

PROJECT MANUAL

April 16, 2019

PARKING LOT EXPANSION

Plumas Avenue Elementary School
440 Plumas Avenue
Oroville, CA 95965
Butte County, CA

for
**Thermalito Union Elementary
School District**
Oroville, Butte County, California



Robertson Erickson Civil Engineers & Surveyors
888 Manzanita Ct. Suite 101
Chico, CA 95926
(530) 894-3500

DOCUMENT 00 01 07

Seals

IDENTIFICATION STAMP DIV.
OF THE STATE ARCHITECT
APP.02-117553 INC:
REVIEWED FOR
SS FLS ACS
DATE: 05/29/2019

CIVIL ENGINEER:

RUSS ERICKSON
License Number: C-58460
ROBERTSON ERICKSON
CIVIL ENGINEERS & SURVEYORS
888 Manzanita Court, Ste. 101
Chico, CA 95926
(530) 894-3500
russ@robertsonerickson.com



4/11/2019

ELECTRICAL ENGINEER:

GINO ROMANO
License Number: E-17247
PETERS ENGINEERING
2411 Alhambra Blvd., Ste. 100
Sacramento, CA 95817
(916) 447-2841
gromano@peterseng.com



DOCUMENT 00 01 10

TABLE OF CONTENTS - CONTRACT DOCUMENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

Division 0	Section	Title
	00 01 01	Title Page
	00-01-07	Seals Page
	00 01 10	Table of Contents
	00 11 16	Invitation to Bid
	00 21 13	Instructions to Bidders
	00 41 13	Bid Form
	00 43 13	Bid Bond (Security)
	00 43 36	Designated Subcontractors List
	00 45 01	Site-Visit Certification
	00 45 19	Noncollusion Declaration
	00 45 26	Worker's Compensation Certification
	00 45 50	Prevailing Wage and Related Labor Requirements Certification
	00 45 60	Drug-Free Workplace Certification
	00 45 65	Tobacco-Free Environment Certification
	00 45 70	Hazardous Materials Certification
	00 45 75	Lead-Based Materials Certification
	00 45 85	Criminal Background Investigation/Fingerprinting Certification
	00 51 00	Notice of Award
	00 52 13	Agreement
	00 54 60	Hazardous Materials Procedures and Requirements
	00 55 00	Notice to Proceed
	00 61 14	Performance Bond
	00 61 15	Payment Bond (Contractor's Labor and Material Bond)
	00 70 00	General Conditions
	00 71 00	Special Conditions

SPECIFICATIONS – GENERAL REQUIREMENTS

Division 1	Section	Title
	01 11 01	Summary of Work
	01 26 14	Requests for Information
	01 29 01	Schedule of Values/Application of Payment
	01 32 15	Progress Schedule
	01 33 01	Submittals
	01 41 00	Regulatory Requirements
	01 42 22	Standards and Abbreviations
	01 45 29	Testing Laboratory Services
	01 50 00	Temporary Facilities and Controls
	01 60 00	Product Requirements
	01 62 00	Product Options
		Substitution Request Form
	01 65 50	Delivery, Storage and Handling
	01 73 29	Cutting and Patching
	01 74 19	Construction Waste Management and Disposal
	01 76 00	Protecting Installed Construction
	01 77 01	Contract Closeout
		Test Certificates

01 78 36 Warranties
01 78 40 Record Drawings

TECHNICAL SPECIFICATIONS

Division 2
Division 26
Division 31
Division 32
Division 33

EXISTING CONDITIONS
ELECTRICAL
EARTHWORK
EXTERIOR IMPROVEMENTS
UTILITIES

END OF DOCUMENT

DOCUMENT 00 11 16

INVITATION TO BID

1. Pursuant to California Uniform Public Construction Cost Accounting Act, Thermalito Union Elementary School District is requesting informal bids for a **Parking Lot Expansion at Plumas Avenue Elementary School** for the Thermalito Union Elementary School District. Your company is on the list of qualified contractors for the category of work involved in this project.
2. Sealed Formal Bids will be received until 3:00 PM Friday, February 28th. Bids shall be addressed to the attention of Cody Walker, 400 Grand Avenue, Oroville, CA 95965. Any claim by a bidder of error in its bid must be made in compliance with section 5100 et seq. of the Public Contract Code. Any bid that is submitted after this time shall be non-responsive and returned to the bidder. One mandatory Bid Walk is required. It will be held at 10:00 AM Monday, February 10th, 2020 in the parking lot at 440 Plumas Avenue, Oroville, CA 95966.
3. The Project consists of: **All required labor, material, equipment, and services for the Parking Lot Expansion at Plumas Avenue Elementary School in strict conformity with the Drawings, Specifications, and Contract Documents.**
4. All bids shall be on the form provided by the District. Each bid must conform and be responsive to all pertinent Contract Documents, including, but not limited to, the Instructions to Bidders.
5. To bid on this Project, the Bidder is required to possess both of the following State of California Contractor License(s): **A, C-10**. The Bidder's license(s) must be active and in good standing at the time of the bid opening and must remain so throughout the term of the Contract.
6. As security for its Bid, each bidder shall provide with its Bid Form: a Bid Bond issued by an admitted surety insurer on the form provided by the District, cash, or a cashier's check or a certified check, drawn to the order of Thermalito Union Elementary School District, in the amount of ten percent (10%) of the total bid price. This bid security shall be a guarantee that the Bidder shall, within seven (7) calendar days after the date of the Notice of Award, enter into a contract with the District for the performance of the services as stipulated in the bid.
7. The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the contract for the Project.
8. The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.
9. The successful Bidder and its subcontractors shall pay all workers on the Project not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Prevailing wage rates are available from the District or on the Internet at: <http://www.dir.ca.gov>. Bidders and Bidders' subcontractors shall comply with the registration and qualification requirements pursuant to sections 1725.5 and 1771.1 of the California Labor Code.
10. The District's Board reserves the right to reject any and all bids and/or waive any irregularity in any bid received. If the District awards the Contract, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

END OF DOCUMENT

DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

Bidders shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

Thermalito Union Elementary School District ("District" or "Owner") will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to District, Bidder's bid may be rejected at the sole discretion of District.

1. **Project.** Bids are requested for a general construction contract, or work described in general, for the following project ("Project" or "Contract"):

Parking Lot Expansion at Plumas Avenue Elementary School

2. **Sealed Bids.** District will receive sealed Informal Bids from Bidders as indicated in the Notice to Bidders and each Bidder shall ensure that its Bid:
 - a. Is sealed and marked with name and address of the Bidder, the Project name and number, the bid number and bid package (if applicable), and the date for opening bids;
 - b. Contains all documents as required herein; and
 - c. Is submitted by date and time shown in the Notice to Bidders.
3. **Bid Opening.** Bids will be opened at or after the time indicated for receipt of bids. Informal Bids will not be publically read aloud.
4. **Bid Form.** Bidders must submit Bids on the Bid Form and all other required District forms. Bids not submitted on the District's required forms shall be deemed non-responsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible. Bidders shall not modify the Bid Form or qualify their Bids. Bidders shall not submit scanned, re-typed, word-processed, or otherwise recreated versions of the Bid Form or other District-provided documents.
5. **Complete Bids.** Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form:
 - Bid Bond or other security
 - Designated Subcontractors List
 - Site-Visit Certification (Bid Walk)
 - Noncollusion Declaration

- a. **Bid Bond or Other Security.** Bidders must submit their Bid Form with cash, a cashier's check or a certified check payable to District, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of their base Bid amount, including all additive alternates. Required form of corporate surety, Bid Bond, is provided by District and must be used and fully completed by Bidders choosing to provide a Bid Bond as security. The Surety on Bidders' Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security

will be deemed non-responsive and will not be considered.

- b. **Designated Subcontractors List.** Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total Bid. Failure to submit this list when required by law shall result in Bid being deemed non-responsive and the Bid will not be considered.
 - c. **Site Visit Certification.** If a mandatory bid walk and site visit (“Site Visit”) is requested as referenced in the Notice to Bidders, then Bidders must submit the Site-Visit Certification with their Bid. District will transmit to all prospective Bidders of record such Addenda as District in its discretion considers necessary in response to questions presented at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the District as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
 - d. **Noncollusion Declaration.** Bidders shall submit the Noncollusion Declaration with their Bids. Bids submitted without the Noncollusion Declaration shall be deemed non-responsive and will not be considered.
6. **Erasures.** Bids shall be clearly written without erasure or deletions. District reserves the right to reject any Bid containing erasures or deletions.
 7. **Words / Numerals.** Discrepancies between written words and figures, or words and numerals, will be resolved in favor of written words.
 8. **Prevailing Wages.** Pursuant to sections 1770 et seq. of the California Labor Code, Bidder and all Subcontractors under the Bidder shall pay all workers on all work performed pursuant to the Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the State of California Department of Industrial Relations (DIR) for the type of work performed and the locality in which the work is to be performed within the boundaries of the District. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by the DIR are available from the District or on the internet (<http://www.dir.ca.gov>).
 9. **Contractor Registration.** Bidder shall ensure that it and its Subcontractors comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner, and are registered pursuant to Labor Code section 1725.5. Bidder and its subcontractors shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of the Contract.
 10. **Bidder Diligence.** Submission of Bid signifies careful examination of the Contract Documents and a complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of Bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:
 - a. Bidder has visited the Project Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;

- b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;
- c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
- d. Bidder has given the District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution thereof by the District is acceptable to Bidder;
- e. Bidder has made a complete disclosure in writing to the District of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the District or other officer or employee of the District presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;
- f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by the Instructions to Bidders and that Bidder represented in its Bid Form and the Agreement that it performed prior to bidding. Bidder is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.
- g. **Conditions Shown on the Contract Documents:** Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, District only warrants, and Bidder may only rely, on the accuracy of limited types of information.
 - (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Bidder is required to make such verification as a condition to bidding. In submitting its Bid, Bidder shall rely on the results of its own independent investigation. In submitting its Bid, Bidder shall not rely on District-supplied information regarding above-ground conditions or as-built conditions.
 - (2) As to any subsurface condition shown or indicated in the Contract Documents, Bidder may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. District is not responsible for the completeness of such information for bidding or construction; nor is District responsible in any way for any conclusions or opinions of Bidder drawn from such information; nor is District responsible for subsurface conditions that are not specifically shown (for example, District is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).
- h. **Conditions Shown in Reports and Drawings Supplied for Informational Purposes:** Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:

- (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Project Site that have been utilized by Engineer in preparing the Contract Documents; and
 - (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Project Site that has been utilized by Engineer in preparing the Contract Documents.
 - (3) These reports and drawings are **not** Contract Documents and, except for any “technical” data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Bidder may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Bidder must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.
11. **As-Builts.** Bidders may examine any available “as-built” drawings of previous work by giving District reasonable advance notice. District will not be responsible for accuracy of “as-built” drawings. The document entitled Existing Conditions applies to all supplied “as-built” drawings.
12. **Questions.** All questions about the meaning or intent of the Contract Documents are to be directed in writing to the District (akoster@thermalito.org). Interpretations or clarifications considered necessary by the District in response to such questions will be issued in writing by Addenda faxed, mailed, or delivered to all parties recorded by the District as having received the Contract Documents. Questions received less than **SEVEN (7)** calendar days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
13. **Addenda.** Addenda may also be issued to modify parts of the Contract Documents as deemed advisable by the District. Bidder must acknowledge each Addendum in its Bid Form by number or its Bid may be considered non-responsive. Each Addenda shall be part of the Contract Documents. A complete listing of Addenda may be obtained from the District.
14. **Substitution for Specified Items.** Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. All requests must comply with the requirements specified in the Special Conditions, the Specifications and the following:
- a. **Request for Substitution Prior to Bid.**
 - (1) District must receive any request for substitution a minimum of **SEVEN (7)** calendar days prior to the date of bid opening.
 - (2) The District’s denial of a substitution request prior to the date of bid opening shall be conclusive, requiring Bidders to list only approved items. The District is not responsible and/or liable in any way for a Bidder’s damages and/or claims related, in any way, to that Bidder’s basing its bid on any requested substitution that the District has not approved. Bidder’s Bid shall be deemed non-responsive if it identifies a product or manufacturer of a non-approved substitution.
 - (3) Approved substitutions shall be listed in Addenda.
 - (4) District reserves the right not to act upon submittals of substitutions until after the date of bid opening.
 - b. **Request for Substitution after Bid Award.** Substitutions may be requested after Contract has been

awarded only if indicated in and in accordance with requirements specified in the Special Conditions.

- c. **Information with Request.** Requests for substitutions shall contain sufficient information to assess acceptability of the product or system and impact to Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.

15. **Alternates.** The Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction, that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders.

16. **Notice of Award.** The Bidder awarded the Contract shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7TH)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to, among other remedies, make a claim against Bidder's Bid Bond or deposit Bidder's cash, cashier's check, or certified check. The proceeds thereof may be retained by District as liquidated damages, in District's sole discretion.

- a. Agreement: To be executed by successful Bidder. Submit two (2) copies, each bearing an original signature.
- b. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
- c. Payment Bond (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
- d. Insurance Certificates and Endorsements as required.
- e. Workers' Compensation Certification.
- f. Prevailing Wage and Related Labor Requirements Certification.
- g. Drug-Free Workplace Certification.
- h. Tobacco-Free Environment Certification.
- i. Hazardous Materials Certification.
- j. Lead-Based Materials Certification.
- k. Criminal Background Investigation/Fingerprinting Certification.

17. **Notice to Proceed.** District may issue a Notice to Proceed within **THREE (3)** months from the date of the Notice of Award. Upon receipt of the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation or additional time when the Notice to Proceed is issued within the 3-month period.

- a. The District may postpone issuing the Notice to Proceed beyond the 3-month period, upon reasonable notice to Contractor.
- b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of

additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond the 3-month period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond the 3-month period shall be by written notice to District within **SEVEN (7)** calendar days after receipt by Contractor of District's notice of postponement.

- c. It is further understood by Contractor that in the event Contractor terminates the Contract as a result of postponement by the District, District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
- d. Should Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible bidder.

18. **Bid Protests.** Any bid protest by any Bidder regarding any other bid on this Project must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3rd)** Business Day following the date of bid opening.

- a. The protest must contain a complete statement of any and all bases for the protest.
- b. The protest must refer to the specific portions of all documents that form the bases for the protest.
- c. The protest must include the name, address and telephone number of the person representing the protesting party.
- d. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
- e. The procedure and time limits set forth in this paragraph are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.

19. **Rejection of Bids.** District reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if District believes that it would not be in the best interest of the District to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive inconsequential deviations not involving price, time, or changes in the Work. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for work item(s) that represent substantive work and/or overly-enhanced prices for nominal work item(s).

20. **Bidder Responsibility.** Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

DOCUMENT 00 41 13

BID FORM

To: Governing Board of THERMALITO UNION ELEMENTARY SCHOOL DISTRICT (“District” or “Owner”)

From: (Proper Name of Bidder)

The undersigned declares that the Contract Documents including, without limitation, the Notice to Bidders, the Instructions to Bidders, and the Special Conditions have been read, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications for the following Project:

PROJECT: **Parking Lot Expansion at Plumas Avenue Elementary School**

(“Project” or “Contract”) and will accept in full payment for that Work the following total lump sum amount, all taxes included:

_____ Dollars	\$
TOTAL BASE BID	

Additive Alternates:

1. **Contract Review.** The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this bid, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its bid, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.
2. **Requests for Clarification.** The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.
3. **Contract Time.** The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.
4. **Contractual Provisions.** The undersigned hereby acknowledges and agrees to be bound by following provisions and all provisions in the Contract Documents:

The liquidated damages clause of the General Conditions and Agreement.

- The “Changes in the Work” provisions in the General Conditions that limit the permitted charges and mark-ups on change orders and on the amount of home office overhead that the successful bidder can receive from the District.
- The “Claims” provisions in the General Conditions that delineate the required process to submit and process disputes and claims.

5. **Bid Open for 90 Days.** It is understood that the District reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.

6. **Attachments.** The following documents are attached hereto:

- The Bid Bond on the District's form or other security
- The Designated Subcontractors List
- The Site-Visit Certification (Bid Walk)
- The Noncollusion Declaration

7. **Addenda Acknowledgement.** Receipt and acceptance of the following addenda is hereby acknowledged:

No. , Dated	No. , Dated
<input type="checkbox"/> Or check here if no addenda were issued.	

8. **Bidder’s License.**

- Bidder acknowledges that the license required for performance of the Work is as stated in the Invitation to Bid.
- Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

9. **Labor Harmony.** The undersigned hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

10. **DIR Registration.** Bidder shall ensure that it and its Subcontractors comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner, and are registered pursuant to Labor Code section 1725.5.

11. **General Acknowledgement.** The Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.

12. **False Claims Act.** Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms “claim” and “knowingly” are defined in the California False Claims Act, Cal. Gov. Code, §12650 et

seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

Furthermore, Bidder hereby certifies to the District that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this _____ day of _____ 20

Name of Bidder _____

Type of Organization _____

Signature _____

Signed by _____

Title of Signer _____

Address of Bidder _____

Taxpayer's Identification No. of Bidder _____

Telephone Number _____

Fax Number _____

E-mail _____ Web page _____

Bidder's DIR Registration No.: No.: _____

Contractor's License No(s): No.: Class: Expiration Date: _____

No.: Class: Expiration Date: _____

No.: Class: Expiration Date: _____

If Bidder is a corporation, provide the following:

Name of Corporation: _____

President: _____

Secretary: _____

Treasurer: _____

Manager: _____

END OF DOCUMENT

DOCUMENT 00 43 13

BID BOND (SECURITY)

**(Note: If Bidder is providing a bid bond as its bid security,
Bidder must use this form, NOT a surety company form.)**

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, _____ as Principal ("Principal"),

and _____ as Surety ("Surety"),

a corporation organized and existing under and by virtue of the laws of the State of _____

and authorized to do business as a surety in the State of California, are held and firmly bound unto the

Thermalito Union Elementary School District ("District")

of _____ County, State of California as Obligee, in the sum of

_____ (\$ _____)

lawful money of the United States of America, for the payment of which sum well and truly to be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid to the District for all Work specifically described in the accompanying bid;

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner required under the Contract Documents, after the prescribed forms are presented to Principal for signature, enters into a written contract, in the prescribed form in accordance with the bid, and files two bonds, one guaranteeing faithful performance and the other guaranteeing payment for labor and materials as required by law, and meets all other conditions to the contract between the Principal and the Obligee becoming effective, or if the Principal shall fully reimburse and save harmless the Obligee from any damage sustained by the Obligee through failure of the Principal to enter into the written contract and to file the required performance and labor and material bonds, and to meet all other conditions to the Contract between the Principal and the Obligee becoming effective, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. The full payment of the sum stated above shall be due immediately if Principal fails to execute the Contract within seven (7) days of the date of the District's Notice of Award to Principal.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or the call for bids, or to the work, or to the specifications.

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

If the District awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the

_____ day of _____, _____.

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

END OF DOCUMENT

DOCUMENT 00 43 36

DESIGNATED SUBCONTRACTORS LIST

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

PROJECT: **Parking Lot Expansion at Plumas Avenue Elementary School**

1. Bidder must list hereinafter the name and location of each subcontractor who will be employed, and the scope of Work that each will perform if the Contract is awarded to the Bidder. Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., it must clearly identify the name and location of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (1/2 of 1%) of Bidder's total Bid.
2. As to any Work that Bidder fails to list, Bidder agrees to perform that portion itself or be subjected to penalty under applicable law.
3. If alternate bids are called for and Bidder intends to use Subcontractors different from or in addition to those Subcontractors listed for work under the base Bid, Bidder must list Subcontractors that will perform Work in an amount in excess of one half of one percent (1/2 of 1%) of Bidder's total Bid, including alternates.
4. In case more than one subcontractor is named for the same scope of Work, state the portion that each will perform.
5. Bidder need not list entities that are only vendors or suppliers of materials.
6. Bidder must indicate which, if any, of these subcontractors are disabled veteran business enterprises (DVBE) and the estimated percentage of the Work those subcontractor(s) will perform.
7. Bidder must provide the Contactor State License Board number ("CSLB No.") for all listed subcontractors.
8. Bidder must provide the Department of Industrial Relations registration number ("DIR No.") for all listed subcontractors.
9. **The District will permit each Bidder to submit each listed subcontractor's CSLB No. and the DIR No. no later than twenty-four (24) hours after bid opening.**
10. If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

Subcontractor Name: _____ **Location:** _____

Scope of Work: _____

If DVBE, Percent of Work: _____ **%** **CSLB No.:** _____ **DIR No.:** _____

Subcontractor Name: _____ **Location:** _____

Scope of Work: _____

If DVBE, Percent of Work: _____% CSLB No.: _____ DIR No.: _____

Subcontractor Name: _____ **Location:** _____

Scope of Work: _____

If DVBE, Percent of Work: _____% CSLB No.: _____ DIR No.: _____

I certify and declare under penalty of perjury under the laws of the State of California that all the foregoing information is complete, true, and correct.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 01
SITE-VISIT CERTIFICATION

PROJECT: **Parking Lot Expansion at Plumas Avenue Elementary School**

Check whichever option applies:

_____ I certify that I visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

_____ I certify that _____ (Bidder's representative) visited the Site of the proposed Work and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully relieves and releases the Thermalito Union Elementary School District, its Architect, its Engineer, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any liability for any monetary or other damage(s), related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 19

NONCOLLUSION DECLARATION
Public Contract Code § 7106

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ **[PRINT YOUR TITLE]**

of _____ **[PRINT FIRM NAME]**,

the party making the foregoing bid.

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

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

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 the following date:

Date: _____

Proper Name of Bidder: _____

City, State: _____, _____

Signature: _____

Print Name: _____

Title: _____

(ATTACH NOTARIAL ACKNOWLEDGMENT FOR THE ABOVE SIGNATURE)

END OF DOCUMENT

DOCUMENT 00 45 26

WORKERS' COMPENSATION CERTIFICATION

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

Labor Code section 3700 in relevant part provides:

Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- 1 By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
- 2 By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to its employees.

I am aware of the provisions of section 3700 of the Labor Code 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 of the Contract.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

(In accordance with Article 5 - commencing at section 1860, chapter 1, part 7, division 2 of the Labor Code, the above certificate must be signed and filed with the awarding body prior to performing any Work under the Contract.)

END OF DOCUMENT

DOCUMENT 00 45 50

**PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union Elementary School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the Project including, without limitation, the requirement that it and all of its Subcontractors are registered pursuant to Labor Code section 1771, et seq.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 60

DRUG-FREE WORKPLACE CERTIFICATION

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union Elementary School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code sections 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The District is not a "state agency" as defined in the applicable section(s) of the Government Code, but the District is a local agency and public school district under California law and requires all contractors on District projects to comply with the provisions and requirements of Government Code sections 8350 et seq., the Drug-Free Workplace Act of 1990.

Contractor shall certify that it will provide a drug-free workplace by doing all of the following:

1. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition;
2. Establishing a drug-free awareness program to inform employees about all of the following:
 - a. The dangers of drug abuse in the workplace.
 - b. The person's or organization's policy of maintaining a drug-free workplace.
 - c. The availability of drug counseling, rehabilitation, and employee-assistance programs.
 - d. The penalties that may be imposed upon employees for drug abuse violations.
3. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if the District determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of section 8350 et seq.

I acknowledge that I am aware of the provisions of Government Code sections 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 65

TOBACCO-FREE ENVIRONMENT CERTIFICATION

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union Elementary School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This Tobacco-Free Environment Certification form is required from the successful Bidder.

Pursuant to, without limitation, 20 U.S.C. section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq. and District Board Policies, all District sites, including the Project site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in District property. District property includes school buildings, school grounds, school owned vehicles and vehicles owned by others while on District property.

I acknowledge that I am aware of the District's policy regarding tobacco-free environments at District sites, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents to use tobacco and/or smoke on the Project site.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 70

HAZARDOUS MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union Elementary School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

1. Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for District.
2. Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
3. Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (.1%) asbestos shall be defined as asbestos-containing material.
4. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the District's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
5. All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing "New Hazardous Material" will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the District.
6. Contractor has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 75

LEAD-BASED MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union Elementary School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

This certification provides notice to the Contractor that:

- (1) The Contractor's work may disturb lead-containing building materials.
- (2) The Contractor must notify the District if any work may result in the disturbance of lead-containing building materials.

1. Lead as a Health Hazard

Lead poisoning is recognized as a serious environmental health hazard facing children today. Even at low levels of exposure, much lower than previously believed, lead can impair the development of a child's central nervous system, causing learning disabilities, and leading to serious behavioral problems. Lead enters the environment as tiny lead particles and lead dust disburse when paint chips, chalks, peels, wears away over time, or is otherwise disturbed. Ingestion of lead dust is the most common pathway of childhood poisoning; lead dust gets on a child's hands and toys and then into a child's mouth through common hand-to-mouth activity. Exposures may result from construction or remodeling activities that disturb lead paint, from ordinary wear and tear of windows and doors, or from friction on other surfaces.

Ordinary construction and renovation or repainting activities carried out without lead-safe work practices can disturb lead-based paint and create significant hazards. Improper removal practices, such as dry scraping, sanding, or water blasting painted surfaces, are likely to generate high volumes of lead dust.

Because the Contractor and its employees will be providing services for the District, and because the Contractor's work may disturb lead-containing building materials, CONTRACTOR IS HEREBY NOTIFIED of the potential presence of lead-containing materials located within certain buildings utilized by the District. All school buildings built prior to 1993 are presumed to contain some lead-based paint until sampling proves otherwise.

2. Overview of California Law

Education Code section 32240 et seq. is known as the Lead Safe Schools Protection Act. Under this act, the Department of Health Services ("DHS") is to conduct a sample survey of schools in the State of California for the purpose of developing risk factors to predict lead contamination in public schools. (Ed. Code, § 32241.)

Any school that undertakes any action to abate existing risk factors for lead is required to utilize trained and state-certified contractors, inspectors, and workers. (Ed. Code, § 32243, subd. (b).) Moreover, lead-based paint, lead plumbing, and solders, or other potential sources of lead contamination, shall not be utilized in the construction of any new school facility or the modernization or renovation of any existing school facility. (Ed. Code, § 32244.)

Both the Federal Occupational Safety and Health Administration ("Fed/OSHA") and the California Division of Occupational Safety and Health ("Cal/OSHA") have implemented safety orders applicable to all construction work where a contractor's employee may be occupationally exposed to lead.

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors subject to that regulation. The OSHA Regulations define construction work as work for construction, alteration,

and/or repair, including painting and decorating. It includes, but is not limited to, the following:

- a. Demolition or salvage of structures where lead or materials containing lead are present;
- b. Removal or encapsulation of materials containing lead;
- c. New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- d. Installation of products containing lead;
- e. Lead contamination/emergency cleanup;
- f. Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- g. Maintenance operations associated with the construction activities described in the subsection.

Because it is assumed by the District that all painted surfaces (interior as well as exterior) within the District contain some level of lead, it is imperative that the Contractor, its workers and subcontractors fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials (including title 8, California Code of Regulations, section 1532. 1).

The Contractor must notify the District if any Work may result in the disturbance of lead-containing building materials. Any and all Work that may result in the disturbance of lead-containing building materials must be coordinated through the District. A signed copy of this Certification must be on file prior to beginning Work on the Project, along with all current insurance certificates.

3. Renovation, Repair and Painting Rule, Section 402(c)(3) of the Toxic Substances Control Act

In 2008, the U.S. Environmental Protection Agency, issued a rule pursuant to the authority of Section 402(c)(3) of the Toxic Substances Control Act, requiring lead safe work practices to reduce exposure to lead hazards created by renovation, repair and painting activities that disturb lead-based paint (Renovation, Repair and Painting Rule). Renovations in homes, childcare facilities, and schools built prior to 1978 must be conducted by certified renovations firms, using renovators with accredited training, and following the work practice requirements to reduce human exposures to lead.

Contractor, its workers and subcontractors must fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials, including those rules and regulations appearing within title 40 of the Code of Federal Regulations as part 745 (40 CFR 745).

The requirements apply to all contractors who disturb lead-based paint in a six-square-foot area or greater indoors or a 20-square-foot area outdoors. If a DPH-certified inspector or risk assessor determines that a home constructed before 1978 is lead-free, the federal certification is not required for anyone working on that particular building.

4. Contractor's Liability

If the Contractor fails to comply with any applicable laws, rules, or regulations, and that failure results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective actions, and shall defend, indemnify, and hold harmless the District, pursuant to the indemnification provisions of the Contract, for all damages and other claims arising therefrom.

If lead disturbance is anticipated in the Work, only persons with appropriate accreditation, registrations, licenses, and training shall conduct this Work.

It shall be the responsibility of the Contractor to properly dispose of any and all waste products, including, but not limited to, paint chips, any collected residue, or any other visual material that may occur from the prepping of any painted surface. It will be the responsibility of the Contractor to provide the proper disposal of any hazardous waste by a certified hazardous waste hauler. This company shall be registered with the Department of Transportation (DOT) and shall be able to issue a current manifest number upon transporting any hazardous material from any school site within the District.

The Contractor shall provide the District with any sample results prior to beginning Work, during the Work, and after the completion of the Work. The District may request to examine, prior to the commencement of the Work, the lead training records of each employee of the Contractor.

The Contractor hereby acknowledges, under penalty of perjury, that it:

1. Has received notification of potential lead-based materials on the District's property;
2. Is knowledgeable regarding and will comply with all applicable laws, rules, and regulations governing work with, and disposal of, lead.

The undersigned warrants that he/she has the authority to sign on behalf of and bind the Contractor. The District may require proof of such authority.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 85

CRIMINAL BACKGROUND INVESTIGATION / FINGERPRINTING CERTIFICATION

PROJECT/CONTRACT NO.: Parking Lot Expansion at Plumas Avenue Elementary School between Thermalito Union Elementary School District (the "District" or the "Owner") and _____ (the "Contractor" or the "Bidder") (the "Contract" or the "Project").

The undersigned does hereby certify to the governing board of the District that:

- (1) He/she is a representative of the Contractor,
- (2) He/she is familiar with the facts herein certified,
- (3) He/she is authorized and qualified to execute this certificate on behalf of Contractor; and
- (4) That the information in this Criminal Background Investigation / Fingerprinting Certification is true and correct.

1. **Education Code.** Contractor has taken at least one of the following actions with respect to the Project (check all that apply):

_____ The Contractor has complied with the fingerprinting requirements of Education Code section 45125.1 with respect to all Contractor's employees and all of its subcontractors' employees who may have contact with District pupils in the course of providing services pursuant to the Contract, and the California Department of Justice ("DOJ") has determined (per the DOJ process for Applicant Agencies described more fully on its website, located at: <http://oag.ca.gov/fingerprints/agencies>) that none of those employees have been convicted of a felony, as that term is defined in Education Code section 45122.1. A complete and accurate list of Contractor's employees and of all of its subcontractors' employees who may come in contact with District pupils during the course and scope of the Contract is attached hereto; and/or

_____ Pursuant to Education Code section 45125.2, Contractor has installed or will install, prior to commencement of work , a physical barrier at the Project site, that will limit contact between Contractor's employees and District pupils at all times; and/or

_____ Pursuant to Education Code section 45125.2, Contractor certifies that all employees will be under the continual supervision of, and monitored by, an employee of the Contractor who the California Department of Justice has ascertained has not been convicted of a violent or serious felony. The name and title of the employee who will be supervising Contractor's employees and its subcontractors' employees is:

Name: _____

Title: _____

_____ The Work on the Contract is at an unoccupied school site and no employee and/or subcontractor or supplier of any tier of Contract shall come in contact with the District pupils.

2. **Megan's Law (Sex Offenders).** I have verified and will continue to verify that the employees of Contractor that will be on the Project site and the employees of the Subcontractor(s) that will be on the Project site are **not** listed on California's "Megan's Law" Website (<http://www.meganslaw.ca.gov/>).

Contractor's responsibility for background clearance extends to all of its employees, subcontractors, and employees of subcontractors coming into contact with District pupils regardless of whether they are designated as employees or acting as independent contractors of the Contractor.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 51 00

NOTICE OF AWARD

Dated: _____, 20 ____

To:

("Contractor")

(Address)

From: Governing Board ("Board") of THERMALITO UNION ELEMENTARY SCHOOL DISTRICT ("District" or "Owner")

Re:

Project ("Project" or "Contract")

Contractor was awarded the Contract on _____, _____, by action of the superintendent or superintendent's designee pursuant to a delegation of authority by the District's Board.

The Contract Price is _____ Dollars (\$ _____), and includes alternates _____.

Two (2) copies of each of the Contract Documents (except Drawings) accompany the Notice of Award. Two (2) sets of the Drawings will be delivered separately or otherwise made available. Additional copies are available at cost of reproduction.

Contractor must comply with the following conditions precedent within **SEVEN (7)** calendar days of the date of this Notice of Award.

Contractor shall execute and submit the following Contract Documents by 5:00 p.m. of the **SEVENTH (7TH)** calendar day following the date of the Notice of Award. Failure to properly and timely submit the following Contract Documents entitles District to foreclose on Contractor's bid bond and award the contract to the next responsive, responsible bidder.

- a. Agreement: Submit two (2) copies, each bearing an original signature. **If Contractor is a corporation, Contractor must attach a certified copy of the corporation's by-laws, or the resolution of the Board of Directors of the corporation, authorizing the signatory to execute the Agreement and the bonds required by the Contract Documents.**
- b. Performance Bond (100%): Fully executed form provided in the Contract Documents.
- c. Payment Bond (100%) (Contractor's Labor and Material Bond): Fully executed form provided in the Contract Documents.
- d. Insurance Certificates and Endorsements.
- e. Workers' Compensation Certification.
- f. Prevailing Wage and Related Labor Requirements Certification.
- g. Drug-Free Workplace Certification.

- h. Tobacco-Free Environment Certification.
- i. Hazardous Materials Certification.
- j. Lead-Based Materials Certification.
- k. Criminal Background Investigation/Fingerprinting Certification.

Failure to comply with these conditions within the time specified will entitle District to consider Contractor's bid abandoned, to annul the Notice of Award, and to declare Contractor's Bid Security forfeited, as well as any other rights the District may have against Contractor.

District will return to Contractor one fully signed counterpart of the Agreement.

THERMALITO UNION ELEMENTARY SCHOOL DISTRICT

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

DOCUMENT 00 52 13

AGREEMENT

THIS AGREEMENT IS MADE AND ENTERED INTO THIS _____ DAY OF _____, _____, by and between the THERMALITO UNION ELEMENTARY SCHOOL DISTRICT (“District” or “Owner”) and _____ (“Contractor”) (“Agreement”). The District and the Contractor agree as follows:

1. **The Work:** Contractor shall furnish all tools, equipment, apparatus, facilities, labor, and material necessary to perform and complete in a good and workmanlike manner, the work of the following project:

PROJECT: Parking Lot Expansion at Plumas Avenue Elementary School (“Project” or “Contract” or “Work”)

The Work shall be performed and completed as required in the Contract Documents as defined in the General Conditions including, without limitation, the Drawings and Specifications, under the direction and supervision of, and subject to, the approval of the District or its authorized representative.

2. **The Contract Documents:**

- a. The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. All obligations of the District and Contractor are fully set forth and described in the Contract Documents. The Contract Documents are intended to cooperate so that Work called for in one and not mentioned in the other or vice versa is to be performed the same as if mentioned in all Contract Documents.
- b. **Interpretation of Contract Documents:** Questions concerning the intent, precedence, or meaning of the Contract Documents, including the Drawings or Specifications, shall be submitted to the District for interpretation. Inconsistencies in the Contract Documents shall be resolved by giving precedence in the following order:
- (i) District-approved modifications, beginning with the most recent (if any);
 - (ii) Agreement;
 - (iii) Special Conditions (if any);
 - (iv) Supplemental Conditions (if any);
 - (v) General Conditions;
 - (vi) Remaining Division 0 documents (Documents beginning with “00”);
 - (vii) Division 1 Documents (Documents beginning with “01”);
 - (viii) Division 2 through Division 32 documents (Technical Specifications);
 - (ix) Figured dimensions;
 - (x) Large-scale drawings;
 - (xi) Small-scale drawings.

In case of conflict, the greater quantity and/or higher standard of workmanship shall apply unless the District expressly in writing (e.g., via a Change Order) accepts a lesser quantity or lower quality of workmanship and the Contract Price is adjusted accordingly. The decision of the District in the matter shall be final.

- 3. Time For Completion:** It is hereby understood and agreed that the Contractor shall complete the Work within Ninety-One Days (91) consecutive calendar days (“Contract Time”) from the date specified in the District's Notice to Proceed. It is understood that the window for the project is June 5th to July 31st. Project Expected Notice to Proceed expected to be issued by one month prior to start date. The District shall not approve an early completion schedule by Contractor. A schedule showing the Work completed in less than the Contract Time indicated in the Contract, shall be considered to have Project Float.
- 4. Completion-Extension Of Time:** If Contractor fails to complete the Work within the Contract Time, due allowance being made for the contingencies provided for herein, Contractor shall become liable to District for all loss and damage that District may suffer on account thereof. Contractor shall coordinate its Work with the work of all other contractors. The District shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that allows for timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the work of other contractors.
- 5. Liquidated Damages:** Time is of the essence for all Work to be performed. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that District will sustain in the event of and by reason of Contractor's delay; therefore, pursuant to Government Code section 53069.85 and Public Contract Code section 7203, Contractor shall forfeit and pay to District the following sum(s) as liquidated damages (“Liquidated Damages”):
- Project Completion:** Five Hundred Dollars] (\$500) per day as Liquidated Damages for each and every day's delay beyond the Contract Time to complete all the Work.
 - a. Each portion of the Liquidated Damages shall be calculated cumulatively. For example, if Contractor is late in completing two milestones and the entire Project, Contractor will forfeit and pay three separate Liquidated Damages amounts.
 - b. It is hereby understood and agreed that neither the total cumulative Liquidate Damages amount nor any portion of the Liquidated Damage amount are penalties.
 - c. District may deduct Liquidated Damages from money due or that may become due Contractor under this Agreement. Contractor's forfeiture of Liquidated Damages to District, and District's right to retain Liquidated Damages, are as indicated in Government Code section 53069.85 and as indicated herein and in the General Conditions.
 - d. Liquidated Damages are automatically and without notice of any kind forfeited and payable by Contractor upon the accrual of each day of delay. Neither District's failure or delay in deducting Liquidated Damages from payments otherwise due the Contractor, nor District's failure or delay in notifying Contractor of the forfeiture and payment of Liquidated Damages, shall be deemed a waiver of District's right to Liquidated Damages and/or the District's right to withhold Liquidated Damages from any amounts that would otherwise be payable to the Contractor.
 - e. Contractor and Surety shall be liable for and pay to District the entire amount of Liquidated Damages including any portion that exceeds the amount of the Contract Price then held, retained or controlled by District.
 - f. Liquidated Damages shall be in addition, and not in lieu of, District's right to charge Contractor for the District's cost of completing or correcting items of the Work.
- 6. Insurance and Bonds:** Contractor shall provide all required certificates of insurance, and payment and performance bonds.
- 7. Performance of Work:** If Contractor fails to perform the Work properly or fails to perform any provisions of this Contract, the District, may, pursuant to the General Conditions and without prejudice to any other remedy it may have, cure the deficiencies and deduct the cost thereof from the payment then or thereafter due

Contractor.

- 8. Authority of Engineer, Project Inspector, and DSA:** Contractor hereby acknowledges that the Engineer(s), the Project Inspector(s), and the Division of the State Engineer have authority to approve and/or stop Work if Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws. Contractor shall be liable for any delay caused by its non-compliant Work.
- 9. Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by Contractor without the written approval of District, nor without the written consent of the Surety on Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
- 10. Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type B Contractor's license(s) issued by the State of California, Contractor's State Licensing Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
- 11. Payment of Prevailing Wages:** Contractor and all Subcontractors under Contractor shall pay all workers on Work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code.
- 12. Contractor & Subcontractor Registration:** Contractor shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including complying with any applicable enforcement by the Department of Industrial Relations.
- 13. Contract Price:** In consideration of the foregoing covenants, promises, and agreements, Contractor offers, in the amounts stated below, to perform the Work according to the Contract Documents. District covenants, promises, and agrees that it will pay and cause to be paid to Contractor in full, and as the Contract Price the following amount(s):

Dollars

(\$ _____), ("Contract Price")

- a. **THE ABOVE ALLOWANCES ARE WITHIN THE CONTRACT PRICE ONLY TO THE EXTENT CONTRACTOR HAS PERFORMED WORK ENCOMPASSED BY THE ALLOWANCE DESCRIPTION, CONTRACTOR HAS APPROPRIATELY INVOICED FOR THAT WORK, AND DISTRICT HAS APPROVED CONTRACTOR'S INVOICE. CONTRACTOR SHALL INVOICE ONLY FOR COMPONENTS OF THE WORK ENCOMPASSED BY THE ALLOWANCE DESCRIPTION, IN THE IDENTICAL STRUCTURE AS A CHANGE ORDER. THE UNUSED PORTION OF EACH ALLOWANCE SHALL BE RETAINED BY THE DISTRICT.**
- b. The Contract Price shall be paid in lawful money of the United States pursuant to the payment provisions in the General Conditions.

- 14. Authority of Contractor's Representative:** Contractor hereby certifies that its legal representative as defined in the General Conditions and the person(s) it employees on the Project at or above the level of project superintendent, each have the authority to legally bind the Contractor.

15. **Severability:** If any term, covenant, condition, or provision of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.
16. **CONTRACTOR SPECIFICALLY AGREES TO ASSERT NO DEMANDS OR CLAIMS IN ARBITRATION OR LITIGATION UNLESS IT HAS STRICTLY COMPLIED WITH THE PROVISIONS IN THE "CLAIMS RESOLUTION" SECTION OF THE GENERAL CONDITIONS (DOCUMENT 00 70 00).**

Contractor's Initials Acknowledging "Claims Resolution" Requirements: _____

IN WITNESS WHEREOF, accepted and agreed on the date indicated above:

Dated: _____, 2018

Dated: _____, _____

THERMALITO UNION ELEMENTARY SCHOOL DISTRICT

By: _____

By: _____

Print Name: _____

Print Name: _____

Print Title: _____

Print Title: _____

NOTE: If the Contractor is a corporation, Contractor must attach a certified copy of the corporation's by-laws, or of the resolution of the Board of Directors of the corporation, authorizing the above person to execute this Agreement and the bonds required by the Contract Documents.

END OF DOCUMENT

DOCUMENT 00 54 60

HAZARDOUS MATERIALS PROCEDURES & REQUIREMENTS

1. Summary

This document includes information applicable to hazardous materials and hazard waste abatement.

2. Notice of Hazardous Waste or Materials Conditions

- a. Contractor shall give written notice to District, Construction Manager, and Engineer promptly, before any of the following conditions are disturbed, and in no event later than twenty-four (24) hours after first observance, of any:
 - (1) Material that Contractor believes may be material that is hazardous waste or hazardous material, as defined in section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
 - (2) Other material that may present a substantial danger to persons or property exposed thereto in connection with Work at the Project Site.
- b. Contractor's written notice shall indicate whether the hazardous waste or material was shown or indicated in the Contract Documents to be within the scope of Work, and whether the materials were brought to the site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible. As used in this section the term "hazardous materials" shall include, without limitation, asbestos, lead, Polychlorinated biphenyl (PCB), petroleum and related hydrocarbons, and radioactive material.
- c. In response to Contractor's written notice, the District shall investigate the identified conditions.
- d. If District determines that conditions do not involve hazardous materials or that no change in terms of Contract is justified, District shall so notify Contractor in writing, stating reasons. If District and Contractor cannot agree on whether conditions justify an adjustment in Contract Price or Contract Time, or on the extent of any adjustment, Contractor shall proceed with the Work as directed by District.
- e. If after receipt of notice from District, Contractor does not agree to resume Work based on a reasonable belief it is unsafe, or does not agree to resume Work under special conditions, then District may order that portion of Work connected with the hazardous condition or affected area, be deleted from the Work, or performed by others, or District may invoke its rights to terminate the Contract in whole or in part. District will determine entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Time as a result of deleting such portion of Work, or performing the Work by others.
- f. If Contractor stops Work in connection with any hazardous condition and in any area affected thereby, Contractor shall immediately redeploy its workers, equipment, and materials, as necessary, to other portions of the Work to minimize delay and disruption.

3. Additional Warranties and Representations

- a. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have the required levels of familiarity with the Project Site and the Work, training, and ability to comply fully with all applicable law and contract requirements for safe and expeditious performance of the Work, including whatever training is or may be required regarding the activities to be performed (including, but not limited to, all training required to address adequately the actual or

potential dangers of Contract performance).

- b. Contractor represents and warrants that it, its employees, and its subcontractors and their employees, shall at all times have and maintain in good standing any and all certifications and licenses required by applicable federal, state, and other governmental and quasi-governmental requirements applicable to the Work.
- c. Contractor represents and warrants that it has studied carefully all requirements of the Specifications regarding procedures for demolition, hazardous waste abatement, or safety practices, specified in the Contract, and prior to submitting its bid, has either (a) verified to its satisfaction that the specified procedures are adequate and sufficient to achieve the results intended by the Contract Documents, or (b) by way of approved "or equal" request or request for clarification and written Addenda, secured changes to the specified procedures sufficient to achieve the results intended by the Contract Documents. Contractor accepts the risk that any specified procedure will result in a completed Project in full compliance with the Contract Documents.

4. Monitoring and Testing

- a. District reserves the right, in its sole discretion, to conduct air monitoring, earth monitoring, Work monitoring, and any other tests (in addition to testing required under the agreement or applicable law), to monitor Contract requirements of safe and statutorily compliant work methods and (where applicable) safe re-entry level air standards under state and federal law upon completion of the job, and compliance of the work with periodic and final inspection by public and quasi-public entities having jurisdiction.
- b. Contractor acknowledges that District has the right to perform, or cause to be performed, various activities and tests including, but not limited to, pre-abatement, during abatement, and post-abatement air monitoring, that District shall have no obligation to perform said activities and tests, and that a portion of said activities and tests may take place prior to the completion of the Work by Contractor. In the event District elects to perform these activities and tests, Contractor shall afford District ample access to the Site and all areas of the Work as may be necessary for the performance of these activities and tests. Contractor will include the potential impact of these activities or tests by District in the Contract Price and the Scheduled Completion Date.
- c. Notwithstanding District's rights granted by this paragraph, Contractor may retain its own industrial hygiene consultant at Contractor's own expense and may collect samples and perform tests including, but not limited to, pre-abatement, during abatement, and post-abatement personal air monitoring, and District reserves the right to request documentation of all such activities and tests performed by Contractor relating to the Work and Contractor shall provide that documentation immediately upon request, but in no event later than **THREE (3)** days upon request.

5. Compliance with Laws

- a. Contractor shall perform safe, expeditious, and orderly work in accordance with the best practices and the highest standards in the hazardous waste abatement, removal, and disposal industry, the applicable law, and the Contract Documents, including, but not limited to, all responsibilities relating to the preparation and return of waste shipment records, all requirements of the law, delivering of all requisite notices, and obtaining all necessary governmental and quasi-governmental approvals.
- b. Contractor represents that it is familiar with and shall comply with all laws applicable to the Work or completed Work including, but not limited to, all federal, state, and local laws, statutes, standards, rules, regulations, and ordinances applicable to the Work relating to:

(1) The protection of the public health, welfare and environment;

- (2) Storage, handling, or use of asbestos, PCB, lead, petroleum based products or other hazardous materials;
- (3) The generation, processing, treatment, storage, transport, disposal, destruction, or other management of asbestos, PCB, lead, petroleum, or hazardous waste materials or other waste materials of any kind; and
- (4) The protection of environmentally sensitive areas such as wetlands and coastal areas.

6. Disposal

- a. Contractor has the sole responsibility for determining current waste storage, handling, transportation, and disposal regulations for the Project Site and for each waste disposal facility. Contractor must comply fully at its sole cost and expense with these regulations and any applicable law. District may, but is not obligated to, require submittals with this information for it to review consistent with the Contract Documents.
- b. Contractor shall develop and implement a system acceptable to District to track hazardous waste from the Project Site to disposal, including appropriate "Hazardous Waste Manifests" on the EPA form, so that District may track the volume of waste deposited in each landfill and receive from each facility a certificate of receipt.
- c. Contractor shall provide District with the name and address of each waste disposal facility prior to any disposal, and District shall have the right to reject any proposed disposal facility. Contractor shall not use any disposal facility to which District has objected. Contractor shall document actual disposal or destruction of waste at a designated facility by completing a disposal certificate or certificate of destruction forwarding the original to District.

7. Permits

- a. Before performing any of the Work, and at such other times as may be required by applicable law, Contractor shall deliver all requisite notices and obtain the approval of all governmental and quasi-governmental authorities having jurisdiction over the Work. Contractor shall submit evidence satisfactory to District that Contractor and any disposal facility:
 - (1) have obtained all required permits, approvals, and the like in a timely manner both prior to commencement of the Work and thereafter as and when required by applicable law, and
 - (2) are in compliance with all such permits, approvals and the regulations.

For example, before commencing any work in connection with the Work involving asbestos-containing materials, or PCBs, or other hazardous materials subject to regulation, Contractor agrees to provide the required notice of intent to renovate or demolish to the appropriate state or federal agency having jurisdiction, by certified mail, return receipt requested, or by some other method of transmittal for which a return receipt is obtained, and to send a copy of that notice to District. Contractor shall not conduct any Work involving asbestos-containing materials or PCBs unless Contractor has first confirmed that the appropriate agency having jurisdiction is in receipt of the required notification. All permits, licenses, and bonds that are required by governmental or quasi-governmental authorities, and all fees, deposits, tap fees, offsite easements, and asbestos and PCB disposal facilities expenses necessary for the prosecution of the Work, shall be procured and paid for by Contractor. Contractor shall give all notices and comply with the all applicable laws bearing on the conduct of the Work as drawn and specified. If Contractor observes or reasonably should have

observed that Plans and Specifications and other Contract Documents are at variance therewith, it shall be responsible for promptly notifying District in writing of such fact. If Contractor performs any Work contrary to applicable laws, it shall bear all costs arising therefrom.

- b. In the case of any permits or notices held in District's name or of necessity to be made in District's name, District shall cooperate with Contractor in securing the permit or giving the notice, but the Contractor shall prepare for District review and execution upon approval, all necessary applications, notices, and other materials.

8. Indemnification

- a. To the extent permitted by law, the indemnity obligations, defense obligations, and limitations of liability expressed in the Contract Documents apply with equal force and effect to any claims or liabilities imposed or existing by virtue of the removal, abatement, and disposal of hazardous waste. This includes, but is not limited to, liabilities connected to the selection and use of a waste disposal facility, a waste transporter, personal injury, property damage, loss of use of property, damage to the environment or natural resources, or "disposal" and "release" of materials associated with the Work (as defined in 42 U.S.C. §§ 9601 et seq.).

9. Termination

- a. District shall have an absolute right to terminate for default immediately without notice and without an opportunity to cure should Contractor knowingly or recklessly commit a material breach of the terms of the Contract Documents, or any applicable law, on any matter involving the exposure of persons or property to hazardous waste. However, if the breach of contract exposing persons or property to hazardous waste is due solely to an ordinary, unintentional, and non-reckless failure to exercise reasonable care, then the Contract Documents' provisions related to termination for cause shall apply without modification.

END OF DOCUMENT

DOCUMENT 00 55 00

NOTICE TO PROCEED

Dated: _____, 20 ____

To:

("Contractor")

(Address)

From: Governing Board ("Board") of THERMALITO UNION ELEMENTARY SCHOOL DISTRICT ("District" or "Owner")

Re: Project ("Project" or "Contract")

Contractor is hereby notified that the Contract Time under the Contract will commence to run on _____, 20 _____. By that date, Contractor shall start performing its obligations under the Contract Documents. In accordance with the Agreement executed by Contractor, the Contract Time and Project Completion is _____, 20 _.

Contractor must submit the following documents by 5:00 p.m. of the **TENTH (10TH)** calendar day following the date of this Notice to Proceed:

1. Contractor's preliminary schedule of construction.
2. Contractor's preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals.
3. Contractor's preliminary schedule of values for all of the Work.
4. Contractor's preliminary Contractor's Safety Plan specifically adapted for the Project.
5. A complete subcontractors list, including the name, address, telephone number, facsimile number, California State Contractor's License number, classification, and monetary value of all Subcontracts.

Thank you. We look forward to a successful Project.

THERMALITO UNION ELEMENTARY SCHOOL DISTRICT

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

DOCUMENT 00 61 14

PERFORMANCE BOND (100% of Contract Price)

(Note: Contractors must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the THERMALITO UNION ELEMENTARY SCHOOL DISTRICT, ("District") and _____, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Parking Lot Expansion at Plumas Avenue Elementary School (Project Name) ("Project" or "Contract")

which Contract dated _____, 20 __, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

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

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto the Board of the District in the penal sum of:

_____ DOLLARS

(\$ _____), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the District all damages the District incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

In the event the Principal is declared by the District to be in breach or default in the performance of the Contract, then, after written notice from the District to the Surety, as provided for herein, the Surety shall either remedy the default or breach of the Principal or shall take charge of the Work of the Contract and complete the Contract with a Contractor other than the Principal at its own expense; provided, however, that the procedure by which the Surety undertakes to discharge its obligations under this Bond shall be subject to the advance written approval of the District.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the District, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Contract, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair, replace, and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein

shall limit the District's rights or the Contractor's or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the Contract Documents or to the Work.

Any claims under this bond may be addressed to the Surety at the following address. This cannot be the Contractor's broker for this bond, but must be an employee of the Surety or the Surety's legal counsel:

Attention: _____

Telephone No.: (_____) _____ - _____

Fax No.: (_____) _____ - _____

E-mail Address: _____

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 2018.

Principal

Surety

(Name of Principal)

(Name of Surety)

(Signature of Person with Authority)

(Signature of Person with Authority)

(Print Name)

(Print Name)

(Name of California Agent of Surety)

(Address of California Agent of Surety)

(Telephone Number of California Agent of Surety)

Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

DOCUMENT 00 61 15

PAYMENT BOND -- Contractor's Labor & Material Bond (100% of Contract Price)
(Note: Contractors must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the THERMALITO UNION ELEMENTARY SCHOOL DISTRICT, (or "District") and _____, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to

Parking Lot Expansion at Plumas Avenue Elementary School (Project Name) ("Project" or "Contract")

which Contract dated _____, 20 __, and all of the Contract Documents attached to or forming a part of the Contract, are hereby referred to and made a part hereof, and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the work, to file a good and sufficient bond with the body by which the Contract is awarded in an amount equal to 100 percent (100%) of the Contract price, to secure the claims to which reference is made in the Civil Code of California, including section 9100, and the Labor Code of California, including section 1741.

NOW, THEREFORE, the Principal and _____, ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the penal sum of:

_____ DOLLARS

(\$ _____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under sections 9000 through 9566 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the Contract Documents or to the Work.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20__.

Principal

Surety

(Name of Principal)

(Name of Surety)

(Signature of Person with Authority)

(Signature of Person with Authority)

(Print Name)

(Print Name)

(Name of California Agent of Surety)

(Address of California Agent of Surety)

(Telephone Number of California Agent of Surety)

Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

DOCUMENT 00 65 25

FINAL SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS

If Requested by Contractor

THIS FINAL SETTLEMENT AGREEMENT AND RELEASE OF CLAIMS ("Final Settlement") is made and entered into this _____ day of _____, 20__ by and between:

THERMALITO UNION ELEMENTARY SCHOOL DISTRICT ("District") and

_____ ("Contractor"), whose
place of business is _____.

District and Contractor entered into PROJECT/CONTRACT NO.: **Parking Lot Expansion at Plumas Avenue Elementary School**

("Contract" or "Project") in the County of Butte, California.

The Work under the Contract has been completed.

NOW, THEREFORE, it is mutually agreed between District and Contractor as follows:

AGREEMENT

1. Total Payable. District shall pay Contractor as detailed below:

(Original Contract Sum \$ _____ For information only)

Modified Contract Sum	\$ _____
- Payment to Date	\$ _____ (subtract)
- Liquidated Damages	\$ _____ (subtract)
- [Other _____]	\$ _____ (subtract)
<hr/>	
= Payment Due Contractor	\$ _____ ("Total Payable")

Subject to the provisions hereof, District shall forthwith pay to Contractor the Total Payable amount, less any _____

amounts represented by any notice to withhold funds on file with District as of the date of such payment.

2. **No Claims or Disputes.** Contractor acknowledges and hereby agrees that there are no unresolved or outstanding Claims or disputes (as defined in the Contract Documents) against District arising from the performance of work under the Contract, except for the claims described in the "Disputed Claims" section herein and the obligations described in the "Continuing Obligations" section herein. It is the intention of the parties in executing this Final Settlement that this Final Settlement shall be effective as a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against District, all its respective agents, employees, inspectors, assignees and transferees except for the claims described in the "Disputed Claims" section herein and the obligations described in the "Continuing Obligations" section herein.

3. **Disputed Claims.** The following claims are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Final Settlement:

<u>Claim No.</u>	<u>Description of Claim</u>	<u>Amount of Claim</u>	<u>Date Claim Submitted</u>
------------------	-----------------------------	------------------------	-----------------------------

4. **Release.** Consistent with California Public Contract Code section 7100, Contractor hereby agrees that, in consideration of the payment set forth in the "Total Payable" section herein, Contractor hereby releases and forever discharges District, all its agents, employees, inspectors, assignees, and transferees from any and all liability, claims, demands, actions, or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract.

5. **Continuing Obligations.** Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.

6. **Contract Indemnity.** To the furthest extent permitted by California law, Contractor shall defend, indemnify, and hold harmless the District, its agents, representatives, officers, consultants, employees, trustees, and volunteers (the "indemnified parties") from any and all losses, liabilities, claims, suits, and actions of any kind, nature, and description, including, but not limited to, attorneys' fees and costs, directly or indirectly arising out of, connected with, or resulting from the performance of the Contract unless caused wholly by the sole negligence or willful misconduct of the indemnified parties.

7. **Waiver.** Contractor hereby waives the provisions of California Civil Code section 1542 which provides as follows:

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.

8. **Survivability.** The provisions of this Final Settlement are contractual in nature and not mere recitals and shall be considered independent and severable. If any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal, or other law, ruling, or regulations, then such provision, or part thereof, shall remain in force and effect to the extent permitted by law, and the remaining provisions of this Final Settlement shall also remain in full force and effect, and shall be enforceable.

9. **Reservation of Rights.** All rights of District shall survive completion of the Work or termination of Contract, and execution of this Release.

***** CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING *****

Accepted and agreed on the date indicated below:

Dated: _____, 20

Dated: _____, 20__

THERMALITO UNION ELEMENTARY SCHOOL DISTRICT

By: _____

By: _____

Print Name: _____

Print Name: _____

Print Title: _____

Print Title: _____

END OF DOCUMENT

DOCUMENT 00 65 36

WARRANTY AND GUARANTEE FORM

1. _____ ("Contractor")
hereby agrees that the _____ ("Work" of Contractor)
which Contractor has installed for the THERMALITO UNION ELEMENTARY SCHOOL DISTRICT ("District")
for the following project: _____ ("Project" or
"Contract") was performed in accordance with the requirements of the Contract Documents and that the
Work as installed fulfills the requirements of the Contract Documents.

2. Contractor agrees to repair or replace all of the Work that may prove to be defective in workmanship or
material and any other adjacent Work that may be displaced in connection with such replacement within a
period of _____ **YEAR(S)** from the date of Completion as defined in the Contract, ordinary wear
and tear and unusual abuse or neglect excepted. The date of completion is _____, 20__.

3. In the event Contractor fails to comply with the above-mentioned conditions within a reasonable period of
time, as determined by District, but not later than **SEVEN (7)** calendar days after being notified in writing by
District, Contractor authorizes District to proceed to repair or replace the defective Work at the expense of
Contractor. Contractor shall pay the costs and charges therefor upon demand.

4. **Representatives to be contacted for service subject to the terms of Contract:**

NAME: _____

ADDRESS: _____

PHONE NO.: _____

EMAIL: _____

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 70 00

TABLE OF CONTENTS

GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS	1
1.1. Definitions	1
1.2. Laws Concerning the Contract.....	5
1.3. No Oral Agreements	5
1.4. No Assignment.....	5
1.5. Confidentiality	5
1.6. Notice And Service Thereof.....	5
1.7. No Waiver	6
1.8. Substitutions for Specified Items	6
1.9. Materials and Work	6
2. DISTRICT.....	7
3. ENGINEER.....	8
4. CONSTRUCTION MANAGER	8
5. INSPECTOR, INSPECTIONS AND TESTS	9
5.1. Project Inspector.....	9
5.2. Tests and Inspections.....	9
5.3. Costs for After Hours and/or Off Site Inspections	10
6. CONTRACTOR.....	10
6.1. Status of Contractor	10
6.2. Contractor’s Supervision	11
6.3. Duty to Provide Fit Workers.....	12
6.4. Personnel.....	12
6.5. Prohibition on Harassment	13
6.6. Conferences and Meetings.....	13
6.7. Purchase of Materials and Equipment	14
6.8. Documents on Work	15

6.9.	Preservation of Records.....	16
6.10.	Integration of Work.....	16
6.11.	Obtaining of Permits and Licenses.....	16
6.12.	Work to Comply with Applicable Laws and Regulations.....	16
6.13.	Safety/Protection of Persons and Property.....	18
6.14.	Working Evenings and Weekends.....	20
6.15.	Noise and Dust Control.....	20
6.16.	Cleaning Up.....	21
7.	SUBCONTRACTORS.....	21
8.	OTHER CONTRACTS/CONTRACTORS	22
9.	DRAWINGS AND SPECIFICATIONS	23
9.8.	Ownership of Drawings	23
10.	CONTRACTOR’S SUBMITTALS AND SCHEDULES	24
10.1.	Schedules, Safety Plan and Complete Subcontractor List	24
10.2.	Monthly Progress Schedule(s)	27
10.3.	Material Safety Data Sheets (MSDS)	27
10.4.	Logistic Plan	27
10.5.	Information Included in Submittals	27
10.6.	Verification of Submittal Information	28
10.7.	Contractor Responsibility for Deviations.....	28
10.8.	No Performance of Work Without Engineer Review	28
10.9.	District and Engineer Review of Submittals.....	28
10.10.	Deferred Approval Items	28
10.11.	Contractor Responsibility for Deviations.....	29
11.	SITE ACCESS, CONDITIONS AND REQUIREMENTS.....	29
11.1.	Site Investigation.....	29

11.2.	Soils Investigation Report.....	29
11.3.	Access to Work.....	29
11.4.	Layout and Field Engineering.....	29
11.5.	Utilities for Construction	30
11.6.	Sanitary Facilities	30
11.7.	Surveys	30
11.8.	Regional Notification Center	30
11.9.	Existing Utility Lines	30
11.10.	Notification	31
11.11.	Hazardous Materials.....	31
11.12.	No Signs	31
12.	TRENCHES	31
12.1.	Trenches Greater Than Five Feet	31
12.2.	Excavation Safety	31
12.3.	No Tort Liability of District	32
12.4.	No Excavation without Permits	32
12.5.	Discovery of Hazardous Waste, Unusual Conditions and/or Unforeseen Conditions	32
13.	INSURANCE AND BONDS.....	32
13.1.	Insurance	32
13.2.	Contract Security – Bonds	35
14.	WARRANTY/GUARANTEE/INDEMNITY	36
14.1.	Warranty/Guarantee.....	36
14.2.	Indemnity	36
15.	TIME.....	37
15.1.	Notice to Proceed.....	37
15.2.	Hours of Work	37

15.3.	Progress and Completion	38
15.4.	Schedule	38
15.5.	Expeditious Completion	38
16.	EXTENSIONS OF TIME – LIQUIDATED DAMAGES	38
16.1.	Contractor’s Notice of Delay	38
16.2.	Excusable and Compensable Delay(s)	39
16.3.	Excusable and Non-Compensable Delay(s).....	40
16.4.	Unexcused Delay(s) – Liquidated Damages	41
17.	CHANGES IN THE WORK	42
17.1.	No Changes Without Authorization	42
17.2.	Engineer Authority.....	43
17.3.	Change Orders	43
17.4.	Unilateral Change Orders.....	44
17.5.	Force Account Directives.....	44
17.6.	Price Request	45
17.7.	Proposed Change Order	45
17.8.	Format for Proposed Change	46
17.9.	Change Order Certification	50
17.10.	Determination of Change Order Cost	51
17.11.	Deductive Change Orders	51
17.12.	Discounts, Rebates and Refunds	51
17.13.	Accounting Records	52
17.14.	Notice Required	52
17.15.	Applicability to Subcontractors.....	52
17.16.	Alteration to Change Order Language	52
17.17.	Failure of Contractor to Execute Change Order	52

18. REQUEST FOR INFORMATION.....	52
19. PAYMENTS	53
19.1. Contract Price.....	53
19.2. Applications for Progress Payments	53
19.3. Progress Payments	56
19.4. Decisions to Withhold Payment	57
19.5. Subcontractor Payments	59
20. COMPLETION OF THE WORK.....	60
20.1. Completion.....	60
20.2. Closeout Procedures.....	60
20.3. Final Inspection	61
20.4. Costs of Multiple Inspections.....	62
20.5. Partial Occupancy or Use Prior to Completion.....	62
21. FINAL PAYMENT AND RETENTION	62
21.1. Final Payment.....	63
21.2. Prerequisites for Final Payment.....	63
21.3. Retention	63
21.4. Substitution of Securities.....	64
21.5. Claims Asserted After Final Payment	64
22. UNCOVERING WORK, CORRECTION OF WORK AND RIGHT TO TAKEOVER WORK.....	64
22.1. Uncovering of Work	64
22.2. Rejection of Work.....	64
22.3. Nonconforming Work.....	64
22.4. Correction of Work.....	65
22.5. District's Right to Takeover Work	65
23. TERMINATION AND SUSPENSION	66

23.1.	District’s Right to Terminate Contractor for Cause.....	66
23.2.	Emergency Termination of Public Contracts Act of 1949.....	68
23.3.	Termination of Contractor for Convenience.....	68
23.4.	Suspension of Work.....	69
23.5.	Scope Reduction.....	69
24.	CLAIMS RESOLUTION.....	69
24.1.	Exclusive Remedy.....	69
24.2.	Performance during Claim Resolution Process.....	70
24.3.	Waiver.....	70
24.4.	Intention.....	70
24.5.	Other Provisions.....	70
24.6.	Claim Presentation.....	70
24.7.	Subcontractors.....	71
24.8.	Documentation of Resolution.....	74
24.9.	Claim Resolution Process – Non-Applicability.....	74
25.	LABOR, WAGE & HOUR, APPRENTICE AND RELATED PROVISIONS.....	75
25.1.	Contractor & Subcontractor Registration.....	75
25.2.	Wage Rates, Travel and Subsistence.....	75
25.3.	Hours of Work.....	77
25.4.	Payroll Records.....	77
25.5.	Apprentices.....	79
25.6.	Non-Discrimination.....	80
25.7.	Labor First Aid.....	80
26.	MISCELLANEOUS.....	80
26.1.	Assignment of Antitrust Actions.....	80
26.2.	Excise Taxes.....	81

26.3. Taxes81

26.4. Shipments.....81

26.5. Compliance with Government Reporting Requirements.....81

DOCUMENT 00 70 00

GENERAL CONDITIONS

1. CONTRACT TERMS AND DEFINITIONS

1.1. Definitions

Wherever used in the Contract Documents, the following terms shall have the meanings indicated, which shall be applicable to both the singular and plural thereof:

1.1.1. Adverse Weather: Weather that satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, heat, or cold conditions in excess of the norm for the location and time of year it occurred, (2) unanticipated, and (3) occurring at the Project Site.

1.1.2. Allowance(s): Amount(s) stated in the Agreement for specific scopes of work for which Contractor may bill its time, materials, and other items in the identical structure as a Change Order.

1.1.3. Approval, Approved, and/or Accepted: Refer to written authorization, unless stated otherwise.

1.1.4. Engineer: The individual, partnership, corporation, joint venture, or any combination thereof, named as Engineer that has the rights and authority assigned to the Engineer in the Contract Documents. The term Engineer means the District's Engineer on this Project or the Engineer's authorized representative.

1.1.5. As-Built Drawings: A reproducible full-size sets of drawings to be prepared on a monthly basis, and upon Project Completion, pursuant to the Contract Documents, that reflect changes made during the performance of the Work, recording differences between the original design of the Work and the Work as constructed since the preceding monthly submittal.

1.1.6. Bidder: A contractor who intends to provide a bid to the District to perform the Work of the Contract.

1.1.7. Change Order: A written order to the Contractor authorizing an addition to, deletion from, or revision in the Work, and/or authorizing an adjustment in the Contract Price or Contract Time. If a Change Order is required to be approved by DSA, the District may call it a Construction Change Document.

1.1.8. Completion: When the entire Work shall have been completed to the satisfaction of District, including all punch list items. Final DSA approval of the Project is not required for Completion.

1.1.9. Construction Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the District. If no Construction Manager is used on the Project, then all references in the Contract Documents to Construction Manager shall be read to refer to District.

1.1.10. Construction Schedule: The progress schedule of construction of the Project as provided by Contractor and approved by District.

1.1.11. Contract, Contract Documents: The Contract consists exclusively of the documents evidencing the agreement of the District and Contractor, identified as the Contract Documents. The Contract Documents consist of the following documents:

1.1.11.1. Invitation to Bid

- 1.1.11.2.** Instructions to Bidders
- 1.1.11.3.** Bid Form
- 1.1.11.4.** Bid Bond (Security)
- 1.1.11.5.** Designated Subcontractors List
- 1.1.11.6.** Site-Visit Certification
- 1.1.11.7.** Noncollusion Declaration
- 1.1.11.8.** Worker’s Compensation Certification
- 1.1.11.9.** Prevailing Wage and Related Labor Requirements Certification
- 1.1.11.10.** Disabled Veteran’s Business Enterprise Participation Certification
- 1.1.11.11.** Drug-Free Workplace Certification
- 1.1.11.12.** Tobacco-Free Environment Certification
- 1.1.11.13.** Hazardous Materials Certification
- 1.1.11.14.** Lead-Based Materials Certification
- 1.1.11.15.** Imported Materials Certification
- 1.1.11.16.** Criminal Background Investigation/Fingerprinting Certification
- 1.1.11.17.** Notice of Award
- 1.1.11.18.** Agreement
- 1.1.11.19.** Hazardous Materials Procedures and Requirements
- 1.1.11.20.** Notice to Proceed
- 1.1.11.21.** Performance Bond
- 1.1.11.22.** Payment Bond (Contractor’s Labor and Material Bond)
- 1.1.11.23.** Final Settlement Agreement and Release of Claims
- 1.1.11.24.** Warranty and Guarantee Form
- 1.1.11.25.** General Conditions
- 1.1.11.26.** Special Conditions
- 1.1.11.27.** Project Plans, Specifications, Technical Specifications, and Drawings

1.1.11.28. Addenda to any of the above documents

1.1.11.29. Schedules if approved in writing by the District

1.1.11.30. Change Orders or written modifications to the above documents if approved in writing by the District

1.1.12. Contract Price: The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

1.1.13. Contract Time: The time period stated in the Agreement for the Completion of the Work.

1.1.14. Contractor: The person or persons identified in the Agreement as contracting to perform the Work, or the legal representative of such person(s).

1.1.15. Daily Job Report(s): Daily Project reports prepared by the Contractor's employee(s) who are present on Site, which shall include the information required herein.

1.1.16. Day(s): Unless otherwise designated, day(s) means calendar day(s). "**Business Days**" shall mean days except Saturday, Sunday, a day that is federally-recognized holiday, or a day that is a California-recognized holiday.

1.1.17. Defective or Nonconforming Work. Defective or nonconforming Work is any Work which is unsatisfactory, faulty or deficient by: (a) not conforming to the requirements of the Contract Documents; (b) not conforming to the standards of workmanship of the applicable trade; (c) not being in compliance with the requirements of any inspection, reference, standard, test, or approval required by the Contract Documents; or (d) damage to Work occurring prior to Completion.

1.1.18. District: The public agency or the school district for which the Work is performed.

1.1.19. Drawings: (or "Plans") The graphic and pictorial portions of the Contract Documents showing the design, location, scope and dimensions of the Work, generally including plans, elevations, sections, details, schedules, sequence of operation, and diagrams.

1.1.20. DSA: Division of the State Architect.

1.1.21. Force Account Directive: A process that may be used when the District and the Contractor cannot agree on a price for a specific scope of work or before Contractor prepares a price for the scope of work, Contractor performs on a time and materials basis.

1.1.22. Premises: The real property owned by the District on which the Project Site is located.

1.1.23. Product(s): New material, machinery, components, equipment, fixtures and systems forming the Work, including existing materials or components required and approved by the District for reuse.

1.1.24. Product Data: Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by Contractor to illustrate a material, product, or system for a scope of the Work.

1.1.25. Project: The planned undertaking as provided for in the Contract Documents.

1.1.26. Project Inspector: (or "Inspector") Individual(s) retained by the District in accordance with title 24 of the California Code of Regulations to monitor and inspect the Project.

1.1.27. Program Manager: The individual, partnership, corporation, joint venture, or any combination thereof, or its authorized representative, named as such by the District. If no Program Manager is designated for the Project then all references to Project Manager shall refer to District.

1.1.28. Proposed Change Order: A written request prepared by the Contractor requesting that the District and the Engineer issue a Change Order based upon a proposed change to the Work.

1.1.29. Provide: Shall include “provide complete in place,” that is, “furnish and install,” and “provide complete and functioning as intended in place” unless specifically stated otherwise.

1.1.30. Request for Information: (or “RFI”) A written request prepared by the Contractor requesting that the Engineer provide additional information necessary to clarify or amplify an item in the Contract Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address issues that have arisen under field conditions.

1.1.31. Request for Substitution: A request by Contractor to substitute an equal or superior material, product, thing, or service for a specific material, product, thing, or service that has been designated in the Contract Documents by a specific brand or trade name.

1.1.32. Safety Orders: Written and/or verbal orders for construction issued by the California Division of Industrial Safety (“CalOSHA”) or by the United States Occupational Safety and Health Administration (“OSHA”).

1.1.33. Safety Plan: Contractor’s safety plan specifically adapted for the Project. Contractor’s Safety Plan shall comply with all provisions regarding Project safety, including all applicable provisions in these General Conditions.

1.1.34. Samples: Physical examples that illustrate materials, products, equipment, finishes, colors, or workmanship and that, when approved in accordance with the Contract Documents, establish standards by which portions of the Work will be judged.

1.1.35. Shop Drawings: All drawings, prints, diagrams, illustrations, brochures, schedules, and other data that are prepared by the Contractor, a subcontractor, manufacturer, supplier, or distributor, that illustrate how specific portions of the Work shall be fabricated or installed.

1.1.36. Site: The Project site as shown on the Drawings.

1.1.37. Specifications: That portion of the Contract Documents, Division 1 through Division 17, and all technical sections, and addenda to all of these, if any, consisting of written descriptions and requirements of a technical nature of materials, equipment, construction methods and systems, standards, and workmanship.

1.1.38. Subcontractor: A contractor and/or supplier who is under contract with the Contractor or with any other subcontractor, regardless of tier, to perform a portion of the Work.

1.1.39. Submittal Schedule: The schedule of submittals as provided by Contractor and approved by District.

1.1.40. Surety: The person, firm, or corporation that executes as surety the Contractor’s Performance Bond and Payment Bond, and must be a California admitted surety insurer as defined in the Code of Civil Procedure section 995.120.

1.1.41. SWPPP: The District’s Storm Water Pollution Prevention Plan.

1.1.42. Terms. The term “provide” means “provide complete in place” or to “furnish and install” such item. Unless otherwise provided in the Contract Documents, the terms “approved;” “directed;” “satisfactory;” “accepted;” “acceptable;” “proper;” “required;” “necessary” and “equal” shall mean as approved, directed, satisfactory, accepted, acceptable, proper, required, necessary and equal, in the opinion of the District. The term “typical” as used in the Drawings shall require the installation or furnishing of such item(s) of the Work designated as “typical” in all other areas similarly marked as “typical”; Work in such other areas shall conform to that shown as “typical” or as reasonably inferable therefrom.

1.1.43. Unilateral Change Order: A written order prepared and issued by the District, the Construction Manager, and/or the Engineer and signed by the District and the Engineer, directing a change in the Work. **A Unilateral Change Order is NOT a Construction Change Document (which is defined above as a Change Order that DSA must approve).**

1.1.44. Work: All labor, materials, equipment, components, appliances, supervision, coordination, and services required by, or reasonably inferred from, the Contract Documents, that are necessary for the construction and Completion of the Project.

1.2. Laws Concerning the Contract

Contract is subject to all provisions of the Constitution and laws of California and the United States, governing, controlling, or affecting District, or the property, funds, operations, or powers of District, and such provisions are by this reference made a part hereof. Any provision required by law to be included in this Contract shall be deemed to be inserted.

1.3. No Oral Agreements

No oral agreement or conversation with any officer, agent, or employee of District, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in the Contract Documents.

1.4. No Assignment

Contractor shall not assign the Contract or any part thereof including, without limitation, any services or money to become due without the prior written consent of the District. Assignment without District’s prior written consent shall be null and void. Any assignment of money due or to be come due under the Contract shall be subject to a prior lien for services rendered or material supplied for Work performed in favor of all persons, firms, or corporations rendering services or supplying material to the extent that claims are filed pursuant to the Civil Code, Code of Civil Procedure, Government Code, Labor Code, and/or Public Contract Code, and shall also be subject to deductions for Liquidated Damages or withholding of payments as determined by District in accordance with the Contract. Contractor shall not assign or transfer in any manner to a Subcontractor or supplier the right to prosecute or maintain an action against the District.

1.5. Confidentiality

Contractor shall maintain the confidentiality of all information, documents, programs, procedures and all other items that Contractor encounters while performing the Work. This requirement shall be ongoing and shall survive the expiration or termination of the Contract and specifically includes, without limitation, all student, parent, and employee disciplinary information and health information.

1.6. Notice And Service Thereof

1.6.1. Any notice required by the Contract shall be in writing, dated and signed by the party giving notice or by a duly authorized representative of that party. Notice shall be served and considered effective if given in one of the following manners:

1.6.1.1. By personal delivery; considered delivered on the day of delivery.

1.6.1.2. By overnight delivery service; considered delivered one (1) day after date deposited, as indicated by the delivery service.

1.6.1.3. By depositing same in United States mail, enclosed in a sealed envelope; considered delivered three (3) days after date deposited, as indicated by the postmarked date.

1.6.1.4. By registered or certified mail with postage prepaid, return receipt requested; considered delivered on the day the notice is signed for.

1.7. No Waiver

The failure of District in any one or more instances to insist upon strict performance of any term of the Contract or to exercise any District option shall not be construed as a waiver or relinquishment of the right to assert or rely upon any such term or option on a future occasion. No action or failure to act by the District, Engineer, or Construction Manager shall constitute a waiver of any right or duty afforded the District under the Contract, nor shall any action or failure to act constitute an approval of or acquiescence in any breach hereunder, except as may be specifically agreed in writing.

1.8. Substitutions for Specified Items

See Special Conditions.

1.9. Materials and Work

1.9.1. Except as otherwise stated in the Contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, supervision, temporary constructions of every nature, and all other services, management, and facilities of every nature whatsoever necessary to execute and complete the Contract within the Contract Time.

1.9.2. Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.

1.9.3. Materials shall be furnished in sufficient quantities and at such times as to insure uninterrupted progress of Work and shall be stored properly and protected as required.

1.9.4. For all materials and equipment specified or indicated in the Drawings, the Contractor shall provide all labor, materials, equipment, and services necessary for complete assemblies and complete working systems, functioning as intended. Incidental items not indicated on Drawings, nor mentioned in the Specifications, that can legitimately and reasonably be inferred to belong to the Work described, or be necessary in good practice to provide a complete assembly or system, shall be furnished as though itemized here in every detail. In all instances, material and equipment shall be installed in strict accordance with each manufacturer's most recent published recommendations and specifications.

1.9.5. Contractor shall, after award of Contract by District and after relevant submittals have been approved, place orders for materials and/or equipment as specified so that delivery of same may be made without delays to the Work. Contractor shall, upon demand from District, present documentary evidence showing that orders have been placed.

1.9.6. District reserves the right but has no obligation, for any neglect in complying with the above instructions, to place orders for such materials and/or equipment as it may deem advisable in order that the Work may be completed at the date specified in the Agreement, and all expenses incidental to the procuring of said materials and/or equipment shall be paid for by Contractor or withheld from payment(s) to Contractor.

1.9.7. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon Completion of all Work to deliver the Site to District, together with all improvements and appurtenances constructed or placed thereon by it, and free from any claims, liens, or charges. Contractor further agrees that neither it nor any person, firm, or corporation furnishing any materials or labor for any Work shall have any right to lien any portion of the Premises or any improvement or appurtenance thereon, except that Contractor may install metering devices or other equipment of utility companies or of political subdivision, title to which is commonly retained by utility company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise District as to owner thereof.

1.9.8. Nothing contained in this Article, however, shall defeat or impair the rights of persons furnishing materials or labor under any bond given by Contractor for their protection or any rights under law permitting such protection or any rights under law permitting such persons to look to funds due Contractor in hands of District (e.g., stop payment notices). This provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

1.9.9. Title to new materials and/or equipment for the Work and attendant liability for its protection and safety shall remain with Contractor until incorporated in the Work of this Contract and accepted by District. No part of any materials and/or equipment shall be removed from its place of storage except for immediate installation in the Work. Contractor shall keep an accurate inventory of all materials and/or equipment in a manner satisfactory to District or its authorized representative and shall, at the District's request, forward it to the District.

1.9.10. Contractor certifies that it shall comply with the recycled product requirements of Public Contract Code section 22150, et seq., including, without limitation, section 22154 which states, "All businesses shall certify in writing to the contracting officer, or his or her representative, the minimum, if not exact, percentage of postconsumer material in the products, materials, goods, or supplies being offered or sold to any local public entity."

2. DISTRICT

2.1. The governing board of the District or its designees will act for the District in all matters pertaining to the Contract.

2.2. The District may, at any time,

2.2.1. Direct the Contractor to communicate with or provide notice to the Construction Manager or the Engineer on matters for which the Contract Documents indicate the Contractor will communicate with or provide notice to the District; and/or

2.2.2. Direct the Construction Manager or the Engineer to communicate with or direct the Contractor on matters for which the Contract Documents indicate the District will communicate with or direct the Contractor.

2.3. District's Rights if Contractor Fails to Perform. If the District at any time believes that the Contractor is behind schedule, is failing to construct the Project pursuant to the Contract Documents or is

otherwise failing to perform any provisions of this Contract, the District, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may take any action necessary or beneficial to the District to complete the Project, takeover the Work of the Contract, terminate or suspend the Contract as indicated herein, or any combination or portion of those actions. The Contractor and the Surety shall be liable to the District for any cost incurred by the District in those actions and the District has the right to deduct the cost thereof from any payment then or thereafter due the Contractor.

3. ENGINEER

- 3.1.** Engineer shall have the authority to act on behalf of District to the extent expressly provided in the Contract Documents and to the extent determined by District to, among other things, observe the progress and quality of the Work on behalf of the District.
- 3.2.** Engineer shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Engineer's reasonable opinion, to insure the proper execution of the Contract and if Work is defective or does not conform to the requirements of the Contract Documents. Whenever the Engineer considers it necessary or advisable, for implementation of the intent of the Contract Documents, the Engineer will have authority to require additional inspections or testing of the Work, whether or not such Work is fabricated, installed or completed. Neither this authority of the Engineer nor a decision made in good faith by the Engineer to exercise or not to exercise that authority shall give rise to a duty or responsibility to the Contractor, Subcontractors, material suppliers, their agents or employees, or other persons performing portions of the Work.
- 3.3.** Engineer shall, with the District and on behalf of the District, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with the District, interpret all other Contract Documents.
- 3.4.** Engineer shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.
- 3.5.** Contractor shall provide District and the Construction Manager with a copy of all written communication between Contractor and Engineer at the same time as that communication is made to Engineer, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

4. CONSTRUCTION MANAGER

- 4.1.** If a Construction Manager is used on this Project, the Construction Manager will provide administration of the Contract on the District's behalf. After execution of the Contract and Notice to Proceed, all correspondence and/or instructions from Contractor and/or District shall be forwarded through the Construction Manager. The Construction Manager will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences, or procedures or for safety precautions in connection with the Work, which shall all remain the Contractor's responsibility.
- 4.2.** Construction Manager, however, will have authority to reject materials and/or workmanship not conforming to the Contract Documents, as determined by the District, the Engineer, and/or the Project Inspector. Construction Manager shall also have the authority to require special inspection or testing of any portion of the Work, whether it has been fabricated, installed, or fully completed. Any decision made by Construction Manager, in good faith, shall not give rise to any duty or responsibility of the Construction Manager to the Contractor, any Subcontractor, their agents, employees, or other persons performing any of the Work. Construction Manager shall have free access to all parts of Work at any time.

4.3. If the District does not use a Construction Manager on this Project, all references to Construction Manager or CM shall be read as District.

5. INSPECTOR, INSPECTIONS AND TESTS

5.1. Project Inspector

5.1.1. One or more Project Inspector(s), including special Project Inspector(s), as required, will be assigned to the Work by District, in accordance with requirements of title 24, part 1, of the California Code of Regulations, to enforce the building code and monitor compliance with Plans and Specifications for the Project previously approved by the DSA. Duties of Project Inspector(s) are specifically defined in section 4-342 of said part 1 of title 24.

5.1.2. No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free access to all parts of Work at any time. Contractor shall furnish Project Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials. Inspection of Work shall not relieve Contractor from the obligation to fulfill the Contract. Project Inspector(s) and the DSA are authorized to stop work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) and/or DSA shall be without liability to the District. Contractor shall instruct its Subcontractors and employees accordingly.

5.1.3. If Contractor and/or any Subcontractor requests that the Project Inspector(s) perform any inspection off-site, this shall only be done if it is allowable pursuant to applicable regulations and DSA, if the Project Inspector(s) agree to do so, and at the expense of the Contractor.

5.1.4. Limitations on Project Inspector Authority. The Project Inspector does not have authority to interpret the Contract Documents or to modify the Work depicted in the Contract Documents. No Work inconsistent with the Contract Documents shall be performed solely on the basis of the direction of the Project Inspector, and the Contractor shall be liable to the District for the consequences of all Work performed on such basis.

5.2. Tests and Inspections

5.2.1. Tests and Inspections shall comply with title 24, part 1, California Code of Regulations, group 1, article 5, section 4-335, and with the provisions of the Specifications.

5.2.2. If the Contract Documents, laws, ordinances or any public authority with jurisdiction over the Work requires the Work, or any portion thereof, to be specially tested, inspected or approved, the Contractor shall give the Engineer, the Construction Manager and the Project Inspector written notice of the readiness of such Work for observation, testing or inspection at least seventy-two (72) hours prior to the time for the conducting of such test, inspection or observation. If inspection, testing or observation is by authority other than the District, the Contractor shall inform the Project Inspector and the Construction Manager not less than seventy-two (72) hours prior to the date fixed for such inspection, test or observation. The Contractor shall not cover up any portion of the Work subject to tests, inspections or observations prior to the completion and satisfaction of the requirements of such test, inspection or observation. In the event that any portion of the Work subject to tests, inspection or approval shall be covered up by Contractor prior to completion and satisfaction of the requirements of such tests, inspection or approval, Contractor shall be responsible for the uncovering of such portion of the Work as is necessary for performing such tests, inspection or approval without adjustment of the Contract Price or the Contract Time on account thereof.

5.2.3. The District will select an independent testing laboratory to conduct the tests. Selection of the materials required to be tested shall be by the laboratory or the District's representative and not by the Contractor. The Contractor shall notify the District's representative a sufficient time in advance of its readiness for required observation or inspection.

5.2.4. The Contractor shall notify the District's representative a sufficient time in advance of the manufacture of material to be supplied under the Contract Documents, that must by terms of the Contract Documents be tested, in order that the District may arrange for the testing of same at the source of supply. This notice shall be, at a minimum, seventy-two (72) hours prior to the manufacture of the material that must be tested.

5.2.5. Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed required testing and inspection or prior to the receipt of notice from the representative that testing and inspection will not be required, shall not be incorporated into and/or onto the Project.

5.2.6. The District will select and pay testing laboratory costs for all tests and inspections. Costs of tests of any materials found to be not in compliance with the Contract Documents shall be paid for by the District and reimbursed by the Contractor or deducted from the Contract Price.

5.3. Costs for After Hours and/or Off Site Inspections

5.3.1. If the Contractor performs Work outside the Inspector's regular working hours, over a period of more than eight (8) hours per day by any single person, on weekends/holidays or requests the Inspector to perform inspections off Site, then the costs of any inspections required outside regular working hours, over a period of more than eight (8) hours per day by any single person, on weekends/holidays or off Site, shall be borne by the Contractor and may be invoiced to the Contractor by the District or the District may deduct those expenses from the next Progress Payment.

6. CONTRACTOR

Contractor shall construct the Work for the Contract price including any adjustment(s) to the Contract Price pursuant to provisions herein regarding changes to the Contract Price. Except as otherwise noted, Contractor shall provide and pay for all labor, materials, equipment, permits, fees, licenses, facilities, transportation, taxes, and services necessary for the proper execution and Completion of the Work, except as indicated herein.

6.1. Status of Contractor

6.1.1. Contractor is and shall at all times be deemed to be an independent contractor and shall be wholly responsible for the manner in which it and its Subcontractors perform the services required of it by the Contract Documents. Nothing herein contained shall be construed as creating the relationship of employer and employee, or principal and agent, between the District, or any of the District's employees or agents, and Contractor or any of Contractor's Subcontractors, agents or employees. Contractor assumes exclusively the responsibility for the acts of its employees as they relate to the services to be provided during the course and scope of their employment. Contractor, its Subcontractors, agents, and its employees shall not be entitled to any rights or privileges of District employees. District shall be permitted to monitor the Contractor's activities to determine compliance with the terms of the Contract.

6.1.2. As required by law, Contractor and all Subcontractors shall be properly licensed and regulated by the Contractor's State License Board, located at 9821 Business Park Drive, , Sacramento, California 95827, with a mailing address of Post Office Box 26000, Sacramento, California, and with a website at <http://www.cslb.ca.gov>.

6.2. Contractor's Supervision

6.2.1. During progress of the Work, Contractor shall keep on the Premises, and at all other locations where any Work related to the Contract is being performed, a competent project manager and construction superintendent who are employees of the Contractor, to whom the District does not object and at least one of whom shall be fluent in English, written and verbal.

6.2.2. The project manager and construction superintendent shall both speak fluently the predominant language of the Contractor's employees.

6.2.3. Before commencing the Work, Contractor shall give written notice to District of the name of its project manager and construction superintendent. Neither the Contractor's project manager nor construction superintendent shall be changed except with prior written notice to District, unless the Contractor's project manager and/or construction superintendent proves to be unsatisfactory to Contractor, District, any of the District's employees, agents, the Construction Manager, or the Engineer, in which case, Contractor shall notify District in writing. District retains the right to reasonably refuse Contractor's replacement personnel. The Contractor's project manager and construction superintendent shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

6.2.4. Contractor shall give efficient supervision to Work, using its best skill and attention. Contractor shall carefully study and compare all Contract Documents, Drawings, Specifications, and other instructions and shall at once report to District, Construction Manager, and Engineer any error, inconsistency, or omission that Contractor or its employees and Subcontractors may discover, in writing, with a copy to District's Project Inspector(s). The Contractor shall have responsibility for discovery of errors, inconsistencies, or omissions.

6.2.5. The Contractor's project manager shall devote sufficient time to the Project on site, and in the Contractor's home office to pre-plan activities to meet the Project schedule and fulfill all Contract obligations. This includes making timely submittals, issuing and disseminating necessary RFI's, promptly processing and distributing bulletins, change orders and payments, keeping required logs current etc. If any of these activities fall behind contract requirements or dates necessary to complete the Project on time, the Contractor must provide a full time project manager on the Project Site dedicated solely to the Project, until the deficiencies are corrected.

6.2.6. The Contractor shall verify all indicated dimensions before ordering materials or equipment, or before performing Work. The Contractor shall take field measurements, verify field conditions, and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Project Documents before commencing work. Errors, inconsistencies or omissions discovered shall be immediately reported to the District. Upon commencement of any item of Work, the Contractor shall be responsible for dimensions related to the Work and shall make any corrections necessary to make Work properly fit at no additional cost to District. This responsibility for verification of dimensions is a non-delegable duty and may not be delegated to subcontractors or agents.

6.2.7. Omissions from the Drawings or Specifications, or the misdescription of details of Work which are manifestly necessary to carry out the intent of the Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed Work, but they shall be performed as if fully and correctly set forth and described in the Drawings and Specifications.

6.2.8. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.3. Duty to Provide Fit Workers

6.3.1. Contractor and Subcontractor(s) shall at all times enforce strict discipline and good order among their employees and shall not employ or work any unfit person or anyone not skilled in work assigned to that person. It shall be the responsibility of Contractor to ensure compliance with this requirement. District may require Contractor to permanently remove unfit persons from Project Site.

6.3.2. Any person in the employ of Contractor or Subcontractor(s) whom District may deem incompetent or unfit shall be excluded from working on the Project and shall not again be employed on the Project except with the prior written consent of District.

6.3.3. The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work.

6.3.4. If Contractor intends to make any change in the name or legal nature of the Contractor's entity, Contractor must first notify the District. The District shall determine if Contractor's intended change is permissible while performing the Contract.

6.3.5. Compliance with Immigration Reform and Control Act of 1986. As required by law, Contractor and all Subcontractors shall employ individuals for the Work in conformity with the Immigration Reform and Control Act of 1986, 8 USC §§1101 et seq.

6.4. Personnel

6.4.1. All persons working for Contractor and Subcontractor(s) shall refrain from using profane or vulgar language, or any other language that is inappropriate on the job site.

6.4.2. The Contractor shall employ a full-time superintendent and necessary assistants who shall have complete authority to represent and act on behalf on the Contractor on all matters pertaining to the Work. The superintendent shall be competent and have a minimum of five (5) years' experience in construction supervision on projects of similar scale and complexity. The superintendent shall be satisfactory to the District and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable to the District. The superintendent shall not be changed without the written consent of the District unless the superintendent ceases to be employed by the Contractor.

6.4.3. The Contractor shall employ a competent estimator and necessary assistants, or contract for sufficient services of an estimating consultant and to process proposed change orders. The estimator shall have a minimum of five (5) years' experience in estimating. The estimator shall be satisfactory to the District and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The estimator shall not be changed without the written consent of the District unless the estimator ceases to be employed by the Contractor. The Contractor shall submit PCO's requested by the District within fourteen (14) calendar days.

6.4.4. The Contractor shall employ a competent scheduler and necessary assistants, or contract for sufficient services of a scheduling consultant. The scheduler shall have a minimum of five (5) years' experience in scheduling. The scheduler shall be satisfactory to the District and, if not satisfactory, shall be replaced by the Contractor with one that is acceptable. The scheduler shall not be changed without the written consent of the District unless the scheduler ceases to be employed by the Contractor.

6.4.5. Contractor shall at all times enforce strict discipline and good order among Contractor's employees, and shall not employ on the Project any unfit person or anyone not skilled in the task assigned.

6.4.6. If Contractor or any Subcontractor on the Project site fails to comply with any provision herein, the District may have the offending person(s) immediately removed from the Site, and the person(s) shall be replaced within three (3) days, at no additional expense to the District. Contractor, on behalf of it and its Subcontractors, hereby waives any claim that the provisions of this paragraph or the enforcement thereof interferes, or has the potential to interfere, with its right to control the means and methods of its performance and duties under this Contract.

6.5. Prohibition on Harassment

6.5.1. In addition to the non-discrimination requirements in the Contract Documents, the Contractor and all Subcontractors must comply with these provisions prohibiting harassment at the Site. The District is committed to providing a campus and workplace free of sexual harassment and harassment based on factors such as race, color religion, national origin, ancestry, age, medical condition, marital status, disability or veteran status. Harassment includes without limitation, verbal, physical or visual conduct which creates an intimidating, offensive or hostile environment such as racial slurs; ethnic jokes; posting of offensive statements, posters or cartoons or similar conduct. Sexual harassment includes without limitation the solicitation of sexual favors, unwelcome sexual advances, or other verbal, visual or physical conduct of a sexual nature.

6.5.2. Contractor shall take all reasonable steps to prevent harassment from occurring, including without limitation affirmatively raising the subject of harassment among its employees, expressing strong disapproval of any form of harassment, developing appropriate sanctions, informing employees of their right to raise and how to raise the issue of harassment and informing complainants of the outcome of an investigation into a harassment claim.

6.5.3. Contractor shall not permit any person, whether employed by Contractor or a Subcontractor or any other person or entity, performing any Work at or about the Site to engage in any prohibited form of harassment. Any person performing or providing Work on or about the Site engaging in a prohibited form of harassment directed to any student, faculty member or staff of the District or directed to any other person on or about the Site shall be subject to immediate removal and shall be prohibited thereafter from providing or performing any portion of the Work. Upon the District's receipt of any notice or complaint that any person employed directly or indirectly by Contractor on any Subcontractor in performing or providing the Work has engaged in a prohibited form of harassment, the District will promptly undertake an investigation of such notice or complaint. In the event that the District, after such investigation, reasonably determines that a prohibited form of harassment has occurred, the District shall promptly notify the Contractor of the same and direct that the person engaging in such conduct be immediately removed from the Site. Unless the District's determination that a prohibited form of harassment has occurred is grossly negligent or without reasonable cause, District shall have no liability for directing the removal of any person determined to have engaged in a prohibited form of harassment nor shall the Contract Price or the Contract Time be adjusted on account thereof. The indemnity provisions of the Contract Documents apply to any assertion by any person dismissed from performing or providing work at the direction of the District pursuant to this provision; or (ii) the assertion by any person that any person directly or indirectly under the employment or direction of the Contractor has engaged in a prohibited form of harassment directed to or affecting such person. The obligations of the Contractor and the Surety under the preceding sentence are in addition to, and not in lieu of, any other obligation of defense, indemnity and hold harmless whether arising under the Contract Documents, at law or otherwise; these obligations survive completion of the Work or the termination of the Contract.

6.6. Conferences and Meetings.

6.6.1. In addition to the conference and meeting requirements in the Specifications, Contractor's supervisory personnel for the Work and the Contractor's management personnel shall attend all required meetings as required by the Contract Documents or as requested by the District. The Contractor's

personnel participating in conferences and meetings relating to the Work shall be authorized to act on behalf of the Contractor and to bind the Contractor. The Contractor is solely responsible for arranging for the attendance by Subcontractors and Material Suppliers at meetings and conferences relating to the Work as necessary, appropriate or as requested by the District.

6.6.2. Preconstruction Conference. The Contractor's representatives (and representatives of Subcontractors as requested by the District) shall attend a preconstruction conference at such time and place as designated by the District. The preconstruction conference will generally address the requirements of the Work and Contract Documents, and to establish construction procedures. Subject matters of the preconstruction conference will include as appropriate: (a) administrative matters, including an overview of the respective responsibilities of the District, Engineer, Construction Manager, Contractor, Subcontractors, Project Inspector, and others performing any part of the Work or services relating to the Work; (b) Submittals; (c) Changes; (d) employment practices, including Certified Payroll preparation and submission and prevailing wage rate responsibilities of the Contractor and Subcontractors; (e) Progress Schedule development and maintenance; (f) development of Schedule of Values and payment procedures; (g) implementation of BIM, if applicable; (h) communication procedures, including the handling of Requests for Information; (i) emergency and safety procedures; (j) Site visitor policies; (k) conduct of Contractor/Subcontractor personnel at the Site; and (l) Completion, Punchlist and closeout procedures.

6.6.3. Progress Meetings. Progress meetings will be conducted on regular intervals (weekly unless otherwise expressly indicated elsewhere in the Contract Documents). The Contractor's representatives and representatives of Subcontractors (as requested by the District) shall attend progress meetings. Progress Meetings will be chaired by the District or the Construction Manager and will generally include as agenda items: Site safety, field issues, coordination of Work, construction progress and impacts to timely Completion, if any. The purposes of the progress meetings include: a formal and regular forum for discussion of the status and progress of the Work by all Project participants, a review of progress or resolution of previously raised issues and action items assigned to the Project participants, and reviews of the Progress schedule and submittals.

6.6.4. Special Meetings. As deemed necessary or appropriate by the District, special meetings will be conducted with the participation of the Contractor, Subcontractors and other Project participants as requested by the District.

6.6.5. Minutes of Meetings. following conclusion of the preconstruction conference, progress meetings and special meetings, the Engineer or the Construction Manager will prepare and distribute minutes reflecting the items addressed and actions taken at a meeting or conference. Unless the Contractor notifies the Engineer and the Construction Manager in writing of objections or corrections to minutes prepared hereunder within five (5) days of the date of distribution of the minutes, the minutes as distributed shall constitute the official record of the meeting or conference. No objections or corrections of any Subcontractor or Material Supplier shall be submitted directly to the Engineer or the Construction Manager; such objections or corrections shall be submitted to the Engineer and the Construction Manager through the Contractor. If the Contractor timely interposes objections or notes corrections, the resolution of such matters shall be addressed at the next scheduled progress meeting.

6.7. Purchase of Materials and Equipment

6.7.1. The Contractor is required to order and obtain materials and equipment sufficiently in advance of its Work at no additional cost or advance payment from District to assure that there will be no delays.

6.7.2. Off-Site Storage of Materials and Equipment Only Upon District's Written Consent. Contractor shall not store materials and/or equipment off site without first obtaining the District's express, written consent. If Contractor receives District's consent to store materials and/or equipment off site ("Stored

Materials”), Contractor shall comply with all of the following:

6.7.2.1. Property of Others Insurance. Contractor shall procure and maintain, during the entire time Stored Materials are in off-site storage, insurance coverage acceptable to the District that shall protect Contractor and District from all claims for Stored Materials that are lost, stolen, or damaged. The District shall be named as a loss payee for this insurance coverage. The insurance coverage shall include a “loss payable endorsement” stating that all amounts payable will be paid as a joint-check to the Contractor and District. If approved in advance by District, this required insurance may be obtained by an “Employee Theft Protection Insurance Policy” or an “Employee Theft Protection Bond.”

6.7.2.2. Payment for Stored Materials. District shall only make payment to Contractor for Stored Materials if agreed upon in advance, in writing, by the District and provided that Contractor submits an itemized list of all Stored Materials with Contractor’s Application for Payment. Contractor’s itemized list of all Stored Materials shall be supported by all of the following:

6.7.2.2.1. Itemized breakdown of the Stored Materials for the purpose of requesting partial payment, identifying the serial numbers and exact storage location of each piece of equipment and material; and

6.7.2.2.2. Verified invoices for the Stored Materials; and

6.7.2.2.3. Original copy of Property of Others Insurance, Employee Theft Protection Insurance Policy, or an Employee Theft Protection Bond based on the type of insurance required by the District. These documents shall include certificates and endorsements stating the coverage and that the District is a loss payee or obligee, as appropriate.

6.8. Documents on Work

6.8.1. Contractor shall at all times keep on the Work Site, or at another location as the District may authorize in writing, one legible copy of all Contract Documents, including Addenda and Change Orders, and titles 19 and 24 of the California Code of Regulations, the specified edition(s) of the Uniform Building Code (electronic versions are acceptable), all approved Drawings, Plans, Schedules, and Specifications, and all codes and documents referred to in the Specifications, and made part thereof. These documents shall be kept in good order and available to District, Construction Manager, Engineer, Engineer’s representatives, the Project Inspector(s), and all authorities having jurisdiction. Contractor shall be acquainted with and comply with the provisions of these titles as they relate to this Project. (See particularly the duties of Contractor, title 24, part 1, California Code of Regulations, section 4-343.) Contractor shall also be acquainted with and comply with all California Code of Regulations provisions relating to conditions on this Project, particularly titles 8 and 17. Contractor shall coordinate with Engineer and Construction Manager and shall submit its verified report(s) according to the requirements of title 24.

6.8.2. Daily Job Reports.

6.8.2.1. Contractor shall maintain, at a minimum, at least one (1) set of Daily Job Reports on the Project. These must be prepared by the Contractor's employee(s) who are present on Site, and must include, at a minimum, the following information:

6.8.2.1.1. A brief description of all Work performed on that day.

6.8.2.1.2. A summary of all other pertinent events and/or occurrences on that day.

- 6.8.2.1.3.** The weather conditions on that day.
- 6.8.2.1.4.** A list of all Subcontractor(s) working on that day,
- 6.8.2.1.5.** A list of each Contractor employee working on that day and the total hours worked for each employee.
- 6.8.2.1.6.** A complete list of all equipment on Site that day, whether in use or not.
- 6.8.2.1.7.** A complete list of all materials, supplies, and equipment delivered on that day.
- 6.8.2.1.8.** A complete list of all inspections and tests performed on that day.

6.8.2.2. Each day Contractor shall provide a copy of the previous day’s Daily Job Report to the District or the District’s Construction Manager.

6.9. Preservation of Records

District shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor’s project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the District. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the District. Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit, or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency, if available, after the time set forth above.

6.10. Integration of Work

6.10.1. Contractor shall do all cutting, fitting, patching, and preparation of Work as required to make its several parts come together properly, to fit it to receive or be received by work of other contractors, and to coordinate tolerances to various pieces of work, showing upon, or reasonably implied by, the Drawings and Specifications for the completed structure, and shall conform them as District and/or Engineer may direct.

6.10.2. All cost caused by defective or ill-timed Work shall be borne by Contractor, inclusive of repair work.

6.10.3. Contractor shall not endanger any work performed by it or anyone else by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other contractor except with written consent of District.

6.11. Obtaining of Permits and Licenses

6.11.1. Contractor shall secure and pay for all permits, licenses, and certificates as indicated in the Special Conditions.

6.12. Work to Comply with Applicable Laws and Regulations

6.12.1. Contractor shall give all notices and comply with all applicable laws, ordinances, rules, and regulations relating to the Work, including the specific laws, ordinances, rules, and regulations as indicated and specified in the Contract Documents and identified below, including but not limited to the appropriate statutes and administrative code sections. If Contractor observes that Drawings and Specifications are at variance therewith, or should Contractor become aware of the development of conditions not covered by Contract Documents that will result in finished Work being at variance therewith, Contractor shall promptly notify District in writing and any changes deemed necessary by District shall be made as provided in Contract for changes in Work.

- 6.12.1.1.** National Electrical Safety Code, U. S. Department of Commerce
- 6.12.1.2.** National Board of Fire Underwriters' Regulations
- 6.12.1.3.** Uniform Building Code, latest addition, and the California Code of Regulations, title 24, including amendments
- 6.12.1.4.** Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America
- 6.12.1.5.** Industrial Accident Commission's Safety Orders, State of California
- 6.12.1.6.** Regulations of the State Fire Marshall (title 19, California Code of Regulations) and Pertinent Local Fire Safety Codes
- 6.12.1.7.** Americans with Disabilities Act
- 6.12.1.8.** Education Code of the State of California
- 6.12.1.9.** Government Code of the State of California
- 6.12.1.10.** Labor Code of the State of California, division 2, part 7, Public Works and Public Agencies
- 6.12.1.11.** Public Contract Code of the State of California
- 6.12.1.12.** California Art Preservation Act
- 6.12.1.13.** U. S. Copyright Act
- 6.12.1.14.** U. S. Visual Artists Rights Act

6.12.2. Contractor shall comply will all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act (Public Resources Code sections 21000 et. seq.)

6.12.3. If Contractor performs any Work that it knew, or through exercise of reasonable care should have known, to be contrary to any applicable laws, ordinance, rules, or regulations, Contractor shall bear all costs arising therefrom.

6.12.4. Where Specifications or Drawings state that materials, processes, or procedures must be approved by the DSA, State Fire Marshall, or other body or agency, Contractor shall be responsible for satisfying requirements of such bodies or agencies.

6.13. Safety/Protection of Persons and Property

6.13.1. Contractor will be solely and completely responsible for conditions of the Work Site, including safety of all persons and property during performance of the Work. This requirement will apply continuously and not be limited to normal working hours.

6.13.2. The wearing of hard hats will be mandatory at all times for all personnel on Site. Contractor shall supply sufficient hard hats to properly equip all employees and visitors.

6.13.3. Any construction review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures in, on, or near the Work Site.

6.13.4. Implementation and maintenance of safety programs shall be the sole responsibility of the Contractor.

6.13.5. Contractor shall furnish to the District a copy of the Contractor's safety plan within the time frame indicated in the Contract Documents and specifically adapted for the Project.

6.13.6. Contractor shall be responsible for all damages to persons or property that occur as a result of its fault or negligence in connection with the performance of the Contract and shall take all necessary measures and be responsible for the proper care and completion and final acceptance by District. All Work shall be solely at Contractor's risk with the exception of damage to the Work caused by "acts of God" as defined in Public Contract Code section 7105.

6.13.7. Contractor shall take, and require Subcontractors to take, all necessary precautions for safety of workers on the Project and shall comply with all applicable federal, state, local, and other safety laws, standards, orders, rules, regulations, and building codes to prevent accidents or injury to persons on, about, or adjacent to premises where Work is being performed and to provide a safe and healthful place of employment. Contractor shall furnish, erect, and properly maintain at all times, all necessary safety devices, safeguards, construction canopies, signs, nets, barriers, lights, and watchmen for protection of workers and the public and shall post danger signs warning against hazards created by such features in the course of construction.

6.13.8. Hazards Control. Contractor shall store volatile wastes in covered metal containers and remove them from the Site daily. Contractor shall prevent accumulation of wastes that create hazardous conditions. Contractor shall provide adequate ventilation during use of volatile or noxious substances.

6.13.9. Contractor shall designate a responsible member of its organization on the Project, whose duty shall be to post information regarding protection and obligations of workers and other notices required under occupational safety and health laws, to comply with reporting and other occupational safety requirements, and to protect the life, safety, and health of workers. Name and position of person so designated shall be reported to District by Contractor.

6.13.10. Contractor shall correct any violations of safety laws, rules, orders, standards, or regulations. Upon the issuance of a citation or notice of violation by the Division of Occupational Safety and Health, Contractor shall correct such violation promptly.

6.13.11. Storm Water. Contractor shall comply with the District's Storm Water Pollution Prevention Plan (SWPPP) and, if indicated in the Special Conditions, shall be the District's Qualified SWPPP Practitioner, at no additional cost to the District.

6.13.12. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury.

Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.

6.13.13. All salvage materials will become the property of the Contractor and shall be removed from the Site unless otherwise called for in the Contract Documents. However, the District reserves the right to designate certain items of value that shall be turned over to the District unless otherwise directed by District.

6.13.14. All connections to public utilities and/or existing on-site services shall be made and maintained in such a manner as to not interfere with the continuing use of same by the District during the entire progress of the Work.

6.13.15. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions, such as extreme heat, cold, rain, snow, dry winds, flooding, or dampness.

6.13.16. Contractor shall protect and preserve the Work from all damage or accident, providing temporary roofs, window and door coverings, boxing, or other construction as required by the Engineer. Contractor shall be responsible for existing structures, walks, roads, trees, landscaping, and/or improvements in working areas; and shall provide adequate protection therefor. If temporary removal is necessary of any of the above items, or damage occurs due to the Work, the Contractor shall replace same at its expense with same kind, quality, and size of Work or item damaged. This shall include any adjoining property of the District and others.

6.13.17. Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs, pavements, utilities, adjoining property, and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.

6.13.18. Contractor shall confine apparatus, the storage of materials, and the operations of workers to limits indicated by law, ordinances, permits, or directions of Engineer, and shall not interfere with the Work or unreasonably encumber Premises or overload any structure with materials. Contractor shall enforce all instructions of District and Engineer regarding signs, advertising, fires, and smoking, and require that all workers comply with all regulations while on Project Site.

6.13.19. Contractor, Contractor's employees, Subcontractors, Subcontractors' employees, or any person associated with the Work shall conduct themselves in a manner appropriate for a school site. No verbal or physical contact with neighbors, students, and faculty, profanity, or inappropriate attire or behavior will be permitted. District may require Contractor to permanently remove noncomplying persons from Project Site.

6.13.20. Contractor shall take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed, Contractor shall have a civil engineer, registered as a professional engineer in California, replace them at no cost to District.

6.13.21. In the event that the Contractor enters into any agreement with owners of any adjacent property to enter upon the adjacent property for the purpose of performing the Work, Contractor shall fully indemnify, defend, and hold harmless each person, entity, firm, or agency that owns or has any interest in adjacent property. The form and content of the agreement of indemnification shall be approved by the District prior to entering the adjacent property. The Contractor shall also indemnify the District as provided in the indemnification provision herein. These provisions shall be in addition to any other requirements of the owners of the adjacent property.

6.14. Working Evenings and Weekends

Contractor may be required to work evenings and/or weekends at no additional cost to the District. Contractor shall give the District seventy-two (72) hours' notice prior to performing any evening and/or weekend work. Contractor shall perform all evening and/or weekend work only upon District's written approval and in compliance with all applicable rules, regulations, laws, and local ordinances including, without limitation, all noise and light limitations. Contractor shall reimburse the District for any Inspector charges necessitated by the Contractor's evening and/or weekend work.

6.15. Noise and Dust Control

6.15.1. In addition to the noise control, dust control and related requirements in the Specifications, Contractor shall control the noise and dust at the Site as indicated here.

6.15.2. Noise Control. The Contractor shall install noise reducing devices on construction equipment. Contractor shall comply with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction equipment noise at the Site shall be limited as required by applicable law, rule or regulation. If classes are in session at any point during the progress of the Work, and, in the District's reasonable discretion, the noise from any Work disrupts or disturbs the students or faculty or the normal operation of the school at the Site, at the District's request, the Contractor shall schedule the performance of that Work around normal school hours or make other arrangements so that the Work does not cause disruption or disturbance. In no event shall those arrangements result in adjustment of the Contract Price or the Contract Time.

6.15.3. Dust Control. The Contractor shall be fully and solely responsible for maintaining and upkeeping all areas of the Site and adjoining areas, outdoors and indoors, free from flying debris, grinding powder, sawdust, dirt and dust as well as any other product, product waste or work waste, that by becoming airborne may cause respiratory inconveniences to persons, particularly to students and District personnel. Additionally, the Contractor shall take specific care to avoid deposits of airborne dust or airborne elements. Those protection devices, systems or methods shall be in accordance with the regulations set forth by the EPA and OSHA, and other applicable law, rule or regulation. Additionally, the Contractor shall be responsible to regularly and routinely clean up and remove any and all deposits of dust and other elements. Damage and/or any liability derived from the Contractor's failure to comply with these requirements shall be exclusively at the cost of the Contractor, including, without limitation, any and all penalties that may be incurred for violations of applicable law, rule or regulation, and any amounts expended by the District to pay such damages shall be due and payable to the District on demand. Contractor shall replace any damages property or part thereof and professionally clean any and all items that become covered or partially covered to any degree by dust or other airborne elements. If classes are in session at any point during the progress of Work, and, in the District's reasonable discretion, flying debris, grinding powder, sawdust, dirt or dust from any Work disrupts or disturbs the students or faculty or the normal operation of the school, at the District's request, the Contractor shall schedule the performance of all that Work around normal school hours and make other arrangements so that the Work does not cause disruption or disturbance. In no event shall those arrangements result in adjustment of the Contract Price or the Contract Time.

6.15.4. Contractor Failure to Comply. If the Contractor fails to comply with the requirements for dust control, noise control, or any other maintenance or clean up requirement of the Contract Documents, the District, Engineer, Project Inspector, or Construction Manager shall notify the Contractor in writing and the Contractor shall take immediate action. Should the Contractor fail to respond with immediate and responsive action and not later than twenty-four (24) hours from that notification, the District shall have the absolute right to proceed as it may deem necessary to remedy such matter. Any and all costs incurred by the District in connection with those actions shall be the sole responsibility of, and be borne by, the Contractor; the District may deduct those amounts from the Contract Price then or thereafter due the

Contractor.

6.16. Cleaning Up

6.16.1. The Contractor shall provide all services, labor, materials, and equipment necessary for protecting the Work, all school occupants, furnishings, equipment, and building structure from damage until its Completion and final acceptance by District. Dust barriers shall be provided to isolate dust and dirt from construction operations. At Completion of the Work and portions thereof, Contractor shall clean to the original state any areas beyond the Work area that become dust laden as a result of the Work. The Contractor must erect the necessary warning signs and barricades to ensure the safety of all school occupants. The Contractor at all times must maintain good housekeeping practices to reduce the risk of fire damage and must make a fire extinguisher, fire blanket, and/or fire watch, as applicable, available at each location where cutting, braising, soldering, and/or welding is being performed or where there is an increased risk of fire.

6.16.2. Contractor at all times shall keep Premises free from debris such as waste, rubbish, and excess materials and equipment caused by the Work. Contractor shall not leave debris under, in, or about the Premises, but shall promptly remove same from the Premises on a daily basis. If Contractor fails to clean up, District may do so and the cost thereof shall be charged to Contractor. If Contract is for work on an existing facility, Contractor shall also perform specific clean-up on or about the Premises upon request by the District as it deems necessary for the continuing education process. Contractor shall comply with all related provisions of the Specifications.

6.16.3. If the Construction Manager, Engineer, or District observes the accumulation of trash and debris, the District will give the Contractor a 24-hour written notice to mitigate the condition.

6.16.4. Should the Contractor fail to perform the required clean-up, or should the clean-up be deemed unsatisfactory by the District, the District will then perform the clean-up. All cost associated with the clean-up work (including all travel, payroll burden, and costs for supervision) will be deducted from the Contract Price, or District may withhold those amounts from payment(s) to Contractor.

7. SUBCONTRACTORS

7.1. Contractor shall provide the District with information for all Subcontracts as required in the Contractor's Submittals and Schedules Section.

7.2. No contractual relationship exists between the District and any Subcontractor, supplier, or sub-subcontractor by reason of the Contract.

7.3. Contractor agrees to bind every Subcontractor by terms of the Contract as far as those terms are applicable to Subcontractor's work. If Contractor shall subcontract any part of the Contract, Contractor shall be as fully responsible to District for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.

7.4. District's consent to, or approval of, or failure to object to, any Subcontractor under the Contract shall not in any way relieve Contractor of any obligations under the Contract and no such consent shall be deemed to waive any provisions of the Contract.

7.5. Contractor acknowledges sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and shall comply with all applicable requirements

therein. In addition, Contractor acknowledges sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and shall comply with all applicable requirements therein all including, without limitation, section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.

7.6. No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with section 4100, et seq, of the Public Contract Code, including, without limitation, sections 4107, 4107.5, and 4109 of the Public Contract Code, either:

7.6.1. Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or

7.6.2. Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or

7.6.3. Sublet or subcontract any portion of the Work in excess of one-half of one percent (1/2 of 1%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.

7.7. The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.

7.8. Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.

7.9. Contractor must include in all of its subcontracts the assignment provisions as indicated in the Termination section of these General Conditions.

8. OTHER CONTRACTS/CONTRACTORS

8.1. District reserves the right to let other contracts, and/or to perform work with its own forces, in connection with other portions of the Project or other construction or operations at or about the Site. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.

8.2. In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Site.

8.3. If any part of Contractor's Work depends for proper execution or results upon work of District or any other contractor, Contractor shall inspect and promptly report to the District in writing before proceeding with its Work any defects in District's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to District for District's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all District's or any other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in District's or any other contractor's work after execution of Contractor's Work.

8.4. To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the District in writing any discrepancy between that executed work and the Contract Documents.

- 8.5. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of District's or any other contracts that have been or may be awarded by District in completion of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.
- 8.6. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. The District shall have complete access to the Project Site for any reasonable purpose at all times. Contractor shall not cause any unnecessary hindrance or delay to the use and/or school operation(s) of the Premises and/or to District or any other contractor working on the Project. If simultaneous execution of any contract or school operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the District of the resolution.

9. DRAWINGS AND SPECIFICATIONS

- 9.1. A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves, and/or may be provided to the Contractor and/or in the Table of Contents.
- 9.2. Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.
- 9.3. Trade Name or Trade Term. It is not the intention of the Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.
- 9.4. The naming of any material and/or equipment shall mean furnishing and installing of same, including all incidental and accessory items thereto and/or labor therefor, as per best practices of the trade(s) involved, unless specifically noted otherwise.
- 9.5. Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict, Contractor shall promptly notify District and Engineer in writing, and any necessary changes shall be made as provided in the Contract Documents.
- 9.6. In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in the Agreement shall prevail. However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide District with the functionally complete and operable Project described in the Drawings and Specifications. In case of ambiguity, conflict, or lack of information, District will furnish clarifications with reasonable promptness.
- 9.7. Drawings and Specifications are intended to comply with all laws, ordinances, rules, and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.

9.8. Ownership of Drawings

- 9.8.1. All copies of the Drawings, Designs, Specifications, and copies of other incidental architectural and engineering work, or copies of other Contract Documents furnished by District, are the property of

District. They are not to be used by Contractor in other work and, with the exception of signed sets of Contract Documents, are to be returned to District on request at Completion of Work, or may be used by District as it may require without any additional costs to District. Neither the Contractor nor any Subcontractor, or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications, and other documents prepared by the Engineer. District hereby grants the Contractor, Subcontractors, sub-subcontractors, and material or equipment suppliers a limited license to use applicable portions of the Drawings prepared for the Project in the execution of their Work under the Contract Documents.

10. CONTRACTOR'S SUBMITTALS AND SCHEDULES

Contractor's submittals shall comply with the provisions and requirements of the Specifications including, without limitation Submittals. No submittal, unless approved in writing by the District as acceptable and complete, shall be a Contract Document.

10.1. Schedules, Safety Plan and Complete Subcontractor List

10.1.1. Within **TEN (10)** calendar days after the date of the Notice to Proceed (unless otherwise specified in the Notice to Proceed or in the Special Conditions), Contractor shall prepare and submit to the District for review, in a form supported by sufficient data to substantiate its accuracy as the District may require:

10.1.1.1. Schedule of Work. Contractor shall provide a preliminary schedule of construction indicating the starting and completion dates of the various stages of the Work, including any information and following any form as may be specified in the Specifications. Once approved by District, this shall become the Construction Schedule. This schedule shall include and identify all tasks that are on the Project's critical path with a specific determination of the start and completion of each critical path task, all contract milestones and each milestone's completion date(s) as may be required by the District, and the date of Project Completion.

10.1.1.1.1. Proposed Advanced Schedule. The District is not required to accept an early completion ("advanced") schedule; i.e., one that shows early completion dates for the Contract completion or milestones. Contractor shall not be entitled to extra compensation if the District allows the Contractor to proceed performing the Contract on an earlier ("advanced") schedule and Contractor completes the Project, for whatever reason, beyond the date shown in that earlier ("advanced") schedule, but within the Time for Completion indicated in the Contract. A schedule showing the work completed in less than the Time for Completion indicated in the Contract, shall be considered to have Project Float.

10.1.1.1.2. Float or Slack in the Schedule. Float or slack is the amount of time between the early start date and the late start date, or the early finish date and the late finish date, of any of the activities in the schedule. Float or slack is not for the exclusive use of or benefit of either the District or the Contractor, but its use shall be determined solely by the District.

10.1.1.2. Schedule of Submittals. The Contractor shall provide a preliminary schedule of submittals, including Shop Drawings, Product Data, and Samples submittals. Once approved by District, this shall become the Submittal Schedule. All submittals shall be forwarded to the District by the date indicated on the approved Submittal Schedule, unless an earlier date is necessary to maintain the Construction Schedule, in which case those submittals shall be forwarded to the District so as not to delay the Construction Schedule.

10.1.1.3. Schedule of Values. The Contractor shall provide a preliminary schedule of values for all component parts of the Work for which progress payments may be requested. The schedule of values must include quantities and prices of items totaling the Contract Price and must subdivide the

Work into component parts in sufficient detail to serve as the basis for progress payments during construction. The preliminary schedule of values should include, at a minimum, the following information and the following structure:

10.1.1.3.1. Divided into at least the following categories:

- 10.1.1.3.1.1.** Overhead and profit;
- 10.1.1.3.1.2.** Supervision;
- 10.1.1.3.1.3.** General conditions;
- 10.1.1.3.1.4.** Layout;
- 10.1.1.3.1.5.** Mobilization;
- 10.1.1.3.1.6.** Submittals;
- 10.1.1.3.1.7.** Bonds and insurance;
- 10.1.1.3.1.8.** Closeout documentation;
- 10.1.1.3.1.9.** Demolition;
- 10.1.1.3.1.10.** Installation;
- 10.1.1.3.1.11.** Rough-in;
- 10.1.1.3.1.12.** Finishes;
- 10.1.1.3.1.13.** Testing;
- 10.1.1.3.1.14.** Punch List and acceptance.

10.1.1.3.2. Divided by each of the following areas:

- 10.1.1.3.2.1.** Site work;
- 10.1.1.3.2.2.** By each building;
- 10.1.1.3.2.3.** By each floor.

10.1.1.3.3. The preliminary schedule of values shall not provide for values any greater than the following percentages of the Contract value:

- 10.1.1.3.3.1.** Mobilization and layout combined to equal not more than 1%;
- 10.1.1.3.3.2.** Submittals, samples and shop drawings combined to equal not more than 3%;
- 10.1.1.3.3.3.** Bonds and insurance combined to equal not more than 2%.

10.1.1.3.4. Closeout Documentation. Closeout Documentation shall have a value in the preliminary schedule of not less than 5%. The value for Closeout Documentation shall be in addition to and shall not be a part of the Contract retention.

10.1.1.3.5. Contractor shall certify that the preliminary schedule of values as submitted to the District is accurate and reflects the costs as developed in preparing Contractor's bid. The preliminary schedule of values shall be subject to the District's review and approval of the form and content thereof. In the event that the District objects to any portion of the preliminary schedule of values, the District shall notify the Contractor, in writing, of the District's objection(s) to the preliminary schedule of values. Within five (5) calendar days of the date of the District's written objection(s), Contractor shall submit a revised preliminary schedule of values to the District for review and approval. The foregoing procedure for the preparation, review and approval of the preliminary schedule of values shall continue until the District has approved the entirety of the preliminary schedule of values.

10.1.1.3.6. Once the preliminary schedule of values is approved by the District, this shall become the Schedule of Values. The Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior written consent and approval of the District, which may be granted or withheld in the sole discretion of the District.

10.1.1.3.7. Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision, general conditions costs, and profit, as reflected in the Schedule of Values, shall be paid by the District in equal installments, based on percentage complete, with the disbursement of Progress Payments and the Final Payment.

10.1.1.3.8. The Contractor shall not "front-load" the Schedule of Values with false dollar amounts for activities to be performed in the early stages of the Project. The District may, in its sole discretion, utilize the costs listed in the Schedule of Values as the true cost of items to be deducted from the Contract Price through credit or deductive Change Order. The values for each line item shall include the amount of overhead and profit applicable to each item of work and shall include, at a minimum, a breakdown between rough and finish Work for the basic trades as well as individual dollar figures for large dollar equipment and materials to be installed or furnished for the Project. No individual line item or scope of work in the Schedule of Values shall exceed \$50,000, except with the express, written consent of the District. Exceptions will be given by the District for a single item of Equipment for which the true cost exceeds \$50,000. The Schedule of Values shall be subject to the District's review and approval of the form and content thereof. Upon request, Contractor shall provide District with data and documentation substantiating the accuracy of the proposed line items. In the event that the District shall reasonably object to any portion of the Schedule of Values, within ten (10) days of the District's receipt of the Schedule of Values, the District shall notify the Contractor, in writing of the District's objection(s) to the Schedule of Values together with any request for substantiating data or documentation. Within five (5) days of the date of the District's written objection(s) and request for substantiating data and documentation, Contractor shall submit a revised Schedule of Values to the District for review and approval together with the requested data and documentation. The foregoing procedure for the preparation, review and approval of the Schedule of Values shall continue until the District has approved of the entirety of the Schedule of Values. Once the Schedule of Values is approved by the District, the Schedule of Values shall not be thereafter modified or amended by the Contractor without the prior consent and approval of the District, which may be granted or withheld in the sole reasonable discretion of the District. Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision and general conditions costs and profit, as such items are reflected in the Schedule of Values, shall be made incrementally as included in the activities included in the Approved Construction Schedule.

10.1.1.4. **Safety Plan.** The Contractor shall provide a preliminary Contractor's Safety Plan specifically adapted for the Project. Contractor's Safety Plan shall comply with the following requirements:

10.1.1.4.1. All applicable requirements of California Division of Industrial Safety ("CalOSHA") and/or of the United States Occupational Safety and Health Administration ("OSHA").

10.1.1.4.2. All provisions regarding Project safety, including all applicable provisions in these General Conditions.

10.1.1.4.3. Contractor's Safety Plan shall be prepared in both English and in the predominant language(s) of the Contractor's and its Subcontractors' employees.

10.1.1.5. **Complete Subcontractor List.** Contractor shall provide a preliminary Subcontractor List stating the name, address, telephone number, facsimile number, California State Contractors License number, classification, and monetary value of all Subcontracts for parties furnishing labor, material, or equipment for the Project.

10.1.2. Contractor must provide all schedules both in hard copy and electronically, in a format (e.g., Microsoft Project or Primavera) approved in advance by the District.

10.1.3. The District will review the schedules submitted and the Contractor shall make changes and corrections in the schedules as requested by the District and resubmit the schedules until approved by the District.

10.1.4. The District shall have the right at any time to revise the Schedule of Values if, in the District's sole opinion, the Schedule of Values does not accurately reflect the value of the Work performed.

10.1.5. All submittals and schedules must be approved by the District before Contractor can rely on them as a basis for payment.

10.2. Monthly Progress Schedule(s)

10.2.1. Contractor shall provide Monthly Progress Schedule(s) to the District. A Monthly Progress Schedule shall update the approved Construction Schedule or the last Monthly Progress Schedule, showing all work completed and to be completed. The Monthly Progress Schedule shall be sent to the District and shall be in a format acceptable to the District and contain a written narrative of the progress of work that month and any changes, delays, or events that may affect the work. The process for District approval of the Monthly Progress Schedule shall be the same as the process for approval of the Construction Schedule.

10.2.2. Contractor shall also submit Monthly Progress Schedule(s) with all payment applications.

10.3. Material Safety Data Sheets (MSDS)

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Work Site for any material requiring a Material Safety Data Sheet per the Federal "Hazard Communication" standard, or employees right to know law. The Contractor is also required to ensure proper labeling on substances brought onto the Project Site and that any person working with the material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Two additional copies of the Material Safety Data Sheets shall also be submitted directly to the District.

10.4. Logistic Plan

Contractor shall provide a staging and logistics plan identifying laydown areas, loading and unloading areas, crane locations, fence locations, temporary utility connections, trailer locations, and emergency evacuation meeting area. This Logistics Plan must be approved by the District prior to the Contractor mobilizing on the Site.

10.5. Information Included in Submittals.

All Submittals shall be accompanied by a written transmittal and each set of plans shall carry a "wet stamp" or other writing by the Contractor providing an identification of the portion of the Drawings or the Specifications pertaining to the Submittal, with each Submittal numbered consecutively for ease of reference along with the following information: (i) date of submission; (ii) Project name; (iii) name of submitting Subcontractor; and (iv) if applicable, the revision number. The foregoing information is in addition to, and not in lieu of, any other information required for the District's review, evaluation and approval of the Contractor's Submittals. Each Submittal shall be complete with its required number of copies, no piecemeal documentation is allowed. Any Submittal not bearing the required wet stamp as stated herein, shall be rejected until the appropriate wet stamp information is provided on each

submittal.

10.6. Verification of Submittal Information.

By approving and submission of Submittals, the Contractor represents to the District and Engineer that the Contractor has determined and verified materials, field measurements, field construction criteria, catalog numbers and similar data related thereto and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents. Each Submittal shall include the following certification duly executed by the Contractor's Superintendent or Project Manager for the Work: "The Contractor has reviewed and approved the field dimensions and construction criteria of the attached Submittal. The Contractor has verified that the Submittal is complete and includes notations of any portion of the Work depicted in the Submittal which is not in strict conformity with the Contract Documents. The information in the attached Submittal has been reviewed and coordinated by the Contractor with information included in other Submittals."

10.7. Contractor Responsibility for Deviations.

The Contractor shall not be relieved of responsibility for correcting deviations from the requirements of the Contract Documents by the District's and Engineer's review of Submittals unless the Contractor has specifically informed the District in writing of such deviation at the time of submission of the Submittal and the District has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Submittals by the District's and Engineer's review or comments thereon.

10.8. No Performance of Work Without Engineer Review.

The Contractor shall perform no portion of the Work requiring the District's and Engineer's review of Submittals until the District and Engineer have completed their review and returned the Submittal to the Contractor indicating "No Exception Taken" to that Submittal. The Contractor shall not perform any portion of the Work forming a part of a Submittal or which is affected by a related Submittal until the entirety of the Submittal or other related Submittal has been fully processed. All Work shall be in accordance with the final action taken by the District and the Engineer review in review of Submittals and other applicable portions of the Contract Documents.

10.9. District and Engineer Review of Submittals.

The purpose of the District's and Engineer's review of Submittals and the time for the District's and Engineer's return of Submittals to the Contractor shall be as set forth elsewhere in the Contract Documents. If the District and/or Engineer return a Submittal as rejected or requiring correction(s) with re-submission, the Contractor, so as not to delay the progress of the Work, shall promptly thereafter resubmit a Submittal conforming to the requirements of the Contract Documents; the resubmitted Submittal shall indicate the portions thereof modified in accordance with the District's and Engineer's direction. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the District shall be entitled to rely upon the accuracy and completeness of the Contractor's calculations and certifications accompanying Submittals. The District's and Engineer's review of the Submittals is for the limited purposes described in the Contract Documents. The District and Engineer will review each Submittal twice. Should additional Submittals be required as a result of failure of the Contractor to address comments, the Contractor will pay for the Engineer's services on a time and material basis for each subsequent review.

10.10. Deferred Approval Items.

In the event that any portion of the Work is designated in the Contract Documents as a "Deferred

Approval" item from DSA, Contractor shall be solely and exclusively responsible for the preparation of Submittals for such item(s) in a timely manner so as not to delay or hinder the completion of the Work within the Contract Time. All work, labor, materials, equipment or services necessary to complete the design, engineering and permitting/approval of the Deferred Approval items shall be provided by the Contractor without adjustment of the Contract Price or the Contract Time.

10.11. Contractor Responsibility for Deviations

The Contractor shall not be relieved of responsibility for correcting deviations from the requirements of the Contract Documents by the District's or Engineer's review of Submittals unless the Contractor has specifically informed the District and the Engineer in writing of such deviation at the time of submission of the Submittal and the District and the Engineer have given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Submittals by the District's or the Engineer's review or comments thereon.

11. SITE ACCESS, CONDITIONS AND REQUIREMENTS

11.1. Site Investigation

Before bidding on the Work, Contractor shall make a careful investigation of the Site and thoroughly familiarize itself with the requirements of the Contract. By the act of submitting a bid for the Work included in the Contract, Contractor shall be deemed to have made a complete study and investigation, and to be familiar with and accepted the existing conditions of the Site.

11.2. Soils Investigation Report

11.2.1. When a soils investigation report obtained from test holes at Site is available, that report shall be available to the Contractor but shall not be a part of the Contract. Any information obtained from that report or any information given on Drawings as to subsurface soil condition or to elevations of existing grades or elevations of underlying rock is approximate only, is not guaranteed, does not form a part of the Contract, and Contractor may not rely thereon. By submitting its bid, Contractor acknowledges that it made visual examination of Site and made whatever tests Contractor deems appropriate to determine underground condition of soil.

11.2.2. Contractor agrees that no claim against District will be made by Contractor for damages and hereby waives any rights to damages if, during progress of Work, Contractor encounters subsurface or latent conditions at Site materially differing from those shown on Drawings or indicated in Specifications, or for unknown conditions of an unusual nature that differ materially from those ordinarily encountered in the work of the character provided for in Plans and Specifications, except as indicated in the provisions of these General Conditions regarding trenches, trenching, and/or existing utility lines.

11.3. Access to Work

District and its representatives shall at all times have access to Work wherever it is in preparation or progress, including storage and fabrication. Contractor shall provide safe and proper facilities for access so that District's representatives may perform their functions.

11.4. Layout and Field Engineering

11.4.1. All field engineering required for layout of this Work and establishing grades for earthwork operations shall be furnished by Contractor at its expense. This Work shall be done by a qualified, California-registered civil engineer or surveyor approved in writing by District and Engineer. Any required Record and/or As-Built Drawings of Site development shall be prepared by the approved civil

engineer or surveyor.

11.4.2. Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility, and general character of the Site and for having satisfied itself as to the conditions under which the Work is to be performed. District shall not be liable for any claim for allowances because of Contractor's error or negligence in acquainting itself with the conditions at the Site.

11.4.3. Contractor shall protect and preserve established benchmarks and monuments and shall make no changes in locations without the prior written approval of District. Contractor shall replace any benchmarks or monuments that are lost or destroyed subsequent to proper notification of District and with District's approval.

11.5. Utilities for Construction

Utilities necessary to complete the Work and to completely perform all of the Contractors' obligations shall be obtained by the Contractor without adjustment of the Contract Price. The Contractor shall furnish and install necessary or appropriate temporary distributions of utilities, including utilities furnished by the District. Any such temporary distributions shall be removed by the Contractor upon completion of the Work. The costs of all such utility services, including the installation and removal of temporary distributions thereof, shall be borne by the Contractor and included in the Contract Price. Also refer to other utility requirements as indicated in the Specifications.

11.6. Sanitary Facilities

At all times during Work at the Site, the Contractor shall obtain and maintain temporary sanitary facilities in conformity with applicable law, rule or regulation. The Contractor shall maintain temporary sanitary facilities in a neat and clean manner with sufficient toilet room supplies. Personnel engaged in the Work are not permitted to use toilet facilities at the Site. Also refer to other Sanitary facility requirements as indicated in the Specifications.

11.7. Surveys

Contractor shall provide surveys done by a California-licensed civil engineer or surveyor to determine locations of construction, grading, and site work as required to perform the Work.

11.8. Regional Notification Center

Contractor, except in an emergency, shall contact the appropriate regional notification center at least two (2) days prior to commencing any excavation if the excavation will be conducted in an area or in a private easement that is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the District, and obtain an inquiry identification number from that notification center. No excavation shall be commenced and/or carried out by the Contractor unless an inquiry identification number has been assigned to the Contractor or any Subcontractor and the Contractor has given the District the identification number. Any damages arising from Contractor's failure to make appropriate notification shall be at the sole risk and expense of the Contractor. Any delays caused by failure to make appropriate notification shall be at the sole risk of the Contractor and shall not be considered for an extension of the Contract time.

11.9. Existing Utility Lines

11.9.1. Pursuant to Government Code section 4215, District assumes the responsibility for removal, relocation, and protection of main or trunk utility lines and facilities located on the construction Site at the time of commencement of construction under the Contract with respect to any such utility facilities that are not identified in the Plans and Specifications. Contractor shall not be assessed for liquidated

damages for delay in completion of the Project caused by failure of District or the owner of a utility to provide for removal or relocation of such utility facilities.

11.9.2. Locations of existing utilities provided by District shall not be considered exact, but approximate within reasonable margin and shall not relieve Contractor of responsibilities to exercise reasonable care nor costs of repair due to Contractor's failure to do so. District shall compensate Contractor for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Plans and Specifications with reasonable accuracy, and for equipment necessarily idle during such work.

11.9.3. No provision herein shall be construed to preclude assessment against Contractor for any other delays in completion of the Work. Nothing in this Article shall be deemed to require District to indicate the presence of existing service laterals, appurtenances, or other utility lines, within the exception of main or trunk utility lines, whenever the presence of these utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, meter junction boxes, on or adjacent to the Site.

11.9.4. If Contractor, while performing Work, discovers utility facilities not identified by District in Contract Plans and Specifications, Contractor shall immediately, but in no case longer than two (2) Business Days, notify the District and the utility in writing. The cost of repair for damage to above-mentioned visible facilities without prior written notification to the District shall be borne by the Contractor.

11.10. Notification

Contractor understands, acknowledges and agrees that the purpose for prompt notification to the District pursuant to these provisions is to allow the District to investigate the condition(s) so that the District shall have the opportunity to decide how the District desires to proceed as a result of the condition(s). Accordingly, failure of Contractor to promptly notify the District in writing, pursuant to the applicable provisions of these General Conditions, shall constitute Contractor's waiver of any claim for damages or delay incurred as a result of the condition(s).

11.11. Hazardous Materials

Contractor shall comply with all provisions and requirements of the Contract Documents related to hazardous materials including, without limitation, Hazardous Materials Procedures and Requirements.

11.12. No Signs

Neither the Contractor nor any other person or entity shall display any signs not required by law or the Contract Documents at the Site, fences trailers, offices, or elsewhere on the Site without specific prior written approval of the District.

12. TRENCHES

12.1. Trenches Greater Than Five Feet

Pursuant to Labor Code section 6705, if the Contract Price exceeds \$25,000 and involves the excavation of any trench or trenches five (5) feet or more in depth, the Contractor shall, in advance of excavation, promptly submit to the District and/or a registered civil or structural engineer employed by the District or Engineer, a detailed plan showing the design of shoring for protection from the hazard of caving ground during the excavation of such trench or trenches.

12.2. Excavation Safety

If such plan varies from the Shoring System Standards established by the Construction Safety Orders, the plan shall be prepared by a registered civil or structural engineer, but in no case shall such plan be less effective than that required by the Construction Safety Orders. No excavation of such trench or trenches shall be commenced until said plan has been accepted by the District or by the person to whom authority to accept has been delegated by the District.

12.3. No Tort Liability of District

Pursuant to Labor Code section 6705, nothing in this Article shall impose tort liability upon the District or any of its employees.

12.4. No Excavation without Permits

The Contractor shall not commence any excavation Work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Site prior to the commencement of any excavation.

12.5. Discovery of Hazardous Waste, Unusual Conditions and/or Unforeseen Conditions

12.5.1. Pursuant to Public Contract Code section 7104, if the Work involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, the Contractor shall immediately, but in no case longer than two (2) Business Days, and before the following conditions are disturbed, notify the District, in writing, of any:

12.5.1.1. Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, and requires removal to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

12.5.1.2. Subsurface or latent physical conditions at the Site differing from those indicated.

12.5.1.3. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

12.5.2. The District shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, shall issue a Change Order under the procedures described herein.

12.5.3. In the event that a dispute arises between District and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled Completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided by the Contract or by law that pertain to the resolution of disputes and protests, which include the requirement that Contractor complies with the notice and PCO provisions of the Contract Documents. Contractor's failure to submit a proposed change order pursuant to the terms of the Contract Documents shall be deemed a waiver of Contractor's right to an adjustment of the Contract Price of Contract Time.

13. INSURANCE AND BONDS

13.1. Insurance

Unless different provisions and/or limits are indicated in the Special Conditions, all insurance required of Contractor and/or its Subcontractor(s) shall be in the amounts indicated herein and include the provisions set forth herein.

13.1.1. Commercial General Liability and Automobile Liability Insurance

13.1.1.1. Contractor shall procure and maintain, during the life of the Contract, Commercial General Liability Insurance and Automobile Liability Insurance that shall protect Contractor, District, State, Construction Manager(s), Project Inspector(s), and Engineer(s) from all claims for bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising from operations under the Contract. This coverage shall be provided in a form at least as broad as the Insurance Services Office (ISO) standard form. Contractor shall ensure that Products Liability and Completed Operations coverage, Fire Damage Liability, and any Auto including owned, non-owned, and hired, are included within the above policies and at the required limits, or Contractor shall procure and maintain these coverages separately.

13.1.1.2. Contractor's deductible or self-insured retention for its Commercial General Liability Insurance policy shall not exceed \$25,000 unless approved in writing by District.

13.1.2. Umbrella Liability Insurance

13.1.2.1. Contractor shall procure and maintain, during the life of the Contract, an Excess Liability and/or Umbrella Liability Insurance Policy. Any Umbrella Liability Insurance Policy shall protect Contractor, District, State, Construction Manager(s), Project Manager(s), and Engineer(s) in the amounts indicated herein, and shall comply with all requirements for Commercial General Liability and Automobile Liability and Employers' Liability Insurance. This coverage shall be provided in a form at least as broad as the Insurance Services Office (ISO) standard form.

13.1.2.2. There shall be no gap between the per occurrence amount of any underlying policy and the start of the coverage under the Umbrella Liability Insurance Policy.

13.1.2.3. Whether this Excess Liability and/or Umbrella Liability Insurance Policy is written on a "follow form" or "stand alone" form, the coverages shall equal or greater than the Contractor's Commercial General Liability and Automobile Liability and Employers' Liability Insurance with no exclusions that reduce or eliminate coverage items.

13.1.3. Subcontractor(s): Contractor shall require its Subcontractor(s), if any, to procure and maintain Commercial General Liability Insurance, Automobile Liability Insurance, and Umbrella Liability Insurance with minimum limits equal to at least fifty percent (50%) of the amounts required of the Contractor.

13.1.4. Workers' Compensation and Employers' Liability Insurance

13.1.4.1. In accordance with provisions of section 3700 of the California Labor Code, the Contractor and every Subcontractor shall be required to secure the payment of compensation to its employees.

13.1.4.2. Contractor shall procure and maintain, during the life of this Contract, Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees engaged in Work under the Contract, on/or at the Site of the Project. This coverage shall cover, at a minimum, medical and surgical treatment, disability benefits, rehabilitation therapy, and survivors' death benefits. Contractor shall require its Subcontractor(s), if any, to procure and maintain Workers' Compensation Insurance and Employers' Liability Insurance for all employees of Subcontractor(s). Any class of employee or employees not covered by a Subcontractor's insurance shall be covered by Contractor's

insurance. If any class of employee or employees engaged in Work under the Contract, on or at the Site of the Project, are not protected under the Workers' Compensation Insurance, Contractor shall provide, or shall cause a Subcontractor to provide, adequate insurance coverage for the protection of any employee(s) not otherwise protected before any of those employee(s) commence work.

13.1.5. Builder's Risk Insurance: Builder's Risk "All Risk" Insurance.

Contractor shall procure and maintain, during the life of this Contract, Builder's Risk (Course of Construction), or similar first party property coverage acceptable to the District, issued on a replacement cost value basis. The cost shall be consistent with the total replacement cost of all insurable Work included within the Contract Documents. Coverage is to insure against all risks of accidental physical loss and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, water damage, mold, civil authority, theft, sonic disturbance, earthquake, flood, collapse, wind, fire, war, terrorism, lightning, smoke, and rioting. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for the Engineer's and engineering services and expenses required as a result of any insured loss upon the Work and Project, including completed Work and Work in progress, to the full insurable value thereof. Contractor must review the **Special Conditions** to confirm the scope of this requirement and if the District has modified this provision.

13.1.6. Proof of Carriage of Insurance and Other Requirements: Endorsements and Certificates

13.1.6.1. Contractor shall not commence Work nor shall it allow any Subcontractor to commence Work under the Contract, until Contractor and its Subcontractor(s) have procured all required insurance and Contractor has delivered in duplicate to the District complete endorsements (or entire insurance policies) and certificates indicating the required coverages have been obtained, and the District has approved these documents.

13.1.6.2. Endorsements, certificates, and insurance policies shall include the following:

13.1.6.2.1. A clause stating:

13.1.6.2.1.1. "This policy shall not be amended, canceled or modified and the coverage amounts shall not be reduced until notice has been mailed to District, Engineer, and Construction Manager stating date of amendment, modification, cancellation or reduction. Date of amendment, modification, cancellation or reduction may not be less than thirty (30) days after date of mailing notice."

13.1.6.2.1.2. In lieu of receiving an endorsement with this clause, the District may, at its sole discretion, accept written notification from Contractor and its insurer to the District of any amendments, modifications, cancellations or reduction in coverage, not less than thirty (30) days prior to such coverage changes occur.

13.1.6.2.2. Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation and reduction notice will be sent, and length of notice period.

13.1.6.3. All endorsements, certificates and insurance policies shall state that District, its trustees, employees and agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s) and Engineer(s) are named additional insureds under all policies except Workers' Compensation Insurance and Employers' Liability Insurance.

13.1.6.4. Contractor’s and Subcontractors’ insurance policy(s) shall be primary and non-contributory to any insurance or self-insurance maintained by District, its trustees, employees and/or agents, the State of California, Construction Manager(s), Project Manager(s), Inspector(s), and/or Engineer(s).

13.1.6.5. All endorsements shall waive any right to subrogation against any of the named additional insureds.

13.1.6.6. All policies shall be written on an occurrence form.

13.1.6.7. Unless otherwise stated in the Special Conditions, all of Contractor’s insurance shall be placed with insurers **ADMITTED** in California with a current A.M. Best's rating of no less than **A—** or **A:VII**.

13.1.6.8. The insurance requirements set forth herein shall in no way limit the Contractor’s liability arising out or relating to the performance of the Work or related activities.

13.1.6.9. Failure of Contractor and/or its Subcontractor(s) to comply with the insurance requirements herein shall be deemed a material breach of the Agreement.

13.1.7. Insurance Policy Limits

Unless different limits are indicated in the **Special Conditions**, the limits of insurance shall not be less than the following amounts: **SEE SPECIAL CONDITIONS**

Commercial General Liability	Includes: Personal & Advertising Injury, Product Liability and Completed Operations	\$2,000,000 each occurrence; \$4,000,000 general aggregate
Automobile Liability – Any Auto	Combined Single Limit	\$2,000,000 per occurrence
Excess Liability (Umbrella)		\$6,000,000 per occurrence; \$6,000,000 aggregate
Workers Compensation		Statutory limits pursuant to State law
Employers’ Liability		\$2,000,000 each accident, each disease; \$2,000,000 policy limit
Builder’s Risk (Course of Construction)		Issued for the value and scope of Work indicated herein.
Property of Others	Combined Single Limit General Aggregate	Issued for the value and scope of Work stored off-site.

13.2. Contract Security – Bonds

13.2.1. Contractor shall furnish two surety bonds issued by a California admitted surety insurer as follows:

13.2.1.1. Performance Bond: A bond in an amount at least equal to one hundred percent (100%) of Contract Price as security for faithful performance of this Contract.

13.2.1.2. Payment Bond: A bond in an amount at least equal to one hundred percent (100%) of

the Contract Price as security for payment of persons performing labor and/or furnishing materials in connection with the Contract.

13.2.2. Cost of bonds shall be included in the Bid and Contract Price.

13.2.3. All bonds related to the Project shall be in the forms set forth in the Contract Documents and shall comply with all requirements of the Contract Documents, including, without limitation, the bond forms.

14. WARRANTY/GUARANTEE/INDEMNITY

14.1. Warranty/Guarantee

14.1.1. Contractor shall obtain and preserve for the benefit of the District, manufacturer's warranties on materials, fixtures, and equipment incorporated into the Work.

14.1.2. In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work against all defects for a period of **ONE (1)** year after the later of the following dates:

14.1.2.1. The date of completion as defined in Public Contract Code section 7107, subdivision (c),

14.1.2.2. The commissioning date for the Project, if any.

14.1.3. At the District's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **ONE (1)** year period from date of Completion as defined above without expense whatsoever to District. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within **TEN (10)** days after being notified in writing, Contractor and Surety hereby acknowledge and agree that District is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

14.1.4. If, in the opinion of District, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to District or to prevent interruption of operations of District, District will attempt to give the notice required above. If Contractor or Surety cannot be contacted or neither complies with District's request for correction within a reasonable time as determined by District, District may, notwithstanding the above provision, proceed to make all corrections and/or provide attentions the District believes are necessary. The costs of correction or attention shall be charged against Contractor and Surety of the guarantees provided in this Article or elsewhere in the Contract Documents.

14.1.5. The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period. Contractor shall furnish to District all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by District.

14.1.6. Nothing herein shall limit any other rights or remedies available to District.

14.2. Indemnity

14.2.1. To the furthest extent permitted by California law, Contractor shall indemnify, defend with legal counsel reasonably acceptable to the District, keep and hold harmless the District and its consultants, the Engineer and its consultants, the Construction Manager and its consultants, separate contractors, and

their respective board members, officers, representatives, contractors, agents, and employees, in both individual and official capacities (“Indemnitees”), against all suits, claims, damages, losses, and expenses, including but not limited to attorney’s fees, caused by, arising out of, resulting from, or incidental to, the performance of the Work by Contractor, its Subcontractors, vendors, or suppliers, including, without limitation, any such suit, claim, damage, loss, or expense attributable to, without limitation, bodily injury, sickness, disease, death, alleged patent violation or copyright infringement, or to injury to or destruction of tangible property (including damage to the Work itself) including the loss of use resulting therefrom, except to the extent caused by the sole negligence, active negligence, or willful misconduct of the Indemnitees, and/or to any extent that would render these provisions void or unenforceable. This agreement and obligation of Contractor shall not be construed to negate, abridge, or otherwise reduce any right or obligation of indemnity that would otherwise exist as to any party or person described herein. This indemnification, defense, and hold harmless obligation includes any failure or alleged failure by Contractor to comply with any provision of law, any failure or alleged failure to timely and properly fulfill all of its obligations under the Contract Documents in strict accordance with their terms, and without limitation, any stop payment notice actions or liens, including liens by the California Department of Labor Standards Enforcement.

14.2.2. Contractor shall give prompt notice to the District in the event of any injury (including death), loss, or damage included herein. Without limitation of the provisions herein, if Contractor’s agreement to indemnify, defend, and hold harmless the Indemnitees as provided herein against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting from the negligence of any of the Indemnitees shall to any extent be or be determined to be void or unenforceable, it is the intention of the parties that these circumstances shall not otherwise affect the validity or enforceability of Contractor’s agreement to indemnify, defend, and hold harmless the rest of the Indemnitees, as provided herein, and in the case of any such suits, claims, damages, losses, or expenses caused in part by the default, negligence, or act or omission of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, and in part by any of the Indemnitees, Contractor shall be and remain fully liable on its agreements and obligations herein to the full extent permitted by law.

14.2.3. In any and all claims against any of the Indemnitees by any employee of Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, Contractor’s indemnification obligation herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any Subcontractor under workers’ compensation acts, disability benefit acts, or other employee benefit acts.

14.2.4. The defense and indemnification obligations hereunder shall survive the Completion of Work, including the warranty/guarantee period, and/or the termination of the Agreement.

15. TIME

15.1. Notice to Proceed

District may issue a Notice to Proceed as indicated in the Instructions to Bidders.

15.2. Hours of Work

Work shall be performed during regular working hours as permitted by the appropriate governmental agency except that in the event of an emergency, or when required to complete the Work in accordance with job progress, Work may be performed outside of regular working hours with the advance written consent of the District and approval of any required governmental agencies. Contractor and Subcontractors shall continuously furnish sufficient forces to ensure the performance of the Work in

accordance with the Construction Schedule.

15.3. Progress and Completion

15.3.1. Time of the Essence

Time limits stated in the Contract Documents are of the essence to the Contract. By executing the Agreement, Contractor confirms that the Contract Time is a reasonable period for performing the Work.

15.3.2. No Commencement Without Insurance

15.3.2.1. Contractor shall not commence operations on the Project or elsewhere prior to the effective date of insurance and bonds. The date of commencement of the Work shall not be changed by the effective date of such insurance. If Contractor commences Work without insurance and bonds, all Work is performed at Contractor's peril and shall not be compensable until and unless Contractor secures bonds and insurance pursuant to the terms of the Contract Documents and subject to District's claim for damages.

15.4. Schedule

Contractor shall provide to District, Construction Manager, and Engineer a schedule in conformance with the Contract Documents and as required in the Notice to Proceed and the Contractor's Submittals and Schedules section of these General Conditions.

15.5. Expeditious Completion

The Contractor shall proceed expeditiously with adequate forces and shall achieve Completion within the Contract Time.

16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES

16.1. Contractor's Notice of Delay

16.1.1. In addition to the requirements indicated in this subsection, Contractor shall notify the District pursuant to the claims provisions in these General Conditions of any anticipated delay and its cause.

16.1.2. Contractor shall, within **FIVE (5)** calendar days of any delay impacting the critical path in completing the Work, notify District in writing of the causes of the delay including documentation and facts explaining the delay.

16.1.3. Any request by Contractor for an adjustment of the Contract Price or the Contract Time for a delay shall be submitted in accordance with the provisions in the Contract Documents governing changes in Work. When requesting time, requests must be submitted with full justification and documentation. Such justification must be based on the official Construction Schedule as updated at the time of occurrence of the delay or execution of Work related to any changes to the Scope of Work.

16.1.4. Any claim for delay must include the following information as support, without limitation:

16.1.4.1. Duration. The duration of the activity relating to the changes in the Work and the resources (manpower, equipment, material, etc.) required to perform the activities within the stated duration.

16.1.4.2. Logical Ties / Fragnets. Specific logical ties to the Contract Schedule for the proposed changes and/or delay showing the activity/activities in the Construction Schedule that are affected by the change and/or delay. (A portion of any delay of seven (7) days or more must be provided.) Include a “fragnet” analysis for the portion of the schedule and the activities the Contractor contends are impacted by the delay.

16.1.4.3. Updated Construction Schedule. A recovery or updated Construction Schedule must be submitted.

16.1.5. District shall review the facts and extent of any noticed delay and may grant Contract Time extension(s) of time for completing Work when, in the District’s judgment, the findings of fact justify an extension.

16.1.6. Extension(s) of time shall apply only to that portion of Work affected by delay, and shall not apply to other portions of Work not so affected.

16.1.7. An extension of time may only be granted if Contractor has timely submitted the updated Construction Schedule as required herein.

16.1.8. Following submission of a notice of delay, the District may determine whether the delay is to be considered:

16.1.8.1. Excusable and Compensable, Excusable and Non-Compensable, or Unexcused;

16.1.8.2. How long the delay continues; and

16.1.8.3. To what extent the prosecution and Completion of the Work might be delayed thereby.

16.1.9. Contractor’s failure to request adjustment(s) of the Contract Time in strict conformity with applicable provisions of the Contract Documents shall be deemed Contractor’s waiver of its right to assert a claim for a delay.

16.1.10. Limitations Upon Adjustment of Contract Time on Account of Delays. Any adjustment of the Contract Time on account of an Excusable Delay or a Compensable Delay shall be limited as set forth herein. No adjustment of the Contract Time shall be made on account of any Excusable Delays or Compensable Delays unless those delay(s) actually and directly impact Work or Work activities on the critical path of the then current and updated approved Construction Schedule as of the date on which a delay first occurs. The District shall not be deemed in breach of, or otherwise in default of any obligation hereunder, if the District shall deny a request by the Contractor for an adjustment of the Contract Time for any delay that does not actually and directly impact Work on the then current and updated approved Construction Schedule. In submitting a request for an adjustment of Contract Time, and as a condition precedent to the District’s review of that request, Contractor shall insert into the then current and updated approved Construction Schedule a “fragnet” analysis representing the event that Contractor claims to result in delay to the critical path as depicted in the updated approved Construction Schedule. If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first delay to the cessation of the delay that ends last. If an Unexcused Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days, if any, which the Excusable Delay or the Compensable Delay exceeds the period of time of the Unexcused Delay.

16.2. Excusable and Compensable Delay(s)

16.2.1. Contractor is not entitled to additional compensation for any delay, even a delay caused by

Adverse Weather or an Excusable Delay, unless all of the following conditions are met:

- 16.2.1.1.** The District is responsible for the delay;
- 16.2.1.2.** The delay is unreasonable under the circumstances involved and impacts the critical path of the Work and extends the most current Contract Completion date;
- 16.2.1.3.** The delay was not within the contemplation of District and Contractor; and
- 16.2.1.4.** Contractor complies with the claims procedure of the Contract Documents.
- 16.2.1.5.** The delay could not have been avoided or mitigated by the Contractor's care, prudence, foresight, and diligence.
- 16.2.1.6.** The delay extends the most current Contract Completion date, and is not concurrent with a Contractor caused delay or other type of Excusable Delay.

16.2.2. In accordance with California Public Contract Code section 7102, if the Contractor's progress is delayed by the events described in the preceding subsection, Contractor shall not be precluded from the recovery of damages directly and proximately resulting therefrom. In that event, Contractor's damages, if any, shall be limited to direct, actual and unavoidable additional costs of labor, materials or construction equipment directly resulting from that delay, and shall exclude special, indirect or consequential damages. In no event shall Contractor seek costs or damages for delays, interruptions, hindrances or disruptions to the Work for on-Site or off-Site costs or damages based upon formulas, e.g. Eichleay or other formula. Except as expressly provided for herein, Contractor shall not have any other claim, demand or right to adjustment of the Contract Price arising out of delay, interruption, hindrance or disruption to the progress of the Work. Adjustments to the Contract Price and the Contract Time, if any, on account of Changes to the Work or Suspension of the Work shall be governed by the applicable provisions of the Contract Documents, including without limitation, the "Changes in the Work" section and the percentages in the "Format for Proposed Change" section of these General Conditions.

16.3. Excusable and Non-Compensable Delay(s)

16.3.1. An "Excusable Delay" shall mean an interruption of the Work beyond the reasonable control of the Contractor and that:

- 16.3.1.1.** Could have not been avoided by the Contractor exercising care, prudence, foresight, and diligence, and
- 16.3.1.2.** Actually extended the most current Project Completion date.

16.3.2. The Contractor may be entitled to an extension of the Project Completion date if there is an Excusable Delay, but the Contractor shall not be entitled to additional compensation for an Excusable Delay.

16.3.3. Excusable Delays are limited to interruptions that satisfy the above requirements and that are acts of God; acts of a public enemy; fires; floods; windstorms; tornadoes; earthquakes; wars; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; fuel shortages; freight embargoes; and Adverse Weather that satisfies the requirements herein.

16.3.4. Contractor is aware that governmental agencies and utilities, including, without limitation, the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or

approve a proposed installation. Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Contractor is not entitled to make a claim for damages or delays or an Excusable Delay arising from the review of Contractor's drawings or other approvals from the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies.

16.3.5. Neither the financial resources of the Contractor or any person or entity directly or indirectly engaged by the Contractor in performance of any portion of the Work shall be deemed conditions beyond the control of the Contractor. If an event of Excusable Delay occurs, the Contract Time shall be subject to adjustment hereunder only if the Contractor establishes: (i) full compliance with all applicable provisions of the Contract Documents relative to the method, manner and time for Contractor's notice and request for adjustment of the Contract Time; (ii) that the event(s) forming the basis for Contractor's request to adjust the Contract Time are outside the reasonable control and without any fault or neglect of the Contractor or any person or entity directly or indirectly engaged by Contractor in performance of any portion of the Work; and (iii) that the event(s) forming the basis for Contractor's request to adjust the Contract Time directly and adversely impacted the critical path of the Work as indicated in the approved Construction Schedule or the most recent updated approved Construction Schedule relative to the date(s) of the claimed event(s) of Excusable Delay.

16.3.6. Computation of Time / Adverse Weather

16.3.6.1. The Contractor will only be allowed a time extension for Adverse Weather conditions if requested by Contractor within five (5) calendar days of the Adverse Weather event, and only if **all** of the following conditions are met – thereby making the resulting delay an Excusable Delay.

16.3.6.1.1. The weather conditions constitute Adverse Weather, as defined herein and further specified in the Special Conditions;

16.3.6.1.2. Contractor can verify that the Adverse Weather caused delays in excess of five (5) hours of the indicated labor required to complete the scheduled tasks of Work on the day affected by the Adverse Weather;

16.3.6.1.3. The Contractor's crew is dismissed as a result of the Adverse Weather; and

16.3.6.1.4. The number of days of delay for the month exceed those indicated in the Special Conditions.

16.3.6.2. A day-for-day extension will only be allowed for those days in excess of those indicated in the Special Conditions.

16.3.6.3. The Contractor shall work seven (7) days per week, if necessary, irrespective of inclement weather, to maintain access and the Construction Schedule, and to protect the Work under construction from the effects of Adverse Weather, all at no further cost to the District.

16.3.6.4. The Contract Time has been determined with consideration given to the average climate weather conditions prevailing in the County in which the Project is located.

16.4. Unexcused Delay(s) – Liquidated Damages

16.4.1. Unexcused Delays refer to any delay to the progress of the Work caused by events or factors other than those specifically identified in the "Excusable and Compensable Delay(s)" or the "Excusable and Non-Compensable Delay(s)" sections above. Neither the Contract Price nor the Contract Time shall be adjusted on account of Unexcused Delays.

16.4.2. Contractor and District hereby agree that the exact amount of damages for failure to complete the Work within the time specified is extremely difficult or impossible to determine. If the Work is not completed within the time specified in the Contract Documents, it is understood that the District will suffer damage. It being impractical and unfeasible to determine the amount of actual damage, it is agreed the Contractor shall forfeit and pay to District as fixed and liquidated damages, and not as a penalty, the amount set forth in the Agreement for each calendar day of delay in Completion. Contractor and its Surety shall be liable for the amount thereof pursuant to Government Code section 53069.85.

16.4.3. Contractor shall not forfeit or pay liquidated damages for an Excusable Delay or an Excusable and Compensable Delay.

17. CHANGES IN THE WORK

17.1. No Changes Without Authorization

17.1.1. There shall be no change whatsoever in the Drawings, Specifications, or in the Work without an executed Change Order, a written Unilateral Change Order, or a written Force Account Directive authorized by the District as herein provided. District shall not be liable for the cost of any extra work, any changes to the Contract Time, or any substitutions, changes, additions, omissions, or deviations from the Drawings and Specifications unless the District's governing board has authorized the same and the cost thereof has been approved in writing by an executed Change Order, a written Unilateral Change Order, or a written Force Account Directive.

17.1.2. Verbal Order of Change in the Work. Any verbal order, direction, instruction, interpretation, or determination from the District, the Project Inspector or the Engineer which in the opinion of the Contractor causes any change to the scope of the Work, or otherwise requires an adjustment to the Contract Price or the Contract Time, shall be treated as a Change only if the Contractor gives the Engineer written notice within three (3) Business Days of the order, directions, instructions, interpretation or determination and prior to acting in accordance therewith. Time is of the essence in Contractor's written notice pursuant to the preceding sentence so that the District can promptly investigate and consider alternative measures to address the order, direction, instruction, interpretation or determination giving rise to Contractor's notice. Accordingly, Contractor acknowledges that its failure, for any reason, to give written notice within three (3) Business Days of any verbal order, direction, instruction, interpretation or determination shall be deemed Contractor's waiver of any right to assert or claim any entitlement to an adjustment of the Contract Time or the Contract Price on account of that verbal order, direction, instruction, interpretation or determination. The written notice shall state the date, circumstances, extent of adjustment to the Contract Price or the Contract Time, if any, requested, and the source of the verbal order, directions, instructions, interpretation or determination that the Contractor regards as a Change. Unless the Contractor acts in strict accordance with this procedure, any verbal order, direction, instruction, interpretation or determination shall not be treated as a Change and the Contractor hereby waives any claim for any adjustment to the Contract Price or the Contract Time on account thereof.

17.1.3. The Surety, in executing and providing the Performance Bond and the Payment Bond, shall be deemed to have expressly agreed to any change to the Contract and to any extension of time made by reason thereof.

17.1.4. No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order, Unilateral Change Order, or Force Account Directive. The provisions of the Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

17.1.5. Contractor shall perform immediately all work that has been authorized by a fully executed

Change Order, Unilateral Change Order, or Force Account Directive. Contractor shall be fully responsible for any and all delays and/or expenses caused by Contractor's failure to expeditiously perform this Work and Contractor's failure or refusal to so proceed with that Work may be deemed to be Contractor's default of a material obligation of the Contractor under the Contract Documents.

17.1.6. Should any Change Order result in an increase in the Contract Price, the cost of that Change Order shall be agreed to, in writing, in advance by Contractor and District and be subject to the monetary limitations set forth in Public Contract Code section 20118.4. In the event that Contractor proceeds with any change in Work without a Change Order executed by the District, Unilateral Change Order, or Force Account Directive, Contractor waives any claim of additional compensation or time for that additional work.

17.1.7. Contractor understands, acknowledges, and agrees that the reason for District authorization is so that District may have an opportunity to analyze the Work and decide whether the District shall proceed with the Change Order or alter the Project so that a change in Work becomes unnecessary.

17.1.8. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent all threatened loss or injury. Any compensation or time claimed by Contractor on account of emergency work shall be determined as indicated herein as a PCO.

17.1.9. No payments will be made, nor will District accept proposed change orders until the Contractor has complied with all the requirements of the Escrow of Bid Documentation document (if applicable).

17.2. Engineer Authority

The Engineer will have authority to order minor changes in the Work not involving any adjustment in the Contract Price, or an extension of the Contract Time, or a change that is inconsistent with the intent of the Contract Documents. These changes shall be effected by written Change Order, Unilateral Change Order, or by Engineer's response(s) to RFI(s).

17.3. Change Orders

17.3.1. A Change Order is a written instrument prepared and issued by the District and/or the Engineer and signed by the District (as authorized by the District's governing board), the Contractor, the Engineer, and approved by the Project Inspector (if necessary) and DSA (if necessary), stating their agreement regarding all of the following:

- 17.3.1.1.** A description of a change in the Work;
- 17.3.1.2.** The amount of the adjustment in the Contract Price, if any; and
- 17.3.1.3.** The extent of the adjustment in the Contract Time, if any.

17.3.2. If a Change Order is required to be approved by DSA, the District may call it a Construction Change Document.

17.3.3. If the District approves of a Change, the District or the Engineer shall provide a written Change Order to the Contractor describing the Change and setting forth the adjustment to the Contract Time and the Contract Price, if any, on account of that Change. All Change Orders shall be full payment and final settlement of all rights for direct, indirect and consequential costs, including without limitation, costs of delays or impacts related to, or arising out of, items covered and affected by the Change Order, as well as any adjustments to the Contract Time. Any demand or request for an adjustment to the Contract Time or

the Contract Price relating to any Change incorporated into a Change Order not presented by the Contractor for inclusion in the Change Order shall be deemed waived. The Contractor shall execute the Change Order prepared pursuant to the foregoing. After the Change Order has been prepared and forwarded to the Contractor for execution, the Contractor shall not modify or amend the form or content of such Change Order, or any portion thereof.

17.4. Unilateral Change Orders

17.4.1. A Unilateral Change Order is a written order prepared and issued by the District, the Construction Manager, and/or the Engineer and signed by the District and the Engineer, directing a change in the Work. The District may as provided by law, by Unilateral Change Order and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions. If all or a portion of the Project is being funded by funds requiring approval by the State Allocation Board (SAB), these revisions may be subject to compensation once approval of same is received and funded by the SAB, and funds are released by the Office of Public School Construction (OPSC). Any dispute as to the sum of the Unilateral Change Order or timing of payment shall be resolved pursuant to the Payment provisions and the Claims and Disputes provisions herein. **A Unilateral Change Order is NOT a Construction Change Document (which is defined above as a Change Order that DSA must approve).**

17.4.2. The District may issue a Unilateral Change Order in the absence of agreement on the terms of a Change Order.

17.5. Force Account Directives

17.5.1. When work, for which a definite price has not been agreed upon in advance, is to be paid for on a force account basis, all direct costs necessarily incurred and paid by the Contractor for labor, material, and equipment used in the performance of that Work, shall be subject to the approval of the District and compensation will be determined as set forth herein.

17.5.2. District will issue a Force Account Directive to proceed with the Work on a force account basis, and a not-to-exceed budget will be established by District.

17.5.3. All requirements regarding direct cost for labor, labor burden, material, equipment, and markups on direct costs for overhead and profit described in this section shall apply to Force Account Directives. However, District will only pay for actual costs verified in the field by the District or its authorized representative(s) on a daily basis.

17.5.4. Contractor shall be responsible for all cost related to the administration of Force Account Directive. The markup for overhead and profit for Contractor modifications shall be full compensation to the Contractor to administer Force Account Directive.

17.5.5. Contractor shall notify District or its authorized representative(s) at least twenty-four (24) hours prior to proceeding with any of the force account work. Furthermore, the Contractor shall notify the District when it has consumed eighty percent (80%) of the budget, and shall not exceed the budget unless specifically authorized in writing by the District. Contractor will not be compensated for force account work in the event that Contractor fails to timely notify the District regarding the commencement of force account work, or exceeding the force account budget.

17.5.6. Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the District no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work only. The names of the individuals performing the force account work shall be included on the daily force account reports. The type and model of equipment shall be identified and listed. District will review the

information contained in the reports, and sign the reports no later than the next work day, and return a copy of the report to Contractor for its records. District will not sign, nor will Contractor receive compensation for work District cannot verify. Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.

17.5.7. In the event Contractor and District reach a written agreement on a set cost for the work while the work is proceeding based on a Force Account Directive, the Contractor's signed daily force account reports shall be discontinued and all previously signed reports shall be invalid.

17.6. Price Request

17.6.1. Definition of Price Request. A Price Request ("PR") is a written request prepared by the Engineer requesting the Contractor to submit to the District and the Engineer an estimate of the effect of a proposed change in the Work on the Contract Price and the Contract Time.

17.6.2. Scope of Price Request. A Price Request shall contain adequate information, including any necessary Drawings and Specifications, to enable Contractor to provide the cost breakdowns required herein. Contractor shall not be entitled to any additional compensation for preparing a response to a Price Request, whether ultimately accepted or not.

17.7. Proposed Change Order

17.7.1. Proposed Change Order. The Contractor may issue a Proposed Change Order ("PCO"), only as a written request prepared by it to the District and the Engineer, requesting that the District issue a Change Order based upon a proposed change to the Work.

17.7.2. Changes in Contract Price. A PCO shall include breakdowns pursuant to the provisions herein to validate any change in Contract Price.

17.7.3. Changes in Time. A PCO shall also include any changes in time required to complete the Project. Any additional time requested shall not be the number of days to make the proposed change, but must be based upon the impact to the Construction Schedule as defined in the Contract Documents. If Contractor fails to request a time extension in a PCO, then the Contractor is thereafter precluded from requesting time and/or claiming a delay.

17.7.4. Unknown and/or Unforeseen Conditions. If Contractor submits a PCO requesting an increase in Contract Price and/or Contract Time that is based at least partially on Contractor's assertion that Contractor has encountered unknown and/or unforeseen condition(s) on the Project, then Contractor shall base the PCO on provable information that, beyond a reasonable doubt and to the District's satisfaction, demonstrates that the unknown and/or unforeseen condition(s) were actually unknown and/or unforeseen and that the condition(s) were reasonably unknown and/or unforeseen. If not, the District shall deny the PCO and the Contractor shall complete the Project without any increase in Contract Price and/or Contract Time based on that PCO.

17.7.5. Time to Submit PCO. Contractor shall submit its PCO within five (5) days of the date Contractor discovers, or reasonably should discover, the circumstances giving rise to the proposed change order, unless additional time to submit a proposed change order is granted in writing by the District. Time is of the essence in Contractor's written notice pursuant to the preceding sentence so that the District can promptly investigate and consider alternative measures to address the basis for the PCO. Accordingly, Contractor acknowledges that its failure, for any reason, to give written notice (with Supporting Documentation to permit the District's review and evaluation) within this time frame shall be deemed Contractor's waiver, release, discharge and relinquishment of any right to assert or claim any entitlement

to an adjustment of the Contract Time or the Contract Price on account of the circumstances giving rise to the PCO.

17.8. Format for Proposed Change

17.8.1. The following “Format For Proposed Change For Subcontractor Performed Work” and “Format For Proposed Change For Contractor Performed Work” shall be used as applicable by the District and the Contractor (e.g. Change Orders, PCO’s) to communicate proposed additions and deductions to the Contract, supported by attached documentation

FORMAT FOR PROPOSED CHANGE FOR SUBCONTRACTOR PERFORMED WORK

	SUBCONTRACTOR PERFORMED WORK	ADD	DEDUCT
(A)	Labor Charge		
	<ol style="list-style-type: none"> Hours. Attach total itemized hours. Rate. This shall be no more than the Straight-Time Total Hourly Rate as determined by the Department of Industrial Relations (“DIR”) for the applicable labor category. 		
(B)	Labor Burden & Worker’s Compensation Charge		
	<ol style="list-style-type: none"> This shall be no more than twenty percent (20%) of item (A), the Labor Charge. This shall be the total cumulative charge permitted for all Subcontractors or all labor performed by the Subcontractor or Subcontractor’s Subcontractor(s) (i.e., all “lower-tier” Subcontractor(s)). 		
(C)	Subtotal (A+B)		
(D)	Material Charge		
	Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s).		
(E)	Equipment Charge		
	Attach invoice(s) from supplier(s).		
(F)	Subtotal (C+D+E)		
(G)	Subcontractor’s Overhead and Profit Charge		
	<ol style="list-style-type: none"> This shall be no more than five percent (5%) of item (F). This shall be the total cumulative mark-up permitted for the Subcontractor and Subcontractor’s Subcontractor(s) (i.e., all “lower-tier” Subcontractor(s)). 		
(H)	Subtotal (F+G)		
(I)	Contractor’s Overhead, Profit, Bond and Insurance		
	<ol style="list-style-type: none"> This shall be no more than six percent (6%) of Item (H). This shall be the total mark-up permitted for Contractor. 		
(J)	Subtotal (H+I)		
(K)	Time		Days
(L)	Contractor’s Home Office Overhead		
	This shall be no more than \$200 times the number of days of Item (K) (i.e., not to exceed \$200/day)		
(M)	TOTAL (J+L)		

FORMAT FOR PROPOSED CHANGE FOR CONTRACTOR PERFORMED WORK

	CONTRACTOR PERFORMED WORK	ADD	DEDUCT
(A)	Labor Charge		
	<ol style="list-style-type: none"> Hours. Attach total itemized hours. Rate. This shall be no more than the Straight-Time Total Hourly Rate as determined by the Department of Industrial Relations (“DIR”) for the applicable labor category. 		
(B)	Labor Burden & Worker’s Compensation Charge		
	<ol style="list-style-type: none"> This shall be no more than twenty percent (20%) of item (A), the Labor Charge. This shall be the total cumulative charge permitted for all labor performed by Contractor. 		
(C)	Subtotal (A+B)		
(D)	Material Charge		
	Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s).		
(E)	Equipment Charge		
	Attach invoice(s) from supplier(s).		
(F)	Subtotal (C+D+E)		
(G)	Contractor’s Overhead, Profit, Bond and Insurance		
	<ol style="list-style-type: none"> This shall be no more than six percent (6%) of Item (F). This shall be the total mark-up permitted for Contractor. 		
(H)	Subtotal (F+G)		
(I)	Time		Days
(J)	Contractor’s Home Office Overhead		
	This shall be no more than \$200 times the number of days of Item (I) (i.e., not to exceed \$200/day)		
(M)	TOTAL (H+J)		

17.8.2. All proposed cost requests by Contractor for a change shall include a complete itemized breakdown with the following detail:

17.8.2.1. Labor. Labor breakdown by trade classification, wage rates, and estimated hours. Labor costs shall only include fringe benefits indicated by governing trade organizations. Wages shall not exceed current prevailing wages in the locality for performance of the changes.

17.8.2.1.1. The Contractor's or Subcontractors' labor burden and Workers' Compensation premium shall only be charged as indicated herein. In no event shall Contractor include any other charges than as indicated herein without the prior written approval of the District.

17.8.2.2. Material. Material quantities, and types of products, and transportation costs, if applicable.

17.8.2.3. Equipment. Equipment breakdown by make, type, size, rental rates, equipment hours and transportation costs, if applicable.

17.8.2.3.1. The equipment costs shall not exceed one hundred percent (100%) of the Association of Equipment Distributors (AED) rental rates or Caltrans rates, whichever is less. Hourly, daily, weekly, or monthly rates shall be used, whichever is lower. Hourly rates including operator shall not be used.

17.8.2.3.2. The actual time to be paid for equipment shall be the time that the equipment is in productive operation on the Work under Contract Modification. In computing the hourly rental of equipment, any time less than thirty (30) minutes shall be considered one-half (1/2) hour. No payment will be made for time while equipment is inoperative due to breakdown, or for non-workdays. In addition, the rental time shall not include the time required to move the equipment to and from the project site. No mobilization or demobilization will be allowed for equipment already on site. If such equipment is not moved by its own power, then loading and transportation costs will be paid in lieu of rental time thereof. However, neither moving time nor loading and transportation costs will be paid if the equipment is used on the Project Site in any other way than upon the work directly related to the Contract Modification.

17.8.2.3.3. Individual pieces of equipment having a replacement value of one thousand dollars (\$1,000) or less shall be considered to be small tools or small equipment, and no payment will be made since the costs of these tools and equipment is included as part of the markup for overhead and profit defined herein.

17.8.2.3.4. Payment to the Contractor for the use of equipment as set forth above shall constitute full compensation to the Contractor for the cost of fuel, power, oil, lubricants, supplies, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment operators), and any and all costs to the Contractor incidental to the use of the equipment.

17.8.2.3.5. Should Contractor, or any of its owners, officers, directors or agents, hold any ownership interest in any company, organization, association or corporation from whom rental equipment is secured. Contractor shall immediately notify District of such and the price set for any such rental shall be agreed upon in advance by the Contractor and the District.

17.8.2.3.6. Overhead and Profit. Markup for overhead and profit, which shall be used to compensate Contractor for all costs for all administration, general conditions, and supervision, including, without limitation:

17.8.2.3.6.1. All field, field office and home office personnel including, but not limited to, principals, project managers, superintendents, supervisory foremen, estimators, project engineers, detailers, draftsmen, schedulers, consultants, watchmen, payroll clerks, administrative assistants, labor compliance costs and secretaries.

17.8.2.3.6.2. All field, field office and home office expenses including, but not limited to, field trailers, parking, storage sheds, office equipment and supplies, telephone service and long distance telephone calls, fax machines, temporary utilities, sanitary facilities and services, janitorial services, small tools and equipment with a cost under \$1000 each, portable scaffolding, blocking, shores, appliances, job vehicles, security and fencing, conformance to regulatory requirements including compliance to safety regulations, safety programs and meetings, cartage, warranties, As-Built Drawings, as well as any related maintenance costs.

17.8.2.3.6.3. Administrative functions such as, but not limited to, reviewing, coordinating, distributing, processing, posting, recording, estimating, negotiating, expediting, engineering, drawing, detailing, revising shop drawings, carting, cleaning, protecting the work, and other incidental Work related to the change.

17.8.2.3.6.4. All other costs and taxes required to be paid, but not included under direct costs as defined above including, without limitation, payroll taxes, social security, etc.

17.8.2.3.6.5. All costs for Contractor's bonds and insurance.

17.8.2.3.6.6. Taxes: Federal excise tax shall not be included. District will issue an exemption on request.

17.8.2.3.7. Contract Time. Justification for any adjustment in Contract Time including a schedule analysis identifying critical schedule activities delayed by the request. Contract Time shall be extended or reduced by Change Orders, Unilateral Change Orders, or Force Account Directives for a period of time commensurate with the time reasonably necessary to perform a Change. This time must be requested in writing by the Contractor with the Price Request, PCO, or expressly in writing as part of its documentation for Unilateral Change Orders, or Force Account Directives. The Contractor shall justify any Contract Time extension by submittal of a schedule analysis as required in this Changes section of these General Conditions accurately portraying the impact of the change on the critical path of the Construction Schedule. Changes performed within available float shall not justify an extension to the Contract Time. The District shall make the final determination of the amount of Contract Time to allocate to any Change.

17.9. Change Order Certification

17.9.1. All Change Orders and PCOs shall include the following certification by the Contractor. The Parties acknowledged that if a Change Order is approved that does not include this language, that Change Order shall be deemed to include this certification language:

The Contractor approves the foregoing as to the changes, if any, and the price specified for each item and the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete all additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq. It is understood that the

changes herein to the Contract shall only be effective when approved by the governing board of the District. It is expressly understood that the value of the extra Work or changes includes all of the Contractor's costs, expenses, field overhead, home office overhead, profit, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.

17.10. Determination of Change Order Cost

17.10.1. The amount of the increase or decrease in the Contract Price from a Change Order, if any, shall be determined in one or more of the following ways as applicable to a specific situation and at the District's discretion:

17.10.1.1. District acceptance of a PCO;

17.10.1.2. By agreement between District and Contractor.

17.10.1.3. By unit prices or alternates contained in Contractor's original bid. If the Bid for the Work included proposal(s) for Alternate Bid Item(s), during Contractor's performance of the Work, the District may elect to add any such Alternate Bid Item(s) if that item did not form a basis for award of the Contract or delete any such Alternate Bid Item(s) if that item formed a basis for award of the Contract. If the District elects to add or delete an Alternate Bid Item(s) pursuant to the foregoing, the cost or credit for that Alternate Bid Item(s) shall be as set forth in the Contractor's Bid, at the District's discretion. If any Alternate Bid Item is added or deleted from the Work pursuant to the foregoing, the Contract Time shall be adjusted by the number of days allocated for the added or deleted Alternate Bid Item in the Contract Documents; if days are not allocated for any Alternate Bid Item added or deleted pursuant to the foregoing, the Contract Time shall be equitably adjusted.

17.10.1.4. By the District, based upon actual and necessary costs incurred by the Contractor as determined by the District on the basis of the Contractor's records. Promptly upon determining the extent of adjustment to the Contract Price, the District shall notify the Contractor in writing of the same; the Contractor shall be deemed to have accepted the District's determination of the amount of adjustment to the Contract Price on account of a Change to the Work unless Contractor shall notify the District, in writing, not more than fifteen (15) days from the date of the District's written notice, of any objection to the District's determination. Failure of the Contractor to timely notify the District of Contractor's objections to the District's determination of the extent of adjustment to the Contract Price shall be deemed Contractor's acceptance of the District's determination and a waiver of any right or basis of the Contractor to thereafter protest or otherwise object to the District's determination. Notwithstanding any objection of the Contractor to the District's determination of the extent of any adjustment to the Contract Price pursuant to this provision, Contractor shall diligently proceed to perform and complete any such Change.

17.11. Deductive Change Orders

If Contractor offers a proposed amount for a deductive Change Order(s), Contractor shall include a minimum of five percent (5%) total overhead and profit to be deducted with the amount of the work of the Change Order(s). If Subcontractor work is involved, Subcontractors shall also include a minimum of five percent (5%) overhead and profit to be deducted with the amount of its deducted work, for a total minimum of ten percent (10%) total overhead and profit to be deducted. Any deviation from this provision shall not be allowed.

17.12. Discounts, Rebates and Refunds

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Contractor, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a reduction of the Contractor's cost in determining the actual cost of construction for purposes of any change, addition, or omission in the Work as provided herein.

17.13. Accounting Records

With respect to portions of the Work performed by Change Orders, Unilateral Change Orders, or Force Account Directives, Contractor shall keep and maintain cost-accounting records satisfactory to the District, which shall be available to the District on the same terms as any other books and records Contractor is required to maintain pursuant to the Contract Documents.

17.14. Notice Required

If Contractor is seeking an adjustment in the Contract Price, or any extension in the Contract Time for Completion, it shall notify District pursuant to the provisions of the Contract Documents. No adjustment in the Contract Price or Contract Time shall be considered unless made in accordance with the Contract Documents. Contractor shall proceed to execute the Work even though the adjustment may not have been agreed upon. Any change in the Contract Price or extension of the Contract Time resulting from such contract adjustment shall only be authorized by a Change Order.

17.15. Applicability to Subcontractors

Any requirements under this Article shall be equally applicable to Change Orders, Unilateral Change Orders, or Force Account Directives issued to Subcontractors by the Contractor to the extent as required by the Contract Documents.

17.16. Alteration to Change Order Language

Contractor shall not alter Change Orders or reserve time in Change Orders. Contractor shall execute finalized Change Orders and proceed under the provisions herein with proper notice.

17.17. Failure of Contractor to Execute Change Order

Contractor shall be in default of the Contract if Contractor fails to execute a Change Order when the Contractor agrees with the addition and/or deletion of the Work in that Change Order.

18. REQUEST FOR INFORMATION

18.1. Any Request for Information ("RFI") shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. Contractor shall make suggestions and interpretations of the issue raised by each RFI. An RFI cannot modify the Contract Price, Contract Time, or the Contract Documents.

18.2. Contractor shall be liable to the District for all costs incurred by the District associated with the processing, reviewing, evaluating and responding to any RFI, including without limitation, fees of the Engineer and any other design consultant to the Engineer or the District, that District reasonably determines:

18.2.1. Does not reflect adequate or competent supervision or coordination by the Contractor or any Subcontractor; or

18.2.2. Does not reflect the Contractor's adequate or competent knowledge of the requirements of the Work or the Contract; or

18.2.3. Requests an interpretation or decision of a matter where the information sought is equally available to the Contractor; or

18.2.4. Is not justified for any other reason.

18.3. Prior to submitting the RFI, Contractor shall diligently review the Contract Documents for information responsive to the RFI, including information incorporated by reference. Contractor should not issue an RFI regarding information contained in or inferable from the Contract Documents, including information incorporated by reference. An RFI is invalid if the RFI response is contained in or inferable from the Contract Documents.

18.4. Contractor shall be responsible for preparing and submitting each RFI so as to not cause delay to the progress of the Work nor to cause any impact to the Contractor's labor productivity. An RFI may be considered untimely if not submitted within **Forty Eight (48) hours** of receipt from a Contractor's subcontractor. Untimely submission of any RFI will preclude Contractor from asserting any claims for delay or for labor impact against the District.

18.5. If the Contractor fails to timely notify the Engineer in writing of any Conditions encountered and the Contractor proceeds to perform any portion of the Work containing or affected by such Conditions the Contractor shall bear all costs associated with or required to correct, remove, or otherwise remedy any portion of the Work affected thereby without adjustment of the Contract Time or the Contract Price. In requesting information of the District to address and resolve any conditions, the Contractor shall act with promptness in submitting any written request so as to allow the District a reasonable period of time to review, evaluate and respond to any request, taking into account the then current status of the progress and completion of the Work and the actual or potential impact of any conditions upon the completion of the Work within the Contract Time. The Contract Time shall not be subject to adjustment in the event that the Contractor shall fail to timely request information from the District.

19. PAYMENTS

19.1. Contract Price

19.1.1. The Contract Price is stated in the Agreement and, including authorized adjustments, is the total amount payable by the District to the Contractor for performance of the Work pursuant to the Contract Documents.

19.2. Applications for Progress Payments

19.2.1. Procedure for Applications for Progress Payments

19.2.1.1. Application for Progress Payment

19.2.1.1.1. Not before the fifth (5th) day of each calendar month during the progress of the Work, Contractor shall submit to the District and the Engineer an itemized Application for Payment for Work completed in accordance with the Schedule of Values. The Application for Payment shall be notarized, if required, and supported by the following or each portion thereof unless waived by the District in writing:

19.2.1.1.1.1. The amount paid to the date of the Application for Payment to the Contractor, to all its Subcontractors, and all others furnishing labor, material, or equipment

for its Contract;

19.2.1.1.1.2. The amount being requested by the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;

19.2.1.1.1.3. The balance that will be due to each of the entities after payment is made;

19.2.1.1.1.4. A certification that the As-Built Drawings and annotated Specifications are current;

19.2.1.1.1.5. An Itemized breakdown of Work performed;

19.2.1.1.1.6. An updated and acceptable construction schedule in conformance with the provisions herein;

19.2.1.1.1.7. The additions to and subtractions from the Contract Price and Contract Time;

19.2.1.1.1.8. A total of the retention held;

19.2.1.1.1.9. The material invoices, evidence of equipment purchases, rentals, and other support and details of cost as the District may require from time to time;

19.2.1.1.1.10. The percentage of completion of the Contractor's Work by line item;

19.2.1.1.1.11. The Schedule of Values updated from the preceding Application for Payment;

19.2.1.1.1.12. A duly completed and executed conditional waiver and release upon progress payment compliant with Civil Code section 8132 from each subcontractor of any tier and supplier to be paid from the current progress payment;

19.2.1.1.1.13. A duly completed and executed unconditional waiver and release upon progress payment compliant with Civil Code section 8134 from each subcontractor of any tier and supplier that was paid from the previous progress payment; and

19.2.1.1.1.14. A certification by the Contractor of the following:

The Contractor warrants title to all Work performed as of the date of this payment application. The Contractor further warrants that all Work performed as of the date of this payment application is free and clear of liens, claims, security interests, or encumbrances in favor of the Contractor, Subcontractors, material and equipment suppliers, workers, or other persons or entities making a claim by reason of having provided labor, materials, and equipment relating to the Work, except those of which the District has been informed.

19.2.1.1.1.15. If requested by the District, a third party, or as required by the California Department of Industrial Relations, all requested or required certified payroll record ("CPR(s)") for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment.

19.2.1.1.2. Except as expressly provided for herein, no payments shall be made by the District on account of any item of the Work, including without limitation, materials or equipment that, at the time of the Contractor's submittal of an Application for Progress Payment, has/have not been incorporated into and made a part of the Work.

19.2.1.1.3. Contractor shall be subject to the False Claims Act set forth under Government Code section 12650 et seq., for information provided with any Application for Progress Payment.

19.2.2. Prerequisites for Progress Payments

19.2.2.1. First Payment Request: The following items, if applicable, must be completed before District will accept and/or process Contractor's first payment request:

- 19.2.2.1.1.** Installation of the Project sign;
- 19.2.2.1.2.** Installation of field office;
- 19.2.2.1.3.** Installation of temporary facilities and fencing;
- 19.2.2.1.4.** Schedule of Values;
- 19.2.2.1.5.** Contractor's Construction Schedule;
- 19.2.2.1.6.** Schedule of unit prices, if applicable;
- 19.2.2.1.7.** Submittal Schedule;
- 19.2.2.1.8.** Receipt by Engineer of all submittals due as of the date of the payment application;
- 19.2.2.1.9.** Copies of necessary permits;
- 19.2.2.1.10.** Copies of authorizations and licenses from governing authorities;
- 19.2.2.1.11.** Initial progress report;
- 19.2.2.1.12.** Surveyor qualifications;
- 19.2.2.1.13.** Written acceptance of District's survey of rough grading, if applicable;
- 19.2.2.1.14.** List of all Subcontractors, with names, license numbers, telephone numbers, and Scope of Work;
- 19.2.2.1.15.** All bonds and insurance endorsements; and
- 19.2.2.1.16.** Resumes of Contractor's project manager, and if applicable, job site secretary, record documents recorder, and job site superintendent.

19.2.2.2. Second Payment Request: District will not process the second payment request until and unless all submittals and Shop Drawings have been accepted for review by the Engineer.

19.2.2.3. No Waiver of Criteria: Any payment made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by District. The approval of any

Application for Progress Payment or the disbursement of any Progress Payment to the Contractor shall not be deemed nor constitute acceptance of defective Work or Work not in conformity with the Contract Documents. Instead, such payment shall be construed as a good faith effort by District to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a material breach of the Contract by Contractor and may subject Contractor to termination.

19.3. Progress Payments

19.3.1. District's Approval of Application for Payment

19.3.1.1. Upon receipt of an Application for Payment, District shall act in accordance with the following:

19.3.1.1.1. Each Application for Payment shall be reviewed by the District as soon as practicable after receipt for the purpose of determining that the Application for Payment is a proper Application for Payment.

19.3.1.1.2. Any Application for Payment determined not to be a proper Application for Payment suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. An Application for Payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the Application for Payment is not proper. The number of days available to the District to make a payment without being subject to any applicable statute regarding prompt payment or interest accrual, shall be reduced by the number of days by which the District exceeds this seven-day return requirement.

19.3.1.1.3. An approved Application for Payment shall be considered payable if funds are available for payment after the deduction of amounts allowed by law and/or pursuant to the section herein entitled "Decisions to Withhold Payment,"

19.3.1.2. The District's review of the Contractor's Application for Payment will be based on the District's and the Engineer's observations at the Site and the data comprising the Application for Payment that the Work has progressed to the point indicated and that, to the best of the District's and the Engineer's knowledge, information, and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to:

19.3.1.2.1. Observation of the Work for general conformance with the Contract Documents,

19.3.1.2.2. Results of subsequent tests and inspections,

19.3.1.2.3. Minor deviations from the Contract Documents correctable prior to Completion, and

19.3.1.2.4. Specific qualifications expressed by the Engineer.

19.3.1.3. District's approval of each Application for Payment shall be based on Contractor complying with all requirements for a fully complete and valid Application for Payment.

19.3.2. Payments to Contractor

19.3.2.1. Within thirty (30) days after approval of the Application for Payment, Contractor shall be

paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Engineer and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in Contractor's estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the District's right to enforce each and every provision of this Contract, and the District shall have the right subsequently to correct any error made in any estimate for payment.

19.3.2.2. District shall withhold five percent (5%) retention from all Progress Payments.

19.3.2.3. District may withhold ten percent (10%) retention from all Progress Payments pursuant to Public Contract Code section 7201, if the Project is determined to be "substantially complex."

19.3.2.4. The Contractor shall not be entitled to have any payment requests processed, or be entitled to have any payment made for Work performed, so long as any lawful or proper direction given by the District concerning the Work, or any portion thereof, remains incomplete.

19.3.2.5. In accordance with Public Contract Code §20104.50, in the event that the District shall fail to make any Progress Payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Progress Payment, the District shall pay the Contractor interest on the undisputed amount of such Application for Progress Payment equal to the legal rate of interest set forth in California Code of Civil Procedure §685.010(a).

19.3.3. No Waiver

No payment by District hereunder shall be interpreted so as to imply that District has inspected, approved, or accepted any part of the Work. Notwithstanding any payment, the District may enforce each and every provision of this Contract. The District may correct or require correction of any error subsequent to any payment.

19.3.4. Warranty of Title

19.3.4.1. If a lien or a claim based on a stop notice or stop payment notice of any nature should at any time be filed against the Work or any District property, by any entity that has supplied material or services at the request of the Contractor, Contractor and Contractor's Surety shall promptly, on demand by District and at Contractor's and Surety's own expense, take any and all action necessary to cause any such lien or a claim based on a stop notice or stop payment notice to be released or discharged immediately therefrom.

19.3.4.2. If the Contractor fails to furnish to the District within ten (10) calendar days after demand by the District, satisfactory evidence that a lien or a claim based on a stop notice or stop payment notice has been so released, discharged, or secured, the District may discharge such indebtedness and deduct the amount required therefore, together with any and all losses, costs, damages, and attorney's fees and expense incurred or suffered by District from any sum payable to Contractor pursuant to the Contract.

19.4. Decisions to Withhold Payment

19.4.1. Reasons to Withhold Payment

District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District's opinion, the representations to the District required herein cannot be made. District may withhold payment, in whole, or in part, to such extent as may be necessary to

protect the District from loss because of, but not limited to:

- 19.4.1.1.** Defective Work not remedied within **FORTY-EIGHT (48)** hours of written notice to Contractor;
- 19.4.1.2.** Stop notices, stop payment notices or other liens served upon the District as a result of the Contract;
- 19.4.1.3.** Liquidated damages assessed against the Contractor;
- 19.4.1.4.** The cost to complete the Work if there exists reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the Completion Date;
- 19.4.1.5.** Damage to the District or other contractor(s);
- 19.4.1.6.** Unsatisfactory performance of the Work by Contractor;
- 19.4.1.7.** Failure to store and properly secure materials;
- 19.4.1.8.** Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports;
- 19.4.1.9.** Failure of the Contractor to maintain As-Built Drawings;
- 19.4.1.10.** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
- 19.4.1.11.** Unauthorized deviations from the Contract Documents;
- 19.4.1.12.** Failure of the Contractor to perform the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates;
- 19.4.1.13.** If requested by the District, or the failure to provide to the DIR, certified payroll records acceptable to the District and the DIR for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment;
- 19.4.1.14.** Failure to properly pay prevailing wages as defined in Labor Code sections 1720 et seq. and/or failure to comply with any other Labor Code requirements;
- 19.4.1.15.** Failure to properly maintain or clean up the Site;
- 19.4.1.16.** Failure to timely indemnify, defend or hold harmless the District;
- 19.4.1.17.** Any payments due to the District, including but not limited to payments for failed tests, utilities changes, or permits;
- 19.4.1.18.** Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents;
- 19.4.1.19.** Failure to pay any royalty, license or similar fees;

19.4.1.20. Failure of the Contractor to submit on a timely basis all Closeout Documentation in a manner and form that is proper, sufficient, and reasonably acceptable to the District, and to not cause a delay in the Completion or approval of the Project; or

19.4.1.21. Failure to perform any implementation and/or monitoring required by any SWPPP for the Project and/or the imposition of any penalties or fines imposed therefore against Contractor or District.

19.4.1.22. Payment is delayed due to an audit inquiry by the State, the County Office of Education, the County, or any entity with jurisdiction related to the Project.

19.4.1.23. Contractor is otherwise in breach, default or in substantial violation of any provision of the Contract;

19.4.2. Reallocation of Withheld Amounts

19.4.2.1. District may, in its discretion, apply any withheld amount to pay outstanding claims or obligations as defined herein. In so doing, District shall make such payments on behalf of Contractor. If any payment is so made by District, then that amount shall be considered a payment made pursuant to the Contract and District shall not be liable to Contractor for any payment made in good faith. These payments may be made without prior judicial determination of claim or obligation. District will render Contractor an accounting of funds disbursed on behalf of Contractor.

19.4.2.2. If Contractor defaults or neglects to perform the Work in accordance with the Contract Documents or fails to perform any provision thereof, District may, after **FORTY-EIGHT (48)** hours written notice to the Contractor and, without prejudice to any other remedy, make good such deficiencies. District shall adjust the total Contract Price by reducing the amount thereof by the cost of making good such deficiencies. If District deems it inexpedient to correct Work that is damaged, defective, or not done in accordance with Contract provisions, an equitable reduction in the Contract Price (of at least one hundred twenty-five percent (125%) of the estimated reasonable value of the nonconforming Work) shall be made therefor.

19.4.3. Payment After Cure

When Contractor cures the grounds for declining approval, payment shall be made for amounts so withheld. No interest shall be paid on any retention or amounts withheld due to the failure of the Contractor to perform in accordance with the terms and conditions of the Contract Documents.

19.5. Subcontractor Payments

19.5.1. Payments to Subcontractors. No later than seven (7) days after receipt, or pursuant to Business and Professions Code section 7108.5 and Public Contract Code section 7107, the Contractor shall pay to each Subcontractor, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled. Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to its Sub-subcontractors in a similar manner.

19.5.2. No Obligation of District for Subcontractor Payment. District shall have no obligation to pay, or to see to the payment of, money to a Subcontractor except as may otherwise be required by law.

19.5.3. Joint Checks. District shall have the right in its sole discretion, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of

funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, any obligation from the District to such Subcontractor, or rights in such Subcontractor against the District.

20. COMPLETION OF THE WORK

20.1. Completion

20.1.1. The Project may only be accepted by action of the governing board of the District.

20.1.2. District shall accept the Project and may have a Notice of Completion recorded when Project Completion has been achieved in accordance with the Contract Documents and to the satisfaction of District. For purposes of the payment of Retention, Completion is defined in Public Contract Code section 7107. For purposes of the timely filing of Stop Payment Notices, Completion is defined in California Civil Code section 9200, et seq.

20.1.3. Although there is no “substantial completion” for this Project, the District, at its sole option, may accept the Project and record a Notice of Completion when Project Completion has been completed to the satisfaction of District, except for minor corrective items, as distinguished from incomplete items. If Contractor fails to complete all minor corrective items within thirty-five (35) days after the date of the District's acceptance of the Project, District shall withhold from the final payment one hundred fifty percent (150%) of an estimate of the amount sufficient to complete the corrective items, as determined by District, until the item(s) are completed.

20.1.4. At the end of the thirty-five (35) day period, if there are any items remaining to be corrected, District may elect to proceed as provided herein related to adjustments to Contract Price, and/or District's right to perform the Work of the Contractor.

20.2. Closeout Procedures

20.2.1. Punch List

Contractor shall notify the Engineer when Contractor considers the Work complete. Upon notification, Engineer will prepare a list of minor items to be completed or corrected (“Punch List”). Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

20.2.2. Closeout Requirements

20.2.2.1. Utility Connections

Buildings shall be connected to water, gas, sewer, and electric services, complete and ready for use. Service connections shall be made and existing services reconnected.

20.2.2.2. As-Built Drawings

20.2.2.2.1. In addition to its requirement to provide monthly As-Built Drawings to the District, the Contractor shall provide a final set of As-Built Drawings, sometimes referred to as “Record Drawings,” showing all of the Work as actually constructed upon Completion of the Project as indicated in the Specifications.

20.2.2.2.2. Contractor is liable and responsible for any and all inaccuracies in the As-Built

Drawings, even if inaccuracies become evident at a future date.

20.2.2.2.3. Upon Completion of the Work and as a condition precedent to approval of final payment, Contractor shall obtain the Inspector's approval of the final set of As-Built Drawings.

20.2.2.3. Operations & Maintenance Manuals: Contractor shall prepare all operation and maintenance manuals and date as indicated in the Specifications.

20.2.2.4. Closeout Documentation: Contractor shall provide all Closeout Documentation, which shall include the following, without limitation:

20.2.2.4.1. A full set of final As-Built Drawings, as further defined herein.

20.2.2.4.2. All Operations & Maintenance Manuals and information, as further defined herein.

20.2.2.4.3. All Warranties, as further defined herein.

20.2.2.4.4. Verified report(s) for all scope(s) of work (DSA 6-C, Rev 03/22/13, or more recent revision if available).

20.3. Final Inspection

20.3.1. Contractor shall comply with Punch List procedures as provided herein, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, Engineer and Project Inspector will inspect the Work and shall submit to Contractor and District a final inspection report noting the Work, if any, required in order to complete in accordance with the Contract Documents. Absent unusual circumstances, this report shall consist of the Punch List items not yet satisfactorily completed.

20.3.2. Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the District and Engineer, who shall again inspect such Work. If the Engineer finds the Work complete and acceptable under the Contract Documents, the Engineer will notify Contractor, who shall then jointly submit to the Engineer and the District its final Application for Payment.

20.3.3. Final Inspection Requirements

20.3.3.1. Before calling for final inspection, Contractor shall determine that the following have been performed:

20.3.3.1.1. The Work has been completed.

20.3.3.1.2. All life safety items are completed and in working order.

20.3.3.1.3. Mechanical and electrical Work are complete and tested, fixtures are in place, connected, and ready for tryout.

20.3.3.1.4. Electrical circuits scheduled in panels and disconnect switches labeled.

- 20.3.3.1.5.** Painting and special finishes complete.
- 20.3.3.1.6.** Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.
- 20.3.3.1.7.** Tops and bottoms of doors sealed.
- 20.3.3.1.8.** Floors waxed and polished as specified.
- 20.3.3.1.9.** Broken glass replaced and glass cleaned.
- 20.3.3.1.10.** Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.
- 20.3.3.1.11.** Work cleaned, free of stains, scratches, and other foreign matter, of damaged and broken material replaced.
- 20.3.3.1.12.** Finished and decorative work shall have marks, dirt, and superfluous labels removed.
- 20.3.3.1.13.** Final cleanup, as provided herein.

20.4. Costs of Multiple Inspections

More than two (2) requests of the District to make a final inspection shall be considered an additional service of District, Engineer, Construction Manager, and/or Project Inspector, and all subsequent costs will be invoiced to Contractor and if funds are available, withheld from remaining payments.

20.5. Partial Occupancy or Use Prior to Completion

20.5.1. District's Rights to Occupancy. The District may occupy or use any completed or partially completed portion of the Work at any stage. Neither the District's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by District shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein. The District and the Contractor shall agree in writing to the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents. Any dispute as to responsibilities shall be resolved pursuant to the Claims and Disputes provisions herein, with the added provision that during the dispute process, the District shall have the right to occupy or use any portion of the Work that it needs or desires to use.

20.5.2. Inspection Prior to Occupancy or Use. Immediately prior to partial occupancy or use, the District, the Contractor, and the Engineer shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

20.5.3. No Waiver. Unless otherwise agreed upon, partial or entire occupancy or use of a portion or portions of the Work shall not constitute beneficial occupancy or acceptance of the Work not complying with the requirements of the Contract Documents.

21. FINAL PAYMENT AND RETENTION

21.1. Final Payment

21.1.1. Upon receipt and approval of a valid and final Application for Payment, the Engineer will issue a final Certificate of Payment or similar document indicating Engineer's agreement that the Project has reached Completion. The District shall thereupon jointly inspect the Work and either accept the Work as complete or notify the Engineer and the Contractor in writing of reasons why the Work has not reached Completion to the satisfaction of the District.

21.1.2. Upon acceptance of the Work of the Contractor as having reached Completion to the satisfaction of the District (that, absent unusual circumstances, will occur when the Punch List items have been satisfactorily completed), the District may record a Notice of Completion with the County Recorder, and the Contractor shall, upon receipt of final payment from the District, pay all the amount(s) due to its Subcontractors.

21.2. Prerequisites for Final Payment

The following conditions must be fulfilled prior to Final Payment:

21.2.1. A full and final waiver or release of all stop notices and stop payment notices in connection with the Work shall be submitted by Contractor, including a release of stop notice or stop payment notice in recordable form, together with (to the extent permitted by law) a copy of the full and final release of all stop notice or stop payment notice rights.

21.2.2. A duly completed and executed conditional waiver and release upon final payment compliant with Civil Code section 8136 from each subcontractor of any tier and supplier to be paid from the current progress payment;

21.2.3. A duly completed and executed unconditional waiver and release upon final payment compliant with Civil Code section 8138 from each subcontractor of any tier and supplier that was paid from the previous progress payment; and

21.2.4. Contractor shall have made all corrections to the Work that are required to remedy any defects therein, to obtain compliance with the Contract Documents or any requirements of applicable codes and ordinances, or to fulfill any of the orders or directions of District required under the Contract Documents.

21.2.5. Each Subcontractor shall have delivered to the Contractor all written guarantees, warranties, applications, and bonds required by the Contract Documents for its portion of the Work.

21.2.6. Contractor must have completed all requirements set forth under "Closeout Procedures," including, without limitation, submission of an approved set of complete Record Drawings.

21.2.7. Engineer shall have issued its written approval that final payment can be made.

21.2.8. Contractor shall have delivered to the District all manuals and materials required by the Contract Documents.

21.2.9. Contractor shall have completed final clean up as provided herein.

21.3. Retention

21.3.1. The retention, less any amounts disputed by the District or that the District has the right to withhold pursuant to provisions herein, shall be paid:

- 21.3.1.1.** After approval of the District by the Engineer's Certificate of Payment;
- 21.3.1.2.** After the satisfaction of the conditions set forth herein;
- 21.3.1.3.** Within sixty (60) days after Completion;
- 21.3.1.4.** No earlier than thirty-five (35) days of the recording of the Notice of Completion by District, if a Notice of Completion is recorded by the District.

21.3.2. No interest shall be paid on any retention, or on any amounts withheld due to a failure of the Contractor to perform, in accordance with the terms and conditions of the Contract Documents, except as provided to the contrary in any Escrow Agreement between the District and the Contractor pursuant to Public Contract Code section 22300.

21.4. Substitution of Securities

The District will permit the substitution of securities in accordance with the provisions of Public Contract Code section 22300.

21.5. Claims Asserted After Final Payment

Any lien, stop payment notice or other claim filed or asserted after the Contractor's acceptance of the Final Payment by any Subcontractor, of any tier, laborer, Material Supplier or others in connection with or for Work performed under the Contract Documents shall be the sole and exclusive responsibility of the Contractor pursuant to the indemnification obligations of the Contract Documents. In the event any lien, stop payment notice or other claim of any Subcontractor, Laborer, Material Supplier or others performing Work under the Contract Documents remain unsatisfied after Final Payment is made, Contractor shall refund to District all monies that the District may pay or be compelled to pay in discharging any lien, stop payment notice or other claim, including, without limitation all costs and reasonable attorneys' fees incurred by District in connection therewith.

22. UNCOVERING WORK, CORRECTION OF WORK AND RIGHT TO TAKEOVER WORK

22.1. Uncovering of Work

If a portion of the Work is covered without Project Inspector or Engineer approval or not in compliance with the Contract Documents, it must, if required in writing by the District, the Project Inspector, or the Engineer, be uncovered for the Project Inspector's or the Engineer's observation and be replaced at the Contractor's expense without change in the Contract Price or Contract Time.

22.2. Rejection of Work

Prior to the District's Acceptance of the Work, any Work or materials or equipment forming a part of the Work or incorporated into the Work that is defective or not in conformity with the Contract Documents may be rejected by the District, the Engineer or the Project Inspector and the Contractor shall correct all rejected Work without any adjustment to the Contract Price or the Contract Time, even if the Work, materials or equipment have been previously inspected by the Engineer or the Project Inspector or even if they failed to observe the defective or non-conforming Work, materials or equipment.

22.3. Nonconforming Work

22.3.1. Contractor shall promptly remove from Premises all Work identified by District as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and

re-execute its own Work to comply with the Contract Documents without additional expense to the District and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the District or other Contractors caused thereby.

22.3.2. If Contractor does not remove Work that District has identified as failing to conform to the Contract Documents within a reasonable time, not to exceed **FORTY-EIGHT (48)** hours, District may remove it and may store any material at Contractor's expense. If Contractor does not pay expense(s) of that removal within ten (10) days' time thereafter, District may, upon ten (10) days' written notice, sell any material at auction or at private sale and shall deduct all costs and expenses incurred by the District and/or District may withhold those amounts from payment(s) to Contractor.

22.4. Correction of Work

22.4.1. Correction of Rejected Work. Pursuant to the notice provisions herein, the Contractor shall promptly correct the Work rejected by the District, the Engineer, or the Project Inspector as failing to conform to the requirements of the Contract Documents, whether observed before or after Completion and whether or not fabricated, installed, or completed. The Contractor shall bear costs of correcting the rejected Work, including additional testing, inspections, and compensation for the Inspector's or the Engineer's services and expenses made necessary thereby.

22.4.2. One-Year Warranty Corrections. If, within one (1) year after the date of Completion of the Work or a designated portion thereof, or after the date for commencement of warranties established hereunder, or by the terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the District to do so. This period of one (1) year shall be extended with respect to portions of the Work first performed after Completion by the period of time between Completion and the actual performance of the Work. This obligation hereunder shall survive acceptance of the Work under the Contract and termination of the Contract. The District shall give such notice promptly after discovery of the condition.

22.5. District's Right to Takeover Work

22.5.1. If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the District, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

22.5.2. If it is found at any time, before or after Completion of the Work, that Contractor has varied from the Drawings and/or Specifications, including, but not limited to, variation in material, quality, form, or finish, or in the amount or value of the materials and labor used, District may require at its option:

22.5.2.1. That all such improper Work be removed, remade or replaced, and all work disturbed by these changes be made good by Contractor at no additional cost to the District;

22.5.2.2. That the District deduct from any amount due Contractor the sum of money equivalent to the difference in value between the work performed and that called for by the Drawings and Specifications; or

22.5.2.3. That the District exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the District hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the District shall either issue a deductive Change Order, a Unilateral Change Order, or invoice the Contractor for the cost of that work.

Contractor shall pay any invoices within thirty (30) days of receipt of same or District may withhold those amounts from payment(s) to Contractor.

22.5.3. Acceptance of Defective or Non-Conforming Work. The District may, in its sole and exclusive discretion, elect to accept Work that is defective or that is not in accordance with the requirements of the Contract Documents, instead of requiring its removal and correction, in which case the Contract Price shall be reduced as appropriate and equitable.

23. TERMINATION AND SUSPENSION

23.1. District's Right to Terminate Contractor for Cause

23.1.1. Grounds for Termination. The District, in its sole discretion, may terminate the Contract and/or terminate the Contractor's right to perform the work of the Contract based upon the following:

23.1.1.1. Contractor refuses or fails to execute the Work or any separable part thereof with sufficient diligence as will ensure its completion within the time specified or any extension thereof, or

23.1.1.2. Contractor fails to complete said Work within the time specified or any extension thereof, or

23.1.1.3. Contractor persistently fails or refused to perform Work or provide material of sufficient quality as to be in compliance with Contract Documents; or

23.1.1.4. Contractor files a petition for relief as a debtor, or a petition is filed against the Contractor without its consent, and the petition not dismissed within sixty (60) days; or

23.1.1.5. Contractor makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency; or

23.1.1.6. Contractor persistently or repeatedly refuses fails, except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials to complete the Work in the time specified; or

23.1.1.7. Contractor fails to make prompt payment to Subcontractors, or for material, or for labor; or

23.1.1.8. Contractor persistently disregards laws, or ordinances, or instructions of District; or

23.1.1.9. Contractor fails to supply labor, including that of Subcontractors, that can work in harmony with all other elements of labor employed or to be employed on the Work; or

23.1.1.10. Contractor or its Subcontractor(s) is/are otherwise in breach, default, or in substantial violation of any provision of this Contract.

23.1.2. Notification of Termination

23.1.2.1. Upon the occurrence at District's sole determination of any of the above conditions, District may, without prejudice to any other right or remedy, serve written notice upon Contractor and its Surety of District's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to District for the correction of the condition(s) and/or

violation(s) be made, this Contract and/or the Contractor's right to perform the Work shall cease and terminate. Upon termination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.

23.1.2.2. Upon termination, District may immediately serve written notice of tender upon Surety whereby Surety shall have the right to takeover and perform this Contract only if Surety:

23.1.2.2.1. Within three (3) days after service upon it of the notice of tender, gives District written notice of Surety's intention to takeover and perform this Contract; and

23.1.2.2.2. Commences performance of the Contract within seven (7) days from date of serving of its notice to District.

23.1.2.3. If Surety fails to notify District or begin performance as indicated herein, District may takeover the Work and execute the Work to completion by any method it may deem advisable at the expense of Contractor and/or its Surety. Contractor and/or its Surety shall be liable to District for any excess cost or other damages the District incurs thereby. Time is of the essence in the Contract. If the District takes over the Work as herein provided, District may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plan, and other property belonging to Contractor as may be on the Site of the Work, in bonded storage, or previously paid for.

23.1.2.4. Conversion to Termination for Convenience. In the event the Contract is terminated under this "District's Right to Terminate Contractor for Cause" section and it is finally determined by an arbitrator, court, jury or other tribunal having jurisdiction, for any reason, that the Contractor was not in default under the provisions hereof or that the District's exercise of its rights this section was defective, deficient, ineffective, invalid or improper for any reason, the termination shall be deemed a termination for convenience of the District under the "Termination of Contractor for Convenience" section herein and thereupon, the rights and obligations of the District and the Contractor shall be determined in accordance with the "Termination of Contractor for Convenience" section herein.

23.1.3. Effect of Termination

23.1.3.1. Contractor shall, only if ordered to do so by the District, immediately remove from the Site all or any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. District retains the right, but not the obligation, to keep and use any materials and personal property belonging to Contractor that have not been incorporated in the construction of the Work, or which are not in place in the Work. Contractor and its Surety shall be liable upon the performance bond for all damages caused the District by reason of the Contractor's failure to complete the Contract.

23.1.3.2. In the event that the District shall perform any portion of, or the whole of the Work, pursuant to the provisions of the General Conditions, the District shall not be liable nor account to the Contractor in any way for the time within which, or the manner in which, the Work is performed by the District or for any changes the District may make in the Work or for the money expended by the District in satisfying claims and/or suits and/or other obligations in connection with the Work.

23.1.3.3. In the event that the Contract is terminated for any reason, no allowances or compensation will be granted for the loss of any anticipated profit by the Contractor or any impact or impairment of Contractor's bonding capacity.

23.1.3.4. If the expense to the District to finish the Work exceeds the unpaid Contract Price, Contractor and Surety shall pay difference to District within twenty-one (21) days of District's request.

23.1.3.5. Assignment and Assumption of Subcontracts. District shall have the right (but shall have no obligation) to assume and/or assign to a general contractor or construction manager or other third party who is qualified and has sufficient resources to complete the Work, the rights of the Contractor under its subcontracts with any or all Subcontractors. In the event of an assumption or assignment by the District, no Subcontractor shall have any claim against the District or third party for Work performed by Subcontractor or other matters arising prior to termination of the Contract. The District or any third party, as the case may be, shall be liable only for obligations to the Subcontractor arising after assumption or assignment. Should the District so elect, the Contractor shall execute and deliver all documents and take all steps, including the legal assignment of its contractual rights, as the District may require, for the purpose of fully vesting in the District the rights and benefits of it Subcontractor under Subcontracts or other obligations or commitments. All payments due the Contractor hereunder shall be subject to a right of offset by the District for expenses and damages suffered by the District as a result of any default, acts, or omissions of the Contractor. Contractor must include this assignment provision in all of its contracts with its Subcontractors.

23.1.3.6. The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to District.

23.2. Emergency Termination of Public Contracts Act of 1949

23.2.1. The Contract is subject to termination as provided by sections 4410 and 4411 of the Government Code of the State of California, being a portion of the Emergency Termination of Public Contracts Act of 1949.

23.2.1.1. Section 4410 of the Government Code states:

In the event a national emergency occurs, and public work, being performed by contract, is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor, as the result of an order or a proclamation of the President of the United States, or of an order of any federal authority, and the circumstances or conditions are such that it is impracticable within a reasonable time to proceed with a substantial portion of the work, then the public agency and the contractor may, by written agreement, terminate said contract.

23.2.1.2. Section 4411 of the Government Code states:

Such an agreement shall include the terms and conditions of the termination of the contract and provision for the payment of compensation or money, if any, which either party shall pay to the other or any other person, under the facts and circumstances in the case.

23.2.2. Compensation to the Contractor shall be determined at the sole discretion of District on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the District's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted Schedule of Values, that price shall control. District, in its sole discretion, may adopt the Contract Price as the reasonable value of the Work performed or any portion thereof.

23.3. Termination of Contractor for Convenience

23.3.1. District in its sole discretion may terminate the Contract upon three (3) days written notice to the Contractor. Under a termination for convenience, the District retains the right to all the options available to the District if there is a termination for cause. In case of a termination for convenience, Contractor shall have no claims against the District except:

23.3.1.1. The actual cost- for labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and

23.3.1.2. Five percent (5%) of the total cost of work performed as of the date of termination, or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) amount shall be full compensation for all Contractor's and its Subcontractor(s)' mobilization and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience.

23.4. Suspension of Work

23.4.1. District may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as District may determine. When the District resumes the Project, the Parties will attempt to negotiate an adjustment in the Contract Price for increases or decreases in the cost of performance of the Project caused by suspense, delay or interruption. If the parties cannot agree on an adjusted Contract Price, the District may terminate the Contract as permitted herein.

23.4.2. In the event the District shall order suspension of the Work, an adjustment shall be made to the Contract Price for increases in the direct cost of performance of the Work of the Contract Documents, actually caused by suspension, delay or interruption ordered by the District; provided however that no adjustment of the Contract Price shall be made to the extent: (i) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible under the Contract Documents; or (ii) that an equitable adjustment is made or denied under another provision of the Contract Documents. The foregoing notwithstanding, any adjustment of the Contract Price shall not include any adjustment to increase the Contractor's overhead, general administrative costs or profit, all of which will remain as reflected in the Schedule of Values submitted by the Contractor pursuant to the Contract Documents. In the event of the District's suspension of the Work, the Contract Time shall be equitably adjusted.

23.5. Scope Reduction

In cases of suspension, partial or complete termination, or at the discretion of the District, the District reserves the right to unilaterally approve a deductive Change Order to reduce scope of work or perform work with other forces or its own forces.

24. CLAIMS RESOLUTION

24.1. Exclusive Remedy.

24.1.1. Compliance with the claim resolution process and timelines described in this Claims Resolution section as well as the notice provisions of the Contract are express conditions precedent to Contractor's right to commence litigation or arbitration, file a claim under the California Government Code, or commence any other legal action related to the Project ("Claims Resolution Process").

24.1.2. Contractor acknowledges that its failure, for any reason, to provide written notice and all required supporting documentation to permit the District's review and evaluation within the time frame required by this Claims Resolution Process, shall be deemed Contractor's waiver, release, discharge and relinquishment of any right to assert, request, or demand any entitlement to an adjustment of the Contract Time or the contract Price on account of any instruction, request, drawings, specifications, action, condition, omission, default or other situation.

24.1.3. To the extent any provision(s) of this Claims Resolution Process conflict with or otherwise impair the timeframes and procedures of Public Contract Code section 9204, the provisions of Section 9204 shall control. If provisions of this Claims Resolution Process are supplementary and/or in addition to the requirements of Section 9204, but do not conflict with or otherwise impair the timeframes and procedures of Section 9204, the provisions of this Claims Resolution Process and the Contract shall control.

24.2. Performance during Claim Resolution Process.

The Contractor shall diligently proceed with Work on the Project at the same time that Claims are addressed under the Claims Resolution Process. It is the intent of District to resolve Claims with the Contractor as close to the events giving rise to the Claims as possible, and to avoid stale or late Claims and the late documenting of Claims. Contractor's failure to diligently proceed in accordance with the District's instructions or the Contract terms will be considered a material breach of the Contract and a waiver of Contractor's rights under this Contract.

24.3. Waiver.

If Contractor fails to timely submit any written notices required under the terms of the Contract or in this Claims Resolution section, Contractor waives and releases its rights regarding further review of its Claim, unless Contractor and District mutually agree in writing to other time limits.

24.4. Intention.

The Claims Resolution Process required herein is intended to provide a concise mechanism for resolving Claims as they arise during the Project, while requiring accurate documentation related to contested issues as to those Claims that are not contemporaneously resolved.

24.5. Other Provisions.

If portions of the Contract, other than this Claims Resolution Process, establish a specific process regarding a specific subject, then that process shall govern and control the resolutions of any disagreements thereunder. Otherwise, the provisions in this Claims Resolution Process shall control the resolution of all Claims.

24.6. Claim Presentation

24.6.1. Claim: A claim is a written demand by Contractor (or by Contractor on behalf of a Subcontractor) that the Contractor must submit by **registered mail or certified mail return receipt requested** for:

24.6.1.1. An extension to the Contract Time, including relief from damages or penalties assessed by the District for delay;

24.6.1.2. Payment of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment that is not otherwise expressly provided for in the Contract Documents or the Contractor is not otherwise entitled; or

24.6.1.3. Payment that is disputed by the District.

("Claim")

24.6.2. A PCO may be a Claim, but the Parties agree that a PCO shall only be a Claim if:

24.6.2.1. The District states in writing that it disagrees with the terms of a PCO and directs the Contractor to utilize the Claim Resolution Process, or

24.6.2.2. The District rejects in whole or in part a PCO and the Contractor states in writing that it is utilizing the Claim Resolution Process for the portion of the PCO that the District rejected.

24.7. Subcontractors.

24.7.1. Public Contract Code section 9204(d)(5) states that the Contractor may present to the District a Claim on behalf of a Subcontractor or lower tier Subcontractor. A Subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier Subcontractor, that the Contractor present a claim for Work which was performed by the Subcontractor or by a lower tier Subcontractor on behalf of the Subcontractor. The Subcontractor requesting that the Claim be presented to the District shall furnish reasonable documentation to support the Claim. Within 45 days of receipt of this written request, the Contractor shall notify the Subcontractor in writing as to whether the Contractor presented the claim to the District and, if the Contractor did not present the Claim, provide the Subcontractor with a statement of the reasons for not having done so.

24.7.2. Contractor is responsible for providing this Claims Resolution Process to its Subcontractors and for ensuring that all Subcontractors or others who may assert Claims by and through Subcontractors and/or the Contractor are informed of this Claims Resolution Process. No Claim submitted by any party that fails to follow the provisions of this Claims Resolution Process will be considered. Contractor shall indemnify, keep and hold harmless the District and its consultants, against all suits, claims, damages, losses, and expenses, including but not limited to attorney's fees, caused by, arising out of, resulting from, or incidental to, the failure to provide this Claims Resolution Process to its Subcontractors or others who may assert Claims by and through Subcontractors and/or the Contractor.

24.7.3. Contractor Must Timely Identify, Present and Document Any Claim

24.7.3.1. Every Claim shall be stated with specificity in writing and signed by Contractor under penalty of perjury and presented to the District within ten (10) calendar days from the date Contractor discovers or reasonably should discover, that an act, error or omission of District, its agents or employees, or action, condition or other situation has occurred that may entitle Contractor to make a Claim. This shall include the Contractor's actual or constructive knowledge of any instruction, request, drawings, specifications, action, condition, omission, default or other situation for which the contractor believes there should an adjustment of the Contract Price or Contract Time. Contractor shall provide this writing even if Contractor has not yet been damaged, delayed, or incurred extra cost when Contractor discovers, or reasonably should discover, the act, error, omission, action, condition or situation giving rise to the incidents giving rise to the Claim. The writing shall:

24.7.3.1.1. Identify all of the issues, events, conditions, circumstances and/or causes giving rise to the Claim;

24.7.3.1.2. Identify all pertinent dates and/or durations and all actual and/or anticipated effects on the Contract Price, milestones and/or Contract Time adjustments; and

24.7.3.1.3. Identify in detail line-item costs if the Claim seeks money.

24.7.3.1.4. If the Claim involves extra work, a detailed cost breakdown of the amounts the Contractor is seeking, including actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that those costs have actually been incurred. To the extent costs have not yet been incurred at the time the Claim is submitted,

actual cost records must be submitted on a current basis not less than once a week during any periods costs are incurred. A cost record will be considered current if submitted within seven (7) days of the date the cost reflected in the record is incurred. At the request of District, extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged extra work on a daily basis).

24.7.3.1.5. If the Claim involves an error or omission in the Contract Documents:

24.7.3.1.5.1. An affirmative representation under penalty of perjury by Contractor and any affected Subcontractors and suppliers that the error or omission was not discovered prior to submitting a proposal for the Work, and

24.7.3.1.5.2. A detailed statement demonstrating that the error or omission reasonably should not have been discovered, by Contractor, its Subcontractors and suppliers, prior to submitting a proposal for the Work.

24.7.3.1.6. Contractor shall not be entitled to compensation for escalation of materials costs unless Contractor demonstrates to the satisfaction of the District that such cost escalation is the result of unusual, unforeseeable market conditions, not the fault of the Contractor, and were not reasonably foreseeable at the time of the award of the Contract. Contractor shall provide evidence to District of the costs included in the Contract for those materials and that those costs were reasonable at the time and that Contractor timely ordered the materials at issue.

24.7.3.2. The writing shall be accompanied by all documents substantiating Contractor's position regarding the Claim.

24.7.3.3. A Claim that asserts an effect on any schedule milestones and/or Contract Time shall include all pertinent scheduling data demonstrating the impact(s) on the critical path(s), milestone(s) and/or Contract Time.

24.7.4. Certification. Each copy of the Claim Documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of the Contract Documents. This certification shall be under penalty of perjury and must include the following language immediately above or before the Contractor's signature: ***"I declare under penalty of perjury under the laws of the State of California that the information provided and statements made in this Claim are true and correct, substantiated and of merit."*** The Contractor acknowledges that this requirement is not a mere formality but is intended to ensure that the Contractor only submits Claims that it believes are true and correct, substantiated and have merit. Should Contractor fail to submit the foregoing written statement signed under penalty of perjury, Contractor waives and releases its Claim, including all rights and remedies in connection therewith. This certification must include a certification of any portion of the Claim from Subcontractor(s) or others who are asserting Claims by and through Subcontractors and/or the Contractor

24.7.5. District's Written Statement/Decision on Claim. The District shall issue a written statement/decision regarding the Claim to the Contractor within forty-five (45) days of receipt of the written Claim from the Contractor, or three (3) days after the District's first regular governing board meeting after that 45-day period if the District's governing board does not meet within that first 45-day period. If the District fails to timely provide a written statement/decision regarding the Claim, the Claim shall be deemed rejected in its entirety.

24.7.6. Contractor Must Demand an Informal Meet and Confer Conference if Contractor Pursues Any Claim

24.7.6.1. FAILURE OF A CONTRACTOR TO TIMELY DEMAND A MEET AND CONFER CONFERENCE IS A WAIVER OF ITS RIGHT TO PURSUE ALL OR A PORTION OF ITS CLAIM.

24.7.6.2. Where There Is No Agreement: If there is no agreement between Contractor and the District on a Claim, then within ten (10) calendar days of the date of the District's written statement/decision in response to a Claim or PCO, if Contractor pursues that Claim, then Contractor must demand, by **registered mail or certified mail return receipt requested**, a meet and confer conference with District staff. A meet and confer conference with District staff shall be a condition precedent to Contractor seeking any further relief, including a mediation as indicated below.

24.7.6.3. Where There Is Partial Agreement: If Contractor and the District partially agree on a Claim but do not reach complete agreement, then the Parties shall complete a Change Order, if applicable, for the issues and/or amounts agreed to. For those issues not agreed to, if Contractor pursues those issues from that Claim, then Contractor must demand, by **registered mail or certified mail return receipt requested**, a meet and confer conference with District staff regarding those issues. A meet and confer conference with District staff shall be a condition precedent to Contractor seeking any further relief, including a mediation as indicated below, in connection with the District's rejection.

24.7.6.4. Meet and Confer Conference. District and Contractor shall schedule the meet and confer conference as soon as reasonably possible after Contractor's written demand for a meet and confer conference, but in no case later than thirty (30) days after Contractor's demand.

24.7.6.5. District's Written Decision. Within ten (10) **business** days of the meet and confer conference, the District shall issue a written decision. If the District fails to timely provide a written statement/decision after the meet and confer conference, all Claim issues that were part of the meet and confer conference shall be deemed rejected in their entirety.

24.7.6.5.1. If the District's decision completely resolves the Claim, then the Parties shall complete a Change Order, if applicable, for the issues and/or amounts agreed to.

24.7.6.5.2. If the District rejects the Contractor's Claim in whole or in part or does not issue a timely written response, then the parties shall mediate the remaining issues of the Claim.

24.7.6.5.3. Contractor's costs incurred in seeking relief for Claims are not recoverable from District.

24.7.7. Mediation.

24.7.7.1. At the District's sole discretion, this mediation may be a multiple-party mediation with the Engineer, the Construction Manager, the Inspector, and/or other District consultants.

24.7.7.2. The District and Contractor shall mutually agree to a mediator within ten (10) **business** days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

24.7.8. Contractor's Obligation to File a Government Code Claim. Nothing in this Contract, including this Claims Resolution Process, waives, modifies or tolls the Contractor's obligation to present a timely claim under Government Code section 910, et seq. Therefore, in addition to complying with this Claims Resolution Process, the Contractor is required to present claims to the District pursuant to Government

Code section 910, et seq. If after the requirements of this Claims Resolution Process are satisfied, and all or a portion of the Claim remains unresolved, and if the Government Code claim is rejected by the District, the Contractor may proceed under the post-mediation provisions of this Claims Resolution Process.

24.7.9. Post Mediation Provisions

24.7.9.1. Claims of \$375,000 or Less: The provisions of Public Contract Code § 20104.4 shall apply. Pursuant to Public Contract Code § 20104.4(a), within sixty (60) days, but no earlier than thirty (30) days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. Pursuant to Public Contract Code § 9204(d)(2)(D), a mediation conducted pursuant to this Claims Resolution Process shall excuse the obligation under Public Contract Code § 20104.4(a) to mediate after litigation has been commenced unless otherwise agreed to by the parties in writing.

24.7.9.2. Litigation of Claims in Excess of \$375,000. If, after a mediation as indicated above, the Parties have not resolved the Claim, either Party may commence an action in a court of competent jurisdiction to contest that decision within ninety (90) days following the conclusion of that mediation or one (1) year following the accrual of the cause of action, whichever is later. By mutual agreement, the Parties can agree to instead resolve the Claim through arbitration.

24.7.10. The District shall be entitled to remedy any false claims, as defined in California Government Code section 12650 *et seq.*, made to the District by the Contractor or any Subcontractor under the standards set forth in Government Code section 12650 *et seq.* Any Contractor or Subcontractor who submits a false claim shall be liable to the District for three times the amount of damages that the District sustains because of the false claim. A Contractor or Subcontractor who submits a false claim shall also be liable to the District for (a) the costs, including attorney fees, of a civil action brought to recover any of those penalties or damages, and (b) a civil penalty of up to \$11,000 for each false claim.

24.8. Documentation of Resolution.

If a Claim is resolved, the District shall determine if that resolution shall be documented in an Agreement and Release of Any and All Claims form or other document, as appropriate.

24.9. Claim Resolution Process – Non-Applicability.

The procedures and provisions in this Claims Resolution section shall **not** apply to:

24.9.1. District's determination of what Work is or will be constructed, or whether the Work complies with the Contract Documents for purposes of accepting the Work;

24.9.2. District's rights and obligations as a public entity, such as, but without limitation, the revocation of pre-qualified or qualified status, barring a contractor from District contracts, the imposition of penalties or forfeitures prescribed by statute or regulation; provided, however, that penalties imposed against a public entity by statutes such as Public Contract Code section 7107, shall be subject to the mandatory dispute resolution provisions of this Claims Resolution section and the Contract;

24.9.3. Personal injury, wrongful death or property damage claims;

24.9.4. Latent defect or breach of warranty or guarantee to repair;

24.9.5. Stop notices or stop payment notices; or

24.9.6. Any other District rights as set forth herein.

24.10. The District's failure to respond to a Claim from the Contractor within the time periods described herein or to otherwise meet the time requirements of Public Contract Code section 9204 shall automatically result in the Claim being deemed rejected in its entirety, with no admission by the District as to the merits of the Claim.

24.11. If District fails timely issue payment for any Claim or portion of a Claim as required pursuant to these Claim Resolution Procedures, the Contractor is permitted to assess interest indicated in Public Contract Code section 9204. Notwithstanding this provision, and in accordance with Public Contract Code section 7107, the District is entitled to withhold up to 150% of disputed amounts and the District shall not be liable for payment of interest on such disputed amounts pending final adjudication of such disputes.

25. LABOR, WAGE & HOUR, APPRENTICE AND RELATED PROVISIONS

25.1. Contractor & Subcontractor Registration

25.1.1. Contractor shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner of California and complying with any applicable enforcement by the Department of Industrial Relations. Labor Code section 1771.1(a) states the following:

"A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded."

25.1.2. Contractor acknowledges that, for purposes of Labor Code section 1725.5, all or some of the Work is a public work to which Labor Code section 1771 applies. Contractor shall comply with Labor Code section 1725.5, including without limitation the registration requirements. Additionally, all Contractor's Subcontractors shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of the Contract. Contractor represents that all of its Subcontractors are registered pursuant to Labor Code section 1725.5.

25.1.3. The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall post job site notices, as prescribed by regulation. Contractor shall comply with all requirements of Labor Code section 1771.4, except the requirements that are exempted by the Labor Commissioner for the Project.

25.2. Wage Rates, Travel and Subsistence

25.2.1. Pursuant to the provisions of article 2 (commencing at section 1770), chapter 1, part 7, division 2, of the Labor Code of California, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Contract are on file at the District's principal office and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.

25.2.2. Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the District, but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code.

25.2.3. Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations (“DIR”) (“Director”), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.

25.2.4. If during the period this bid is required to remain open, the Director determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Notice to Bidders or the Contract subsequently awarded.

25.2.5. Pursuant to Labor Code section 1775, Contractor shall, as a penalty to District, forfeit the statutory amount, (currently not to exceed two hundred dollars (\$200) for each calendar day, or portion thereof), for each worker paid less than the prevailing rates, as determined by the District and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it.

25.2.5.1. The amount of the penalty shall not be less than forty dollars (\$40) for each calendar day, or portion thereof, unless the failure of Contractor was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of Contractor.

25.2.5.2. The amount of the penalty shall not be less than eighty dollars (\$80) for each calendar day or portion thereof, if Contractor has been assessed penalties within the previous three (3) years for failing to meet Contractor’s prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

25.2.5.3. The amount of the penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, if the Labor Commissioner determines the Contractor willfully violated Labor Code section 1775.

25.2.5.4. The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

25.2.6. Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.

25.2.7. Pursuant to Labor Code section 1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time, subsistence pay, and apprenticeship or other training programs authorized by section 3093, and similar purposes.

25.2.8. Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned. In addition, Contractor shall post a sign-in log for all workers and visitors to the Site, a list

of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

25.3. Hours of Work

25.3.1. As provided in article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code, eight (8) hours of labor shall constitute a legal days work. The time of service of any worker employed at any time by Contractor or by any Subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract shall be limited and restricted by Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.

25.3.2. Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of District and to the Division of Labor Standards Enforcement of the DIR.

25.3.3. Pursuant to Labor Code section 1813, Contractor shall as a penalty to the District forfeit the statutory amount (believed by the District to be currently twenty five dollars (\$25)) for each worker employed in the execution of this Contract by Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code.

25.3.4. Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the District.

25.4. Payroll Records

25.4.1. If requested by the District, Contractor shall provide to the District and shall cause each Subcontractor performing any portion of the Work to provide the District and an accurate and certified payroll record ("CPR(s)"), 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 by the Contractor and/or each Subcontractor in connection with the Work.

25.4.1.1. In addition to any other requirements pursuant to Labor Code sections 1770, et seq., the CPRs enumerated hereunder shall be certified and shall be provided to the District on a weekly basis. The CPRs from the Contractor and each Subcontractor for each week shall be provided on or before Wednesday of the week following the week covered by the CPRs. District shall not make any payment to Contractor until:

25.4.1.1.1. Contractor and/or its Subcontractor(s) provide CPRs acceptable to the District, and

25.4.1.1.2. The District is given sufficient time to review and/or audit the CPRs to determine their acceptability. Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the District in a timely manner will directly delay the District's review and/or audit of the CPRs and Contractor's payment.

25.4.2. All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

25.4.2.1. A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

25.4.2.2. CPRs shall be made available for inspection or furnished upon request to a representative of District, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the Department of Industrial Relations.

25.4.2.3. CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the District, Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records reimburse the costs of preparation by Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.

25.4.3. The form of certification for the CPRs shall be as follows:

I, _____ (Name-Print), the undersigned, am the _____
_____ (Position in business) with the authority to act for and on behalf of _____
_____ (Name of business and/or Contractor), certify under penalty of perjury that the records or copies thereof submitted and consisting of _____
(Description, number of pages) are the originals or true, full, and correct copies of the originals which depict the payroll record(s) of actual disbursements by way of cash, check, or whatever form to the individual or individual named, and (b) we have complied with the requirements of sections 1771, 1811, and 1815 of the Labor Code for any work performed by our employees on the Project.

Date: _____ Signature: _____
(Section 16401 of Title 8 of the California Code of Regulations)

25.4.4. Each Contractor shall file a certified copy of the CPRs with the entity that requested the records within ten (10) days after receipt of a written request.

25.4.5. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by District, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated.

25.4.6. Contractor shall inform District of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) Business Days, provide a notice of change of location and address.

25.4.7. In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to District, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of Division of Apprenticeship Standards or Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

25.4.8. It shall be the responsibility of Contractor to ensure compliance with the provisions of Labor Code section 1776.

25.5. Apprentices

25.5.1. Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than or a number of working days greater than that specified in Labor Code section 1777.5, then this Contract is governed by the provisions of Labor Code Section 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code section 1777.5 for all apprenticeship occupations.

25.5.2. Apprentices of any crafts or trades may be employed and, when required by Labor Code section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.

25.5.3. Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which she/he is registered.

25.5.4. Only apprentices, as defined in section 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under chapter 4 (commencing at section 3070), division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

25.5.5. Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprenticeable craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

25.5.6. Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.

25.5.7. If Contractor or Subcontractor willfully fails to comply with Labor Code section 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:

25.5.7.1. Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;

25.5.7.2. Forfeit as a penalty to District the full amount as stated in Labor Code section 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.

25.5.8. Contractor and all Subcontractors shall comply with Labor Code section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.

25.5.9. Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, section 200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California 94102.

25.5.10. Contractor shall ensure compliance with all certification requirements for all workers on the Project including, without limitation, the requirements for electrician certification in Labor Code sections 108, et seq.

25.6. Non-Discrimination

25.6.1. Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246, and all administrative rules and regulations found to be applicable to Contractor and Subcontractor.

25.6.2. Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

25.7. Labor First Aid

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) the California Occupational Safety and Health Act of 1973, and all related regulations, including without limitation section 330 et seq. of Title 8 of the California Code of Regulations.

26. MISCELLANEOUS

26.1. Assignment of Antitrust Actions

26.1.1. Section 7103.5(b) of the Public Contract Code states:

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body 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. Sec. 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, made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

26.1.2. Section 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body 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. Sec. 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, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

26.1.3. Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to

receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

26.1.4. Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

26.1.5. Under this Article, “public purchasing body” is District and “bidder” is Contractor.

26.2. Excise Taxes

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, District, upon request, will execute documents necessary to show (1) that District is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of District. No Federal Excise Tax for such materials shall be included in any Contract Price.

26.3. Taxes

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with section 7051 of the Revenue and Taxation Code; Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

26.4. Shipments

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

26.5. Compliance with Government Reporting Requirements

If this Contract is subject to federal or other governmental reporting requirements because of federal or other governmental financing in whole or in part for the Project which it is part, or for any other reason, Contractor shall comply with those reporting requirements at the request of the District at no additional cost.

END OF DOCUMENT

DOCUMENT 00 71 00

SPECIAL CONDITIONS

1. **Prevailing Wages:** Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations (“DIR”) (“Director”), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers. Companies that manufacture and deliver ready-mixed concrete directly to construction sites using their own drivers, are not subject to this requirement pending the final adjudication of *Allied Concrete & Supply Co., v. Edmund Gerald Brown Jr., et al.*, United State District Court, Central District of California, Case. No. 2:16-CV-04830-RGK (FFM).

2. Modernization Projects

- a. **Access.** Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with District and onsite District personnel before Contractor commences Work. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor’s Work, the overtime wages for the custodian will be paid by Contractor, unless, at the discretion of District, other arrangements are made in advance.
- b. **Master Key.** Upon request, District may, at its own discretion, provide a master key to the school site for the convenience of Contractor. Contractor agrees to pay all expenses to re-key the entire school site and all other affected District buildings if the master key is lost or stolen or if any unauthorized party obtains a copy of the key or access to the school.
- c. **Maintaining Services.** Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with District. Contractor shall provide temporary services to all facilities interrupted by Contractor’s Work.
- d. **Maintaining Utilities.** Contractor shall maintain in operation during term of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.
- e. **Work During Instructional Time.** By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to the school up to, and including, rescheduling specific work activities, at no additional cost to District.
- f. **No Work During Student Testing.** Contractor shall, at no additional cost to District and at District’s request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State-required tests.

3. Badge Policy For Contractors

Contractor shall provide their workers and all of Subcontractors’ workers with identification badges. These badges shall be worn by all members of the Contractor's staff and all of Subcontractors’ staff who are working in a District facility.

- a. Badges must be filled out in full and contain the following information:

- (1) Name of Contractor
 - (2) Name of Employee
 - (3) Contractor's address and phone number
- b. Badges must be worn when Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow District employees, the Engineer, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.
 - c. Failure to display identification badges as required by this policy may result in the assessment of fines against the Contractor.

4. Substitution for Specified Items

- a. Requests for substitutions prior to award of the Contract shall be done within the time period indicated in the Instructions to Bidders.
- b. Requests for substitutions after award of the Contract shall be within **THIRTY-FIVE (35)** days of the date of the Notice of Award. This time period can be extended by the District only, in its sole discretion.
- c. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified.
 - (1) If the material, process, or article offered by Contractor is not, in the opinion of the District, substantially equal or better in every respect to that specified, then Contractor shall furnish the material, process, or article specified in the Specifications without any additional compensation or change order.
 - (2) This provision shall not be applicable with respect to any material, product, thing or service for which District made findings and gave notice in accordance with Public Contract Code section 3400(b); therefore, Contractor shall not be entitled to request a substitution with respect to those materials, products or services.
- d. A request for a substitution shall be in writing and shall include:
 - (1) All variations of the proposed substitute from the material specified including, but not limited to, principles of operation, materials, or construction finish, thickness or gauge of materials, dimensions, weight, and tolerances;
 - (2) Available maintenance, repair or replacement services;
 - (3) Increases or decreases in operating, maintenance, repair, replacement, and spare parts costs;
 - (4) Whether or not acceptance of the substitute will require other changes in the Work (or in work performed by the District or others under Contract with the District); and
 - (5) The time impact on any part of the Work resulting directly or indirectly from acceptance of the proposed substitute.
- e. No substitutions shall be made until approved, in writing, by the District. The burden of proof as to equality of any material, process, or article shall rest with Contractor. The Contractor warrants that if

substitutes are approved:

- (1) The proposed substitute is equal or superior in all respects to that specified, and that such proposed substitute is suitable and fit for the intended purpose and will perform adequately the function and achieve the results called for by the general design and the Contract Documents;
 - (2) The Contractor provides the same warranties and guarantees for the substitute that would be provided for that specified;
 - (3) The Contractor shall be fully responsible for the installation of the substitute and any changes in the Work required, either directly or indirectly, because of the acceptance of such substitute, with no increase in Contract Price or Contract Time. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time;
 - (4) The Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute; and
 - (5) The Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit.
- f. In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- g. In no event shall the District be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.
- h. If the District approves a substitution after the award of the Contract, the District shall memorialize that approval in a Change Order or other applicable Contract modification process.

5. Fingerprinting

Contractor shall comply with the provisions of Education Code section 45125.2 regarding the submission of employee fingerprints to the California Department of Justice and the completion of criminal background investigations of its employees, its subcontractor(s), and its subcontractors' employees. Contractor shall not permit any employee to have any contact with District pupils until such time as Contractor has verified in writing to the governing board of the District, that such employee has not been convicted of a felony, as defined in Education Code section 45122.1. Contractor shall fully complete and perform all tasks required pursuant to the Criminal Background Investigation/ Fingerprinting Certification.

6. Weather Days

Delays due to Adverse Weather conditions will only be permitted in compliance with the provisions in the General Conditions and only if the number of days of Adverse Weather exceeds the following parameters:

January	[11]	July	[0]
February	[10]	August	[0]
March	[10]	September	[1]
April	[6]	October	[4]
May	[3]	November	[7]
June	[1]	December	[10]

7. **Insurance Policy Limits.** Contractor’s insurance shall be with insurance companies with an A.M. Best rating of no less than A VIII The limits of insurance shall not be less than:

Commercial General Liability	Includes: Personal & Advertising Injury, Product Liability and Completed Operations	\$1,000,000 each occurrence; \$2,000,000 general aggregate
Automobile Liability – Any Auto	Combined Single Limit	\$1,000,000 per occurrence
Excess Liability (Umbrella)		\$1,000,000
Workers Compensation		Statutory limits pursuant to State law
Employers’ Liability		\$1,000,000 each accident, each disease; \$1,000,000 policy limit
Builder’s Risk (Course of Construction)	<i>NOT APPLICABLE</i>	Issued for the value and scope of Work indicated herein.
Property of Others	Combined Single Limit General Aggregate	Issued for the value and scope of Work stored off-site.

8. **Contractor's Risk Insurance: Contractor's Risk “All Risk” Insurance.**

- a. Contractor shall procure and maintain, during the life of the Project, Contractor’s Builders Risk (Course of Construction), or similar first party property coverage acceptable to the District, issued on a replacement cost value basis. The cost shall be consistent with the total replacement cost of all insurable Work of the Project included within the Contract Documents.
- b. Coverage is to insure against all risks of accidental physical loss and shall include without limitation the perils of vandalism and/or malicious mischief (both without any limitation regarding vacancy or occupancy), sprinkler leakage, civil authority, sonic disturbance, collapse, wind, fire, lightning, and smoke. Coverage shall include debris removal, demolition, increased costs due to enforcement of all applicable ordinances and/or laws in the repair and replacement of damaged and undamaged portions of the property, and reasonable costs for the Engineer, engineering services and expenses required as a result of any insured loss upon the Work and Project, including completed Work and Work in progress, to the full insurable value thereof.
- c. **Earthquake and Flood Coverage.** The District may require the Contractor to include coverage for “earthquake(s)” and/or “flood” and Contractor shall provide the price for those additional coverages for the District’s consideration prior to including or charging the District for those coverages. **Waived**
- d. The deductible for this insurance shall be paid by Contractor.

9. **Permits, Certificates, Licenses, Fees, Approval**

a. **Approvals, Certificates, Fees, Inspections, Licenses, Permits, Etc.**

(1) **Permits in Bid Price.** Contractor shall include in its Bid the cost of any approvals, certificates, fees, inspections, licenses, permits or similar requirements necessary for the performance of the Work (“Permits”).

a) “Permits” includes, without limitation, any of the following if required: temporary or permanent

building, mechanical, electrical or plumbing permits; certificates of occupancy; curb-breaking permits, highway entrance permits; water permits; local inspector fees; etc.

b) "Permits" does not include Project Inspector fees (which will be paid by the District unless otherwise indicated herein), professional licensing, or contractors' licensing.

c) The Contractor shall be required to obtain all Permits. The Contractor shall ensure sufficient time in its Construction Schedule to secure and obtain all permits and shall not be permitted to claim a delay in the Project due to a delay in obtaining a Permit.

- b. **Certain Fees Not Part of Permits.** Notwithstanding the above requirements, District shall oversee the obtaining and payment of the following permits, fees or charges, but Contractor shall assist in those efforts as requested by the District at no additional cost to District:

END OF DOCUMENT

SECTION 01 11 01: SUMMARY OF WORK

PART 1 - GENERAL

1.01 GENERAL

- A. The name of the project is Plumas Avenue Elementary Parking Lot Expansion.
- B. COMMUNICATIONS:
 - 1. Contractor and Owner shall communicate directly. Either party can communicate with the Engineer or Architect as needed, provided that each party is informed of the correspondence.

1.02 WORK INCLUDED

- A. Under a single contract construct all site work for the Plumas Avenue Elementary Parking Expansion prepared by Robertson Erickson Civil Engineers and Surveyors.

1.03 INSPECTIONS

- A. Inspections will be required by Butte County Environmental Health and Engineer as detailed in the plans and specifications. It shall be the Contractor's responsibility to plan and coordinate the inspections with the County.
- B. The Owner is responsible for any costs associated with inspections, but has no control over the time required for the inspections.
 - 1. Excess inspections as a result of improper installation and shoddy work will be paid for by the Owner and backcharged to the Contractor.

1.04 HAZARDOUS MATERIALS

- A. No asbestos or asbestos containing materials have been knowingly specified for this project.
- B. If materials containing asbestos are brought to the site for use or installation in the Work, or if such materials are encountered in existing work upon which new work is being performed, notify Architect immediately.
- C. Provide written certification that no asbestos or asbestos containing materials have been included in the work, and that no tools, devices, clothing or equipment containing asbestos have been used to construct the work.
- D. Provide written certification that materials furnished and installed in the work comply with Rules on Architectural Coatings applicable in the area of the work as enforced by the local agency having jurisdiction in that area.

1.05 CONTRACTOR'S USE OF PREMISES

- A. Confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents; do not' encumber site with extraneous materials or equipment.
- B. Roads for access to and from site, loading areas, and parking space are as

SUMMARY OF WORK: SECTION 01 11 01

indicated. Confine traffic and materials delivery to these roads and locations

- C. Assume responsibility for protection and safekeeping of products stored on the site. Coordinate area of storage and site fabrication with Owner's representative.

1.06 PROTECTION

- A. Observe safety precautions, and erect barricades, warning signs and handrails to protect persons in and around the work areas.
- B. Conform to OSHA rules and regulations, and State Safety Regulations and Orders.

1.07 TEMPORARY FACILITIES

- A. Contractor is responsible for providing temporary facilities including portable restrooms and fencing. The Contractor shall obtain owner's approval of the facilities location prior to placement or installation of these facilities

END OF SECTION

SECTION 01 26 14: REQUESTS FOR INFORMATION

PART 1 - GENERAL

1.01 SUBMISSION PROCEDURES

- A. Requests for additional information beyond that given in Contract Documents will be considered only when the request is in writing and fully documented on the form provided by contractor.
- B. Prior to submitting a request conduct a review to determine that the information requested is not shown in the Contract Documents.
- C. UNACCEPTABLE REQUESTS:
 - 1. Requests that are confirmation of unauthorized changes to the work will be considered invalid.
 - 2. Requests that are requests for substitution will be considered invalid.
- D. Requests for Information will not be considered without Contractor's recommended solution.
- E. Contractor may be backcharged by Owner for costs incurred by Engineer related to responding to Requests for Information under the following conditions:
 - 1. If information is already contained in Contract Documents.
 - 2. If excessive time is required to resolve Contractor's remedial work.
 - 3. If excessive time is required to evaluate Contractor's proposed solution.
 - 4. If excessive time is required to evaluate Contractor's proposed substitution.

1.02 SUBMISSION REQUIREMENTS

- A. RFI FORM
 - 1. RFI Number: Sequential number starting with 1.
 - a. Number re-submissions with same number as original and add letter designation 01, 02, 03, etc., in order submitted until resolution is achieved.
 - 2. Brief Description: Summary of content of request.
 - 3. Date Issued: Date RFI is submitted to Engineer.

REQUESTS FOR INFORMATION: SECTION 01 26 14

4. Response Requested By: Date response is requested.
 - a. Allow at least 7 days for response.
 - b. Indicate if information requested is critical to project progress.
5. Contractor and Subcontractor/Supplier: Name, address, contact and phone number of Contractor and Subcontractor/Supplier.
6. Cost Impact: Indicate if RFI will affect Contract Cost.
7. Schedule Impact: Indicate if RFI will affect Project Schedule.
8. Detail/Drawing Reference: Indicate detail number and drawing number related to RFI.
9. Specification Reference: Indicate Specification Section and paragraph number related to RFI.
10. Information Requested: Description of information requested. Attach drawing or other documents required to clarify request.
11. Contractor's Recommended Solution: Description of Contractor's proposed solution. Attach drawing or other documents required to clarify Solution.

1.03 ENGINEER'S RESPONSE

A. ENGINEER'S REVIEW:

1. Allow seven (7) calendar days after receipt for Engineer's response.
2. If more than ten (10) requests are received in one week Engineer will schedule and extend response time as required to accomplish the reviews.

B. RFI FORM - PORTION FILLED OUT BY ARCHITECT/ENGINEER.

1. Response: Engineer response, Date Received, Response By, Date Answered.
2. Contractor is Directed To:
 - a. Proceed - No Cost or Time Impact: Contractor is directed to proceed with work described in response with no Contract cost or Time impact. Notify Engineer prior to proceeding if Contract cost or Time impact will occur.
 - b. Do Not Proceed - Provide Cost Proposal: Contractor is directed to submit a cost proposal to Engineer for the work described in response.
 - c. Proceed - Provide Cost Proposal: Contractor is directed to proceed with work described in response and to submit a cost proposal to Engineer for the work within seven (7) days of date of response.

REQUESTS FOR INFORMATION: SECTION 01 26 14

- d. Proceed - Time and Materials: Contractor is directed to proceed with work described in response and to submit daily Time & Material worksheets to Inspector for verification.
3. RFI Classification: Engineer will classify RFI as follows:
 - a. Information in Contract Documents: RFI is not valid because the information requested is contained in the Contract Documents.
 - b. Remedial Work: Response constitutes remedial work to repair completed construction that is deemed not in compliance with the Contract Documents.
 - c. Unknown Condition: RFI is valid because it addresses an unknown condition.
 - d. Proposed Substitution: RFI is not valid because it is a request for substitution and should have been submitted with the Substitution Request form described in Section 01 33 01.
 - e. Confirmation: RFI is not valid because it is a request for confirmation of direction previously given.
 - f. Clarification: RFI is valid because the response provides information to assist Contractor in the execution of the Work.

END OF SECTION

SECTION 01 29 01: SCHEDULE OF VALUES/APPLICATION OF PAYMENT

PART 1 – GENERAL

1.01 SUMMARY

- A. Submit Schedule of Values to Engineer for review.

1.02 RELATED SECTIONS

- A. GENERAL CONDITIONS.
- B. SUBMITTALS: Section 01 33 00.

PART 2 – PRODUCTS

2.01 SCHEDULE OF VALUES

- A. When reviewed by Engineer, use as basis for Contractor's applications for payment.
- B. Submit no later than 15 days after issuance of Notice to Proceed, and no later than 15 days prior to first application for payment.
- C. Itemize portions of Work to facilitate monthly review to determine value of work completed.
- D. Include proper share of Overhead and Profit with each item; do not list separately.
- E. SUPPORTING DATA: As required by Engineer to substantiate correctness of schedule.
- F. After acceptance, modify only to show approved change orders at end of schedule; do not modify individual line items.

2.02 APPLICATION FOR PAYMENT

- A. Submit on form acceptable to Engineer.
- B. Prior to first application, establish a cut-off date agreeable to the Inspector to determine period to which all applications will apply.
- C. Prior to submission to Engineer, obtain Inspector's approval and signature.
- D. Submit one (1) original and two (2) copies of application with Contractor's and Inspector's original signatures. Electronic or faxed copies will not be accepted.

END OF SECTION

SECTION 01 32 15: PROGRESS SCHEDULE

PART 1 – GENERAL

1.01 SUMMARY

- A. Prepare and submit estimated progress schedule for Work.
- B. Submittal of schedule is Contractor's representation that schedule meets requirements of the Contract.

1.02 REQUIREMENTS

- A. Schedule should represent a practical plan to complete the work within the Contract Time.
- B. A completion date beyond the contractual completion date is not acceptable.
- C. If completion date is earlier than the contractual completion date Owner will not consider time extension requests until the contractual completion date is reached.
- D. Show early start date, late start date, duration, early finish date and late finish date for each activity using the Critical Path Method.
 - 1. Float is the time between the early finish date and late finish date of an activity, or the time between a scheduled completion date and the contractual completion date.
 - 2. Float is a resource available to Contractor and Owner and may be appropriated by either party without creating a compensable delay for the other, or affecting the right of the appropriating party to recover actual or liquidated damages for delay by the other party.

1.03 ALLOWANCE FOR ADVERSE WEATHER

- A. The contract duration does not include allowance for normal adverse weather.

1.04 ACTIVITIES

- A. Include each item described in Schedule of Values in sufficient detail to facilitate review of monthly progress payment.
- B. Include the following activities with minimum calendar day durations noted:
 - 1. Preparation of punch list, 3 days.
 - 2. Correction of punch list items, 7 calendar days.
- C. Include activities for required submittals. Refer to Section 01 33 01.
- D. 3 week look ahead schedules

PROGRESS SCHEUDLE: SECTION 01 32 15

1. Provide 3 week look ahead schedules for the duration of construction.

1.05 UPDATES

- A. Update schedule at midpoint of construction and when time extensions of more than two weeks have accumulated.

SECTION 01 33 01: SUBMITTALS

PART 1 – GENERAL

1.01 SUMMARY

- A. Specific submittal requirements are identified in the individual specification sections.
- B. Submit manufacturer's written installation instructions for all products.
- C. Where submittals are identified with the statement "None required for specified product.", only the first named manufacturer's product and model number are exempt from submittal requirements.

1.02 RELATED SECTIONS

- A. 01 29 01 Schedule of Values/Application for Payment
- B. 01 32 15 Progress Schedule
- C. 01 62 00 Product Options
- D. 01 77 01 Contract Closeout
- E. 01 78 40 Record Drawings

1.03 SUBMISSION PROCEDURES

- A. Provide separate submittals for each specification section.
- B. Schedule submissions a minimum three (3) weeks before required for use.
- C. After issuance of Notice to Proceed make submissions within time limits as follows, (days are calendar days):
 - 1. Early Start and/or Long Lead-Time Items: 14 days.
 - 2. Color Selection Items: 14 days.
 - 3. Electrical, Plumbing and Equipment Items: 14 days.
 - 4. Guarantees: Not less than 10 days prior to Owner's final acceptance.
 - 5. Record Drawings: Not more than 30 days after completion of underground work.
 - 6. Record Surveys: Not less than 10 days prior to Owner's final acceptance.
 - 7. Qualification Certificates: Not more than 14 days after date of Notice to Proceed.
 - 8. All Other Items: 30 days.
- D. Use Submittal Cover Sheet provided by the contractor:

1. Identify first submittal as number one (1) b number resubmittals, if required, with succeeding numbers.
2. Provide initialed or signed Contractor's stamp certifying to review of submittal, verification of field requirements, and compliance with contract documents.
 - a. When it is evident that the submittal has not been checked or does not have the stamp and signature, it will be returned without review.
 - b. In this case the Contractor bears risk of delays to the same extent as if no submittal had been made.

E. SUBMIT FOLLOWING NUMBER OF COPIES.

1. Progress Schedule: Two (2) copies.
2. Schedule of Values: Two (2) copies.
3. Applications for Payment: Original and three (3) copies, with original signatures of Contractor and Inspector. Faxed applications will not be processed.
4. Certifications: One (1) copy.
5. Shop Drawings: Three (3) of each drawing and electronically.
6. Product Data/Material Lists: Three (3) copies in individual 3-hole loose leaf binders.
7. Samples: As identified in individual specification Section.
8. Color/Pattern Selection: Two (2) sets of manufacturer's complete range as specified for initial selection b additional samples as requested of selected color/pattern for final color schedule.
9. Substitution Requests: One (1) Copy.
10. Record Drawings: Refer to 01 78 40 - Record Drawings.
11. Record Survey: One (1) copy of E-files on CD plus one (1) bond copy.
12. Guarantees: One (1) copy.

F. Engineer and Engineer's Consultant Review:

1. Make submittals as required to cause no delay in the orderly progress of work, layout or fabrication, due allowance being made for review by Engineer and for corrections, resubmission and rechecking.
2. Allow ten (10) calendar days after receipt for Engineer and Engineer's Consultant response.
 - a. If more than seven (7) engineering submittals are received in one week, Engineer will schedule and extend response time as required to accomplish the reviews.
 - b. If more than three (3) Engineer's Consultant submittals are received in one week Engineer will schedule and extend response time as required to accomplish the reviews.

3. Do not commence work requiring submittals until review by Engineer has been completed.
4. Review of submittals by the Engineer will be only for general conformance with the Contract Documents.
5. Review does not relieve Contractor from responsibility for coordinating the Work, compliance with requirements of Contract Documents, or furnishing materials and work required by contract which may not be indicated on submittals.
6. Review does not authorize changes from Contract requirements.
7. Efforts will be made by Engineer to identify errors and omissions, but General Contractor is responsible for the accuracy and correctness of submittals.
8. Engineer will make no color selections until all submittals related to color have been received and materials reviewed.

1.04 SHOP DRAWINGS

- A. Make drawings legible and complete in every respect.
 1. Show relationship to adjacent structure or material.
 2. Clearly identify field dimensions.
- B. If shop drawings show variations from Contract requirements because of standard industry practice or other reason, specifically call attention to such variations.
- C. Reviewed shop drawings will be returned to Contractor for subsequent action. Engineer will distribute prints as follows:
 1. No Resubmittal Required: Transparencies returned to Contractor.
 2. Resubmittal Required: Transparency returned to Contractor. Make corrections to original drawings and resubmit new set of transparencies and prints to Engineer for review. Secure final review prior to commencing work.

1.05 PRODUCT DATA/MATERIAL LISTS

- A. MANUFACTURER'S STANDARD SCHEMATIC DRAWINGS:
 1. Provide standard drawings, delete information not applicable to Project.
 2. Supplement standard information as required for Project, and as required by Engineer.
- B. PRODUCT DATA:
 1. Provide manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other standard descriptive data.

2. Clearly mark each sheet, identifying proposed materials, products and models.
 3. Provide dimensions and clearances required and performance characteristics and capacities.
- C. Reviewed product data will be returned to Contractor for subsequent action. Engineer will distribute copies as follows:
1. No Resubmittal Required: One (1) copy returned to Contractor.
 2. Resubmittal Required: One (1) copy returned to Contractor.
 - a. Make corrections and resubmit to Engineer for review.
 - b. Secure final review prior to commencing work.

1.06 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of product, with integral parts and attachment devices.
1. Accepted samples will establish standards by which completed work will be judged.
- B. Submit samples from full range of manufacturer's standard or special colors, patterns and textures.

END OF SECTION

SECTION 01 41 00: REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Work of this contract is subject to the requirements of Group 1, Chapter 4, Part I, Title 24, CCR as follows:
 - 1. Addenda and construction change documents per Section 4-338, to be approved by the County.
 - 2. Inspector and continuous inspection of work per Section 4-333(b) and 4-342.
 - 3. Special inspection per Section 4-333(c).
 - 4. Administration of construction per Part I, Title 24, CCR; duties of engineer and structural engineer per Section 4-333(a) and 4-341; duties of contractor per section 4-343.
 - 5. A copy of Part I through V of Title 24 to be kept and be available in the field during construction.
 - 6. County to be notified on start of construction per Section 4-

331. 1.02 CODES IN EFFECT

- A. The codes that govern this project include but are not necessarily limited to the following:
 - 1. 2016 Building Standards Administrative Code, CCR, Title 24, Part 1
 - 2. 2016 California Building Code (CBC), CR, Title 24, Part 2
 - 3. 2016 California Electrical Code (CEC), CCR, Title 24, Part 6
 - 4. 2016 California Mechanical Code (CMC), CCR, Title 24, Part 4
 - 5. 2016 California Plumbing Code (CPC), CCR, Title 24, Part 5
 - 6. 2016 California Fire Code (CFC), CCR, Title 24. Part 9
 - 7. 2016 California Referenced Standards Code, CCR, Title 24, Part 12
 - 8. 2016 California Energy Code Part 6, Title 24 CCR
 - 9. 2016 California Green Building Standards (CALGreen) Code
 - 10. Title 19 CCR, Public Safety, State Fire Marshal Regulations with current amendments.
 - 11. California amended NFPA 72, National Fire Alarm Code 2016 Edition
 - 12. NFPA 13 Automatic Sprinkler Systems 2016 Edition
 - 13. NFPA 14 Standpipe Systems 2016 Edition
 - 14. See U.L. Standard 1971 for "Visual Devices".

END OF SECTION

SECTION 01 41 22: STANDARDS AND ABBREVIATIONS

PART 1 – GENERAL

1.01 STANDARDS

- A. References to known Standards mean and include the latest edition of such Standards as of the date of issue of the Project Manual.

1.02 ABBREVIATIONS

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ABMA	American Boiler Manufacturers Association
ACI	American Concrete Institute
AGA	American Gas Association
AIA	American Institute of Architects
AIA	American Insurance Association (successor to NBFU)
AIMA	Acoustical and Insulating Materials Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standards Committee
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute
APA	APA The Engineered Wood Association
ASTM	American Society for Testing & Materials
ARI	Air Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating, & Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BIA	Brick Institute of America
BSI	Building Stone Institute
CBC	California Building Code
CBM	Certified Ballast Manufacturers
CCR	California Code of Regulations
CEC	California Electrical Code
CFC	California Fire Code
CFMG	Cabinet and Fixture Manufacturers Guide
CLFMI	Chain Link Fence Manufacturing Institute
CMC	California Mechanical Code
CPC	California Plumbing Code
CRA	California Redwood Association
CRS	Concrete Reinforcing Steel Institute
CS	Commercial Standard (US Dept. of Commerce)
DSA	Division of the State Architect
DVBE	Disabled Veteran Business Enterprise
ESC	Elevator Safety Code
ETL	Electrical Testing Laboratories
FGMA	Flat Glass Marketing Association
FS	Federal Specification

STANDARDS AND ABBREVIATIONS: SECTION 01 41 22

IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IGCC	Insulating Glass Certification Council
ILI	Indiana Lime Institute
IPCEA	Insulated Power Cable Engineers Association
ISO	Insurance Services Office
MIA	Marble Institute of America
MLSFA	Metal Lath/Steel Framing Association
NAAMM	National Association of Architectural Metal Manufacturers
NBFU	National Board of Fire Underwriters (See AIA)
NIST	National Institute of Standards and Technology
NCPWB	National Certified Pipe Welding Bureau
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NHLA	National Hardwood Lumber Association
NSF	National Sanitation Foundation
NWWDA	National Wood Window and Door Association
ORS	Office of Regulation Services/Division of the State Architect
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PDI	Plumbing and Drainage Institute
PEI	Porcelain Enamel Institute
PS	Product Standard
RETMA	Radio Electronic Television Manufacturers Association
RIS	Redwood Inspection Service
SAMA	Scientific Apparatus Makers Association
SFM	State Fire Marshal
SIGMA	Sealed Insulating Glass Manufacturers Association
SMACNA	Sheet Metal & Air Conditioning Contractors National Assoc.
SPR	Simplified Practice Recommendation (US Dept. of Commerce)
SSPC	Steel Structures Painting Council
SWRI	Sealant, Waterproofing, and Restoration Institute
TCA	Tile Council of America
Title 19	California Code of Regulations 9 Public Safety
Title 24	California Code of Regulations 9 Building Standards, 1995 Edition
UL	Underwriters' Laboratories, Inc.
USDA	US Department of Agriculture
WCLIB	West Coast Lumber Inspection Bureau
WCRSI	Western Concrete Reinforcing Steel Institute
WIC	Woodwork Institute of California
WWPA	Western Wood Products Association

END OF SECTION

SECTION 01 45 29: TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Owner will employ and pay for services of an independent testing laboratory approved by the Engineer, Electrical Engineer and DSA to perform specified testing.
 - 1. Cooperation: Contractor shall cooperate with laboratory to facilitate execution of its required services.
 - 2. Performance of Work: Employment of laboratory shall in no way relieve Contractor's obligations to perform work of Contract.

1.02 RELATED REQUIREMENTS:

- A. CONDITIONS OF CONTRACT: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B. RESPECTIVE SECTIONS OF THE SPECIFICATIONS: Certification of products.
- C. LISTED SPECIFICATION SECTIONS: Laboratory tests required and standards for testing.

1.03 LABORATORY DUTIES

- A. Comply with ASTM E329 "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction".
- B. COOPERATION: Cooperate with Engineer and Contractor provide qualified personnel after due notice.
- C. SERVICES:
 - 1. Perform specified inspections, sampling and testing of materials and methods of construction.
 - 2. Specified Standards: Verify compliance.
 - 3. Specified Materials: Ascertain compliance with requirements of Contract Documents.
- D. NOTIFICATION: Promptly inform Engineer of observed irregularities or deficiencies of work or products.
- E. REPORTS: Submit copies of reports simultaneously to Owner, Project Inspector, Engineer, General Contractor, and any other interested parties listed on T & I sheet following this Section.
- F. ADDITIONAL TESTING: Perform additional tests as required by Engineer or Owner. Note additional tests and any retests separately on each billing.

1.04 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. LABORATORY IS NOT AUTHORIZED TO:
 - 1. Release, revoke, alter, or enlarge on requirements of Contract Documents.

2. Construction: Perform any duties of Contractor.

1.05 CONTRACTOR'S RESPONSIBILITIES

A. COOPERATION:

1. Laboratory Personnel: Cooperate with, provide access to Work, and to Manufacturer's operations.
2. Inspector: Cooperate with Inspector to secure and deliver to laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.

B. MANUFACTURER'S TEST REPORTS: Furnish copies of products test reports as required.

C. FURNISH INCIDENTAL LABOR AND ASSISTANCE:

1. Access: Provide access to Work to be tested.
2. Facilitate: All inspections and tests.

D. SCHEDULING: Notify laboratory sufficiently in advance of operations, as specified in individual sections, to allow for laboratory assignment of personnel and scheduling of tests. When tests or inspections cannot be performed after such notice, laboratory personnel and travel expenses will be paid by Owner and back charged to Contractor.

E. ADDITIONAL SERVICES: Make arrangements with laboratory for additional samples and tests required for Contractor's convenience, or when initial tests indicate Work does not comply with Contract Requirements. Additional testing will be paid by Owner and backcharged to Contractor.

F. PAYMENT FOR LABORATORY SERVICES: Contractor's attention is directed to paragraph 1.01 A. above. This will be accomplished independently by Owner under separate agreement with the Independent Testing Laboratory. Contractor is advised that paragraph 1.03 F. above refers to that agreement and is not one of the responsibilities of this Contractor under this Contract. However, it is assumed that each Bidder has reviewed the inspection provisions pertaining to each specific Section and has accepted same in preparing his Bid. If, during the Bidding period, but at least ten days prior to Bid date, a bidder requests a change in the allotted time of special inspection provided in any Section, all Bidders will be advised of both the request and the answer thereto by means of an Addendum issued seven days before Bid date.

END OF SECTION

SECTION 01 50 00: TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 SUMMARY

- A. Provide Temporary Facilities and Controls as shown, specified, and required.
- B. Coordinate with work of other sections.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Temporary facilities and controls to be approved by authorities and regulatory agencies having jurisdiction, including insurance companies.

1.03 PRODUCT HANDLING

- A. Protect and maintain temporary facilities and controls in proper and safe condition throughout progress of work.
- B. In event of loss or damage, immediately make repairs and replacements at no additional cost to Owner.

PART 2 V PRODUCTS

2.01 EXISTING SITE UTILITIES

- A. WATER:
 - 1. Owner will provide and pay for water for construction purposes from existing source(s) on site.
 - a. Coordinate with Owner.
 - b. If existing sources are inadequate provide and pay for adequate water.
 - 2. Provide temporary connections to source and sufficient hose or pipe to carry water to areas of site requiring water for construction.
- B. POWER:
 - 1. Owner will provide temporary power free of charge from existing outlets.
 - a. Coordinate with Owner.
 - b. If existing sources are inadequate provide and pay for adequate power.
 - 2. Construct and maintain temporary electrical facilities in accordance with Division of Industrial Safety "Electrical Safety Orders" (ESO), Public Utilities Commission "Rules for Overhead Line Construction" (G.O. 95), and requirements of the utility company providing service.
- C. Maintain cell phone in field for the use of the Contractor for duration of

Contract. 2.02 SANITARY FACILITIES

- A. Provide sufficient number of suitably enclosed chemical toilets with urinal.

TEMPORARY FACILITIES AND CONTROLS: SECTION 01 50 00

- B. Provide properly mounted and adequate wash sinks connected to water supply.
- C. Provide clean, sanitary and adequate drinking water.

2.03 CONSTRUCTION EQUIPMENT

- A. Erect, equip, operate, and maintain construction equipment in strict accordance with applicable statutes, laws, ordinances, rules, and regulations of authorities having jurisdiction.
- B. Construction Access Equipment: Provide and maintain scaffolding, staging, runways, and similar equipment, as needed. Coordinate use and furnishing with subcontractors.

2.04 ENCLOSURES, FENCING AND BARRICADES

- A. Provide and maintain barricades, fencing, shoring, pedestrian walkways including lights, and other safety precautions to guard against personal injury and property damage as prescribed by authority having jurisdiction.
- B. Comply with Safety Orders issued by State of California, Division of Industrial Safety.
 - 1. Obtain copies of such Safety Orders as are applicable to type of work to be performed, and fully inform subcontractors and material suppliers as to the requirements of applicable Safety Orders.
 - 2. Contractor's Corporation Yard: Locate as agreed to by Owner. Enclose with fences and gates as required for security, and as accepted.

2.05 TEMPORARY SIGNS

- A. Other signs or advertising are not permitted, except Contractor's name may be placed at site.

2.06 SITE CONTROLS AND PARKING

- A. Use access roads and entrances as indicated.
 - 1. Maintain roads and entrances in satisfactory condition during the contract time, and repair damages caused by work of this project.
 - 2. At completion of Contract, restore roads and entrances to condition at least equal to that existing at start of Contract.
- B. Owner will allocate available onsite storage and work areas to Contractor, subject to change as may be necessary by job progress.
- C. Observe and comply with rules and regulations in effect at occupied campuses or other facilities, including, but not restricted to, parking and traffic regulations, security restrictions, hours of access.
- D. Make arrangements with authorities and pay fees for temporary use of streets and sidewalks for offices, shops, storage, etc.
- E. Keep site clean and free of debris.
 - 1. Burning on premises is prohibited.

TEMPORARY FACILITIES AND CONTROLS: SECTION 01 50 00

2. Remove debris from site as it accumulates.
 3. Pay fees required for use of public dumps.
- F. DUST CONTROLS:
1. Outdoor Operations: Use water wagons or spray from hoses to control dust created by outdoor work operations.
- G. Provide and maintain dewatering and pumping facilities to keep site reasonably dry, and to protect materials and installed work from water damage until dewatering is no longer required.
- H. Contractor is responsible for security of areas of his work during entire time of Contract.
- I. As required by the California State Water Resources Control Board, only rainwater is permitted in storm drain system.
1. Do not discharge wash down from equipment, vehicles, and other construction activities into storm drain system.
 2. Provide temporary containment, sediment traps, and/or gravel filters to prevent discharge of non-storm water into storm drain system.

PART 3 - EXECUTION

3.01 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of Work and remove as rapidly as progress of Work will permit.

END OF SECTION

SECTION 01 60 00: PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section specifies
 - 1. Basic requirements for products used in the Work.
 - 2. Minimum requirements for use of salvaged, refurbished or reused materials.

PART 2 - PRODUCTS

SALVAGED REFURBISHED OR REUSED MATERIALS

- A. At least 10 percent, based on cost, of the total value of materials used on the Project.
- B. Do not include, in tabulation, work specified in Specification Divisions 3 through 10, 31, 32, and 33.

RECYCLED CONTENT OF MATERIALS

- A. Provide building materials with recycled content such that the post-consumer recycled content plus one-half of pre-consumer recycled content constitutes a minimum of 10 percent of the cost of materials used for the Project.
- B. Provide building materials with recycled content such that the post-consumer recycled content plus one-half of pre-consumer recycled content constitutes a minimum of 20% of the cost of materials used for the Project.
 - 1. Determine the cost of post-consumer recycled content of an item by dividing the weight of post-consumer recycled content in the item by the total weight of the item and multiplying by the cost of the item.
 - 2. Determine the cost of post-consumer recycled content plus one-half of pre-consumer recycled content of an item by dividing the weight of post-consumer recycled content plus one-half of pre-consumer recycled content in the item by the total weight of the item and multiplying by the cost of the item.
 - 3. Do not include mechanical, electrical, and plumbing components in the calculation. Do not include elevators in the calculation.
 - 4. Recycled content of materials shall be defined in accordance with the International Organization of Standards document ISO 14021 - Environmental Labels and Declarations -. Self-Declared Environmental Claims\ Type II Environmental Labeling.
 - 5. Recycled content for products containing steel may utilize the industry average for each process available at www.recycle-steel.org.

2.03 REGIONAL MATERIALS

- A. Provide 20 percent of building materials, by cost, that are regionally extracted, harvested, or recovered as well as manufactured within 500 miles of the project site.

2.04 MATERIAL VOLITILE ORGANIC COMPOUNDS

- A. Unless local air quality management district requirements are more stringent, for interior applications use adhesives, sealants, and sealant primers that comply with South Coast Air Quality Management District, Rule No. 1168, effective July 1, 2005 and rule amendment date of January 7, 2005. Use aerosol adhesives that meet Green Seal

PRODUCT REQUIREMENTS: SECTION 01 60 00

Standard for Commercial Adhesives GS-36, dated October 19, 2000. Meet the following VOC limit in grams per liter less water, when calculated according to 40 CFR 59.

Wood Glues: 30 grams per liter
Metal to Metal Adhesives: 30
Adhesives for Porous Materials, except wood: 50 grams per liter
Subfloor Adhesives\ 50 grams per liter
Plastic Foam Adhesives: 50 grams per liter
Carpet and Carpet Pad Adhesives: 50 grams per liter
VCT and Asphalt Adhesives: 50 grams per liter
Resilient Base Adhesives: 50 grams per liter
Gypsum Board and Panel Adhesives: 50 grams per liter
Rubber Floor Adhesives: 60 grams per liter
Ceramic Tile Adhesives: 65 grams per liter
Multipurpose Construction Adhesives: 70 grams per liter
Fiberglass Adhesives: 80 grams per liter
Contact Adhesives: 80 grams per liter
Structural Glazing Adhesives: 100 grams per liter
Wood Flooring Adhesives: 100 grams per liter
Structural Wood Member Adhesives: 140 grams per liter
Plastic Cement Welding Compounds: 250 grams per liter
ABS Welding Compounds: 325 grams per liter
CPVC Welding Compounds: 490 grams per liter
PVC Welding Compounds: 510 grams per liter
Adhesive Primer for Plastic: 550 grams per liter
Architectural Sealants: 250 grams per liter
Sealant Primers for Nonporous Substrates: 250 grams per liter
Sealant Primers for Porous Substrates: 775 grams per liter
Aerosol General Purpose Web Spray: 55 percent VOCs by weight
Aerosol General Purpose Mist Spray: 65 percent VOCs by weight
Special Purpose Aerosol Adhesives: 70 percent VOCs by weight

PART 3 - EXECUTION - Not Used

END OF SECTION

SECTION 01 62 00: PRODUCT OPTIONS

PART 1 – GENERAL

1.01 SUMMARY

- A. Design is based on first named product.
- B. No cost to be incurred by Owner for the use of second named product or accepted equal.
- C. Do not substitute materials or equipment unless specifically accepted by Engineer.

1.02 SUBSTITUTIONS

- A. Substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to no fault of Contractor.
 - 1. Identify the benefits to Owner either from a reduction of the Contract amount or from a reduction in Contract time based on acceptance of proposed substitution.
 - 2. List proposed benefits to Owner in request for substitution.
- B. Whenever a material, process or article is indicated or specified by patent or proprietary name and/or by name of manufacturer and is followed by the words "or accepted equal" such name is used for purpose of facilitating description of material and process desired.
 - 1. Contractor may offer any material, process or article which in his opinion is equal in every respect to that specified.
 - 2. If material, process or article offered by Contractor is not, in opinion of Engineer, equal in every respect to that specified, then Contractor must furnish material, process or article specified.
 - 3. Only one request for substitution for each material, process or article will be reviewed.
 - 4. Engineer may charge Owner, who will back charge Contractor, for services rendered in the review of substitutions.
- C. Submit requests for substitution with completely filled-out Substitution Request Form, included at end of this Section.
 - 1. Provide product identification, manufacturer's name and address, manufacturer's literature including product description, performance and test data and reference standards, samples and name and address of similar projects on which the product was used, including the date of installation.
 - 2. Submit side by side, item by item comparison of all characteristics of the specified product and the proposed product.
 - 3. Provide statement of effect of substitution on construction schedule.
- D. Substitutions indicated or implied on shop drawings or product data submittals will not be considered if they are without a formal substitution request.

PRODUCT OPTIONS: SECTION 01 62 00

1. Such substitutions will be considered null and void and specified item shall be installed.
-
- E. Acceptance of substitution does not relieve Contractor from responsibility for compliance with requirements of Contract Documents.
 - F. Contractor is responsible, at his own expense, for changes in the work and re-approvals by authorities having jurisdiction, which are caused by substitution.
 - G. Substitutions are to be submitted as change orders.

SUBSTITUTION REQUEST

TO: Robertson Erickson Civil Engineers & Surveyors	
PROJECT: Parking Lot Expansion at Plumas Avenue Elementary School	
SPECIFIED ITEM:	
Section No.:	Page No.
Paragraph No.:	
Reason for Request:	
The undersigned requests consideration of the following:	
PROPOSED SUBSTITUTION:	
<p>Attached data includes product description, specifications, drawings, photographs, performance and test data adequate for evaluation of request; applicable portions of data are clearly identified. Attached data also includes a description of changes to Contract Documents which proposed substitution will require for its proper installation. The undersigned certifies that the following paragraphs, unless modified by attachments, are correct:</p> <ol style="list-style-type: none"> 1. The proposed substitution does not affect dimensions shown on drawings and does not require design changes in the Contract Documents. 2. The undersigned will pay for Engineer services and Consultant services involved in the review of and construction costs caused by the request substitution. 3. The proposed substitution will have no adverse affect on the work, the schedule, or specified warranty requirements. 4. Maintenance and service parts will be readily available for the proposed substitution. <p>The undersigned further states that the function, appearance and quality of the proposed substitution are equivalent or superior to the specified item.</p>	
Owner's Benefit <input type="checkbox"/>	Cost Credit of \$ <input type="checkbox"/> Time Credit of <input type="checkbox"/> days
<input type="checkbox"/> Specified item is no longer available due to no fault of Contractor	
The information provided is accurate and true. Submitted by: _____ Contractor: _____ Address: _____ _____	For use by Engineer: <input type="checkbox"/> Accepted. <input type="checkbox"/> Not accepted. <input type="checkbox"/> Accepted as noted. By: _____ _____
Date: _____	Date: _____
Phone: _____	Remarks: _____
Attachments: _____	

PRODUCT OPTIONS: SECTION 01 62 00

END OF SECTION

SECTION 01 65 50: DELIVERY, STORAGE, AND HANDLING

PART 1 – GENERAL

1.01 SUMMARY

- A. Protect materials by means including, but not necessarily limited to, those described in this Section.
- B. Additional requirements may be specified in specific sections of Divisions 2 through 33.

1.02 MANUFACTURER'S RECOMMENDATIONS

- A. Comply with manufacturer's recommendations on product handling, storage, and protection.

1.03 DELIVERY

- A. Deliver materials at such time so as not to impede progress of work.
- B. Deliver in manufacturer's original containers, with labels intact and legible.

1.04 PACKAGING

- A. Maintain packaged materials with seals unbroken and labels intact until time of use.
- B. Promptly remove damaged material and unsuitable items from job site, and promptly replace with material meeting the specified requirements.
- C. Engineer may reject as non-complying such material and products that do not bear identification complying with specifications as to manufacturer, grade, quality, and other pertinent information.

1.05 PROTECTION

- A. Protect finished surfaces, including jambs and soffits of openings used as passageways, through which equipment and materials are handled.
- B. Protect finished floor surfaces in traffic areas prior to allowing equipment or materials to be moved over such surfaces.
- C. Maintain finished surfaces clean, unmarred, and suitably protected until accepted by Owner.

1.06 REPAIRS AND REPLACEMENTS

- A. In event of damage, promptly make replacements and repairs to the approval of the Engineer.
- B. Additional time required to secure replacements and to make repairs will not justify an extension in the Contract Time.

END OF SECTION

SECTION 01 73 29: CUTTING AND PATCHING

PART 1 – GENERAL

1.01 SUMMARY

- A. Perform Gutting, fitting and patching, and excavation and backfill required to complete the Work and to:
 - 1. Provide for installation of ill-timed work.
 - 2. Remove and replace defective work and work not conforming to requirements of Contract Documents.
 - 3. Remove samples of installed work as specified for testing.
 - 4. Provide routine penetrations of non-structural surfaces.
 - 5. Install specified work in existing Construction.

1.02 SUBMITTALS

- A. Submit written request in advance of cutting or alteration which affects:
 - 1. Structural elements or systems.
 - a. Submit drawings and applicable calculations of proposed modifications.
 - b. Make changes required by Engineer prior to Engineer obtaining City approval.
 - c. Make changes required by City prior to proceeding.
 - 2. Weather-exposed elements or systems.
 - 3. Weather-proofing elements or systems.
 - 4. Moisture-resistant elements or systems.
 - 5. Efficiency, operational life, maintenance and safety of operational elements.
 - 6. Visual qualities of exposed elements.
 - 7. Work of Owner or separate contractor.
- B. Include in Request:
 - 1. Project Name and location.
 - 2. Location and description of affected work.
 - 3. Necessity for operation.
 - 4. Description of proposed work and products to be used.
 - 5. Alternatives to operation
 - 6. Effect on work of Owner or separate contractor.

CUTTING AND PATCHING: SECTION 01 73 29

7. Written permission of Owner or separate contractor.
8. Proposed date and time work will be executed.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Primary Products: Those required for original installation.
- B. Product Substitution: Submit request for substitution.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine existing conditions prior to commencing work.
- B. Beginning operation is acceptance of existing conditions as they exist. 3.02

PREPARATION

- A. Provide temporary supports to ensure structural integrity of Work. Protect other portions of Work from damage.
- B. Provide protection from elements for portions of Work exposed by operation.
- C. Maintain excavations free from water.

3.03 CUTTING

- A. Do not cut structural elements or systems without Engineer and City approval.
- B. Employ appropriate installer or fabricator with current experience in the type of material involved.
- C. Cut rigid materials using masonry saw or core drill. Obtain approval for use of pneumatic tools.

3.04 PATCHING

- A. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- B. At penetrations of fire rated assemblies seal voids with approved fire rated material to full depth of penetrated element.
- C. Repair work which has been cut or removed_ install new products to provide completed Work in accord with requirements of Contract Documents.
- D. Refinish surfaces to provide even finish to match adjacent finishes.

1. Refinish continuous surfaces to nearest intersection or change in material.

CUTTING AND PATCHING: SECTION 01 73 29

2. Refinish entire unit of damaged assemblies.

END OF SECTION

SECTION 01 74 19: CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for the following:
 - 1. Recycling nonhazardous demolition and construction waste.
 - 2. Disposing of nonhazardous demolition and construction waste.

1.02 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement material resulting from demolition or selective demolition operations.
- C. Disposal: Removal offsite of demolition and construction waste and subsequent sale, recycling, reuse or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the work.

1.03 SUBMITTALS

- A. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- B. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.

1.04 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by EPA approved certification program.
- B. Waste Management Conference: Conduct conference at project site.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 PLAN IMPLEMENTATION

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL: SECTION 01 74 19

- A. General: Implement waste management plan as approved by Engineer. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the work occurring at the project site.
 - 1. Distribute waste management plan to everyone concern within three (3) days of submittal return.
 - 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated and sold.
 - 2. Comply with Division 01 Section "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.02 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
 - 1. Provide appropriately-marked containers or bins for controlling recyclable waste until they are removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.

3.03 DISPOSAL OF WASTE

- A. Disposal: Transport waste materials off Owner's property and legally dispose of them.

END OF SECTION

SECTION 01 76 00: PROTECTING INSTALLED CONSTRUCTION

PART 1 – GENERAL

1.01 SUMMARY

A. Protection for products, including Owner provided products, after installation.

1.02 RELATED SECTIONS

- A. Section 01 60 00: Protection of products in storage.
- B. Individual Sections: Specific protection of installed products, as applicable.

1.03 PROTECTION AFTER INSTALLATION

- A. Protect installed products and control traffic in immediate area to prevent damage from subsequent operations.
- B. Provide protective covers at walls, projections, corners, jambs, sills, and soffits in and adjacent to traffic areas.
- C. Protect finished floors and stairs from dirt, wear and damage:
 - 1. Secure heavy sheet goods or similar protective materials in place, in areas subject to foot traffic.
 - 2. Lay planking or similar rigid materials in place, in areas subject to movement of heavy objects.
 - 3. Lay planking or similar grid materials in place in areas where storage of products will occur.
 - 4. Distribute loads of heavy stockpile materials, such as gypsum wall board, to prevent floor loading conditions in excess of loading capacity.
- D. Protect waterproofed and roofed surfaces:
 - 1. Restrict use of surfaces for traffic of any kind, and for storage of products.
 - 2. When an activity is mandatory, obtain recommendations for protection of surfaces from installer or manufacturer. Install protection and remove on completion of activity. Restrict use of adjacent unprotected areas.
- E. Restrict traffic of any kind across planted lawn and landscape areas.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

SECTION 01 77 01: CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 SUMMARY

- A. Perform operations necessary for closing out the Contract and assisting in Project acceptance.

1.02 FINAL CLEANING

- A. At completion of work, remove marks, stains, dust, dirt, and paint drippings.
- B. Clean and polish hardware and other unpainted metals.
- C. Remove temporary labels, tags and paper covering.
- D. Use low-VOC cleaning materials complying with the California, Butte County Air Quality Management District standards.

1.03 REQUIREMENTS PREPARATORY TO PROJECT ACCEPTANCE

- A. Perform the following prior to scheduling Engineer's final Acceptance Tour.
 - 1. Submit certification that no new materials containing asbestos have been included in the work.
 - 2. Remove temporary facilities.
 - 3. Clean pavement and site.
 - 4. Submit the following documents. A copy of these documents is provided immediately following this section
 - a. Megger Grounding Test Certification form
 - 5. Post Instructions for equipment operation and maintenance.
 - 6. Submit Record Drawings.
 - 7. Submit Operation and Maintenance Manuals.
 - 8. Submit Guarantees.
 - 9. Prepare list of items to be completed; review with Inspector; submit with Contractor's and Inspector's signatures.

1.04 ACCEPTANCE TOUR

- A. After requirements preparatory to project acceptance have been completed notify Engineer with at least three day's notice to perform acceptance tour.
- B. If, in Engineer's opinion, too many deficiencies exist, the tour will be terminated.
 - 1. Complete corrective measures and arrange another tour.
 - 2. Owner will compensate Engineer for additional acceptance tour and deduct amount paid from Contractor's retention.

- C. Contractor or his principal superintendent, authorized to act in behalf of Contractor, to accompany Engineer and Inspector on acceptance tour, as well as any principal subcontractors that Engineer may request to be present.

- D. If work has been completed in accordance with Contract Documents, and no further corrective measures are required, Engineer will recommend that Owner accept Project and file Notice of Completion.

- E. If work is substantially completed in accordance with Contract Documents, and only minor corrective measures are required, Engineer will recommend that Owner conditionally accept Project and file Notice of Completion based upon Contractor's assurance that corrective measures will be completed within shortest practicable time period.

- F. If work is not substantially completed in accordance with Contract Documents, and several or many corrective measures are still required, Engineer will recommend that Owner not accept project, nor file Notice of Completion.
 - 1. Based on information gathered from acceptance tour, Contractor will be required to complete corrective measures and then call for another project acceptance tour following procedure outlined above.
 - 2. Owner will compensate Engineer for additional acceptance tour and deduct amount paid from Contractor's retention.

- G. Upon acceptance of Project by Owner submit request for final payment, less retention.

- H. Retention payment will be made within sixty (60) days after the date of completion of the work of improvement, the retention withheld by the public entity shall be released, and will not be made until Contractor has filed the required Verified Report (Form 6) with DSA with copy to the Engineer.
 - 1. Should corrective measures remain incomplete at time retention is due, provide Owner with security in the form of Cashier's Check or Money Order in exchange for retention.
 - 2. Security to be in an amount twice the agreed estimated cost to accomplish the corrective measures.
 - 3. Owner will retain security until corrective measures are completed.

Megger Grounding Test Certificate

This certifies that a Megger Grounding Test for the

for _____ (Owner), of _____

County, California, was conducted on the _____ day of _____ ,

20____, per CCR Title 24, Sections 200 H and J. The undersigned verifies that the

resistance to ground was 25 ohms or less, as required, and is found to be acceptable.

Project Name: _____ Address: _____

General Contractor's Name: _____

General Contractor's Signature: _____

Electrical Contractor's Name: _____

Electrical Contractor's Signature: _____

Testing Agency's Name: _____

Testing Agency's Signature: _____

District Inspector's Name: _____

District Inspector's Signature: _____

* End Section 01 77 01 *

SECTION 01 78 36: WARRANTIES

PART 1 – GENERAL

1.01 SUMMARY

- A. Compile required and incidental warranties required by Contract Documents.
- B. These warranties shall be in addition to and not a limitation of other rights Owner may have against Contractor under Contract Documents and which may be prescribed by law.
- C. The Warranty shall commence at the date of substantial completion, unless otherwise written in the Contract for the work.
- D. Related Requirements:
 - 1. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specifications Section, apply to this Section.

1.02 DEFINITIONS

- A. **Manufacturer's Warranty:** Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- B. **Special Warranty:** Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

1.03 FORM OF SUBMITTAL

- A. Provide duplicate copies, notarized or on Contractor and Manufacturer's letterhead.
 - 1. Assemble documents executed by subcontractor, installers, suppliers, and manufacturers.
 - 2. Provide table of contents and assemble in binder with durable plastic cover, clearly identified regarding extent of contents.
 - 3. Electronic Format: email or zip drive warranties, in Microsoft Word or in portable document format, .pdf.
- B. **Warranty Form:** Use form acceptable to Owner. Completed form shall not detract from, or confuse interpretations of Contract Documents.
 - 1. Manufacturer shall countersign warranty.
 - 2. Subcontractor and installer shall countersign warranty where specified.
 - a. Provide required warranties for waterproofing and roofing systems countersigned by subcontractor and installer.
- C. Submit final warranties prior to final application for payment.
 - 1. For equipment put into use with Owner's permission during construction, submit within ten days after first operation.

- 2. For items of Work delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.
- D. Provide information for Owner's personnel regarding proper procedure in case of failure and instances that might affect validity of warranty.
- E. Size: 8¹/₂ by 11" for three ring binder fold larger sheets to fit.

1.04 WARRANTIES

- A. Warranties are intended to protect Owner against failure of work and against deficient, defective and faulty materials and workmanship, regardless of sources.
- B. Effective Dates: The Warranty shall commence on the Date of Substantial Completion and expire one year later, except as indicated in other specification sections in the Project Manual.
- C. Limitations: Warranties are not intended to cover failures that result from:
 - 1. Unusual or abnormal phenomena of the elements.
 - 2. Owner's misuse, maltreatment or improper maintenance of work.
 - 3. Vandalism after substantial completion.
 - 4. Insurrection or acts of aggression including war.
- D. Related damages and Losses: Remove and replace work which is damaged as result of failure, or which must be removed and replaced to provide access for correction of warranted work.
- E. Warranty Reinstatement: After correction of warranted work, reinstate warranty for corrected work to date of original warranty expiration, but not less than half original warranty period.
- F. Replacement Cost: Replace or restore failing warranted items without regard to anticipated useful service lives.
- G. Rejection of Warranties: Owner reserves right to reject unsolicited and coincidental product warranties that detract from or confuse interpretations of Contract Documents.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

SECTION 01 78 40: RECORD DRAWINGS

PART 1 – GENERAL

1.01 SUMMARY

- A. Maintain Record Drawings at site.
- B. Record installed locations of underground, drainage, plumbing, landscape irrigation, and electrical work, including storm drain grate and invert elevations, and stubs for future connections.
- C. Locate items with reference to permanent landmarks or buildings and indicate depth below finish grade.

1.02 REVIEW BY INSPECTOR

- A. Inspector will verify that Record Drawings accurately show work completed to date before approval of pay requests.
- B. Inspector will not approve pay request if Record Drawings are not up-to-date.

1.03 DRAWINGS:

- A. Transfer Record Drawing information to a clean copy of contract drawings in red pen
- C. Emphasize changed items by drawing "clouds" around them.
- D. Use same symbols and designations as shown on Contract Drawings.
- E. Submit Record Drawings to Engineer.
 - 1. Provide one (1) copy of electronic files on compact disc
 - 2. Provide one (1) bond copy signed by Contractor and Inspector.
- F. Engineer will review Record Drawings for completeness and legibility.

End Section

SECTION 02 41 17: SELECTIVE NON-STRUCTURE DEMOLITION

PART 1 – GENERAL

1.01 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of the site to install the new work.

1.02 DEFINITIONS

A. Remove: Demolish or detach items and legally dispose.

B. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

C. Existing to Remain: Existing items of construction that are not to be removed.

1.03 MATERIALS OWNERSHIP

A. Except for items or materials indicated to be salvaged, reinstalled or otherwise indicated to remain the Owner's property, demolished materials shall become the Contactor's property and shall be removed from the site with further disposition at Contractor's option.

1.04 SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition work, with starting and ending dates for each activity, and for each Phase indicated on the drawings.
2. Interruption of utility services.
3. Coordination for shutoff, capping, and continuation of utility services.
4. Proposed asphalt concrete section to replace demolished/damaged asphalt.

1.05 PROJECT CONDITIONS

A. Owner will occupy portions of the site immediate adjacent to selective demolition area.

1. Conduct selective demolition so Owner operations will not be disrupted.
2. Provide the Owner with not less than 72-hour notice prior to activities that will affect Owner operations.

B. Maintain access to existing walkways, corridors and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from authorities having jurisdiction.

D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

E. Fire Protection: Maintain fire protection services during selective demolition operations.

PART 2 – PRODUCTS

2.01 REPAIR MATERIALS

A. Where available and appropriate for use, provide repair materials that are identical to existing materials.

- B. Where identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
- C. Use materials whose installed performance equals or surpasses that of existing materials.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. When encountering unanticipated mechanical, electrical or structural elements that conflict with the intended function or design, investigate and measure the nature and extent of the conflict. Promptly submit a written report to the Owner.

3.03 UTILITY SERVICES

- A. Notify Owner's Representative five (5) days in advance of disconnecting utility services which will permanently or temporarily disrupt normal operations.
- B. Existing Utilities: Maintain services indicated to remain and protect them against damage during selective demolition operations.
- C. Do not interrupt existing utilities serving occupied or operating facilities, except when authorized in writing by the Owner.
 - 1. Provide temporary services during interruptions to existing utilities, as acceptable to the Owner.
- D. Utility Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services serving areas to be selectively demolished.
- E. Where utility services are required to be removed, relocated or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.
- F. Do not start selective demolition work until utility disconnection and sealing have been completed and verified.

3.04 PREPARATION

- A. Dangerous Materials: Drain, purge or otherwise remove, collect and dispose of chemicals, gases, explosives, acids, flammables or other dangerous materials before proceeding with selective demolition operations.

3.05 POLLUTION CONTROLS

- A. Dust Control: Use temporary enclosures and other suitable methods complying with governing environmental protection regulations to limit the spread of dust and dirt.
 - 1. Do not use water when it may damage existing construction or create hazardous or objectionable conditions, such as ice, flooding or pollution.
- B. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level.
- C. Cleaning: Clean adjacent structures and site improvements of dust, dirt and debris caused by selective demolition operations. Return adjacent areas to condition existing before start of selective demolition.

SELECTIVE DEMOLITION

- A. Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete selective demolition within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically. Conduct work in an order that avoids transporting removed items and debris through areas with completed selective demolition work, and that allows for removal of items before supports for those items are removed in another area.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage adjoining construction to remain. Use hand or small power tools designed for sawing or grinding, not for hammering and chopping, to minimize disturbance of adjunct surfaces. Temporarily cover openings to remain.
 - 3. Lower removed structural framing members to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 4. Return elements of construction and surfaces to remain to condition existing before start of selective demolition operations.
- B. Existing Facilities: Comply with the Owner's regulations for using and protecting stairs, walkways, loading docks, building entries and other building facilities during selective demolition operations.

3.07 REPAIRS

- A. Promptly restore any asphalt paving and damaged ground surfaces caused by adjacent demolition operations.

3.08 DISPOSAL OF DEMOLISHED MATERIALS

- A. Disposal: Transport demolished materials off Owner property and legally dispose of them.

END OF SECTION

SECTION 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Furnish and install electrical systems as shown and specified, including wiring and connections to certain equipment furnished by others and any work not specifically noted but that can be reasonably inferred or is necessary to provide a complete functional system.
- B. Connection of all equipment requiring electrical power included in this project.
- C. Section Includes:
 - 1. Electrical equipment coordination and installation.
 - 2. Sleeves for raceways and cables.
 - 3. Sleeve seals.
 - 4. Grout.
 - 5. Common electrical installation requirements.

1.03 DEFINITIONS

- A. EPDM: Ethylene-Propylene-Diene Terpolymer rubber.
- B. NBR: Acrylonitrile-Butadiene rubber.

1.04 SUBMITTALS

- A. General
 - 1. A submittal schedule shall be issued by the Contractor within 15 days of award of the contract. This schedule shall allow for timely review and approval as required by the contract documents.
 - 2. The Contractor shall review all submittals prior to submission to the Engineer. Submittals not reviewed by the Contractor will be returned to the Contractor and will not be reviewed.
 - 3. Any deviations from specified requirements shall be clearly indicated in submittals.

COMMON WORK RESULTS FOR ELECTRICAL: SECTION 26 05 00

4. Any errors in or omissions from submittals and any consequences of these are the responsibility of the Contractor.
5. Partial or incomplete submittals may be rejected as not complying with requirements; the Contractor shall be liable for resultant consequences.
 - a. Items intended for review shall be marked or highlighted. Catalogs submitted without identification of the product, complying with the construction documents, intended for use will be returned without review.
6. Delayed submittals may be rejected as not complying with requirements. Whether accepted or rejected, delayed submittals will not be considered justification for extension of contract time or similar relief.
7. Submittals not required or permitted by the Specifications but made at the option of the Contractor, will be returned without review unless accompanied with written valid justification.
8. Submittal items improperly included with those of another category (such as a proposed substitution included with shop drawing submittal) are not valid and will be returned without review.
9. Within 15 calendar days after award of the contract, and before fabrications and installation of any material or ordering of any materials, submit for approval six (6) copies of complete submittal data on specified and proposed substituted equipment and materials. Submittals shall list all materials proposed, identified with drawing symbols and specific data on equipment such as arrangements, performance curves, sizes, capacity, motor locations, and other pertinent data. Submit only one manufacturer for each item included in the submittal package. Check all submittals for conformance to the requirements of the Construction Documents before forwarding to the Engineer for each item. No consideration will be given to substitutions submitted past 15 day limit. The contractor shall be responsible for all quantities and errors and omissions of submittals. Furnish samples when requested.
10. Equipment and materials specified as part of the specifications and drawings are listed by at least three manufacturer's names. The first named manufacturer is the basis of design. The other named manufacturers have been determined to be an equivalent in quality or utility. The second, third, etc., manufacturers named have not been specifically determined to conform to the first named in size, layout, electrical power, voltage, or impacts to building structure. The Contractor is bound by all requirements for substitutes, as described below, for all other named manufacturers and equivalent equipment or products.
11. Each reviewed submittal will be marked to indicate review and directions as stated below.
12. Acceptance of a submittal does not relieve the Contractor of responsibility for omissions from the submittal or errors in the submittal.

1.05 PRODUCT HANDLING

- A. Contractor is responsible for receipt of delivery, storage, protection and placing of all equipment and materials including those pre-purchased by the College.
- B. Protection: Contractor shall protect from damage during construction, work and materials of other trades as well as electrical work and material. Electrical equipment stored and installed on job site shall be protected from dust, water, or any other damage.

1.06 EXAMINATION OF THE SITE

- A. The Contractor is held to have visited the site, checked existing conditions, and be satisfied as to the conditions under which the work is to be performed before submitting bid. No allowances shall be made in the Contractor's behalf for any extra expense to which the Contractor may be put due to failure or neglect to discover conditions affecting the scope of work.

1.07 COORDINATION

- A. Coordinate arrangement, mounting, and support of electrical equipment:
 - 1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
 - 2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
 - 3. To allow right of way for piping and conduit installed at required slope.
 - 4. So connecting raceways, cables, wireways, will be clear of obstructions and of the working and access space of other equipment.
- B. Coordinate installation of required supporting devices and other structural components as they are constructed. Contractor shall include supports, blocking, etc., necessary for luminaire replacement.

1.08 RULES AND REGULATIONS

- A. All work and materials shall be in full accordance with the latest rules and regulations of California Code of Regulation, Title 24 California Building Standards Code, California Electrical Code, Local City and County Code, applicable regulations of local utility companies, E.U.S.E.R.C. Standards, and General Order 95 of the Public Utilities Commission, and any other applicable laws or regulations.
- B. Nothing in these drawings or specifications is to be construed to permit work not conforming to the above codes.
- C. Drawings and/or specifications shall take precedence when work and material called for exceed code requirements.

1.09 WORKMANSHIP

- A. Good workmanship shall be evidenced in the installation of all electrical materials and equipment. Equipment shall be level, plumb and true with the structure and other equipment. All materials shall be firmly secured in place and adequately supported and permanent. The requirements of the codes are minimum standards. The recommendations of the National Electrical Contractors Association Standard of Installation shall be followed except where otherwise specifically directed.

1.10 CLEANING

- A. After all other work such as plastering, painting, etc., has been accomplished, lighting and all other electrical equipment shall be cleaned of all dirt, grease, plaster, paint or other marks.

1.11 ELECTRICAL WORK FOR EQUIPMENT PROVIDED BY OTHERS

- A. Provide all necessary electrical connections to all equipment provided by others. Obtain specific power and control wiring requirements and connection points from others to perform electrical work. Contractor shall assist in testing equipment but responsibility is limited to correctly installing electrical wiring, terminations and connections.

1.12 SEISMIC RESISTANCE

- A. Furnish and install systems, units, equipment, and parts to meet or exceed current applicable requirements for seismic resistance specified by codes, regulations, or agencies having jurisdiction. Include supports, anchors, braces, and other restraining devices required. Seismic restraints shall meet the local Seismic Zone requirements, SMACNA, and California Building Code (CBC), Chapter 16a, which are the responsibility of the Contractor.
- B. Design of seismic bracing will be per CBC Chapter 16.

1.13 MANUFACTURER'S DIRECTIONS

- A. Follow manufacturer's directions where these directions cover points not included on the Drawings or in the Specifications.

1.14 RECORD DRAWINGS

- A. The Contractor shall provide an electronic copy of record drawings in AutoCAD along with one set of clean "record" marked black line prints to the Engineer at completion showing clearly any changes made during construction. Changes including the result of RFI's or field directives shall be included in this record set. It will not be acceptable to cut and paste the drawing changes to this set.

1.15 OPERATIONS AND MAINTENANCE (O&M) MANUALS

- A. The Contractor shall provide an electronic copy of O&M manuals for all equipment and systems supplied in this project.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Unless otherwise noted, all material and equipment shall be new, of the type, capacity and quality specified and free from defects. Material shall bear the label of, or be listed by, the Underwriters' Laboratories or Nationally Recognized Testing Laboratory (NRTL).
- B. Unless specified otherwise, materials and equipment shall be manufactured and assembled in the United States of America. Materials shall be of the same brand or manufacture throughout for each class of material or equipment wherever possible.
- C. Equipment shall be the product of a manufacturer who has, for a period of not less than five (5) years, been in successful manufacture of the equipment and who has a nationally distributed catalog covering ratings and specifications of said equipment.

2.02 SLEEVES FOR RACEWAYS AND CABLES

- A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.
- B. Sleeves for Rectangular Openings: Galvanized sheet steel.
 - 1. Minimum Metal Thickness:
 - a. For sleeve cross-section rectangle perimeter less than 50 inches and no side more than 16 inches, thickness shall be 0.052 inch.
 - b. For sleeve cross-section rectangle perimeter equal to, or more than, 50 inches and 1 or more sides equal to, or more than, 16 inches, thickness shall be 0.138 inch.

2.03 SLEEVE SEALS

- A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Advance Products & Systems, Inc.
 - b. Calpico, Inc.
 - c. Pipeline Seal and Insulator, Inc.
 - 2. Sealing Elements: EPDM or NBR interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
 - 3. Pressure Plates: Stainless steel. Include two for each sealing element.
 - 4. Connecting Bolts and Nuts: Stainless steel of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.04 RACEWAYS

- A. Exposed runs shall be neatly installed parallel or at right angles to the structural members and painted out to match the adjacent finish.
- B. Pull Wires: Provide #12 in empty conduits 1" and smaller and 3/16" polypropylene rope in conduits 1-1/4" and larger.
- C. Cap Conduits: Keep conduits capped until wires are pulled. Use manufacturer plugs and caps, push-penny plugs of flexible plastic or steel pennies under bushings.
- D. Conduit Penetrations: Provide seamless lead flashing where conduits penetrate the roof, consisting of lead flashing and cast iron counter-flashing. Flashing shall be Semco 1100 Series, Stoneman or equal. Where conduits pass through finished walls, provide steel escutcheon plates, chrome or painted as directed.

PART 3 - EXECUTION

3.01 COOPERATION

- A. Coordinate work with that of all construction trades on the job for an efficient and effective completion of the project. Refer to the contract documents of other trades for construction details.

3.02 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- B. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
 - 1. Adequate working space shall be provided around electrical equipment in strict compliance with the Electrical Safety Orders. In general provide six and one-half feet (6'-6") of headroom and thirty-six inches (36") minimum clear work space in front of panelboards and controls for 120/208 volt equipment, and forty two inches (42") for 277/480 volt equipment.
- C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- D. Right of Way: Give to piping systems installed at a required slope.
- E. Excavation and Backfill:
 - 1. Perform excavation and backfill required for electrical installation.

COMMON WORK RESULTS FOR ELECTRICAL: SECTION 26 05 00

2. Dig trenches straight and true to line and grade with bottom smooth of any rock points. Support conduit for entire length of undisturbed original finished or natural grade (unless noted otherwise).
 3. Backfill shall be tamped in six inch (6") layers, with rock free sand to 6" cover above the conduit then Class #2 Road Base to finish grade as directed by settlement. Backfill under floor slabs on grade shall conform to applicable requirements of other sections of the Specifications.
- F. Removal of electrical equipment, fixtures, enclosures, penetrations, etc.
1. Where such items are removed holes and penetrations shall be patched with materials matching existing construction and finished to match adjacent finish and color.

3.03 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Electrical penetrations occur when raceways, cables, wireways, penetrate concrete slabs, concrete or masonry walls, or fire-rated floor and wall assemblies.
- B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.
- C. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
- D. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with Firestop system used are fabricated during construction of floor or wall.
- E. Cut sleeves to length for mounting flush with both surfaces of walls.
- F. Extend sleeves installed in floors 2 inches above finished floor level.
- G. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and raceway or cable, unless indicated otherwise.
- H. Seal space outside of sleeves with grout for penetrations of concrete and masonry
 1. Promptly pack grout solidly between sleeve and wall so no voids remain. Tool exposed surfaces smooth; protect grout while curing.
- I. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Division 07 Section "Joint Sealants."
- J. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at raceway and cable penetrations. Install sleeves and seal raceway and cable penetration sleeves with firestop materials. Comply with requirements in Division 07 Section "Penetration Firestopping."

- K. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.
- L. Above ground, Exterior-Wall Penetrations: Seal penetrations using steel pipe sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.
- M. Underground, Exterior-Wall Penetrations: Install cast-iron pipe sleeves. Size sleeves to allow for 1-inch annular clear space between raceway or cable and sleeve for installing mechanical sleeve seals.

3.04 FIRESTOPPING

- A. Apply firestopping to penetrations of fire-rated wall assemblies for electrical installations to restore original fire-resistance rating of assembly.

3.05 OUTDOOR MOTION SENSOR ACCEPTANCE

- A. Inspection:
 - 1. Confirm motion sensor has been located to minimize false signals.
 - 2. Motion sensor coverage is not blocked by obstruction that could adversely affect performance.
 - 3. Lumen output of each luminaire is set to reduce by at least 70% and no more than 80% in unoccupied condition.
- B. Functional Testing:
 - 1. Simulate motion of pedestrian in area under lights controlled by motion sensor. Confirm and document the following:
 - a. Status indicator operates correctly.
 - b. Lights controlled by motion sensors turn on immediately upon entry into area lit by controlled lights near the motions sensor.
 - c. Signal sensitivity is adequate to achieve desired control.
 - 2. Simulate no motion in area with lighting controlled by the sensor, but with pedestrian motion adjacent to this area. Confirm and document the following:
 - a. The sensor does not trigger a false "on" from movement outside of the controlled area.
 - b. Signal sensitivity is adequate to achieve desired control.

3.06 FIELD QUALITY CONTROL

- A. Test all wiring and connections for continuity and grounds before any fixtures or equipment are connected and where such tests indicate faulty insulation or other defects, they shall be located, repaired and tested again at the Contractor's expense.

- B. Contractor will perform the following applicable tests and inspections for the equipment specified in the drawings unless noted otherwise and results issued in written form prior to final punch of project:
1. MOLDED CASE CIRCUIT BREAKERS 100 AMP FRAMES AND LARGER
 - a. Items Inspected:
 - 1) Proper mounting and alignment.
 - 2) Proper conductor type and size.
 - 3) Proper feeder designation.
 - 4) Smooth operation.
 - 5) Defects.
 - 6) All line, load, control and mounting connections torqued to proper values recommended by manufacturer. In the absence of manufacturers torque values refer to Table 1 herein this specification.
 2. INSULATION RESISTANCE TEST SPECIFICATIONS – Cables – Low voltage to 600 volts maximum.
 - a. Visual and Mechanical Inspection:
 - 1) Inspect cables for physical damage and proper connection in accordance with single line diagram.
 - 2) Test cable mechanical connections to manufacturer's recommended values with a calibrated torque wrench. In absence of manufacturer's data use Table 1.
 - 3) Check cable color-coding with applicable engineer's specifications and National Electrical Code standards.
 - b. Electrical Tests:
 - 1) Perform insulation resistance test on each conductor including neutral with respect to ground and adjacent conductors before connecting to equipment. Applied potential to be 1000 volts dc for one (1) minute withstand test, per NETA ATS-1987.
 - 2) Perform continuity test on all power equipment branch and feeder circuit conductors. Verify proper cable connection and phasing.
 - c. Test Values:
 - 1) Minimum insulation resistance values shall be not less than fifty megohms.
 - C. Notify Engineer in advance when the installation is completed. At such time, arrange an operating test for approval. Demonstrate equipment to be in conformance with applicable Codes and operate in accordance with Requirements of this Section of the Specifications. Furnish all instruments and personnel required for test.

COMMON WORK RESULTS FOR ELECTRICAL: SECTION 26 05 00

Table 1

U.S. Standard

Bolt Torques for Bus Connections

Heat Treated Steel – Cadmium or Zinc Plated

GRADE	SAE	SAE	SAE	SAE
	1 & 2	5	6	8
Minimum Tensile (P.S.I.)	64K	105K	133K	150K
Bolt Diameter	Torque (Foot Pounds)			
1/4	4.0	5.6	8.0	8.4
5/16	7.2	11.2	15.2	17.6
3/8	12.0	20.0	27.2	29.6
7/16	19.2	32.0	44.0	48.0
1/2	29.6	48.0	68.0	73.6
9/16	42.4	70.4	96.0	105.6
5/8	59.2	96.0	133.6	144.0
3/4	96.0	160.0	224.0	236.8
7/8	152.0	241.6	352.0	378.4
1.	225.6	372.8	528.0	571.2

END OF SECTION

SECTION 26 05 19 CONDUCTORS AND CABLES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.
 - 3. Sleeves and sleeve seals for cables.

1.03 DEFINITIONS

- A. EPDM: Ethylene-propylene-diene terpolymer rubber.
- B. NBR: Acrylonitrile-butadiene rubber.

1.04 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Qualification Data: For testing agency.
- C. Field quality-control test reports.

1.05 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.01 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. General Cable Corporation.
 2. Senator Wire & Cable Company.
 3. Southwire Company.
 4. Or, Equal.
- B. Copper Conductors: Comply with NEMA WC 70. Aluminum shall not be used.
1. Stranded Copper, #12 AWG minimum, except for control circuits which may be #14 AWG minimum. Signal and control circuits other than mechanical shall be as indicated on Drawings or as required by equipment manufacturers.
 2. Conductors in sizes up through #10 AWG shall have solid color finish as listed above. #8 AWG and larger shall be color coded by application of phase tape for minimum of 6" length on conductor. Coding shall occur at all terminations, pull boxes and splices.
 3. Color-coding shall be continuous and consistent throughout the work. Do not use different colors for switch legs, fixture taps, travelers, etc.
 4. Phasing: Terminals in panelboards, motor control centers, switchboards and other equipment shall be phased A, B, C, reading left to right or top to bottom looking into the front of the equipment.
- C. Conductor Insulation: Comply with UL 83 for Types THW, THHN/THWN, THWN-2, XHHW-2, UF, USE, and SO.
1. XHHW-2 conductors shall be used for feeders from campus service switchboard to building electrical panels.
- D. Cable Ties: For wire training and clamping in cabinets and enclosures use nylon cable ties.

2.02 CONNECTORS AND SPLICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. AFC Cable Systems, Inc.
 2. Hubbell Power Systems, Inc.
 3. O-Z/Gedney; EGS Electrical Group LLC.
 4. 3M; Electrical Products Division.
 5. Cooper Crouse-Hinds.
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.
- C. Splices: For conductors #10 and smaller, pre-insulated type connectors, 3M Scotchloks, T & B Piggys or equal, nylon self-insulated type. Splices #8 and larger use

compression type connector, Burndy type YS long barrel, requiring the use of a 360 degree circumference compression type tool, then insulated with Scotchtape No. 88 or equal. Use Scotchfill or equal around large or irregular shape splices for insulation build-up and Scotchtape No. 88. Wire splicing devices shall be sized according to manufacturer's recommendations. **Factory insulated mechanical connectors manufactured by Polaris, ILSCO, etc., are not approved.**

- D. Splices in underground pull boxes or in other areas subject to moisture shall be provided with cast resin kits and cadweld or compression type connections, Burndy type YS long barrel. Use Scotchlok sealing packs for wire size to #10 and Scotchcast kits for larger splices as recommended by 3M Company. All splices to be prepared as hereinbefore specified before resin kits are applied. Wire splicing devices shall be sized according to manufacturer's recommendations.

2.03 WIRING PULLING LUBRICANT

- A. Minerallac Pull-in compound, Y-ER-EAS wire pulling lubricant, Poly-water, or other UL Listed lubricant. Flax soap is not approved.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

- A. Color code all branch circuits and feeders as follows:

	<u>120/208 Volts</u>	<u>277/480 Volts</u>
Phase A	Black	Brown
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Gray
Ground	Green	Green

3.2 CONDUCTOR INSULATION AND WIRING METHODS

- A. Exposed & Concealed Feeders: Type THHN-THWN-2, single conductors in raceway.
- B. Exposed & Concealed Branch Circuits: Type THHN-THWN-2, single conductors in raceway.
- C. Code size ground wire shall be provided in all raceways, secured using approved methods to each pull box, junction box, and equipment housing.

- D. Branch circuits and feeders in conduit exposed to direct sunlight: Type XHHW-2.

3.3 INSTALLATION OF CONDUCTORS AND CABLES

- A. All wiring shall be installed in raceways.
- B. Swab conduits before installing cables, and exercise care in pulling to avoid damage or disarrangement of conductors, use approved grips.
- C. Conceal cables in finished walls and poles, unless otherwise indicated.
- D. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- E. Use pulling means including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.
 - 1. Wire Pulling Lubricant: Minerallac "Pull-In" compound, Y- ER-EAS wire pulling lubricant, Poly-water, or other UL approved lubricant. Flax-soap is not approved.

3.4 CONNECTIONS

- A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.
- B. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

3.5 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
 - 1. Submit test reports for approval.
- B. Tests and Inspections:
 - 1. After installing conductors and cables and before electrical circuitry has been energized, test conductors for compliance with requirements.
 - 2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - a. Visual and Mechanical Inspection:
 - 1) Inspect cables for physical damage and proper connection in accordance with single line diagram.
 - 2) Test cable mechanical connections to manufacturer's recommended values with a calibrated torque wrench. In absence of manufacturer's data use Table 1.

- 3) Check cable color-coding with applicable engineer's specifications and National Electrical Code standards.
 - b. Electrical Tests:
 - 1) Perform insulation resistance test on each conductor including neutral with respect to ground and adjacent conductors before connecting to equipment. Applied potential to be 1000 volts dc for one (1) minute withstand test, per NETA ATS-1987.
 - 2) Perform continuity test on all power equipment branch and feeder circuit conductors. Verify proper cable connection and phasing.
 - 3) Test all feeder splices per NETA standards and document the results in the test report. The resistance across the splice in each phase shall not exceed 50% of the lowest value obtained.
 - c. Test Values:
 - 1) Minimum insulation resistance values shall be not less than fifty megohms.
- C. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION

26 SECTION 26 05 26 GROUNDING AND BONDING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section includes grounding systems and equipment.

1.03 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Qualification Data: For qualified testing agency and testing agency's field supervisor.
- C. Field quality-control reports.
- D. Operation and Maintenance Data: For grounding to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
 - 1. Instructions for periodic testing and inspection of grounding features at test wells ground rings, grounding connections for separately derived systems based on NETA MTS.
 - a. Tests shall determine if ground-resistance or impedance values remain within specified maximums, and instructions shall recommend corrective action if values do not.
 - b. Include recommended testing intervals.

1.04 QUALITY ASSURANCE

- A. Contractor to perform testing per NETA standards.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with UL 467 for grounding and bonding materials and

equipment. PART 2 - PRODUCTS

2.01 CONDUCTORS

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: ASTM B 3.
 - 2. Tinned Conductors: ASTM B 33.

2.02 CONNECTORS

- A. Listed and labeled by an NRTL acceptable to authorities having jurisdiction for applications in which used and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, pressure type with at least two bolts.
 - 1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

2.03 GROUNDING ELECTRODES

- A. Ground Rods: Copper-clad steel; 3/4 inch diameter by 10 feet (19 mm by 3 m).
- B. UFER Ground; Bare copper conductor 25-foot minimum length and gauge size per 12.5 percent of the service conductor size.

PART 3 - EXECUTION

3.01 APPLICATIONS

- A. Conductors: Install stranded conductors unless otherwise indicated.
- B. Conductor Terminations and Connections:
 - 1. Pipe and Equipment Grounding Conductor Terminations: Bolted connectors.
 - 2. Underground Connections: Welded connectors.
 - 3. Connections to Ground Rods at Test Wells: Welded connectors.
 - 4. Connections to Structural Steel: Welded connectors.

3.02 GROUNDING UNDERGROUND DISTRIBUTION SYSTEM COMPONENTS

- A. Comply with IEEE C2 grounding requirements.

- B. Grounding Manholes and Handholes: Install a driven ground rod through manhole or handhole floor, close to wall, and set rod depth so 4 inches (100 mm) will extend above finished floor. If necessary, install ground rod before manhole is placed and provide No. 1/0 AWG bare, tinned-copper conductor from ground rod into manhole through a waterproof sleeve in manhole wall. Protect ground rods passing through concrete floor with a double wrapping of pressure-sensitive insulating tape or heat-shrunk insulating sleeve from 2 inches (50 mm) above to 6 inches (150 mm) below concrete. Seal floor opening with waterproof, nonshrink grout.

3.03 EQUIPMENT GROUNDING

- A. Install insulated equipment grounding conductors with all feeders and branch circuits.
- B. Metal Poles Supporting Outdoor Lighting Fixtures: Install grounding electrode and a separate insulated equipment grounding conductor in addition to grounding conductor installed with branch-circuit conductors.

3.04 INSTALLATION

- A. Grounding Conductors: Route along shortest and straightest paths possible unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Rods: Drive rods until tops are 2 inches (50 mm) below finished floor or final grade unless otherwise indicated.
 - 1. Interconnect ground rods with grounding electrode conductor below grade and as otherwise indicated. Make connections without exposing steel or damaging coating if any.
- C. Test Wells: Ground rod driven through drilled hole in bottom of handhole. Handholes are specified in Division 26 Section "Underground Ducts and Raceways for Electrical Systems," and shall be at least 12 inches (300 mm) deep, with cover.
 - 1. Test Wells: Install at least one test well for each service unless otherwise indicated. Install at the ground rod electrically closest to service entrance. Set top of test well flush with finished grade or floor.
- D. Bonding Straps and Jumpers: Install in locations accessible for inspection and maintenance except where routed through short lengths of conduit.
 - 1. Bonding to Structure: Bond straps directly to basic structure, taking care not to penetrate any adjacent parts.
 - 2. Bonding to Equipment Mounted on Vibration Isolation Hangers and Supports: Install bonding so vibration is not transmitted to rigidly mounted equipment.
 - 3. Use exothermic-welded connectors for outdoor locations; if a disconnect-type connection is required, use a bolted clamp.
- E. Grounding and Bonding for Piping:

1. Metal Water Service Pipe: Install insulated copper grounding conductors, in conduit, from building's main service equipment, or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes; use a bolted clamp connector or bolt a lug-type connector to a pipe flange by using one of the lug bolts of the flange. Where a dielectric main water fitting is installed, connect grounding conductor on street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.
 2. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with a bolted connector.
 3. Bond each aboveground portion of gas piping system downstream from equipment shutoff valve.
- F. Ufer Ground (Concrete-Encased Grounding Electrode): Fabricate according to NFPA 70; use a minimum of 25 feet of bare copper conductor not smaller than 12.5 percent of the service conductor size (sum total per a single phase) AWG.
1. If concrete foundation is less than 25 feet long, coil excess conductor within base of foundation.
 2. Bond grounding conductor to reinforcing steel in at least four locations and to anchor bolts. Extend grounding conductor below grade and connect to building's grounding grid or to grounding electrode external to concrete.
 3. 2-inch minimum encasement in concrete.
 4. Provide UFER ground conductor in exterior lighting pole concrete base per detail shown in the drawing set.

3.05 FIELD QUALITY CONTROL

- A. Contractor to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Tests and Inspections:
 1. After installing grounding system but before permanent electrical circuits have been energized, test for compliance with requirements.
 2. Inspect physical and mechanical condition. Verify tightness of accessible, bolted, electrical connections with a calibrated torque wrench according to manufacturer's written instructions.
 3. Test completed grounding system at each location where a maximum ground-resistance level is specified, at service disconnect enclosure grounding terminal, at ground test wells. Make tests at ground rods before any conductors are connected.
 - a. Measure ground resistance no fewer than two full days after last trace of precipitation and without soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance.
 - b. Perform tests by fall-of-potential method according to IEEE 81.

- C. Grounding system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.
- E. Report measured ground resistances that exceed the following values:
 - 1. Power and Lighting Equipment or System with Capacity of 500 kVA and Less: 10 ohms.
 - 2. Power and Lighting Equipment or System with Capacity of 500 to 1000 kVA: 5 ohms.
 - 3. Power and Lighting Equipment or System with Capacity More Than 1000 kVA: 3 ohms.
 - 4. Power Distribution Units or Panelboards Serving Electronic Equipment: 3 ohm(s).
 - 5. Substations and Pad-Mounted Equipment: 5 ohms.
 - 6. Manhole Grounds: 10 ohms.
- F. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Engineer promptly and include recommendations to reduce ground resistance.

END OF SECTION

SECTION 26 05 33 RACEWAY AND BOXES

PART 1 - GENERAL

1.01 SCOPE

- A. Section includes:
 - 1. Raceways
 - 2. Fittings
 - 3. Boxes
 - 4. Enclosures
 - 5. Cabinets for electrical wiring

1.02 RELATED SECTIONS

- A. Section 09 91 00 Painting
- B. Section 26 05 19 Conductors and Cables
- C. Section 26 05 23 Control Voltage Electrical Power Cables
- D. Section 26 05 29 Hangers and Supports
- E. Section 26 05 53 Identification

1.03 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. RMC: Rigid metal (steel) conduit
- C. LFMC: Liquid tight flexible metallic conduit
- D. PVC: Poly Vinyl Chloride – SCH 40
- E. NFPA 70: California Electrical Code, 2016 Edition

1.04 SUBMITTALS

- A. Submit in accordance with of Section 01 33 23 Shop Drawings, Product Data and Samples.
- B. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.

1.05 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authority having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.01 METAL CONDUIT AND TUBING

A. EMT:

- 1. Shall be galvanized steel, thin wall. Maximum trade size to be used shall be 4 inch. May not be used underground, under floor, exposed to weather, in concrete, or in any location subject to physical damage.
- 2. Connectors shall be steel rain-tight compression type requiring the tightening of a nut, with insulated throat. Couplings shall be steel rain-tight compression type, requiring the tightening of a nut up to 2 inches. Fittings larger than 2 inches shall be threaded type.

B. RMC:

- 1. Standard weight, mild steel pipe, heavy wall, with threaded fittings, zinc coated on both inside and outside by a hot dipping or sherardizing process. Conduit fittings finished to same requirements as for rigid steel conduit.
- 2. Conduit fittings finished to same requirements as for rigid steel conduit. All couplings, unions and fittings threaded type. Compression type fittings are not acceptable.
- 3. Elbows: Shall be factory made with a minimum radius of 6 times the trade size.
- 4. Apply thread sealant to all joints except in permanently dry locations.
- 5. Termination of conduits, wiring gutters or boxes shall be fitted with steel locknut and insulated metallic bushing or with 2 steel locknuts and insulating bushings. When grounding bushings are required, use insulated grounding bushing. Where conduit connections are exposed to weather or excessive moisture they shall be fitted with insulated watertight sealing hub; i.e., Myers Hub or equal.
- 6. All cut ends of conduit shall be reamed to remove rough edges where conduit is threaded in the field; an electrical conduit thread cutting die with a taper shall be used.

C. LFMC: Flexible steel conduit with PVC jacket

- 1. Shall be galvanized steel with minimum trade size of $\frac{1}{2}$ inch. In wet and corrosive locations, outside, or motor connections, shall be liquid-tight. May be used to connect recessed lighting fixtures or mechanical controls and equipment. Length shall be kept to a minimum but to allow for movement or removal of equipment. Leave slack in flex connection to maintain flexibility of conduit, minimum of 3 feet of flex and one 90 degree bend.
- 2. Connectors shall be tite-bite type with insulated throat Crouse-Hinds Series ACB or T & B Series 3110; connectors for liquid-tight shall be with insulated throat

Crouse-Hinds Series LTC or T & B Series 5331 with sealing "O"- ring at outside of enclosure.

- D. Pull Lines: Provide 1/8 inch diameter yellow poly line pull line in empty conduits 1 inch and smaller and 3/16 inch polypropylene rope in conduits 1-1/4 inch and larger.
- E. Joint compound for RMC: Listed for use in cable connector assemblies, and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.
- F. Conduit Straps: 2 hole steel snap-on type with ribbed back or malleable iron with galvanized or cadmium plated finish. Secure straps with metal screws or machine screws and bolts on metal material, and expansion shields with machine screws on concrete or solid masonry. Use of nail straps or perforated strap iron is prohibited.

2.02 NONMETALLIC CONDUIT

- A. Manufacturers:
 - 1. Carlon
 - 2. Arcco Corporation.
 - 3. CANTEX Inc.
 - 4. CertainTeed Corp.; Pipe & Plastics Group.
 - 5. Condux International, Inc.
 - 6. ElecSYS, Inc.
 - 7. Lamson & Sessions; Carlon Electrical Products.
 - 8. RACO; a Hubbell Company.
 - 9. Thomas & Betts Corporation.
 - 10. Or, Equal
- B. RNC: NEMA TC 2, Type EPC-40-PVC, unless otherwise indicated.
- C. Fittings for RNC: NEMA TC 3; match to conduit type and material.

2.03 METAL WIREWAYS

- A. Description: Sheet metal sized and shaped as indicated, NEMA Type 1, unless otherwise indicated.
- B. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- C. Wireway Covers: Hinged type, Screw-cover type, Flanged-and-gasketed types as conditions warrant.
- D. Finish: Manufacturer's standard enamel finish.

2.04 BOXES, ENCLOSURES, AND CABINETS

- A. Shall be of size and shape best suited for particular application, properly code sized for number of wires and conduits passing through or terminating therein, but in no case less than 4 inches square or octagon. Support boxes directly to structural members, framing or blocking by means of screws, anchors or bolts.
- B. Outlet boxes shall be Appleton FS and FD Cast Aluminum, malleable iron, threaded type. Boxes shall be fitted with copper-free aluminum covers. Surface covers shall be used where exposed wiring is permissible.
 - 1. Outlet boxes in damp or outdoor locations shall be malleable iron with threaded hubs, fitted with gasket and cast cover.
- C. Pull Boxes: Indoor pull boxes fabricated of code gauge steel, of size shown or as required, complete with screw covers, surface type in unfinished areas, primed, and painted. See drawings for additional requirements.
 - 1. Hoffman NEMA 1, ASE Series or equal.
- D. Pull boxes used outdoors or in damp locations fabricated of code gauge steel with rain-tight welded seams, conduit hubs on top or sides, screw covers with neoprene or korprene gaskets. Hardware non-ferrous metal or hot-dipped galvanized. Boxes located on roof, entire boxes painted two coats of rust-inhibiting aluminum paint, Rustoleum or equal. Boxes located on building walls or free standing; finish powder paint color to match exterior building color.
 - 1. Hoffman, NEMA 3R, A Series or equal.

2.05 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

- A. Description: Comply with SCTE 77.
 - 1. Color of Frame and Cover: Gray.
 - 2. Configuration: Units shall be designed for flush burial and have bottom, as indicated in the drawing details.
 - 3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural load rating consistent with enclosure.
 - 4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
 - 5. Cover Legend: Molded lettering, "ELECTRIC." "TELEPHONE.", etc. as required for each service.
 - 6. Conduit Entrance Provisions: Conduit-terminating fittings shall mate with entering ducts for secure, fixed installation in enclosure wall.
 - 7. Handholes 16 inches wide by 30 inches long and larger shall have inserts for cable racks and pulling-in irons installed before concrete is poured.
- B. Polymer-Concrete Handholes and Boxes with Polymer-Concrete Cover: Molded of sand and aggregate, bound together with polymer resin, and reinforced with steel or fiberglass or a combination of the two.
 - 1. Manufacturers:
 - a. Christy, Old Castle.
 - b. Jensen Precast
 - c. Armorcast Products Company.

d. Or, Equal

2.06 SOURCE QUALITY CONTROL FOR UNDERGROUND ENCLOSURES

- A. Handhole and Pull-Box Prototype Test: Test prototypes of handholes and boxes for compliance with SCTE 77. Strength tests shall be for specified tier ratings of products supplied.
 - 1. Strength tests of complete boxes and covers shall be by either an independent testing agency or manufacturer. A qualified registered professional engineer shall certify tests by manufacturer.
 - 2. Testing machine pressure gages shall have current calibration certification complying with ISO 9000 and ISO 10012, and traceable to NIST standards.

PART 3 - EXECUTION

3.01 RACEWAY APPLICATION

- A. Comply with the following indoor applications, unless otherwise indicated:
 - 1. Exposed or concealed, Not Subject to Physical Damage: EMT with rain tight fittings.
- B. Comply with the following outdoor applications, unless otherwise indicated:
 - 1. Rigid metal conduit (RMC)
 - 2. Underground Conduit: RNC, Type EPC-40-PVC, direct buried.
- C. Minimum Raceway Size: 3/4 inch trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.

3.02 RACEWAYS & BOXES

- A. Keep raceways at least 10 feet away from parallel runs of flues and steam or hot-water pipes. Mount horizontal raceway runs above water and steam piping.
- B. Complete raceway placement before starting conductor Work.
- C. Arrange stub-ups so curved portions of bends are not visible above the finished slab.
- D. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.
- E. Raceways Embedded in Slabs:
 - 1. Run conduit larger than 1-inch trade size, parallel or at right angles to main reinforcement. Where at right angles to reinforcement, place conduit close to slab support.

2. Arrange raceways to cross building expansion joints at right angles with expansion fittings.
 3. Note that some building or local electrical codes may not permit nonmetallic tubing in fire-rated slabs in subparagraph below.
 4. Change from PVC to RMC, Type EPC-40-PVC, rigid steel conduit before rising above the floor.
- F. No more than the equivalent of three 90-degree bends in any conduit run will be accepted except for communications conduits, for which only two 90-degree bends are allowed.
- G. Threaded Conduit Joints, Exposed to Wet, Damp, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- H. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect all conductor sizes, including conductors smaller than No. 4 AWG.
- I. Raceway terminations at mechanical equipment shall terminate with a maximum length of 3-feet LFMC.
- J. Provide pull lines in empty raceways. Use polypropylene or monofilament plastic line with not less than 200 pound tensile strength. Leave at least 12 inches of slack at each end of pull wire. Tag pull lines at each end indicating the location of the opposite.
- K. Raceways for Optical Fiber and Communications Cable: Install raceways, metallic and nonmetallic, rigid and flexible, as follows:
1. Trade Size 1-1/4 inch and Smaller: Install raceways in maximum lengths of 50 feet.
 2. Trade Size 1-1/2 inch and Larger: Install raceways in maximum lengths of 75 feet.
 3. Install with a maximum of two 90-degree bends or equivalent for each length of raceway unless Drawings show stricter requirements. Separate lengths with pull or junction boxes or terminations at distribution frames or cabinets where necessary to comply with these requirements.
- L. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 2. Where otherwise required by NFPA 70.
- M. Expansion-Joint Fittings for RMC: Install in each run of aboveground conduit that is located where environmental temperature change may exceed 30 deg F , and that has straight-run length that exceeds 50 feet.
1. Install expansion-joint fittings for each of the following locations, and provide type and quantity of fittings that accommodate temperature change listed for location:

- a. Outdoor Locations Not Exposed to Direct Sunlight: 125 deg F temperature change.
 - b. Outdoor Locations Exposed to Direct Sunlight: 155 deg F temperature change.
 - c. Indoor Spaces: Connected with the Outdoors without Physical Separation: 125 deg F temperature change.
 - d. Attics: 135 deg F temperature change.
2. Install fitting(s) that provide expansion and contraction for at least 0.00041 inch per foot of length of straight run per deg F of temperature change.
 3. Install each expansion-joint fitting with position, mounting, and piston setting selected according to manufacturer's written instructions for conditions at specific location at the time of installation.

N. Identify raceway pullboxes in accordance with Section 26 05 53 Identification.

3.03 INSTALLATION OF UNDERGROUND CONDUIT

- A. Retain this Article if Project includes small amounts of exterior underground wiring, 600 V and less. Delete if Division 26 Section "Underground Ducts and Raceways for Electrical Systems" is included in the Project Manual. See Editing Instruction No. 3 in the Evaluations.
- B. Direct-Buried Conduit:
 1. Excavate trench bottom to provide firm and uniform support for conduit.
 2. Install backfill as specified in Division 31 Section "Earth Moving."
 3. After installing conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified in Division 31 Section "Earth Moving."
 4. Install manufactured duct elbows for stub-ups at poles and equipment and at building entrances through the floor, unless otherwise indicated. Encase elbows for stub-up ducts throughout the length of the elbow.
 5. Install manufactured rigid steel conduit elbows for stub-ups at poles and equipment and at building entrances through the floor.
 - a. Couple steel conduits to ducts with adapters designed for this purpose, and encase coupling with 3 inches of concrete.
 - b. For stub-ups at equipment mounted on outdoor concrete bases, extend steel conduit horizontally a minimum of 60 inches from edge of equipment pad or foundation. Install insulated grounding bushings on terminations at equipment.
 6. Warning Tape: Bury warning tracer tape approximately 12 inches above direct-buried conduits.

3.04 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch sieve to No. 4 sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In paved areas, set so cover surface will be flush with finished grade. Set covers of other enclosures 1 inch above finished grade.
- D. Install removable hardware, including pulling eyes, cable stanchions, cable arms, and insulators, as required for installation and support of cables and conductors and as indicated. Select arm lengths to be long enough to provide spare space for future cables, but short enough to preserve adequate working clearances in the enclosure.
- E. Field-cut openings for conduits according to enclosure manufacturer's written instructions. Cut wall of enclosure with a tool designed for material to be cut. Size holes for terminating fittings to be used, and seal around penetrations after fittings are installed.

3.05 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Completion.
 - 1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.
 - 2. Repair damage to paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION

SECTION 26 05 53 IDENTIFICATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Identification for raceways.
 - 2. Identification of power and control cables.
 - 3. Identification for conductors.
 - 4. Luminaire identification labels.

1.03 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.

1.04 QUALITY ASSURANCE

- A. Comply with NFPA 70.
- B. Comply with 29 CFR 1910.144 and 29 CFR 1910.145.
- C. Adhesive-attached labeling materials, including label stocks, laminating adhesives, and inks used by label printers, shall comply with UL 969.

1.05 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in other Sections requiring identification applications, Drawings, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual; and with those required by codes, standards, and OSHA 29 CFR 1910.145. Use consistent designations throughout Project.
- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.

PART 2 - PRODUCTS

2.01 POWER AND CONTROL CABLE IDENTIFICATION MATERIALS

- A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.
- C. Snap-Around Labels: Slit, pretensioned, flexible, preprinted, color-coded acrylic sleeve, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.

2.02 CONDUCTOR IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- B. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

2.03 LUMINAIRE IDENTIFICATION LABELS

- A. Provide identification paint on finishes and stencil type labeling. Confirm each luminaire identification prior to application with District Representative.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Verify identity of each item before installing identification products.
- B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.

3.02 IDENTIFICATION SCHEDULE

- A. Power-Circuit Conductor Identification, 600 V or Less: For conductors in vaults, pull and junction boxes, manholes, and handholes, use color-coding conductor tape to identify the phase.

1. Color-Coding for Phase and Voltage Level Identification, 600 V or Less: Use colors listed below for ungrounded service, feeder, and branch-circuit conductors.
 - a. Color shall be factory applied or field applied for sizes larger than No. 8 AWG, if authorities having jurisdiction permit.
 - b. Colors for 208/120-V Circuits:
 - 1) Phase A: Black.
 - 2) Phase B: Red.
 - 3) Phase C: Blue.
 - c. Colors for 480/277-V Circuits:
 - 1) Phase A: Brown.
 - 2) Phase B: Orange.
 - 3) Phase C: Yellow.
 - d. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

- B. Luminaire Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules and site plan.

END OF SECTION

SECTION 26 24 16 PANELBOARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUBMITTALS

- A. Product Data: For each type of panelboard overcurrent protective device and component indicated. Include manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Field Quality-Control Reports:
 - 1. Test procedures used.
 - 2. Test results that comply with requirements.
 - 3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.
- C. Panelboard Schedules: For installation inside panelboard covers. Submit final versions after load balancing prior to request for final inspection.
- D. Operation and Maintenance Data: For panelboard components to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
 - 1. Manufacturer's cut sheet for breakers provided.

1.03 QUALITY ASSURANCE

- A. Source Limitations: Obtain panelboard overcurrent protective devices, components, and accessories from the listed manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with NEMA PB 1.
- D. Comply with NFPA 70.
- E. Comply with UL489 Molded-Case Circuit Breakers and Circuit Breaker Enclosures, UL50 Enclosures for Electrical Equipment, UL 67 Panelboards and UL 98 Enclosed and Dead Front Switches.

1.04 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace transient voltage suppression devices that fail in materials or workmanship within specified warranty period.

- 1. Warranty Period: One year from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS FOR PANELBOARDS

- A. Panelboards identified in this project are existing.
- B. Incoming Mains Location: As noted in the panel schedule.
 - 1. Main breakers, where specified, as part of a combination main and distribution section or panel, shall be located above or below distribution bussing and be connected such that normal load side of breakers is disconnected when breaker is in open position. Backwards connections are prohibited.
- C. Conductor Connectors: Suitable for use with conductor material and sizes.
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - 2. Main and Neutral Lugs: Mechanical type.
 - 3. Ground Lugs and Bus-Configured Terminators: Mechanical type.
- D. Service Equipment Label: NRTL labeled for use as service equipment for panelboards or load centers with one or more main service disconnecting and overcurrent protective devices.
- E. Panelboard Short-Circuit Current Rating: Fully rated to interrupt symmetrical short-circuit current available at terminals, 22,000 symmetrical amperes minimum rating.

2.02 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Existing
- B. Mains: As noted on panel schedules.
- C. Branch Overcurrent Protective Devices: Bolt-on circuit breakers, replaceable without disturbing adjacent units.
 - 1. Circuit breakers shall not be less than 1" per pole spacing. Less than 1" will be regarded as a miniature circuit breaker and will be rejected during the submittal review process.
 - 2. Multiple pole circuit breakers shall have internal common trip connections and shall be bolt-on to the bus type, with a minimum symmetrical amp rating of 22,000 RMS unless noted otherwise in the drawings. Breakers shall be listed for termination of copper, insulated at 75°C temperature rating or higher.

3. Breakers shall be fully rated for the symmetrical amp rating listed unless specified otherwise.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Receive, inspect, handle, and store panelboards according to NEMA PB 1.1.
- B. Examine breakers before installation. Reject breakers that are damaged.

3.02 INSTALLATION

- A. Install panelboard components and accessories according to NEMA PB 1.1.
- B. Install overcurrent protective devices and controllers not already factory installed.
 1. Set field-adjustable, circuit-breaker trip ranges.
- C. Install filler plates in unused spaces.
- D. Arrange conductors in gutters into groups and bundle and wrap with wire ties after completing load balancing.

3.03 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs complying with Division 26 Section Identification.
- B. Create a type written directory to indicate installed circuit loads after balancing panelboard loads; incorporate Owner's final room designations. Obtain approval before installing. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
- C. Panelboard & Distribution Panel Nameplates: Label each panelboard with a nameplate complying with requirements for identification specified in Division 26 Section Identification.
 1. Nameplates to include power source serving panel and feeder rating.
- D. Device Nameplates: Label each branch circuit device in distribution panelboards with a nameplate complying with requirements for identification specified in Division 26 Section Identification.

3.04 FIELD QUALITY CONTROL

- A. Test and inspect components installed as noted in section 26 05 00.

- B. Acceptance Testing Preparation:
 - 1. Test continuity of each circuit.
 - C. Tests and Inspections:
 - 1. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - D. Panelboards will be considered defective if they do not pass tests and inspections.
 - E. Prepare test and inspection reports, including a certified report that identifies panelboards included and that describes results. Include notation of deficiencies detected, remedial action taken and observations after remedial action.
- 3.05 ADJUSTING
- A. Load Balancing: After Substantial Completion, but not more than 60 days after Final Acceptance, measure load balancing and make circuit changes.
 - 1. Measure as directed during period of normal system loading.
 - 2. Perform load-balancing circuit changes outside normal occupancy/working schedule of the facility and at time directed. Avoid disrupting critical 24-hour services such as fax machines and on-line data processing, computing, transmitting, and receiving equipment.
 - 3. After circuit changes, recheck loads during normal load period. Record all load readings before and after changes and submit test records.
 - 4. Tolerance: Difference exceeding 20 percent between phase loads, within a panelboard, is not acceptable. Rebalance and recheck as necessary to meet this minimum requirement.

END OF SECTION

SECTION 26 56 00 EXTERIOR LIGHTING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Exterior luminaires.
 - 2. Lamps and diodes.
 - 3. Ballasts and LED drivers.
 - 4. Luminaire-mounted motion sensors.
 - 5. Poles mount accessories.

1.03 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI C78.377A Chromaticity.
- B. Underwriters Laboratories, Inc. (UL):
 - 1. UL 66 Fixture Wire.
 - 2. UL 1598 Luminaires.
 - 3. UL 2108 Standard for Low Voltage Lighting Systems.
- C. Illuminating Engineering Society of North America (IESNA):
 - 1. IESNA LM-79-08 Approved Method for Electrical and Photometric Measurements of Solid-State Lighting Products.
 - 2. IESNA LM-80-2008 Approved Method for Measuring Lumen Maintenance of LED Light Sources.
 - 3. IESNA TM-21-2011 Projecting Long Term Lumen Maintenance of LED Light Sources

1.04 SYSTEM DESCRIPTION

- A. Provide and install a fully functioning and operational lighting system as described herein complete with lamps, ballasts, drivers, wiring, controls and attachment to support system adhering to applicable seismic code requirements.

1.05 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color-rendering index.
- C. LER: Luminaire efficacy rating.
- D. Luminaire: Complete lighting fixture, including driver housing if provided.
- E. Pole: Luminaire support structure, including tower used for large area illumination.
- F. Standard: Same definition as "Pole" above.

1.06 SUBMITTALS

- A. Product Data: For each luminaire, pole, and support component, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:
 - 1. Physical description of luminaire, including materials, dimensions, effective projected area, and verification of indicated parameters.
 - 2. Details of attaching luminaires and accessories.
 - 3. Details of installation and construction.
 - 4. Luminaire materials.
 - 5. Life, output (lumens, CCT, and CRI), and energy-efficiency data for light sources.
 - 6. Photometric data and adjustment factors based on laboratory tests, complying with IESNA Lighting Measurements Testing & Calculation Guides, of each lighting fixture type. The adjustment factors shall be for lamps, ballasts, and accessories identical to those indicated for the lighting fixture as applied in this Project.
 - a. Manufacturer Certified Data: Photometric data shall be certified by manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products.
 - 7. Motion Sensors.
 - 8. LED drivers, including energy-efficiency data.
 - 9. Lamps, including life, output, CCT, CRI, lumens, and energy-efficiency data.
 - 10. LED luminaire data shall be consistent with the LED Lighting Facts program or DesignLights Consortium (DLC) guidelines.
 - 11. Materials, dimensions, and finishes of poles.
 - 12. Means of attaching luminaires to supports, and indication that attachment is suitable for components involved.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

- 2. Wiring Diagrams: For power, signal, and control wiring.
- C. Samples: For products designated for sample submission in the Luminaire Schedule. Each Sample shall include lamps and drivers.
- D. Qualification Data: For qualified agencies providing photometric data for lighting fixtures.
- E. Field quality-control reports.
- F. Operation and Maintenance Data: For luminaires to include in operation and maintenance manuals.
- G. Warranty: Sample of special warranty.

1.07 QUALITY ASSURANCE

- A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.
- B. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by an independent agency, with the experience and capability to conduct the testing indicated, that is an NRTL as defined by OSHA in 29 CFR 1910, complying with the IESNA Lighting Measurements Testing & Calculation Guides
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. Comply with IEEE C2, "National Electrical Safety Code."
- E. Comply with NFPA 70.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. The Contractor will purchase and store luminaires for this project. Additional items required as part of this project will the responsibility of the Contractor for delivery, storage and handling.

1.09 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, or unauthorized repairs or alterations from special warranty coverage.

1. Warranty Period for Luminaires: Five years from date of Substantial Completion.
2. Warranty Period for Labor related to luminaire or parts replacement inclusive of the pre-purchase items shall be one year from the date of Substantial Completion.
3. Warranty Period for Metal Corrosion: Five years from date of Substantial Completion.
4. Warranty Period for Color Retention: Five years from date of Substantial Completion.
5. Warranty Period for Poles: Repair or replace lighting poles and standards that fail in finish, materials, and workmanship within manufacturer's standard warranty period, but not less than three years from date of Substantial Completion.

1.10 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. LED Bar: Furnish at least one of each type.
 2. Glass and Plastic Lenses, Covers, and Other Optical Parts: Furnish at least one of each type.
 3. Drivers/Engine: Furnish at least one of each type.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, product(s) indicated on Drawings.

2.02 GENERAL REQUIREMENTS FOR LUMINAIRES

- A. Luminaires shall comply with UL 1598 and be listed and labeled for installation in wet locations by an NRTL acceptable to authorities having jurisdiction.
 1. LER Tests Fluorescent luminaires: Where LER is specified, test according to NEMA LE 5 and NEMA LE 5A as applicable.
 2. LER Tests HID luminaires: Where LER is specified, test according to NEMA LE 5B.
 3. LER Tests for LED luminaires: Test and measurement in accordance with IESNA LM-79; Lumen Maintenance in accordance with IESNA LM-80.
- B. Lateral Light Distribution Patterns: Comply with IESNA RP-8 for parameters of lateral light distribution patterns indicated for luminaires.
- C. Metal Parts: Free of burrs and sharp corners and edges.

- D. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- E. Exposed Hardware Material: Stainless steel.
- F. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- G. Lenses and Refractors Gaskets: Use heat- and aging-resistant resilient gaskets to seal and cushion lenses and refractors in luminaire doors.
- H. Luminaire Finish: Manufacturer's standard paint applied to factory-assembled and -tested luminaire before shipping. Where indicated, match finishing process and color of pole or support materials.
- I. Factory-Applied Finish for Steel Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Surface Preparation: Clean surfaces to comply with SSPC-SP 1, "Solvent Cleaning," to remove dirt, oil, grease, and other contaminants that could impair paint bond. Grind welds and polish surfaces to a smooth, even finish. Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning," or SSPC-SP 8, "Pickling."
 - 2. Exterior Surfaces: Manufacturer's standard finish consisting of one or more coats of primer and two finish coats of high-gloss, high-build polyurethane enamel.
 - a. Color: As selected from manufacturer's standard catalog of colors.
- J. Factory-Applied Finish for Aluminum Luminaires: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
 - 1. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
 - 2. Natural Satin Finish: Provide fine, directional, medium satin polish (AA-M32); buff complying with AA-M20; and seal aluminum surfaces with clear, hard-coat wax.
 - 3. Class I, Clear Anodic Finish: AA-M32C22A41 (Mechanical Finish: medium satin; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.
 - 4. Class I, Color Anodic Finish: AA-M32C22A42/A44 (Mechanical Finish: medium satin; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, integrally colored or electrolytically deposited color coating 0.018 mm or thicker) complying with AAMA 611.
 - a. Color: As specified on drawings.
- K. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps and ballasts. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

2.03 LIGHT EMITTING DIODES (LED)

- A. Refer to the Luminaire Schedule for size and type of LED lamps required.
 - 1. All diodes shall be of the same manufacturer and bin number in adherence to current NEMA standard SSL-3.
 - 2. Diodes shall be tested and tuned for the specified Kelvin color.
 - 3. Color correlated temperature: 4000 unless otherwise noted in the drawings.
 - 4. Minimum CRI (Color Rendering Index): 80
 - 5. LED luminaire shall be free of toxic materials and be RoHS compliant.
 - 6. Groups of three or more diodes in a single housing shall be tested for even distribution.
 - 7. Standard lumen output shall meet or exceed the State of California Title 24 Energy Code for high efficiency luminaires.
 - 8. LED luminaires shall have an IES formatted electronic photometrics report.
 - 9. Diodes or Solid State LED chips shall have a minimum life of 50,000 hours and maintain at least 70% of initial lamp lumens during this period.

2.04 LED DRIVERS

- A. Drivers shall be integral to fixture housing unless otherwise directed.
- B. Drivers shall have a minimum life of 50,000 hours and maintain at least 70% of initial lamp lumens during that period.
- C. Dimming applications, provide Dimmable Constant Current Drivers:
 - 1. Wattage shall be as specified on the luminaire schedule and operate at 700mA unless otherwise noted on the luminaire schedule.
 - 2. Dimmable to 30%.
 - 3. Minimum efficiency to be 89%.
 - 4. Ingress Protection (IP67) rated.
 - 5. Minimum warranty of 5 years.
 - 6. Universal voltage.
- D. Non-dimming applications, provide Constant Voltage LED Drivers:
 - 1. Capable of 12 volt or 24 volt output.
 - 2. Minimum efficiency to be 93%.
 - 3. Ingress Protection (IP67) rated.
 - 4. Minimum warranty of 5 years.
 - 5. Universal voltage.

2.05 GENERAL REQUIREMENTS FOR POLES AND SUPPORT COMPONENTS

- A. Luminaire Attachment Provisions: Comply with luminaire manufacturers' mounting requirements. Use stainless-steel fasteners and mounting bolts unless otherwise indicated.

- B. Mountings, Fasteners, and Appurtenances: Corrosion-resistant items compatible with support components.
 - 1. Materials: Shall not cause galvanic action at contact points.
 - 2. Anchor Bolts, Leveling Nuts, Bolt Caps, and Washers: Hot-dip galvanized after fabrication unless otherwise indicated.
 - 3. Anchor-Bolt Template: Plywood or steel.

2.06 POLE ACCESSORIES

- A. Base Covers: Manufacturers' standard metal units, arranged to cover pole's mounting bolts and nuts. Finish same as pole.

PART 3 - EXECUTION

3.01 LUMINAIRE INSTALLATION

- A. Install pre-purchased luminaires complete and operable. All lighting shall be operable prior to leaving the job site each day. Partial installations will not be acceptable.
- B. Contractor is responsible to coordinate any shutdown of power with the District representatives in advance.
- C. Fasten luminaire to indicated structural supports.
 - 1. Use fastening methods and materials selected to resist seismic forces defined for the application and approved by manufacturer.
- D. Adjust luminaires that require field adjustment or aiming.

3.02 CORROSION PREVENTION

- A. Aluminum: Do not use in contact with earth or concrete. When in direct contact with a dissimilar metal, protect aluminum by insulating fittings or treatment.
- B. Steel Conduits: Comply with Division 26 Section "Raceway and Boxes." In concrete foundations, wrap conduit with 0.010-inch-thick, pipe-wrapping plastic tape applied with a 50 percent overlap.

3.03 GROUNDING

- A. Ground metal poles and support structures according to Division 26 Section "Grounding and Bonding."
- B. All luminaires shall be grounded. Where a ground bond does not exist, it shall be provided.

3.04 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
- B. Label new luminaires with code identified on the drawings. Methods shall match existing method used on campus.
- C. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.
 - 1. Verify operation of motion sensor controlled luminaires. Dimming and fade rate are initiated by the motion sensor.
- D. LED luminaires will be considered faulty and require replacement if one or more diodes are not functioning.
- E. Illumination Tests:
 - 1. Measure light intensities at night. Use photometers with calibration referenced to NIST standards. Comply with the following IESNA testing guide(s):
 - a. IESNA LM-50, "Photometric Measurements of Roadway Lighting Installations."
 - b. IESNA LM-52, "Photometric Measurements of Roadway Sign Installations."
 - c. IESNA LM-64, "Photometric Measurements of Parking Areas."
 - d. IESNA LM-72, "Directional Positioning of Photometric Data."
- F. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.

END OF SECTION

SECTION 31 10 00 SITE CLEARING

GENERAL

1.01 SUMMARY

A. Contractor shall:

1. Protect existing trees, shrubs, and grass to remain.
2. Remove existing trees, buildings, ramps, shrubs, groundcovers, plants, and grass.
3. Clear and grub as required for a complete installation.
4. Strip and stockpile topsoil.
5. Remove above grade site improvements. Remove below grade site improvements as noted.
6. Relocate underground utilities and structures to remain in service.
7. Disconnect, cap or seal, and abandon site utilities in place.
8. Provide temporary erosion and sedimentation control measures.

B. Related Sections include the following:

1. Section "Selective Non-Structure Demolition" for temporary utilities, temporary construction and support facilities, temporary security and protection facilities.
2. Section "Earth Moving" for soil materials, excavating, backfilling, and site grading.

1.02 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.03 MATERIAL OWNERSHIP

- A. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.04 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Division 1 Section "Project Record Documents," identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.05 QUALITY ASSURANCE

- A. Pre-construction Conference: Conduct conference at Project site to comply with requirements in Section "Project Management and Coordination."

1.06 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
 - 2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.
- B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.
 - 1. Do not proceed with work on adjoining property until directed by Architect.
- C. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- D. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- E. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.

- B. Locate and clearly flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
 - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.02 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Follow the Erosion and Sediment Control plan that describes project temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. At project completion remove temporary erosion and sedimentation controls. Restore and stabilize areas disturbed during removal.

3.03 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
 - 1. Do not store construction materials, debris, or excavated material within fenced area.
 - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
 - 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
 - 1. Cover exposed roots with burlap and water regularly.
 - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
 - 3. Coat cut faces of roots more than 1-1/2 inches in diameter with an emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
 - 4. Backfill with soil as soon as possible.
- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Engineer.
 - 1. Employ an arborist, licensed in jurisdiction where Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.

2. Replace trees that cannot be repaired and restored to full-growth status, as determined by Engineer.

3.04 UTILITIES

- A. Disconnect and seal or cap.
 1. Verify that utilities have been disconnected and capped before proceeding with site clearing.
- B. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
 1. Arrange with utility companies to shut off indicated utilities.
- C. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 1. Notify Architect not less than two days in advance of proposed utility interruptions.
 2. Do not proceed with utility interruptions without Engineer's written permission.
- D. Excavate for and remove underground utilities indicated to be removed.

3.05 CLEARING AND GRUBBING

- A. Remove top 6" of ground surface, obstructions, shrubs, grass, and other vegetation to permit installation of new construction.
 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
 3. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.
 4. Use only hand methods for grubbing within tree protection zone.
 5. Chip removed tree branches dispose of off-site.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
 1. Depressions shall be cleaned of all loose or disturbed materials and dish-shaped (with sideslope at 3(h):1(v) or flatter) to permit access for compaction equipment. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

3.06 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
 - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
 - 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.07 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION

SECTION 31 20 00 EARTH MOVING

PART 1 GENERAL

1.01 SUMMARY

A. Contractor Shall:

1. Prepare subgrades for slabs-on-grade and pavements.
2. Excavate and backfill for field and surrounding areas.
3. Provide rock capillary break for slabs-on-grade.
4. Provide base course for asphalt paving.
5. Provide subsurface drainage backfill for walls and trenches.
6. Excavate and backfill for utility trenches.

1.02 RELATED SECTIONS AND DOCUMENTS INCLUDE THE FOLLOWING

- A. Section 31 "Site Clearing" for temporary erosion and sedimentation control measures, site stripping, grubbing, and removal of above- and below-grade improvements and utilities.
- B. Section 31 "Excavation Support and Protection" for shoring, and bracing of excavations.

1.03 DEFINITIONS

- A. Backfill: Soil material or lean concrete used to fill an excavation.
 1. Trench Backfill: Backfill placed over pipe bedding to fill the trench.
- B. Aggregate Base: Granular material placed between the subgrade and hot-mix asphalt paving.
- C. Pipe Bedding: Material supporting, surrounding, and extending to 6 inches above the top of the pipe as shown on the Plans.
- D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- E. Rock Capillary Break: Clean crushed rock layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
- G. Engineered Fill: Compacted soil materials used to raise existing grades or to backfill excavations.

- H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- I. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill.
- J. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.04 SUBMITTALS

- A. Product Data: For the following:
 - 1. Geotextile.
 - 2. Lean concrete, including design mixture.
- B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for the following with requirements indicated:

Material	Test	Test Method
Engineered Fill:	Compaction Curve	ASTM D1557
	Atterberg Limits	ASTM D4318
Structural Fill:	Compaction Curve	ASTM D1557
	Atterberg Limits	ASTM D4318
Pipe Bedding:	Compaction Curve	ASTM D1557
	Sand Equivalent	CTM 217
Trench Backfill:	Compaction Curve	ASTM D1557
	Sand Equivalent	CTM 217

- C. Pre-excavation Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by earthwork operations. Submit before earthwork begins.

1.05 QUALITY ASSURANCE

- A. Agency qualified according to ASTM E 329 to conduct soil materials and rock-definition testing, as documented according to ASTM D 3740 and ASTM E 548.
- B. Pre-excavation Conference: Conduct conference at Project site to comply with requirements in the Section for Project Management and Coordination.

1.06 PROJECT CONDITIONS

- A. The Contractor is presumed to have visited the site and familiarized himself with existing site conditions. The Contractor shall not be relieved of liability under the contract for any loss sustained as a result of any variance between conditions indicated by plans and the actual conditions encountered during the course of the work.
- B. The Contractor shall, upon becoming aware of surface and/or subsurface conditions differing from those disclosed by the contract documents, promptly notify the Owner as to the nature and extent of the differing conditions, first verbally to permit verification of the conditions and then in writing. No claim by the Contractor for any conditions differing from those anticipated in the plans and specifications will be allowed unless the Contractor has so notified the Owner's representative verbally and in writing, as required above, of such changed conditions.
- C. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Architect and then only after arranging to provide temporary utility services according to requirements indicated.
 - 1. Notify Architect not less than seven days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Architect's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.
- D. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Aggregate Base: Aggregate base shall conform to the requirements of the State Standard Specifications for Class 2 aggregate base, ³/₄-inch maximum size (Caltrans).
- C. Engineered Fill: Requirements for engineered fill, as well as applicable test procedures to verify material suitability are provided in the table below.

D.

ENGINEERED FILL REQUIREMENTS			
Fill Requirement		Test Procedures	
		ASTM ¹	Caltrans ²
Gradation			
Sieve Size	Percent Passing		
3 inch	100	C 136	202
³ / ₄ -inch	50-100	C 136	202
No. 4	25-100	C 136	202
No. 40	5-100	C 136	---
No. 50	5-100	---	202
No. 200	0-70	C 136	202
Plasticity			
Liquid Limit	Plasticity Index		
<30	<10	D 4318	204
Organic Content			
Less than 3%		D2974	---
Expansion Potential			
Less than 20	---	---	---
Maximum Dry Density AT OR			
More than 105 pcf	---	D1557	---
¹ AMERICAN SOCIETY FOR TESTING AND MATERIALS STANDARDS (LATEST EDITION)			
² State of California, Department of Transportation, Standard Test Methods (latest edition)			

E. Pipe Bedding: Imported clean sand or well graded sand gravel mix, maximum size of ³/₄-inch, free from all organic matter and debris; minimum sand equivalent of 30. In areas with pipe slope greater than 2 percent use a silt-sand-gravel mixture with gradation corresponding to that for Caltrans Class 2 aggregate base – ³/₄-inch maximum size.

F. Rock Capillary Break: Narrowly graded mixture of with 100 percent passing a 1-inch sieve and zero percent passing a No. 4 sieve.

- G. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.
- H. Trench Backfill: Caltrans Class 2 aggregate base $\frac{3}{4}$ -inch maximum size or backfill per pipe manufacturers specifications.

2.02 GEOTEXTILES

- A. Subsurface Drainage Geotextile: A woven fabric with an equivalent opening size (EOS), U.S. Standard Sieve, of between 40 and 70, a permeability of at least 0.02 centimeters per second, a minimum flow rate of 50 gallons per minute per square foot of fabric, and a minimum puncture strength of 50 pounds.

2.03 LEAN CONCRETE

- A. Lean concrete used in deepened foundation excavations should have a minimum unconfined compressive strength of 1,000 pounds per square inch after a 28-day curing period.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Preparation of subgrade for earthwork operations including removal of vegetation, topsoil, debris, obstructions, and deleterious materials from ground surface is specified in Section 31 "Site Clearing".
- C. Protect and maintain erosion and sedimentation controls, which are specified in Section 31 "Site Clearing," during earthwork operations.

3.02 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 - 2. Install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.

3.03 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.04 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.05 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

3.06 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.07 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: 6 inches each side of pipe or conduit.
- C. Trench Bottoms: Excavate trenches 4 inches deeper than bottom of pipe elevation to allow for bedding course.

3.08 SUBGRADE INSPECTION

- A. Notify Engineer when excavations have reached required subgrade.

- B. If Engineer or Geotechnical Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below the building slabs and pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
 - 1. Completely proof-roll subgrade in one direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a loaded 10-wheel, tandem-axle water truck with a rear axle load of not less than 8 tons.
 - 3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.
- D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices.
- E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.

3.09 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 1,000 PSI, may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction or utility pipe as directed by Architect.

3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
 - 2. Surveying locations of underground utilities for Record Documents.

3. Testing and inspecting underground utilities.
4. Removing concrete formwork.
5. Removing trash and debris.
6. Removing temporary shoring and bracing, and sheeting.
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.12 UTILITY TRENCH BACKFILL

A. Place backfill on subgrades free of mud, frost, snow, or ice.

B. Place and compact pipe bedding on trench bottoms as shown on the Plans. Shape bedding to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

C. Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings. Concrete is specified in Section "Cast-in-Place Concrete."

D. Place and compact remainder of pipe bedding material to a height of 6 inches over the utility pipe or conduit.

1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

E. Backfill voids with trench backfill material while removing shoring and bracing.

F. Place and compact trench backfill material to final subgrade elevation.

G. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.13 SURFACE PREPARATION FOR FILL PLACEMENT

A. After site stripping and any required grubbing and/or over excavation, areas to receive fill shall be scarified to a depth of 8 inches, uniformly moisture conditioned to at or above optimum moisture content and compacted to at least 90 percent of the material's maximum dry density as determined by ASTM Test Method D1557. Scarification and compaction may not be required within earthwork cut areas consisting of undisturbed bedrock and if approved by the project Geotechnical Engineer during construction.

If soft or yielding soils are encountered during scarification and compaction, they shall be removed by over excavation to expose firmer soils. The horizontal and vertical extent of the over excavation shall be determined in the field by the project Geotechnical Engineer. Bench sloped surfaces steeper than 1 vertical to 6 horizontal so fill material

will be placed on a level surface; benches shall be at least six feet wide and the rise between successive benches shall not exceed two feet.

3.14 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to at or above the optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry otherwise satisfactory soil material that is too wet to compact to specified dry unit weight or that is unstable under the earthwork or proofrolling equipment.

3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 8 inches of existing subgrade and each layer of backfill or fill soil material to at least 90 percent.
 - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material to at least 90 percent.
 - 3. Under lawn or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material to at least 85 percent.
 - 4. For utility trenches, compact each layer of bedding and backfill material to at least 90 percent.

3.16 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 - 1. Provide a smooth transition between adjacent existing grades and new grades.
 - 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:

1. Lawn or Unpaved Areas: Plus or minus 1 inch.
 2. Walks: Plus or minus 1 inch.
 3. Pavements: Plus or minus 1/2 inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.17 AGGREGATE BASE

- A. Place aggregate on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place aggregate base as follows:
1. Shape aggregate base to required crown elevations and cross-slope grades.
 2. Place aggregate base 6 inches or less in compacted thickness in a single layer.
 3. Place aggregate base that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 4. Compact aggregate base at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.
- C. Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders, at least 12 inches wide, of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.18 ROCK CAPILLARY BREAK

1. Not applicable to this project.

3.19 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work complies with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 1557, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:

1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least 1 test for every 2000 sq. ft. or less of paved area or building slab, but in no case fewer than 3 tests.
 2. Foundation Wall Backfill: At each compacted backfill layer, at least 1 test for each 100 feet or less of wall length, but no fewer than 2 tests.
 3. Trench Backfill: At each compacted initial and final trench backfill layer, at least 1 test for each 150 feet or less of trench length, but no fewer than 2 tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.20 PROTECTION

- A. Adequate protection measures shall be provided to protect workmen and passers-by at the site. Streets and adjacent property shall be fully protected throughout the operations.
- B. In accordance with generally accepted construction practices, the Contractor shall be solely and completely responsible for working conditions at the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and shall not be limited to normal work hours.
- C. Any construction review of the contractor's performance conducted by the Engineer or the Soil Engineer is not intended to include review of the adequacy of the Contractor's safety measures in, on or near the construction site
- D. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- E. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 1. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.
- F. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Soil spoils to be located on property at location to be determined by Owner
- B. Waste materials and garbage to be hauled off and disposed of properly

END OF SECTION

SECTION 31 50 00 EXCAVATION SUPPORT AND PROTECTION

Part 1 General

1.01 SUMMARY

A. The Contractor shall provide temporary excavation support and protection systems.

1.02 RELATED SECTIONS INCLUDE THE FOLLOWING:

- A. Section "Temporary Facilities and Controls" for temporary utilities and support facilities.
- B. Section "Earth Moving" for excavating and backfilling and for existing utilities.

1.03 PERFORMANCE REQUIREMENTS

- A. Furnish, install, monitor, and maintain excavation support and protection system capable of supporting excavation sidewalls and of resisting soil and hydrostatic pressure and superimposed and construction loads.
 - 1. Provide professional engineering services needed to assume engineering responsibility, including preparation of Shop Drawings and a comprehensive engineering analysis by a qualified professional engineer.
 - 2. Prevent surface water from entering excavations by grading, dikes, or other means.
 - 3. Install excavation support and protection systems without damaging existing buildings, pavements, and other improvements adjacent to excavation.

1.04 SUBMITTALS

- A. Shop Drawings for Information: Prepared by or under the supervision of a qualified professional engineer for excavation support and protection systems.
 - 1. Include Shop Drawings signed and sealed by the qualified professional engineer responsible for their preparation.
- B. Qualification Data: For Installer and professional engineer.
- C. Photographs or videotape, sufficiently detailed, of existing conditions of adjoining construction and site improvements that might be misconstrued as damage

caused by the absence of, the installation of, or the performance of excavation support and protection systems. 1.05 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by the Project Manager and then only after arranging to provide temporary utility services according to requirements indicated.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Provide materials that are either new or in serviceable condition.
- B. Structural Steel: ASTM A 36/A 36M, ASTM A 690/A 690M, or ASTM A 992/A 992M.
- C. Steel Sheet Piling: ASTM A 328/A 328M, ASTM A 572/A 572M, or ASTM A 690/A 690M; with continuous interlocks.
- D. Wood Lagging: Lumber, mixed hardwood.
- E. Cast-in-Place Concrete: ACI 301, of compressive strength required for application.
- F. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.
 - 1. Shore, support, and protect utilities encountered.
- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having

EXCAVATION SUPPORT AND PROTECTION: SECTION 31 50 00

jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

- C. Locate excavation support and protection systems clear of permanent construction so that forming and finishing of concrete surfaces is not impeded.
- D. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.
- E. Promptly repair damages to adjacent facilities caused by installing excavation support and protection systems.

3.02 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.
 - 1. Repair or replace, as approved by the Project Manager, adjacent work damaged or displaced by removing excavation support and protection systems.

END OF SECTION

SECTION 32 12 13 CONCRETE PAVING

PART 1 GENERAL

1.01 SUMMARY

- A. Furnish and install exterior cement concrete pavement systems including form work, reinforcement steel, mesh, curing compounds and accessories as required for a complete installation. The systems specified include:
 - 1. Driveways and roadways.
 - 2. Curbs and gutters.
 - 3. Walkways.
 - 4. Plazas.

1.02 RELATED SECTIONS INCLUDE THE FOLLOWING:.

- A. Section "Earthwork" for subgrade preparation, grading, and subbase course.
- B. Section "Cast-in-Place Concrete" for general building applications of concrete.

1.03 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash and other pozzolans, and ground granulated blast-furnace slag.

1.04 SUBMITTALS

- A. Product Data: For each type of manufactured material and product indicated.
- B. Design Mixtures: For each concrete pavement mixture. Include alternate mixture designs when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
- C. Provide 2' x 2' sample panel of all concrete finishes and colors indicated in the drawings. Approved samples to be kept at the jobsite to serve as a prerequisite for all finishes until final acceptance.

1.05 QUALITY ASSURANCE

- A. ACI Publications: Comply with ACI 301, "Specification for Structural Concrete," unless modified by requirements in the Contract Documents.

- B. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

1.06 PROJECT CONDITIONS

- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

PART 2 - PRODUCTS

2.01 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
 - 1. Use flexible or curved forms for curves with a radius 100 feet or less.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2.02 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
- B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed.
- C. Joint Dowel Bars: Plain steel bars, ASTM A 615/A 615M, Grade 60. Cut bars true to length with ends square and free of burrs.
- D. Tie Bars: ASTM A 615/A 615M, Grade 60, deformed.
- E. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete, and as follows:
 - 1. Equip wire bar supports with sand plates or horizontal runners where base material will not support chair legs.

2.03 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout the Project:

1. Portland Cement: ASTM C 150, Type II
- B. Normal-Weight Aggregates: ASTM C 33, Class 4M coarse aggregate, uniformly graded. Provide aggregates from a single source.
 1. Maximum Coarse-Aggregate Size: 3/4 inch nominal.
 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- C. Water: ASTM C 94/C 94M.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.
 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 2. Retarding Admixture: ASTM C 494/C 494M, Type B.
 3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
 4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
 5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
 6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.04 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry.
- B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable evaporation retarder in paragraph below temporarily reduces moisture loss from concrete surfaces awaiting finishing in hot, dry, and windy conditions. Evaporation retarders are neither curing compounds nor chemical surface retarders used to delay concrete setting.

2.05 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

2.06 PAVEMENT MARKINGS

- A. Pavement-Marking Paint: Latex, waterborne emulsion, lead and chromate free, ready mixed, complying with FS TT-P-1952, with drying time of less than 45 minutes.
 1. Color: As indicated.
- B. Glass Beads: AASHTO M 247, Type 1.

2.07 WHEEL STOPS

- A. Wheel Stops: Precast, air-entrained concrete, 2500-PSI minimum compressive strength, 4-1/2 inches high by 9 inches wide by 72 inches long. Provide chamfered corners and drainage slots on underside and holes for anchoring to substrate.
 - 1. Dowels: Galvanized steel, 3/4-inch diameter, 10-inch minimum length.

2.08 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to ACI 301, for each type and strength of normal-weight concrete determined by either laboratory trial mixes or field experience.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed concrete mixture designs for the trial batch method.
- B. Proportion mixtures to provide normal-weight concrete with the following properties:
 - 1. Compressive Strength (28 Days): 2500 PSI.
 - 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.50.
 - 3. Slump Limit: 4 inches, plus or minus 1 inch.
- C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
 - 1. Air Content: 3-1/2 percent plus or minus 1.5 percent for 3/4-inch nominal maximum aggregate size
- D. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
- E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

2.09 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Furnish batch certificates for each batch discharged and used in the Work.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.
- B. Proof-roll prepared subbase surface below concrete pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding.
 - 1. Completely proof-roll subbase in one direction. Limit vehicle speed to 3 mph.
 - 2. Proof-roll with a loaded 10-wheel tandem-axle water truck with not less than 8 tons on the rear axles.
 - 3. Subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch require correction according to requirements in Section "Earthmoving."
- C. Proceed with concrete pavement operations only after nonconforming conditions have been corrected and subgrade is ready to receive pavement.

3.02 PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.

3.03 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.04 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.
- C. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- D. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.

3.05 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
1. When joining existing pavement, place transverse joints to align with previously placed joints, unless otherwise indicated.
- B. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour unless pavement terminates at isolation joints.
1. Continue steel reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of pavement strips, unless otherwise indicated.
 2. Provide tie bars at sides of pavement strips where indicated.
 3. Butt Joints: Use bonding agent at joint locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
 4. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, buildings, walks, other fixed objects, and where indicated.
1. Locate expansion joints at intervals of 50 feet, unless otherwise indicated.
 2. Extend joint fillers full width and depth of joint.
 3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
 4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
 5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
 6. Protect top edge of joint filler during concrete placement with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.
- D. Control Joints: Form weakened-plane control joints, sectioning concrete into areas as indicated. Construct control joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a **1/4-inch** radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groove marks on concrete surfaces.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 3/16-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.

3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint
 4. Spacing: Sidewalks: control joints shall be placed not more than 4 feet on center both ways. Outdoor slabs: Control joints shall not be spaced more than 8 feet on center both ways.
- E. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to a **3/8-inch** radius. Repeat tooling of edges after applying surface finishes. Eliminate tool marks on concrete surfaces.

3.06 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
- C. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.
- D. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.
- E. Do not add water to concrete during delivery or at Project site.
- F. Do not add water to fresh concrete after testing.
- G. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- H. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.
 1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.
- I. Place concrete in two operations; strike off initial pour for entire width of placement and to the required depth below finish surface. Lay welded wire fabric or fabricated bar mats immediately in final position. Place top layer of concrete, strike off, and screed.

1. Remove and replace concrete that has been placed for more than 15 minutes without being covered by top layer, or use bonding agent if approved by Architect.
- J. Screed pavement surfaces with a straightedge and strike off.
- K. Commence initial floating using bull floats or darbies to impart an open textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- L. Curbs and Gutters: When automatic machine placement is used for curb and gutter placement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing as specified for formed concrete. If results are not approved, remove and replace with formed concrete.
- M. Slip-Form Pavers: When automatic machine placement is used for pavement, submit revised mix design and laboratory test results that meet or exceed requirements. Produce pavement to required thickness, lines, grades, finish, and jointing as required for formed pavement.
 1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of paver machine during operations.
- N. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength.
- O. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
 2. Do not use frozen materials or materials containing ice or snow.
 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mix designs.
- P. Hot-Weather Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:
 1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.

2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

3.07 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.
- C. Medium-to-Fine-Textured Broom Finish: Draw a soft bristle broom across float finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.

3.08 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
 1. Moist Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.
 - c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.

1. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
2. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.09 PAVEMENT TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
 1. Elevation: 1/4 inch.
 2. Thickness: Plus 3/8 inch, minus 1/4 inch.
 3. Surface: Gap below 10-foot- long, unlevelled straightedge not to exceed 1/4 inch.
 4. Lateral Alignment and Spacing of Tie Bars and Dowels: 1 inch.
 5. Vertical Alignment of Tie Bars and Dowels: 1/4 inch.
 6. Alignment of Tie-Bar End Relative to Line Perpendicular to Pavement Edge: 1/2 inch.
 7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Pavement Edge: Length of dowel 1/4 inch per 12 inches.
 8. Joint Spacing: 3 inches.
 9. Control Joint Depth: Plus 1/4 inch, no minus.
 10. Joint Width: Plus 1/8 inch, no minus.

3.10 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow concrete pavement to cure for 28 days and be dry before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.
- D. Apply paint with mechanical equipment to produce pavement markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.
 1. Spread glass beads uniformly into wet pavement markings at a rate of 6 lb/gal..

3.11 Not used

3.12 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Strength of each concrete mix will be satisfactory if average of any 3 consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 PSI.
- C. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.
- D. Remove and replace concrete pavement where test results indicate that it does not comply with specified requirements.
- E. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.13 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective or that does not comply with requirements in this Section.
- B. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory pavement areas with Portland cement concrete bonded to pavement with epoxy adhesive.
- C. Protect concrete from damage. Exclude traffic from pavement for at least 14 days after placement. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
- D. Maintain concrete pavement free of stains, discoloration, dirt, and other foreign material. Sweep concrete pavement not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION

SECTION 32 12 16 ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide asphalt pavement, including aggregate base course and materials as required for complete finished paving system.
- B. Related Sections:
 - 1. Section 31 20 00: Earth Moving

1.2 REFERENCES

- A. Standard Specifications: The Standard Specifications of the State of California, Business and Transportation Agency, Department of Transportation, current edition.
- B. The Asphalt Institute: Asphalt Paving Manual, Manual Series No. 8 (MS-8).

1.3 PROJECT CONDITIONS

- A. Do not install pavement during inclement weather or when air temperature is below that recommended by Standard Specifications or The Asphalt Institute (AI) MS-8.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Conform to applicable requirements of Standard Specifications for type of asphaltic pavement indicated, and requirements of AI MS-8; where conflicts occur, follow Standard Specifications.
- B. Aggregate Base: Class 2, 3/4" maximum size; sound, angular crushed stone, crushed gravel or crushed slag, sand, stone, or slag screenings.
- C. Surface Course Aggregate: Crushed stone, crushed gravel, crushed slag, and sharp-edged natural sand.
- D. Mineral Filler: Rock or slag dust, hydraulic cement, or inert material complying with Standard Specifications and AASHTO M17/ASTM D242.
- E. Asphalt Cement: Comply with Standard Specifications for type of paving indicated, but no less than AR 4000, Type B aggregate, and AASHTO M226/ASTM D3381; minimum Viscosity Grade AC-20, AR-80.
- F. Primer: AASHTO M82/ASTM D2027 MC 70; homogeneous medium curing liquid asphalt; of type recommended for asphaltic paving; of grade to suit job conditions.

- G. Tack Coat: Standard Specifications or AASHTO M140/ASTM D977 SS1h type asphalt emulsion diluted with water.
- H. Herbicide Treatments: Commercial chemical for weed control, registered by Environmental Protection Agency; granular, liquid or wettable powder form.
 - 1. Manufacturers: Use only products registered by EPA and acceptable to applicable authorities; verify acceptability of materials with applicable authorities.
 - a. Allied Chemical Corp.
 - b. Dow Chemical Co.
 - c. U.S. Borax and Chemical Corp.
 - d. Substitutions: Refer to Section 01 62 00.

2.2 MIXES

- A. Provide asphalt-aggregate mixture as recommended by Standard Specifications, Section 39, Type A; maintain thorough and uniform mixture.
- B. Bring asphalt cement and mineral constituents to required temperatures before mixing; ensure aggregates are sufficiently dry so as not to cause foaming in mixture.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Ensure buried work in paved areas has been completed, inspected, tested and approved prior to starting work.
- B. Ensure grading of sub-grade is to required elevations.

3.2 PREPARATION

- A. Where not previously excavated, thoroughly scarify pavement sub-grade to a minimum depth 12" and compact to 95% dry density.
 - 1. Prepare areas under track and field with lime treatment. Refer to geotechnical report.
 - 2. Prepare sub-grade to provide optimum moisture content.
 - a. Water and thoroughly mix sub-grade when deficiency exists.
 - b. When excess of moisture exists, rework and aerate sub-grade.
- B. Before final rolling shape entire section add additional sub-soil as required and compact sub-grade to provide grades, elevation and cross-section indicated.
 - 1. Points of finished sub-grade surface shall be within 1" of elevations indicated.

3.3 INSTALLATION

A. Aggregate Base Course:

1. Bring aggregate base course to required depths and profiles.
 - a. Extend minimum 6" beyond asphalt pavement width.
 - b. Place in layers not exceeding 5" in depth.
 - c. Compact each layer to 95% dry density unless otherwise indicated.
2. Properly compact areas adjacent to curbs and areas not accessible to rollers with mechanical or hand tamping devices.
3. Ensure aggregate base course materials are not contaminated with deleterious materials.
4. Spread base course materials over prepared sub-base.
 - a. Depth: As indicated on Drawings.
 - b. Compaction: 95% dry density unless otherwise indicated.
5. Ensure top surface of base course is true to lines and grades indicated, within 1/2" of elevations indicated.
6. Add water during compaction to bring aggregate base course materials to optimum moisture content.
7. When excess moisture exists, rework aggregate base course materials until optimum moisture content is obtained.

B. Priming Prepared Aggregate Base Course: Ensure aggregate base course is dry and free of loose or foreign material before priming.

1. Apply primer over prepared aggregate base course at rate recommended by Standard Specifications and manufacturer's recommendations; ensure primer is at temperature recommended by manufacturer.
 - a. Use clean natural sand to blot excess primer.
2. Prime surfaces of curbs in contact with asphalt pavement.
3. Prevent asphalt adhesion to adjacent materials.

C. Tack Coat: Apply liquid asphalt tack coat to vertical surfaces asphaltic concrete will be placed against; comply with Standard Specifications and manufacturer recommendations.

D. Asphaltic Concrete Pavement: Place asphalt pavement within 24 hours of priming aggregate base course.

1. Depths: As indicated on Drawings.
2. Compaction: Compact asphalt paving with approved rolling equipment; start compaction as soon as pavement will bear equipment without checking or undue displacement.

- a. Carry out compaction in three operations in pass sequence; ensure each pass of roller overlaps previous passes to ensure smooth surface free of roller marks.
 - b. Prevent pick-up of material on roller wheels.
 - c. Density: Minimum 95% density unless otherwise indicated.
3. Perform hand tamping in areas not accessible to rolling equipment.
 4. Ensure joints made during paving operations are straight, clean, vertical and free of broken or loose material; prime vertical surfaces of joints to ensure tight bond.
 5. Ensure surface of completed asphalt pavement is true to lines, profiles, and elevations indicated.
 6. Ensure surface is free of depressions exceeding 1/4" when measured with a 10'-0" straight-edge.

3.4 PATCHING

- A. Remove and replace defective paving areas and paving areas mixed with foreign materials.
- B. Cut out areas and fill with fresh, hot asphaltic concrete; compact by rolling to maximum surface density and smoothness.

3.5 FIELD QUALITY CONTROL

- A. Site Tests and Inspection: Allow for testing and inspection of asphalt pavement mixes and testing of placed aggregate base course and asphalt pavement; refer to Division 1 testing laboratory services.
 1. Testing and inspection will be performed so as to minimize disruption to work.
 2. Allow testing laboratory access to mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in preparation of paving mix.
 3. When required, testing laboratory will perform laboratory tests of proposed asphalt pavement mixes to determine conformity with requirements.
 4. Testing laboratory will perform one series of compaction tests for aggregate base course and for each asphalt pavement course.
 5. Notify testing laboratory to perform density tests when aggregate base course or portion thereof has been placed and compacted in accordance with requirements,
 - a. Do not place asphalt pavement until results have been verified and base course installation approved.
 6. If compaction tests indicate aggregate base course or asphalt paving do not meet specified requirements, remove defective work, replace and retest with no additional cost to Owner.

3.6 PROTECTION

- A. Do not allow vehicular traffic on newly paved areas until surface has cooled to atmospheric temperature and not less than 24 hours after completing asphaltic concrete work.

END OF SECTION

- G. Tack Coat: Standard Specifications or AASHTO M140/ASTM D977 SS1h type asphalt emulsion diluted with water.
- H. Herbicide Treatments: Commercial chemical for weed control, registered by Environmental Protection Agency; granular, liquid or wettable powder form.
 - 1. Manufacturers: Use only products registered by EPA and acceptable to applicable authorities; verify acceptability of materials with applicable authorities.
 - a. Allied Chemical Corp.
 - b. Dow Chemical Co.
 - c. U.S. Borax and Chemical Corp.
 - d. Substitutions: Refer to Section 01 62 00.

2.2 MIXES

- A. Provide asphalt-aggregate mixture as recommended by Standard Specifications, Section 39, Type A; maintain thorough and uniform mixture.
- B. Bring asphalt cement and mineral constituents to required temperatures before mixing; ensure aggregates are sufficiently dry so as not to cause foaming in mixture.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Ensure buried work in paved areas has been completed, inspected, tested and approved prior to starting work.
- B. Ensure grading of sub-grade is to required elevations.

3.2 PREPARATION

- A. Where not previously excavated, thoroughly scarify pavement sub-grade to a minimum depth 12" and compact to 95% dry density.
 - 1. Prepare areas under track and field with lime treatment. Refer to geotechnical report.
 - 2. Prepare sub-grade to provide optimum moisture content.
 - a. Water and thoroughly mix sub-grade when deficiency exists.
 - b. When excess of moisture exists, rework and aerate sub-grade.
- B. Before final rolling shape entire section add additional sub-soil as required and compact sub-grade to provide grades, elevation and cross-section indicated.
 - 1. Points of finished sub-grade surface shall be within 1" of elevations indicated.

3.3 INSTALLATION

A. Aggregate Base Course:

1. Bring aggregate base course to required depths and profiles.
 - a. Extend minimum 6" beyond asphalt pavement width.
 - b. Place in layers not exceeding 5" in depth.
 - c. Compact each layer to 95% dry density unless otherwise indicated.
2. Properly compact areas adjacent to curbs and areas not accessible to rollers with mechanical or hand tamping devices.
3. Ensure aggregate base course materials are not contaminated with deleterious materials.
4. Spread base course materials over prepared sub-base.
 - a. Depth: As indicated on Drawings.
 - b. Compaction: 95% dry density unless otherwise indicated.
5. Ensure top surface of base course is true to lines and grades indicated, within 1/2" of elevations indicated.
6. Add water during compaction to bring aggregate base course materials to optimum moisture content.
7. When excess moisture exists, rework aggregate base course materials until optimum moisture content is obtained.

B. Priming Prepared Aggregate Base Course: Ensure aggregate base course is dry and free of loose or foreign material before priming.

1. Apply primer over prepared aggregate base course at rate recommended by Standard Specifications and manufacturer's recommendations; ensure primer is at temperature recommended by manufacturer.
 - a. Use clean natural sand to blot excess primer.
2. Prime surfaces of curbs in contact with asphalt pavement.
3. Prevent asphalt adhesion to adjacent materials.

C. Tack Coat: Apply liquid asphalt tack coat to vertical surfaces asphaltic concrete will be placed against; comply with Standard Specifications and manufacturer recommendations.

D. Asphaltic Concrete Pavement: Place asphalt pavement within 24 hours of priming aggregate base course.

1. Depths: As indicated on Drawings.
2. Compaction: Compact asphalt paving with approved rolling equipment; start compaction as soon as pavement will bear equipment without checking or undue displacement.

- a. Carry out compaction in three operations in pass sequence; ensure each pass of roller overlaps previous passes to ensure smooth surface free of roller marks.
 - b. Prevent pick-up of material on roller wheels.
 - c. Density: Minimum 95% density unless otherwise indicated.
3. Perform hand tamping in areas not accessible to rolling equipment.
 4. Ensure joints made during paving operations are straight, clean, vertical and free of broken or loose material; prime vertical surfaces of joints to ensure tight bond.
 5. Ensure surface of completed asphalt pavement is true to lines, profiles, and elevations indicated.
 6. Ensure surface is free of depressions exceeding 1/4" when measured with a 10'-0" straight-edge.

3.4 PATCHING

- A. Remove and replace defective paving areas and paving areas mixed with foreign materials.
- B. Cut out areas and fill with fresh, hot asphaltic concrete; compact by rolling to maximum surface density and smoothness.

3.5 FIELD QUALITY CONTROL

- A. Site Tests and Inspection: Allow for testing and inspection of asphalt pavement mixes and testing of placed aggregate base course and asphalt pavement; refer to Division 1 testing laboratory services.
 1. Testing and inspection will be performed so as to minimize disruption to work.
 2. Allow testing laboratory access to mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in preparation of paving mix.
 3. When required, testing laboratory will perform laboratory tests of proposed asphalt pavement mixes to determine conformity with requirements.
 4. Testing laboratory will perform one series of compaction tests for aggregate base course and for each asphalt pavement course.
 5. Notify testing laboratory to perform density tests when aggregate base course or portion thereof has been placed and compacted in accordance with requirements,
 - a. Do not place asphalt pavement until results have been verified and base course installation approved.
 6. If compaction tests indicate aggregate base course or asphalt paving do not meet specified requirements, remove defective work, replace and retest with no additional cost to Owner.

3.6 PROTECTION

- A. Do not allow vehicular traffic on newly paved areas until surface has cooled to atmospheric temperature and not less than 24 hours after completing asphaltic concrete work.

END OF SECTION

SECTION 33 41 00 STORM UTILITY DRAINAGE PIPING

PART 1 - GENERAL

1.01 SUMMARY

- A. Contractor shall furnish and install gravity-flow, non-pressure storm drainage outside the building, with the following components, including all accessories for a complete installation:
 - 1. Storm drainage piping, fittings, and accessories.
 - 2. Catch basin, paved area drainage, field drainage, manhole access, site surface drainage, and miscellaneous concrete structures.
 - 3. Site drainage system for new track and field areas.

1.02 RELATED DOCUMENTS

- A. Section 31 20 00 Earth Moving

1.03 DEFINITIONS

- A. HDPE: High density polyethylene.
- B. PVC: Polyvinyl chloride plastic.

1.04 SUBMITTALS

- A. Shop Drawings: For the following:
 - 1. Area Drains: Include plans, elevations, sections, details, and frames and covers.
 - 2. Slot Drains: Include specifications sheets, material properties and inlet details.
 - 3. Storm Drainage pipe: Pipe materials and properties.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Do not store plastic pipe and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle area drains according to manufacturer's written rigging instructions.

1.06 PROJECT CONDITIONS

- A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:
 - 1. Notify Architect and Owner no fewer than two days in advance of proposed interruption of service.
 - 2. Do not proceed with interruption of service without Owner's written permission.

1.07 Project Record Documents

- A. Submit record documents per Section 01 41 00
- B. Accurately record location of pipe runs, connections, catch basins, cleanouts, and invert elevations.
- C. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
 - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.02 STORM DRAIN PIPE MATERIALS

- A. ADS corrugated smooth interior wall polyethylene pipe with all necessary connection fittings.
- B. Reinforced Concrete Pipe Joint Device: ANSI/ASTM C443, rubber compression gasket joint.
- C. Plastic Pipe: ANSI/ASTM D3034, SDR35 Type PSM, polyvinyl chloride (PVC) material; inside nominal diameter of 4, 6, 8, 10, 12, 15 & 18 inches bell and spigot style solvent sealed end joints.

2.03 AREA DRAINS

- A. As specified on the plans.

2.04 CLEANOUTS

- A. Cleanouts: As shown on the plans.

2.05 STORM DRAIN INFILTRATION TRENCHES:

- A. Drain Rock: 3/4"-2" washed drain rock.
- B. Filter Fabric: Shall be permeable and nonwoven from one of the following: polyester, polypropylene, or combined polyester polypropylene.
- C. Inspection Port: As shown on the plans.

PART 3 - EXECUTION

3.01 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Division 31 Section "Earth Moving."

3.02 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.
- C. Install area drains for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing storm drain system is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected.
- E. Install gravity-flow, nonpressure drainage piping according to the following:
 - 1. Install piping pitched down in direction of flow, at minimum slope of 1 percent, unless otherwise indicated.
 - 2. Install piping 18-inch and larger with restrained joints at tee fittings and at changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place concrete supports or anchors.
 - 3. Install piping with 24-inch minimum cover, unless otherwise indicated on plans.
 - 4. Install PVC sewer piping according to ASTM D 2321 and ASTM F 1668.

3.03 CLEANOUT INSTALLATION

- A. Install cleanouts and riser extension from storm drain pipe to cleanout at grade.
- B. Set cleanout frames and covers in concrete pavement with tops flush with pavement surface.

3.04 DRAIN INSTALLATION

- A. Install type of drains in locations indicated.
- B. Embed drains in 4-inch minimum depth of concrete around sides.
- C. Drains to have open bottom with drain rock unless otherwise noted on plans.
- D. Set drain frames and covers with tops flush with pavement surface.
- E. Protect drains with silt barriers until construction is complete

3.05 AREA DRAIN INSTALLATION

- A. General: Install area drains, complete with appurtenances and accessories indicated.
- B. Install area drains according to manufacturer's requirements.
- C. Drains to have solid bottom with sumps unless otherwise noted on plans.
- D. Set tops of frames and covers flush with finished surface of area drains that occur in pavements.
- E. Protect drains with silt barriers until construction is complete

3.06 LEACH TRENCH / DRAINAGE TRENCH

- A. Install perforated storm drain pipe within leach trench section as shown on plans.
- B. Wrap top and sides of trench with geotextile fabric.
- C. Drain rock shall be washed and clean prior to installation of trench.
- D. Protect trenches from debris, silts, dirt, etc., during construction.

3.07 CLEANING

- A. Clean interior of piping of dirt and debris often during construction and at end of project.

STORM UTILITY DRAINAGE PIPING: SECTION 33 41 00

END OF SECTION