - 2. Plant layout
 - 3. Finish grade
 - 4. Substantial completion
 - 5. Final completion
- B. Submittals/Plant Material: Within five days after award of contract, Contractor shall submit notice to the Landscape Architect certifying the quantity and species of plant material ordered, the nursery supplying the material and any plant material unavailable at the time, and proposed schedule for growing same to be approved by the City's Representative.
- C. Contract Growing: Contractor is advised that plant material specified is not subject to substitutions and that contractor shall contract grow or otherwise provide plant material as noted. If portions of plant material are unavailable, all other operations are to be completed within the time schedules outlined with a later single phase to be scheduled for completion several months later, with no change in contract amounts or payments.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Nomenclature and Labels: Plant botanical names shall conform to “Standardized Plant Names,” second edition, and secondly, “A Checklist of Woody Ornamental Plants of California,” Manual 32, University of California. All plants of each clone, species, and cultivar shall be delivered to the site labeled with their full botanical names. Every plant species shall be labeled with no less than one label for every ten plants of a species.
- B. Quality: Minimum quality of all plant material shall conform to prevailing published specifications of the California Association of Nurserymen and the American Association of Nurserymen unless otherwise indicated. Additional specifications shall be indicated on the drawings.
- C. Quantities: the quantities shown on the plant list and in labels are for the City’s Representative use and are not to be construed as the complete and accurate limits of the contract. Contractor shall furnish and install all plants shown schematically on the drawings. Any unlabeled plants shall be considered as the smaller size shown for that type on the drawings.
- D. Root Systems: All container-grown stock shall be grown in its container for at least six months prior to its planting. Contractor shall allow one percent of the quantity of plants for removal and inspection. Any plant material, within one year following the final acceptance of the project, determined by the City’s Representative to be defective, restricted, declining or otherwise deficient due to abnormal root growth, shall be replaced by Contractor, to the equal condition of adjacent plants, at the time of replacement.
- F. Trees: All trees shall have straight trunks of uniform taper, larger at the bottom. Trunks shall be free of damaged bark, with all minor abrasions and cuts showing healing tissue. Sucker basal growth and sucker lateral growth shall be removed and treated to eliminate re-sprouting. Normal lower side branching shall remain. Trees unable to stand upright without support shall be rejected
- G. Health: Foliage roots and stems of all plants shall be of vigorous health and normal habit of growth for its species. All plants shall be free of all diseases, insect stages, burns, or disfiguring characteristics.
- H. Untrue Species: All plant material, within two years following the final acceptance of the project, determined by the City’s Representative to be untrue to the species, clone, and/or variety specified, shall be replaced by the Contractor, to the equal condition of adjacent plants at the time of replacement.

- I. Chemicals: Shall be applied only as recommended by a pest control operator licensed by the State of California. The following chemicals are examples of brand names which must be verified by the pest control operator for each specific application:

Pre-emergent herbicide:	Treflan or equal
anti-desiccant:	“Wilt-Pruf, formula NCF”

PART 3 - EXECUTION

3.1 GENERAL

- A. Plant Material Approvals: Before planting operations commence, all plant material shall be reviewed by the City’s Representative. Defective plants installed without such review shall be removed from the site upon request by the City’s Representative and an acceptable plant substituted in its place.
- B. Layout: Only those plants to be planted in any single day shall be laid out. Locations of all plants shall be reviewed prior to planting. Plants installed without this review shall be transplanted as directed by the City’s Representative.
- C. Protection of Plants: Contractor shall maintain all plant material in a healthy growing condition prior to and during planting operations. Contractor shall be responsible for vandalism, theft and damage to plant material until the commencement of the maintenance period.
- D. Pruning: Contractor shall do no pruning without the specific approval of the City’s Representative. Plants pruned without approval shall be replaced by the Contractor, if required.
- E. Basins: Construct basins as necessary to water plants. Remove basins from all plants under a permanent irrigation system prior to final inspection and finish grade the planting area. Basins for plants to be hand-watered shall remain in place. Basin bottoms shall drain to berm away from plant stem.
- F. Staking: All trees shall be staked as drawn with stakes driven securely into existing soil aligned with the trunk and perpendicular to the direction of the prevailing winds. A minimum of two figure eight wire and rubber tree ties required per stake.
- G. Plant Pits, Backfill and Finish Grading: See Section 02920 – Landscape Soil Preparation for materials and installation requirements.

- H. Cleanup: After completion of all operations, Contractor shall remove all trash, excess soil and other debris. All walks and pavement shall be swept and washed clean, leaving the entire area in a neat, orderly condition.
- I. Chemicals: Contractor shall verify compatibility, dosage and other application procedures with a licensed pest control operator and with the manufacturer and shall pre-test any and all chemicals at the site to verify total compatibility with proposed plantings and shall be responsible for any damages arising from the inappropriate use.

Herbicide: Treat all groundcover and lawn areas 20 days after planting as required to obtain weed control.

Anti-desiccant: Apply one or more application of anti-desiccant to plants immediately after arrival to the site and thereafter as required to minimize wind damage to plants.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 22, "Tree 24" Box," Bid Item No. 23, "Shrub 5 Gal," Bid Item No. 24, "Shrub 1 Gal" and Bid Item No. 25, "Vines 5 Gal" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02950

SECTION 02970 LANDSCAPE MAINTENANCE

PART 1 - GENERAL

1.1 SCOPE

- A. Work in this section includes the growing and maintenance operations necessary to establish the shrubs, ground cover, vines, and other plantings; to provide pest and disease control; and to maintain the irrigation system and related construction elements.
- B. Related work specified elsewhere:
 - 1. Planting - Section 02950
 - 2. Irrigation - Section 02810
 - 3. Landscape Soil Preparation - Section 02920

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Fertilizer: Used during the course of the maintenance period shall be:

Blood Meal	6 pounds per 1,000 square feet
Feather Meal	14 pounds per 1,000 square feet
- B. Water: During the course of construction and maintenance period shall be paid for by the City.
- C. Pre-emergent Herbicide: Treflan or approved equal

PART 3 - EXECUTION

- 3.1 **TIME LIMITS:** The maintenance period shall commence from the date of substantial completion of planting as defined in paragraph 3.6 below, and extend for a ninety (90) calendar day period thereafter, or until the acceptance of Final Completion.
- 3.2 **FERTILIZER APPLICATION:** Fertilizer(s) shall be applied per Waypoint Analytical's recommendations. Initial application shall be ninety (90) calendar days after planting.
- 3.3 **HERBICIDE APPLICATION:** 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 without herbicide use during this time period.
- 3.4 **IRRIGATION SYSTEM:** The Contractor shall be responsible for maintaining the irrigation system fully operational with regular system checks for proper head to head coverage, potential main or lateral leaks, damaged heads or clogged nozzles. The controller shall be programmed in accordance with the irrigation schedules indicated on the drawings. Any system break-downs that cannot immediately be repaired shall be reported to the City's Representative.
- 3.5 **BASIC REQUIREMENTS:** All planting areas shall be kept weed-free at all times during the maintenance 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.
- 3.6 **CITY'S RESPONSIBILITY:** Work installed under this contract that is damaged or stolen prior to Substantial Completion shall be repaired or replaced by the Contractor without cost to the City. After substantial completion and through the maintenance period, these damages and similar factors such as graffiti or other defacement shall be the City's responsibility to repair or replace and shall not be a part of this contract. No planting shall be guaranteed beyond the maintenance period, except as to conformance to specified species and variety, and except as to conditions specified under "Root Systems" of Landscape Planting, Section 02950.
- 3.7 **SUBSTANTIAL COMPLETION:** Shall be deemed as the time all major plantings, including sod and groundcover, 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 City's Representative). Maintenance period shall not commence until work is deemed substantially complete by the City's Representative.
- 3.8 **FINAL COMPLETION:** Contractor shall request a final project review in writing at least five (5) business days in advance of the proposed date. Failure to request this notice shall be automatically extend the Final Completion date. The maintenance period shall continue until Final Project Completion as approved by the City's Representative.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 28, "90 Day Plant Establishment Period" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 02970

SECTION 03300 POURED-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install all concrete as shown and specified. This work includes, but is not necessarily limited to concrete footings, banding and maintenance strips at back of existing median curbs, forms, footings, reinforcing, aggregate base and miscellaneous items.
- B. Related work specified elsewhere:
 - 1. Irrigation (sleeving) - Section 02810

1.2 STANDARDS

- A. Unless otherwise shown or specified, all materials and methods shall conform to the appropriate current sections of:
 - 1. City of Cupertino Standards.
 - 2. The State of California, Department of Transportation (Caltrans), Standard Specifications (DTSS).
 - 3. Applicable ASTM Specifications as they reasonably apply to this work.
 - 4. American Concrete Institute (ACI), current standards.

1.3 TOLERANCES

- A. Tolerances for subgrade, sub-base and finished grade shall be as specified by DTSS except that Contractor shall deliver the full aggregate base and concrete thickness shown. No combination of high and low tolerances that compromise the section will be permitted.
- B. Concrete Final Finishes: The Contractor shall demonstrate to the satisfaction of the City's Representative that he or his subcontractor, possesses sufficient skills and experience to perform the work. Photographs and/or site visits of past work may be required to supply this information. A sample of the broom finish concrete paving with color shall be poured and finished at the site for City's Representative review prior to commencing concrete pouring. Once the samples have been reviewed, the Contractor shall meet or exceed that quality of finish in all subsequent work. Contractor shall be responsible for removal of the samples at the completion of the work.

- C. Submittals: The following shall be submitted by the Contractor to the City's Representative in accordance with the applicable portions of the referenced Specifications:
 - 1. The proposed mix design, giving the brand of cement, type, gradations and source of aggregates, water/cement ratio, mix proportions, and unit weight.
 - 2. Manufacturer's literature for admixtures, integral and dust-on colors, embedded items, liquid membrane-form curing compound and non-shrink grout.
 - 3. Certification that materials are in compliance with specification requirements.
 - 4. Method of transporting and placing concrete.

1.4 JOB CONDITIONS

- A. Weather Limitations: 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.
- B. Grade control: 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.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Forms and Reinforcing: Per DTSS.
- B. Concrete: Class A conforming to Section 90 of the DTSS.
 - 1. Cement: Type II modified conforming to ASTM-C-150, Portland Cement
 - 2. Aggregate: Maximum 3/4 inch size.
 - 2. Compression strength at 28 days to be 3,000 P.S.I.
 - 3. Slump: 3" max.
- C. Color Admixtures:
 - 1. All concrete banding and maintenance strips at back of existing medians curbs and any above -grade, exposed concrete work shall receive integral color by Davis Colors, "San Diego Buff", 1.5 lbs. – 5237 or L.M. Scofield, color shall be "Sombrero Buff", C-25 or approved equal. Submit 3 sets of color catalog cuts of finish and color to City's Representative for review and approval prior to ordering mix.

- D. Curing & Sealants: All of the concrete to receive the Scofield integral color shall be cured with LITHOCHROME Colorwax to match integral color. See manufacturer's specifications. No sealant required.
- E. Expansion Joint Filler: "SEALTIGHT" fiber asphalt expansion joint by W. R. Meadows, or equal conforming to ASTM D1751. Install ½" below the concrete surface and seal with "SEALTIGHT" #164. Available from Muller Construction Supply, San Jose, CA 1-800-371-5225.
- F. Cleaning Agents: As required.
- G. Aggregate Base: Class II per DTSS.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clear area to be paved of all debris and organic material. Re-compact and re-grade as necessary prior to placement of concrete. Verify that the subgrade and/or aggregate base is properly compacted and at suitable grade.
- B. Before beginning concrete work and during construction, take all steps necessary for protection of existing concrete improvements. As the concrete is being placed, extreme care shall be taken not to discolor or damage any improvements. If damage occurs, repair same, and if satisfactory repair cannot be made, remove and replace the section as directed.
- C. Formwork and Reinforcement:
 - 1. Assure that excavations and formwork are completed.
 - 2. Check that reinforcement is secured in place.
 - 3. Verify that expansion joint material, anchors, and other embedded items are secured in position.

3.2 INSTALLATION

- A. Finishes
 - 1. Medium Broom Finish: Provide a semi-rough-textured broom finish with strokes perpendicular to direction of travel along maintenance strips.

3.3 CLEAN UP

- A. Upon completion of the work under this Section, remove immediately all surplus materials, rubbish, and equipment associated with or used in the performance of this work.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 8, "Concrete Maintenance Strips" and Bid Item No.11, "Arbor Pier Footings" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 03300

SECTION 03400 PRECAST CONCRETE**PART 1 - GENERAL**

1.1 SCOPE

- A. Furnish and install all precast concrete as shown and specified. This work includes, but is not necessarily limited to the work required for all the columns (2 arbors total) including the veneer panels, and other related miscellaneous items.
- B. Related work specified elsewhere:
 - 1. Poured-in-Place Concrete – Section 03300
 - 2. Masonry – Section 04220
 - 3. Electrical – Section 16000

1.2 STANDARDS

- A. Unless otherwise shown or specified, all materials and methods shall conform to the appropriate current sections of:
 - 1. City of Cupertino Standards.
 - 2. The Precast/Prestressed Concrete Institute (PCI), current standards.
 - 3. National Precast Concrete Association (NPCA), current standards.
 - 3. Applicable ASTM Specifications as they reasonably apply to this work.
 - 4. American Concrete Institute (ACI), current standards.

1.3 QUALITY ASSURANCE

- A. Testing: All testing shall be performed by the manufacturer's in-house quality control inspectors and in accordance with all provisions in MNL-117, *Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products* as published by PCI.
- B. Tolerances:

10 ft. or under:	1/8" max.
10 ft. to 20 ft.:	1/8" to 3/16" max.
20 ft. to 30 ft.:	1/4" max.
each add'tl. 10 ft.:	1/16" max.

C. Qualifications of Manufacturer:

1. Manufacturer shall have a minimum of five (5) years of production experience in architectural precast concrete work of the quality and scope required on the project.
2. Manufacturer shall be a member of the Precast/Pre-stressed Concrete Institute and PCI certified.

D. Qualifications of the Installer:

1. Installation of the precast components shall be performed by an established contractor regularly engaged for at least two (2) years in the installation of precast components of scope and size similar to those on this project.
2. Perform inspection of precast concrete components under the supervision of a foreman employed by the firm for this type of work.

E. Submittals: The following shall be submitted by the Contractor to the City Representative in accordance with the applicable portions of the referenced Specifications:

1. Shop Drawings: Contractor shall expedite the submittal to the City Representative to conform with the allotted shop drawing submittal and review schedule. Shop drawings shall be prepared by the manufacturer and shall be drawn to a large enough scale to properly indicate all dimensions, colors, finishes, connections, inserts, joints and all other details and conditions necessary to install complete arbor column structures.
2. Samples: Submit a 12"x12" precast concrete sample of the column veneer panel for quality, finish and color.
3. The proposed mix design, giving the brand of cement, type, gradations and source of aggregates, water/cement ratio, mix proportions, and unit weight.
4. Manufacturer's literature for admixtures, integral and dust-on colors, embedded items, liquid membrane-form curing compound and non-shrink grout.
5. Certification that materials are in compliance with specification requirements.
6. Method of transporting and placing concrete.

PART 2 - PRODUCTS

2.1 FABRICATORS

- A. Subject to compliance with requirements, fabricators and distributors offering products which may be incorporated in the work include, but are not limited to, the following:

Precast concrete for arbors:

1. Eniko Gaeto / eniko.gaeto@qcp-corp.com
Quick Crete, Products Corp.
731 W. Parkridge Ave.
Norco, CA 92860
www.quickcrete.com
Phone: (866) 703-3434
Fax: (951) 737-7032
2. Universal Precast
1580 Oakland Road, Ste. C211
San Jose, CA 95131
San Jose, CA 95112
www.universal-precaster.com
Phone: (408) 799-8888
3. tdseifert@duraartstone.com
Dura Art Stone
1265 Montecito Ave., Ste. 110
Mountain View, CA 94043
www.duraartstone.com
Phone: (650) 965-7100

2.2 MATERIALS

- A. Precast Concrete:

1. Portland Cement: Type I or III cement conforming to ASTM-C-150, white or grey (see below for specific integral colors). Use same type for all exposed precast concrete.
2. Water-Cement Ratio: Maximum of five (5) gallons of water per 94 lbs. of cement.

3. Compression strength at 28 days to be 5,000 P.S.I.
- B. Air Entraining Agent: ASTM C979. Minimum 3%, not more than 6% when concrete is placed.
- C. Aggregates: ASTM C33 and ASTM C330. Provide fine aggregates for all exposed finishes from a single source (pit or quarry) for all components.
- D. Water: Free from foreign materials in amounts harmful to concrete. Potable water is ordinarily acceptable.
- E. Forms and Reinforcing: Galvanized reinforcing bars and epoxy-coated reinforcing bars, as per ASTM A775.
- F. Cast-In Anchors and Bolts: Structural steel, as per ASTM A36, stainless steel, as per ASTM a666, type 304, grade per manufacturer's recommendations, bolts per ASTM A307 or A325.
- G. Color Admixtures: All precast concrete arbor panels shall receive integral color by Davis Colors, "San Diego Buff", 1.5 lbs.-5237 or L.M. Scofield, "Sombrero Buff", C-25 or approved equal. Selected color shall also be used for the concrete maintenance strips – see Section 03300, "Poured-In-Place Concrete".
- H. Finish: Light sandblast.
- I. Curing: Per manufacturer's recommendations.
- J. Cleaning Agents: As required.

PART 3 - EXECUTION

3.1 JOB SITE CONDITIONS/PREPARATION

- A. Before beginning precast work, verify that the structure and the anchorage inserts not within acceptable tolerances have been corrected.
- B. Before beginning precast concrete work and during installation, take all steps necessary for protection of existing improvements. Extreme care shall be taken not to discolor or damage any improvements. If damage occurs, repair same, and if satisfactory repair cannot be made, remove and replace damage as directed.

3.2 PRODUCT DELIVERY, HANDLING AND STORAGE

- A. Deliver all precast concrete components to project site in such quantities and at such times to assure the continuation of installation.
- B. Handle and transport components in a position consistent with their shape and design in order to avoid stress that could cause cracking or damage.
- C. Place non-staining resilient spacers of even thickness between each component and place them on non-staining, shock-absorbing materials.
- D. Do not place components directly on the ground. Store and protect components from contact with soil, staining or physical damage. Store components on firm, level and smooth surfaces to prevent cracking, distortion, warping or other physical damage.

3.3 INSTALLATION

- A. Clear, well-drained unloading areas and road access around the structure shall be provided and maintained by the General Contractor, in which, if necessary, cranes and trucks can maneuver under their own power.
- B. General Contractor shall erect adequate, temporary barricades, warning lights or signs to safeguard pedestrian and vehicular traffic in the immediate area of hoisting and handling operations. Any overhead obstructions interfering with the installation must be removed by others and any underground equipment installed where cranes and trucks must maneuver is installed at the risk of the trade requiring them and be protected by that contractor.
- C. Set precast components level, plumb and square and true within the tolerable allowances. The General Contractor shall provide true, level-bearing surfaces on all field placed concrete or masonry units which are to receive precast concrete components. The General Contractor shall be responsible for providing off-set lines and elevations in sufficient detail to allow installation.
- D. Provide temporary supports and bracing, as required, to maintain position, stability and alignment as components are being permanently connected.
- E. Set non-load bearing components dry without mortar, attaining specific joint dimensions with, steel or plastic cement pacing shims.
- F. Fasten recast components in place by bolting and/or welding, completing dry-packed joints, grouting sleeves and pockets and/or placing cast-in-place concrete joints, as indicated on approved shop drawings.

- G. Temporary lifting and handling devices cast into the precast concrete components shall be completely removed or if protectively treated, remove only when they interfere with the work of any other trade.

3.4 REPAIR

- A. Repair exposed exterior surface to match color and texture of surrounding concrete. If repair of damaged component surface cannot be done to the satisfaction of the City's Representative, replacement will be required.

3.5 CLEAN UP

- A. Upon completion of the work under this Section, remove immediately all surplus materials, rubbish, and equipment associated with or used in the performance of this work. All precast concrete components will be clean upon completion of installation and leaving job site.

3.6 PROTECTION

- A. After installation, the General Contractor shall protect the precast concrete work against damage and maintain its cleanliness throughout the project maintenance period. Any final wash down of the precast concrete components will be the responsibility of the General Contractor.

3.7 WARRANTY

- A. The precast concrete Manufacturer shall guarantee the precast concrete products against defects in material and workmanship, for a period of one (1) year after acceptance of the components by the City.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 13, "Arbor Precast Concrete Columns" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 03400

SECTION 04220 MASONRY

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish and install all concrete masonry units for all of the arbor columns and the veneer stone for the column bases as indicated on the drawings and specified herein.
- B. Related work specified elsewhere:
 - 1. Concrete - Section 03300

1.2 QUALITY CONTROL

- A. All work shall meet or exceed the standard specifications of the Concrete Masonry Association and the latest edition of the Uniform Building Code.
- B. Manufacturer's specifications: All work shall be completed in accordance with the manufacturer's specifications and recommendations.
- C. Material Samples: Contractor shall submit one sample of the ledger stone for the arbor column bases (delivered to the site) for review and approval by the City's Representative prior to installation.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Veneer stone bases at arbor columns: "Black Gold Slate", 6"x24"x1" flat and corner panels as required. Available from Lyngso Garden Supplies, San Carlos, CA lyngsogarden.com or approved equal.
- B. Mortar: Conform to ASTM C270, Type "S". Mix: 1 part Portland cement, 1/2 part lime putty, 4-1/2 parts sand. Omit lime putty if plastic type cement is used. 1 lb. lampblack per cubic yard.
- C. Grout: Grout for pouring or pumping shall be of fluid consistency. Verify color additive with the City Representative prior to ordering and installation.

- D. Hydrated Lime: ASTM C207.
- E. Concrete Block: Concrete masonry, 3,000 P.S.I. min. structural units, sizes per Structural Engineer's drawings.
- F. Boulders: See drawings.

PART 3 - EXECUTION

- 3.1 Elevations: Refer to the drawings for specific dimensions and vertical elevations, slope and other controls. Variation in slope of paving shall not exceed 1/4" in any ten-foot dimension along a straight edge.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 12, "Arbor Stone Bases" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 04220

SECTION 05520 METAL AND HARDWARE

PART 1 - GENERAL

1.1 SCOPE

- A. Provide and install complete all metal work as shown and specified. This work includes, but is not limited to the steel arbors and the 4-foot high metal screens in the medians and miscellaneous metal fasteners.
- B. Related work specified elsewhere:
 - 1. Site Concrete - Section 03300
 - 2. Precast Concrete – Section 03400
 - 3. Masonry – Section 04220

1.2 STANDARDS

- A. The following standards are hereby made a part of this section and miscellaneous metal work shall conform to the applicable requirements therein except as otherwise specified herein or shown on the drawings. Nothing contained herein shall be construed as permitting work that is contrary to code requirement or governing rules and regulations.
 - 1. Section 75 of the Department of Transportation Standard Specifications (DTSS) (latest edition).
 - 2. Steel Structures Painting Council (SSPC) Surface Preparation Specifications (Vol. 2, Painting Manual).

1.3 SHOP DRAWINGS

- A. Submit shop drawings for:
 - 1. Metal screen fences
 - 2. Steel arbors

Shop drawings will permit other trades to properly locate their work. Where welded connectors, concrete or masonry inserts are required to receive work, shop drawings shall show exact locations required, and all such drawings shall be furnished to the trades responsible for installing the connectors or inserts. Catalog work sheets showing illustrated cuts of item to be furnished, scale details and dimensions may be submitted for standard manufactured items.

PART 2 - MATERIALS

2.1 FASTENINGS

- A. Furnish all hardware required for fastenings, specified herein, and as required to complete the work. All fasteners shall be hot-dip galvanized. Fasteners shall include, but not be limited to, the following:
1. Nails: Unless otherwise noted, nails shall be hot-dipped 2 oz/SF common wire of adequate size for type of fastening, ASTM-153.
 2. Bolts: Shall be machine bolts, lag bolts, or carriage bolts of structural grade steel conforming to ASTM A-153, of sizes indicated on the drawings. Anchor bolts shall have cut threads.
 3. Washers: Shall be of standard malleable iron, ASTM 153.
 4. Lag Screws: Shall be of structural grade steel, and shall be hex-headed wherever possible, ASTM 153.
 5. Galvanizing:
 - a. Galvanizing for iron and steel hardware shall be in accordance with ASTM 153.
 - b. If necessary, the threads of nuts shall be retapped after galvanizing. Any damaged zinc coatings shall be repaired with galvanizing repair compound.

2.2 FABRICATORS

- A. Subject to compliance with requirements, fabricators and distributors offering products which may be incorporated in the work include, but are not limited to, the following:

Metal screens:

1. "Green Screens" or approved equal. www.greenscreens.com

Steel arbors:

2. Nuno Iron and Manufacturing, Inc.
315 Bitterwater Road
King City, CA 93930
www.nunoiron.com
Phone: (831) 386-0513
Fax: (831) 386-9976
2. Ornamental Iron Supply Depot, Inc.
640 Commercial Street
San Jose, CA 95112
Phone: (408) 287-3220
3. Artistic Iron Works
317 Sixth Avenue
San Mateo, CA 94401
Phone: (515) 343-8746

2.3 MATERIALS

A. Steel Fabrications

1. Steel tube: Cold-formed, conforming to ASTM A 500, Grade B.
2. Steel plates, shapes, bars: Conforming to ASTM A36.
3. Concrete inserts: Malleable iron, ASTM A 47, or cast steel, ASTM A 27, inserts, with steel bolts, washers and shims; hot-dip galvanized.
4. Anchors and inserts: Furnish inserts and anchoring devices to be built into other work for installation of miscellaneous metal items. Coordinate delivery to job site to avoid delay. Use non-ferrous metal or hot-dip galvanized anchors and inserts for exterior resistance. Use toothed steel or lead expansion bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete or masonry work.
5. metal, unless otherwise indicated. Do not use metals which are corrosive or incompatible with materials joined. Provide exposed fasteners, if any, which match finish of fastened metal, unless otherwise indicated.

PART 3 - EXECUTION

3.1 GENERAL

- A. Verify all measurements at site prior to ordering materials.
- B. Coordinate all metal work with adjoining work for details of attachment, fitting, etc. Do all cutting, shearing, drilling, punching, threading, tapping, etc. required for miscellaneous metal or for attachment of adjacent work. Drill or punch holes; do not use cutting torch. Shearing and punching shall leave true lines and surfaces.
- C. Conceal all fastenings where practicable. Thickness of metal and details of assembly and supports shall give ample strength and stiffness. Form joints exposed to weather to exclude water.
- D. Make all permanent connections in ferrous metal surfaces using welds where at all possible. Do not use bolts or screws where they can be avoided.
- E. Provide all lugs, clips, anchors and miscellaneous fastenings necessary for the complete assembly and installation.
- F. Set all work plumb, true, rigid, and neatly trimmed out.
- G. Where items must be incorporated or built into adjacent work, deliver to trade responsible for proper location of such items.

3.2 WELDING

- A. Perform all welding in accordance with Section 75 of the DTSS.
- B. Welds shall be made only by operators experienced in performing the type of work indicated.
- C. Welds normally exposed to view in the finished work shall be uniformly made and shall be ground smooth.
- D. Where welding is done in proximity to glass or finished surfaces, such surfaces shall be protected from damage due to welds, sparks, spatter, or tramp metal.

3.3 BOLTED, SCREWED AND RIVETED CONNECTIONS

- A. In general, use bolts for field connections only as detailed. Provide washers under all heads and nuts. Draw all nuts tight and nick threads of permanent connections to prevent loosening. Use beveled washers where bearing is on sloped surfaces.

- B. Each bolt hole in wood shall be drilled 1/16 inch larger than the bolt diameter.
- C. Where screws must be used for permanent connections in ferrous metal, use flat head type, countersunk, with screw slots filled and finished smooth and flush.

3.4 CLEAN UP

- A. Protection and Cleaning: Remove all soiled and foreign matter from finished surfaces and apply such protective measures as required to prevent damage or discoloration of any kind until acceptance of project.
- B. During construction, keep premises as clear as possible of materials and debris, and at the completion of work remove all tools, appliances, materials, and debris from the premises.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 14, "Arbor Steel Structure incl. Prime and Paint" and Bid Item No. 15, "Metal Vine Screens" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 05520

SECTION 09900 – PAINTING**PART 1 GENERAL****1.1 DESCRIPTION**

- A. General: Furnish all labor, materials, apparatus, tools, equipment, and methods of execution, relating to surface preparation and field application of paints and coatings, cleaning including preparation, priming and painting of surfaces as specified in these specifications.
- B. Work Included: Painting of exposed items and surfaces associated with the metal arbors and staining all wood surfaces of the 2x12 header board that occurs at the back of the concrete maintenance strips. Surface preparation, priming and coats of paint specified are included in basic work. All of the prefabricated metal fences come pre-finished.
- C. Related work specified elsewhere:
 - 1. Carpentry – Section 02830
 - 2. Metal and Hardware – Section 05520

1.2 REFERENCES

- A. General: Equipment and materials specified under this Division shall conform to the following standards where applicable.
 - 1. ASTM D16 – Terminology Relating to Paint, Varnish, Lacquer, and Related Products
 - 2. ASTM D5031 -American Society for Testing Materials
 - 3. PDCA – Painting and Decorating Contractors of America – Architectural Specification Manual
 - 4. SSPC – Steel Structures Painting Council – Steel Structures Painting Manual

1.3 SUBMITTALS:

- A. Refer to Division - 1 for submittal requirements.
- B. Submit a list of paint materials and color swatches proposed for use, identifying each material by manufacturer's name, product number and color name. Identify surfaces to receive each paint material.
- C. Provide sample finishes on actual surfaces to be painted and/or stained. Approved samples will become the standard for the work.

- 1.4 **PRODUCT DELIVERY, STORAGE AND HANDLING:** Deliver paint materials to Job Site in their original, sealed and labeled containers; inspect to verify acceptability. Perform allowable field mixing, cleaning of painting equipment, and other related work in separate paint storage facility, or as approved by City's Representative. Equipment and materials shall be properly stored and adequately protected and carefully handled.

1.5 ENVIRONMENTAL CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Do not apply exterior coatings during rain, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- C. Minimum Application Temperature for epoxy, acrylic and enamel finishes as indicated by paint product manufacturer.

1.6 QUALITY ASSURANCE

- A. Company specializing in performing work of the section with a minimum of three years documented experience, and possessing a valid Contractors State License Board, Painting and Decorating license.

1.7 EXTRA MATERIALS

- A. Provide one-gallon of each type and color of paint(s) to the City.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Dunn Edwards, Benjamin-Moore, Sherwin – Williams, or equal.
- B. Primers, intermediate and finish coats in each paint or stain system shall be the products of the same manufacturer, including any thinners or coloring agents. A paint or stain system is defined to be all coats of all materials applied to any given surface area.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces and substrate conditions are ready to receive work as instructed by paint product manufacturer.
- B. Examine surfaces scheduled to be finished prior to commencement of work. Report to City's Representative, in writing, any found conditions that may potentially affect the proper application of products. Do not commence until all such defects have been corrected.
- C. Test primer for compatibility with existing surfaces.

3.2 PREPARATION OF SURFACES

- A. Prepare and clean substrates in accordance with paint manufacturer's instructions and as herein specified, for each particular condition.
- B. Remove oil and grease before mechanical cleaning. Mechanically clean and abrade all prepared surfaces in accordance with SSPC SP6, Commercial Blast Cleaning. Abrasive type and size shall be selected to provide the required level of cleanliness while establishing a surface profile recommended by the paint manufacturer.
- C. Adequately protect other surfaces from paint and damage. Clean concrete light pole bases of any spilled paint.
- D. Treat galvanized surfaces with abrasive sweep blast in accordance with SSPC SP7, or chemically etch with Galvaprep 5, as manufactured by Henkel Corporation.

3.3 PAINTING, STAINING AND FINISHING SCHEDULE

- A. Steel arbor components:
 - 1. First coat: Metal primer such as 'Bulls-Eye" or equal compatible with a heavy-duty exterior latex enamel.
 - 2. Second and third coats: Heavy-duty, exterior latex enamel; color and finish to be metallic silver to match metal screens. Small field-applied color swatches will be required for review and approval. Contact City Representative for exact color number.
- B. Steel arbor components:
 - 1. First and second coats: Medium-body, exterior stain; color and finish to be dark brown. Small field-applied color swatches will be required for review and approval. Contact City Representative for exact color number.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No. 14, "Arbor Steel Structure incl. Prime and Paint" and Bid Item No. 10, "Headerboard at Berms" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 09900

SECTION 16000 – SITE ELECTRICAL

PART 1 - GENERAL

1.1 SCOPE

- A. Furnish all labor, materials, apparatus, tools, equipment, temporary construction and special or occasional services as required to make a complete working electrical installation, as shown on the drawings or described in these Specifications. The work shall include materials and apparatus not specifically mentioned herein or noted on the drawings as being furnished and installed under another Section.
- B. Work shall include all labor and materials for complete installation of conductors, conduits, pull boxes, points of connection, timer and clock enclosures, light fixtures, duplex receptacles, and miscellaneous related work as shown on drawings.
- C. Related work specified elsewhere:
 - 1. Site Concrete - Section 03300
- D. The Contractor shall coordinate work with the other trades, reviewing areas of possible and potential conflicts.
- E. Underground electrical power as follows:
 - a. Trenching and backfill
 - b. Conduits, pullboxes
- F. Feeders, panelboards, branch circuits, and power connections to equipment furnished under other Sections of this Specification or by other work not in contract including disconnect switches where shown or required by code.
- G. Excavation and backfill.
- H. Electrical and equipment grounding systems.
- I. All incidental work, material, carpentry, or structural supports necessary for the mounting of equipment being installed under this Section.
- J. Sleeves, nipples, inserts, and blocking in cast concrete as required for work under this Section.

1.2 EXAMINATION OF SITE

- A. A visit to the site shall be made before submitting the bid. No extra payment will be made for work not covered on the plans and in the Specifications if such work is apparent from an inspection of the site at that time.

1.3 DRAWINGS AND MEASUREMENTS

- A. The drawings are diagrammatic and are for the assistance and guidance of this Section. The exact locations, distances, elevations, etc. will be governed by actual field conditions.
- B. Drawings shall be followed as closely as actual construction and work of other trades will permit. Any changes from the drawings necessary to make the work conform with the work as actually constructed or to fit the work of other trades or to conform with the rules to the Authority Having Jurisdiction (AHJ) shall be made at no cost to the City.

1.4 CODES, RULES, AND REGULATIONS

- A. All work and materials shall be in full accordance with the latest rules of the following ordinance:
 - 1. National Electric Code
 - 2. Underwriters Laboratories
 - 3. NEMA Standards
 - 4. California Administrative Code
 - 5. State Fire Marshall
 - 6. Cal – OSHA
 - 7. Local rules, regulations and standards
 - 8. NFPA – National Fire Protection Association
 - 9. ADA – Americans with Disability Act
- B. Nothing in these plans for specifications is to be construed to permit work not conforming to these codes. However, when the specifications call for or describe materials or construction of a better quality or larger size than required by the above-mentioned rules and regulations, the provisions of these specifications shall take precedence over requirements of the said rules and regulations.
- C. Furnish, without extra charge to the Owner, all additional material and labor when and where required complying with these rules and regulations, though the work may not be mentioned in these Specifications or shown on the plans.

1.5 WORKMANSHIP

- A. Workmanship shall be in accordance with the best practice of the trade and subject to the approval of the City.
- B. The work under this Section shall include competent direction and first – class mechanics to make the installation and complete the work in conformity with the intent of the plans and specifications.

1.6 SUPERVISION

- A. The Contractor shall personally or through an authorized and competent representative constantly supervise the work from beginning to completion and final acceptance. During its progress, the work shall be subject to inspection by representatives of the City. At such times, the Contractor shall promptly furnish any required information.

1.7 COORDINATION WITH OTHER WORK

- A. Become familiar with conditions at job site and with drawings and specifications and plan the installation of the electrical work to conform to conditions shown and specified to provide the best possible assembly of the combined work of all trades.
 - B. The City Representative shall decide any difference of disputes concerning coordination, interference, or extent of work, and the City Representative's decision shall be final.
 - C. Electrical system layouts are generally diagrammatic; location of equipment is approximate. Wiring for equipment requiring maintenance and inspection shall be readily accessible by Code.
- 1.8 LICENSES, PERMITS, FEES AND INSPECTIONS
- A. Provide, secure, and pay for all permits, licenses, fees and inspections required to begin, perform, and complete work under this section as per GENERAL CONDITIONS.
- 1.9 PROTECTION OF EQUIPMENT
- A. The Contractor shall be responsible for damage to any of the Contractor's work before final acceptance. Securely cover all openings into conduits and cover all apparatus, both before and after being set in place to prevent obstructions in the conduits and breakage and disfigurement of the equipment.
 - B. Should the equipment become damaged and disfigured, it shall be restored to its original condition and finished before final acceptance at no expense to the City.
- 1.10 CLOSING IN OF UNINSPECTED WORK
- A. Work under this Section shall not be enclosed or covered up until it has been inspected, tested, and approved by the Owner or authorized representative and governmental authorities having jurisdiction over the work. If any of the work is enclosed or covered up before such inspection and test, it shall be uncovered, inspected, tested, and all necessary repairs made with matching materials to restore the work to its original condition. All costs for the above work will be at the expense of the Contractor.
- 1.11 CUTTING AND PATCHING
- A. Any cutting necessary for the installation of the work under this Section shall be done after having secured approval from the City Representative. All patching shall be done to the satisfaction of the City Representative.
 - B. Cutting of wood joists and boring and canning of holes through structural members (IF ANY) shall be done only with the express permission of the City Representative for each specific instance.
- 1.12 GUARANTEE
- A. Furnish written guarantee that all systems are functioning properly and that all materials and workmanship are free from defects.
- 1.13 CLEANING EQUIPMENT AND PREMISES

- A. The premises shall be kept free from any accumulations of dirt, waste, materials, or rubbish caused by work under this Section. Remove such accumulations from the premises when directed.
- B. Thoroughly clean all equipment and remove all unnecessary labels upon completion of the installation.

1.14 PRELIMINARY OPERATIONS

- A. Should the City's Representative request that any portion of the systems or equipment installed under this Section be operated previous to the final completion and acceptance of the work, such operation shall be with the consent and under the direct supervision of the Contractor.
- B. Such preliminary operation shall not be construed as an acceptance of any of the work of this Contract.

1.15 MATERIAL SUBSTITUTION

- A. Where materials, equipment, apparatus, or other products are specified by manufacturer, brand name, type, or catalogue number, such designation is to establish standards of desired quality and style and shall be the basis of the bid. Material so specified shall be furnished under the Contract unless a change is authorized in writing. Acceptance or rejection of the proposed substitutions shall be subject to approval of the Engineer. If requested by the City, the Contractor shall submit for inspection samples of both the specified and proposed substitute items.

1.16 MATERIAL LIST

- A. The Contractor shall within fifteen (15) days after award of Contract and before any materials or equipment are purchased, submit a complete list of materials to the City Representative for approval. This list shall give the name of the manufacturer and the catalog numbers of all material furnished under this Section.
- B. Each submittal shall be accompanied by a cover letter or shall bear a stamp stating that the submittal has been reviewed by the Contractor and is in compliance with the requirements of the Contract Documents. Cover letters shall list in full the items and data submitted.
- C. Submittals shall consist of detailed shop drawings, specifications, "catalogue cuts", and data sheets containing physical and dimensional information, performance data, electrical characteristics, materials used in fabrication, material finish, and shall clearly indicated those optional accessories which are included and those which are excluded.

1.17 SHOP DRAWINGS

- A. Within thirty (30) days after award of the Contract, the Contractor shall submit to the City Representative detailed dimensional shop drawings and brochures covering equipment listed below, and/or manufacturers' data sheets for the following items per General requirements section. Such equipment shall not be put into manufacture until these shop drawings or brochures have been approved.
- B. Provide shop drawings for the following:

1. Pullboxes
2. Panelboards
3. Wire
4. Conduit and conduit fittings
5. Ground rods
6. Conduit sealing materials
7. Wire connection sealing materials
8. Time clocks
9. Light fixtures

1.18 RECORD DRAWINGS

- A. Obtain, pay for, and keep up-to-date and available to the City's Representative complete blue line prints of the project; drawings clearly annotated with "as-built" data as the work is performed. This data shall include exact sizes, locations of all trenches, conduit fill and equipment as installed.
- B. Upon completion of the project, transpose the information shown on these drawings to a complete set of reproducible drawings to the City's Representative, paid for by the Contractor, to become the City's record of the work. The Contractor preparing them shall certify the drawings to be correct.
- C. If the Contractor fails to provide proper "as-built" drawings or maintain records of the location of the equipment, etc, the Contractor shall reimburse the City for the cost of having this work done by a registered Electrical Engineer including expenses of locating all elements and measuring up the entire job in the field.

1.19 TESTS AND INSPECTIONS

- A. Inspect and make necessary tests, which the City's Representative may request, to insure that the electrical equipment is installed correctly and that the wiring systems are free of all shorts, grounds, and faulty connections and have insulation resistance between conductors and ground of not less than the requirements of the National Electric Code.

1.20 TRENCHING, BACKFILLING AND CONCRETE WORK

- A. The Contractor shall do all required excavation work that may be necessary to install the electrical work under this Section.
- B. Restoration of any curb, walk, slab, or any other surface/sub-surface improvement removed or damaged during the progress of the work shall, at or before termination of the Contract, be restored to its original condition whether or not such restoration is shown on the drawings. This restoration shall be the responsibility of and shall be done at this Contractor's expense. All surplus excavation material shall be disposed of at this Contractor's expense as directed by the City's Representative.
- C. The Contractor during the construction of the work shall do all pumping and disposal of surplus water and no additional claims will be allowed for excess water, which may be encountered.

1.21 NAMEPLATES AND SCHEDULES

- A. Nameplates shall be made of 1/16" thick engraving laminated plastic with 1/4" letters machine engraved through white facing to a black core. Provide nameplates

for panelboards, apparatus used for control of electrical equipment, and all breakers.

- B. Provide a typed schedule for each panelboard (and date it) and insert behind clear plastic cover in neat metal frame in cabinet. Indicate circuit number, equipment connected, next upstream device, and where located.

1.22 GROUNDING

- A. All electrical equipment shall be grounded in accordance with the National Electric Code and all local codes and requirements.
- B. Provide green copper ground wire from ground bus in distribution panels to ground bar in all panels and ground connections for all mechanical equipment. Sizes per Code.
- C. Include green copper ground wire in all conduits from each panelboard ground bar to equipment ground lugs. Size per Code.

1.23 SUPPORT SYSTEMS

- A. Equipment shall be secured to the structure by means of Hilti anchors in the concrete, machine screws, or bolts on metal surfaces, or wood screws on wood construction. On exterior, use brass, bronze or galvanized.

1.24 SAFETY

- A. In accordance with generally accepted construction practices, the Contractor will be solely and completely responsible for conditions on the job site, including safety of all persons and property during performance of the work.

1.25 DAMAGE AND RESTORATION

- A. The Contractor shall be responsible for damages to the Contractor's work during construction and until expiration of the guarantee period, effects of normal usage excepted. Repair all damage due to faulty workmanship, material, equipment, leaking pipes, or other like causes. All damaged portions of the Work, existing, or new, surface or improvements, equipment, or material shall be restored to its original condition.

1.26 STANDARDS

- A. All materials shall be new with the Underwriter's acceptance label attached.
- B. All work shall conform to the requirements of the current edition of the National Electrical Code, OSHA, California State Safety Orders and the City of Cupertino.

1.27 GUARANTEES

- A. The Electrical Contractor shall guarantee, in writing, for a period of one (1) year from the date of final acceptance, that all work installed shall be free from defects in workmanship and materials. If during this period of one (1) year any such defects appear, the Contractor shall, without cost to the City, remedy such defects. If the Contractor defaults on this guarantee, the City may have such work done and charged to the Contractor.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. All materials shall be new, of the best quality, and shall be approved by the Underwriters Laboratories. Each item shall bear the U.L. label.
- B. Rigid metallic conduit: Aluminum or galvanized rigid steel.
- C. Watertight flexible steel conduit: “Seal-tite” with neoprene jacket.
- D. Fittings: Provide fitting and accessory approved for the purpose and equal in all respects to the conduit or raceway.
- E. Wire and cables: Wire and cables shall be brought to the site in unbroken packages and reels, rated for 600 volts and conforming to the following:
 - 1. All conductors shall be copper, # 12 AWG minimum, and color-coded per industry standards.
 - 2. Type THHN/THWN in feeder sizes # 6 and larger.
 - 3. Type THWN in sizes #8 and smaller in wet locations, underground, and in concrete slabs.
 - 4. The THHN in all dry locations other than specified above or where drawings call for wires in conduit.
 - 5. All conductors #10 and smaller shall be solid, #8 and larger stranded.
- F. Wire and cable connectors: Thomas and Betts “Lock-Tie” for #6 AWG and larger, Scotchlock with insulating cap for #8 AWG and smaller.
- G. Splice insulation: Scotch #33 (0 – 22 degrees Fahrenheit) electrical tape with vinyl plastic backing or rubber tape with protection friction tape.
- H. Color Coding: System conductors shall be identified as to voltage and phase connections by means of color impregnated insulation or approved colored marking tape.
- I. Duct sealing compounds shall be a permanently soft, non-toxic compound that adheres to any clean dry surface, insoluble in water. The compound must not slump, flow, harden, crack or shrink in service, and be asbestos free. Johns-Manville Duxseal, Calpico “CD-AF”.
- J. Conduits shall be Schedule 40 PVC, Carlon or approved equal. All conduits entering pull boxes shall have end bells.
- K. Pull boxes shall be Associates Concrete Products “Quickset”, or equal, type EU-17, with tamper-proof hold down bolts, mounted on a twelve (12”) base of crushed drain rock.
- L. Light Fixtures: See electrical drawings for manufacturers and models. Contact Tim Haley, ALR (Architectural Area Lighting), timhaley@alrinc.com, mobile: (925) 997-5934.
- M. Panelboards (load centers)

1. Panelboard busses and connections shall consist of copper mounted on heavy-duty polyester supports. All bus joints shall be bolted using Belleville washers.
2. Each panelboard shall contain a full length, bottom located copper ground bus that is securely connected.
3. Panelboards shall have voltage and amperage as shown on the drawings.

N. Circuit Breakers

1. All branch circuit breakers shall be rated as shown on the drawings, minimum 10,000 amps interrupting capacity.
2. Breakers shall have toggle, quick-make and quick-break operating mechanisms with trip-free feature to prevent contacts being held closed against over-current conditions in the circuit. Trip position of the breakers shall be clearly indicated by operating handles moving to a center position.

- 2.2 Contractor shall furnish and install a weatherproof switch to control the weatherproof GFCI duplex receptacle as required by the Irrigation Contractor, for mounting within the irrigation controller enclosure. Furnish and install necessary ground rods as shown on the drawings.

PART 3 – EXECUTION

3.1 COORDINATION OF WORK

- A. The Contractor shall coordinate the electrical work with the work of other trades. The Contractor shall not be reimbursed for any work installed but not usable due to improper coordination of work.
- B. Local Codes: Prior to installing any work, the Contractor shall review the job with the local electrical inspector and bring any special requirements to the attention of the Engineer. Special requirements of local codes shall be included as part of this work.
- C. Materials: Prior to placing orders for materials, the Contractor shall check equipment ratings, equipment catalogue numbers, and equipment dimensions as to applicability and correctness for installation.

3.2 RACEWAY OR CONDUIT

- A. Conduits shall be installed below grade unless otherwise indicated. Wires and cables shall be installed in PVC with these exceptions:
- B. Rigid steel conduit shall be used in the following locations:
 1. In areas as required by Code.
 2. Rigid steel conduit installed below grade shall be PVC jacketed or taped with a continuous half-lapped layer of Scotch #50 electrical tape completely protecting conduit and fittings from contact with earth. Extend jacket or wrapping a minimum of six inches above floor or grade.

- C. All raceways shall be securely fastened to the cabinets, pull-boxes, terminals, etc., with two locknuts, or other approved fittings.
- D. All underground conduits shall be Rigid PVC Schedule 40 and approved for direct burial by each of the following:
 - 1. Underwriters Laboratories
 - 2. Local Authorities
- E. All underground conduits shall be installed a minimum of 36" below grade, unless otherwise indicated on the drawings or required by the City of Cupertino.
- F. Conduit system shall be electrically continuous with all boxes and conduits readily accessible.
- G. During construction, all conduits shall be plugged to prevent the entrance of foreign matter. Such plugs shall not be removed until all finish work has been completed.
- H. All empty raceways shall contain a high tensile strength polyethylene pulling line: Greenlee 431 or equal.

3.3 WIRES AND CABLES

- A. All wires and cables shall be hand-pulled with the exception of cables of sizes # 1 AWG and larger. Where mechanical means are used to pull cable #1 and larger, a pulling lubricant shall be used.
- B. Conductors shall not be installed in raceways until all boxes and mechanical work is complete.
- C. Prior to the pulling of conductors in raceways, the raceway shall be blown out with the use of compressed air at 100 psi minimum pressure.
- D. All splices of #10 AWG wire and smaller shall be made with "Scotch-Lock" solderless connectors. Terminations of #8 AWG and larger shall employ the use of solderless terminal lugs for stranded conductors.
- E. Where multiple circuits run through the same junction box or pullbox each wire shall be marked with a wrap-around cable marker indicating the circuit number and panel.
- F. Color-code all wires and cables. A different color shall be used for each phase of each voltage system. No. 12 and No. 10 wires shall be provided with insulation color-coding, and No. 8 wire and larger may be coded by color markers.
- G. Splices shall not be installed in junction boxes below grade or below slabs.

3.4 PANELBOARDS

- A. Set panels plumb. Furnish and install all construction channel bolts, angles, etc., required to mount the equipment furnished under this Section.
- B. Provide mounting brackets, and filler pieces for unused wraps.
- C. "Train" interior wiring: bundle and clamp, using specified plastic wire wraps.

- D. Touch-up paint any mars, blemished, or other finish damage suffered during installation.
- E. Replace panel doors or trim exhibiting dents, bends, warps, or poor fit.
- F. Install watertight cable sealing bushings on all exterior circuits terminating in the panelboards.

3.5 INSTALLATION

- A. The contractor shall furnish and install the electrical components per the project requirements.
- B. Contractor is responsible for the removal of all debris from job site caused by this work. Protect and cover all equipment during construction to keep material free from scratches and blemishes.
- C. All poles and fixtures shall be installed plumb and straight.
- D. All conductor splices shall be completely watertight, utilizing Scotchcase 85-10 series electrical splicing kits with molds, resin and tapes. Splices shall be prepared as recommended by the manufacturer.
- E. All conduits entering underground pull boxes shall have wide flange end bells. Upon completion of the installation of the wire in the conduits, all conduit ends shall be sealed watertight with non-hardening, non-oxidizing and non-corrosive sealing compounds, permagum or approved equal.
- F. All conductors in conduits shall be installed free from injury, abrasion, cuts or crimping. Where necessary, provide cable lubrication for smooth conductor installation. Contractor may use jet-line products "SWP" series, or approved equal.

3.6 TESTING

- A. The Contractor shall test the complete installation in the presence of the City's Representative upon completion of the project, including tests for grounds, circuits, etc.

PART 4 - MEASUREMENT AND PAYMENT

- 4.1 All work under this Section shall be included in the bid price for Bid Item No.16, "Electrical Systems," Bid Item No.17, "Arbor Downlights" and Bid Item No. 18, "Column Sconces" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved as indicated on the drawings and Project Manual.

END OF SECTION 16000