

PROJECT MANUAL

FOR THE
NEW CONSTRUCTION OF:

GLENOAKS ELEMENTARY SCHOOL NEW 2-STORY CLASSROOM BUILDING

PROJECT NUMBER 2019-026

OWNER:

GLENDALE UNIFIED SCHOOL DISTRICT
223 NORTH JACKSON STREET
GLENDALE, CA 91206

ARCHITECT:

DC ARCHITECTS
820 N MOUNTAIN AVENUE, SUITE 200
UPLAND CA 91786
(800) 985-6939 FAX (909) 985-0864

MARCH 10, 2021

NOTICE

THE FOLLOWING PORTIONS OF THIS
PROJECT MANUAL FOR

**GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY CLASSROOM BUILDING**

HAVE BEEN PREPARED

IN COOPERATION WITH THE OWNER:

GLENDALE UNIFIED SCHOOL DISTRICT

- ◆ DIVISION 00 – BIDDING/CONTRACT REQUIREMENTS
 - ◆ DIVISION 01 – GENERAL REQUIREMENTS


VAL VERDE UNIFIED SCHOOL DISTRICT Glenoaks Elementary School – New 2-Story Modular Building

Architect
DC Architects



Richard D. Duncan
C21818

Electrical Engineer
Engineous Group, Inc.



Shane M. Foster
E21308

Mechanical Engineer
Engineous Group, Inc.



Bradley E. Severson
M27963

Civil Engineering
SWS Engineering, Inc.



Michael D. Schweitzer
C59658

DIVISION 00 – BIDDING / CONTRACT REQUIREMENTS

000101	Project Directory	1
001113	Bid Date, Time, and Location	1
001116	Notice Inviting Bids	3
001117	Plan Room Listing	1
002113	Instructions to Bidders and Bidder's Clarification Requests	9
002214	Disabled Veteran Business Enterprises Worksheets	13
003132	Geotechnical Data	1
004100	Bid Bond	2
004213	Contractors Proposal	3
004336	Designation of Subcontractors	2
004513	Certification of Bidders and Qualifications	5
004519	Certificate of Non-Collusion Affidavit	1
004526	Certificate Regarding Worker's Compensation	1
004601	Certificate Regarding Non-Asbestos Containing Materials	1
004602	Non-Smoking Environment Agreement	1
004603	Certificate of Drug-Free Workplace	2
005213	Agreement Form	9
006113.13	Performance Bond Form	2
006113.16	Payment Bond Form	3
006216	Request for Tax Payer ID and Certification Form	1
006239	Certification Regarding Disabled Veteran Business Enterprises	1
007100	Table of Contents to General Conditions	2
007200	General Conditions	53
007300	Supplementary Conditions	1
007316	Special Conditions	7

DIVISION 01 – GENERAL REQUIREMENTS

011100	Scope of Work	3
011113	Post Bid Interview	6
011216	Construction Schedule	3
012500	Information for Alternate Proposals	1
012513	Product Options and Substitutions	7
012600	Change Order Procedure	4
012900	Application for Payment	8
013113	Project Coordination	8
013119	Project Meetings	3
013216	Progress Schedule	1
013300	Submittals, Shop Drawings, Product Data and Samples	6
014216	Definitions and Standards	5
014219	Reference Standards	5
014523	Testing and Inspection Requirements	6
015000	Construction Facilities and Temporary Controls	2
015723	Storm Water Pollution Prevention Plan	3
015800	Project Identification	2
016500	Material and Equipment	4
017123	Field Engineering	3
017329	Cutting and Patching	2
017400	Cleaning	3
017500	Starting of Systems	2

017700	Contract Closeout	5
017800	Project Record Documents	4
017823	Operation and Maintenance Data	7
017836	Warranties, Guaranties and Bonds	2

DIVISION 02 – EXISTING CONDITIONS

DIVISION 03 – CONCRETE

031000	Concrete Formwork	8
032000	Concrete Reinforcement	7
033000	Concrete Work	25

DIVISION 04 – MASONRY (NOT USED)

DIVISION 05 – METALS

055000	Miscellaneous Metal	8
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DIVISION 06 – WOOD AND PLASTICS (NOT USED)

DIVISION 07 – THERMAL AND MOISTURE PROTECTION

071000	Sheet Membrane Waterproofing	2
078413	Firestopping Penetration Materials	7
079000	Sealants and Caulking	10

DIVISION 08 – DOORS AND WINDOWS (NOT USED)

DIVISION 09 – FINISHES

099100	Painting	15
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DIVISION 10 – SPECIALTIES

101423	Signage	6
102813	Toilet Accessories	6

DIVISION 11 – EQUIPMENT (NOT USED)

DIVISION 12 – FURNISHINGS (NOT USED)

DIVISION 13 – SPECIAL CONSTRUCTION (NOT USED)

DIVISION 14 – CONVEYING SYSTEMS (NOT USED)

DIVISION 21 – FIRE SUPPRESSION (NOT USED)

DIVISION 22 – PLUMBING

221113 Water Distribution Systems11
 221113 Sanitary Sewer Systems7

DIVISION 23 – HVAC HEATING, VENTILATING, AND AIR-CONDITIONING (NOT USED)

DIVISION 26 – ELECTRICAL, COMMUNICATIONS & ELECTRONIC SAFETY & SECURITY
 (SEE ELECTRICAL DRAWINGS FOR ALL SPECIFICATIONS)

DIVISION 27 – INTEGRATED AUDIO-VIDEO SYSTEMS (SEE ELECTRICAL DRAWINGS FOR
 ALL SPECIFICATIONS)

DIVISION 28 – FIRE ALARM SYSTEM (SEE ELECTRICAL DRAWINGS FOR ALL
 SPECIFICATIONS)

DIVISION 31 – EARTHWORK

311000 Site Clearing and Demolition.....7
 312200 Earthwork6
 312219 Finish Grading2
 312300 Excavation and Backfill for Utilities4
 312316.13 Trenching.....5

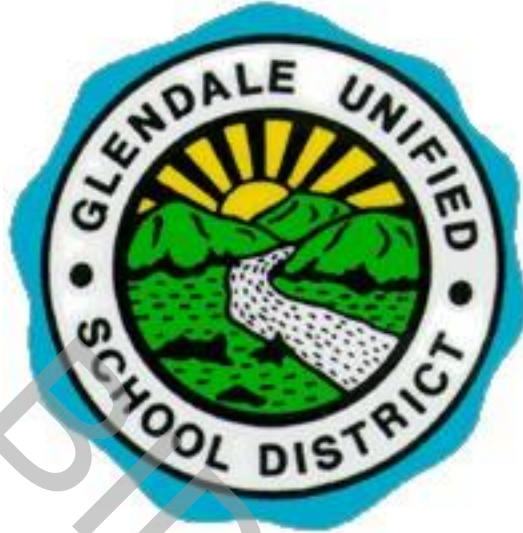
DIVISION 32 –EXTERIOR IMPROVEMENTS

321216 Asphaltic Concrete Paving8
 321236 Asphaltic Concrete Paving Seal Coating5
 321600 Concrete Paving, Curbs and Walks7
 321713 Parking Bumpers1
 321723.13 Parking Striping4
 321723 Pavement Markings4
 323113 Chain Link Fencing7

DIVISION 33 – UTILITIES

334000 Storm Drainage Systems5

DIVISION 34 – TRANSPORTATION (NOT USED)



BID/PROJECT MANUAL

BID NO.

**GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING**

GLENDALE UNIFIED SCHOOL DISTRICT

Issue Date: March 10, 2021

**Mandatory Bidders
Conference: 9:00 AM**

**Bid Submittal and
Opening Date: 2:00 PM**

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

DOCUMENT 00 01 10

TABLE OF CONTENTS - CONTRACT DOCUMENTS

PROCUREMENT AND CONTRACTING REQUIREMENTS

Division 00	Section	Title
	00 01 01	Title Page
	00 01 10	Table of Contents (This Document)
	00 01 15	List of Drawings, Tables and Schedules
	00 11 16	Notice to Bidders / Invitation to Bid
	00 21 13	Instructions to Bidders
	00 31 19	Existing Information and Documentation Regarding Project Site (<u>NOT part of the Contract Documents</u>)
	00 32 00	Prequalification Questionnaire for Prospective Bidder (<u>NOT part of the Contract Documents</u>) [ONLY IF USED AND WITH BOARD-APPROVED CRITERIA]
<u>DOCUMENTS THAT BIDDER MUST SUBMIT AS PART OF ITS BID</u>		
	00 41 13	Bid Form
	00 43 13	Bid Bond (Security)
	00 43 36	Designated Subcontractors List
	00 43 40	Noncollusion Declaration
	00 43 50	Iran Contracting Act Certification
	00 45 00	Notice of Award
	00 45 10	Agreement
	00 45 40	Certifications to be Completed by Contractor
	00 45 55	Disabled Veteran's Business Enterprise Participation Certification
	00 45 85	Criminal Background Investigation/Fingerprinting Certification
	00 54 50	Escrow of Bid Documentation [ONLY IF USED]
	00 54 55	Escrow Agreement for Security Deposits in Lieu of Retention
	00 54 70	Storm Water Pollution Prevention Plan [ONLY IF NEEDED]
	00 61 14	Performance Bond
	00 61 15	Payment Bond (Contractor's Labor and Material Bond)
	00 63 00	District Contract Forms [ATTACH FORMS IF DISTRICT HAS FORMS FOR PROJECT]
	00 65 00	District Closeout Forms [ATTACH FORMS IF DISTRICT HAS FORMS FOR PROJECT]
	00 65 10	Notice to Proceed
	00 65 36	Warranty and Guarantee Form
	00 70 00	General Conditions
	00 71 00	Special Conditions [REVIEW, REVISE AND ADAPT FOR EACH PROJECT]
	00 91 13	Addenda - All addenda issued by District become part of the Contract.

SPECIFICATIONS – GENERAL REQUIREMENTS

Division 01	Section	Title
	01 11 00	Summary of Work
	01 12 10	Contract Forms and Submittals
	01 20 00	Price and Payment Procedures
	01 21 00	Allowances
	01 23 00	Alternates and Unit Pricing
	01 25 10	Product Options and Substitutions
	01 26 00	Contract Modification Procedures
	01 26 10	Requests for Information
	01 31 00	Coordination and Project Meetings
	01 32 16	Construction Schedule - Network Analysis
	01 33 00	Submittals
	01 35 45	Collaborative for High Performance Schools (CHPS) [OR] LEED Certification [OR] Special Environmental Requirements [ONLY IF USED]
	01 40 00	Quality Requirements
	01 42 13	Abbreviations and Acronyms
	01 42 16	General Definitions and References
	01 45 29	Testing Laboratory Services
	01 50 00	Temporary Facilities and Controls
	01 52 10	Site Standards
	01 56 39	Temporary Tree and Plant Protection
	01 57 10	Storm Water Pollution Prevention Plan (SWPPP) – Construction
	01 60 00	Materials and Equipment
	01 66 10	Delivery, Storage and Handling
	01 73 00	Execution
	01 73 10	Cutting and Patching
	01 77 00	Contract Closeout and Final Cleaning
	01 78 23	Operation and Maintenance Data
	01 78 36	Warranties
	01 78 39	Record Documents
	01 91 00	Commissioning

TECHNICAL SPECIFICATIONS

Division 02	02 00 00	EXISTING CONDITIONS
Division 03	03 00 00	CONCRETE
Division 04	04 00 00	MASONRY
Division 05	05 00 00	METALS
Division 06	06 00 00	WOOD, PLASTICS, AND COMPOSITES
Division 07	07 00 00	THERMAL AND MOISTURE PROTECTION
Division 08	08 00 00	OPENINGS
Division 09	09 00 00	FINISHES
Division 10	10 00 00	SPECIALTIES
Division 11	11 00 00	EQUIPMENT
Division 12	12 00 00	FURNISHINGS
Division 13	13 00 00	SPECIAL CONSTRUCTION
Division 14	14 00 00	CONVEYING EQUIPMENT
Division 15	15 00 00	[RESERVED]
Division 16	16 00 00	[RESERVED]
Division 17	17 00 00	[RESERVED]
Division 18	18 00 00	[RESERVED]
Division 19	19 00 00	[RESERVED]
Division 20		[RESERVED]
Division 21	21 00 00	FIRE SUPPRESSION
Division 22	22 00 00	PLUMBING
Division 23	23 00 00	HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
Division 24		[RESERVED]
Division 25	25 00 00	INTEGRATED AUTOMATION
Division 26	26 00 00	ELECTRICAL
Division 27	27 00 00	COMMUNICATIONS
Division 28	28 00 00	ELECTRONIC SAFETY AND SECURITY
Division 29		[RESERVED]
Division 30		[RESERVED]
Division 31	31 00 00	EARTHWORK
Division 32	32 00 00	EXTERIOR IMPROVEMENTS
Division 33	33 00 00	UTILITIES
Division 34	34 00 00	TRANSPORTATION
Division 35		WATERWAY AND MARINE CONSTRUCTION
Division 36		[RESERVED]
Division 37		[RESERVED]
Division 38		[RESERVED]
Division 39		[RESERVED]
Division 40	40 00 00	PROCESS INTEGRATION
Division 41	41 00 00	MATERIAL PROCESSING AND HANDLING EQUIPMENT
Division 42	42 00 00	PROCESS HEATING, COOLING, AND DRYING EQUIPMENT
Division 43	43 00 00	PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT
Division 44	44 00 00	POLLUTION CONTROL EQUIPMENT
Division 45	45 00 00	INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT
Division 46	46 00 00	WATER AND WASTEWATER EQUIPMENT
Division 47		[RESERVED]
Division 48	48 00 00	ELECTRICAL POWER GENERATION
Division 49		[RESERVED]

END OF DOCUMENT

DOCUMENT 00 01 15

LIST OF DRAWINGS, TABLES AND SCHEDULES

DRAWINGS

<u>Sheet number</u>	<u>File number</u>	<u>Description</u>
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[LIST ALL PLANS FOR PROJECT]

TABLES

[LIST ALL TABLES AND RELATED INFORMATION FOR PROJECT]

SCHEDULES

[LIST ALL SCHEDULES AND RELATED INFORMATION FOR PROJECT.]

ALTERNATIVELY, PROVIDE SCHEDULE(S) IN TABLE OR NARRATIVE FORMAT HERE.]

END OF DOCUMENT

DOCUMENT 00 11 16

NOTICE TO BIDDERS / INVITATION TO BID

1. Notice is hereby given that the governing board ("Board") of the **[@DISTRICT]** School District ("District") will receive sealed bids for the following project :

_____ **[@PROJECT NAME]** ("Project" or "Contract")

2. **[IF THE DISTRICT IS PREQUALIFYING BIDDERS FOR THIS PROJECT, INCLUDE THE FOLLOWING]** To bid on this Project, the Bidder is required to have been prequalified by the District. In addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors performing under the following license classification(s), then each of those subcontractors that intend to bid as a first-tier subcontractor to a general contractor (prime contractor) are required to have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46. All prequalification questionnaires will be received until _____ a.m./p.m., _____, 20____, at the District Office, located at _____, _____, California _____.

3. Sealed Bids will be received until _____ a.m./p.m., _____, 20____, at the District Office, located at _____, _____, California _____, at or after which time the bids will be opened and publicly read aloud. 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.

4. The Project consists of:

[GENERAL DESCRIPTION OF WORK]

5. 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.
6. To bid on this Project, the Bidder is required to possess one or more of the following State of California Contractor Licenses:

- A -
- B -
- C -

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.

7. 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 the **[@DISTRICT]** 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.

8. 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.

9. 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.
10. 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.
11. A mandatory/voluntary **[CHOOSE ONE]** pre-bid conference and site visit will be held on _____, 20____, at ____m. at _____, California _____. All participants are required to sign in at the Administration Building. The Site Visit is expected to take approximately **[NUMBER]** hours. Failure to attend or tardiness will render bid ineligible. **[REMOVE LAST SENTENCE IF CONFERENCE NOT MANDATORY]**
12. Contract Documents are available on _____, 20____, for review at the District Facilities Office. In addition, Contract Documents are available for review at the following builders' exchanges:

Builder's Exchange of _____ County (____) - _____
[ADD OR REMOVE EXCHANGES AND/OR STATE THE FOLLOWING:]
A list of these builders' exchanges is available at the District's Facilities Office.

Contract Documents are also available for purchase for _____ dollars (\$_____) at the District Facilities Office. This fee is refundable if the Contract Documents are returned in clean condition to the District Facilities Office no later than ten (10) calendar days after the date of the bid opening.
13. **[IF THE DISTRICT'S BOARD HAS DETERMINED SPECIFIC PRODUCTS MUST BE USED, INCLUDE THE FOLLOWING]** The District's Board has found and determined that the following item(s) shall be used on this Project based on the purpose(s) indicated. (Public Contract Code section 3400(c).) A particular material, product, thing, or service is designated by specific brand or trade name for the following purpose(s):

[LIST ITEM(S)]: In order that a field test or experiment may be made to determine the product's suitability for future use.

[LIST ITEM(S)]: In order to match other products in use on a particular public improvement either completed or in the course of completion.

[LIST ITEM(S)]: In order to obtain a necessary item that is only available from one source.

[LIST ITEM(S)]: In order to respond to an emergency declared by a local agency.
14. 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.

15. **[IF THE DISTRICT IS AWARDING BASED ON A PRICE OTHER THAN BASE BID, INCLUDE THE FOLLOWING]** The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on: **[CHOOSE ONE AND ADD DETAIL AS NEEDED]**

The base bid amount only.

[OR]

The base bid amount plus the following alternates:

[AS EXAMPLES ONLY: "additive alternate no. 1; deductive alternate no. 3, additive alternate no. 2."]

[OR]

Up to a total Project fund amount [of \$ _____] **[OR]** [to be stated before bids are opened], **[THIS AMOUNT NEED NOT BE STATED HERE BUT MUST BE STATED PRIOR TO OPENING ANY BIDS]** including the additive alternates or deductive alternates needed, in the stated order, to be equal to or less than that amount:

[AS EXAMPLES ONLY: "additive alternate no. 1; and deductive alternate no. 3."

[OR]

Based on a process that conceals the identity of bidders from the District until the bids have been ranked.

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.

[@DISTRICT] School District ("District") 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 NAME]** ("Project" or "Contract")

2. **[IF THE DISTRICT IS PREQUALIFYING BIDDERS FOR THIS PROJECT, INCLUDE THE FOLLOWING]]** The Bidder is required to have been prequalified by the District. In addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors performing under the following license classification(s), then each of those subcontractors that intend to bid as a first-tier subcontractor to a general contractor (prime contractor) are required to have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46.

3. **Sealed Bids.** District will receive sealed Bids from Bidders as indicated in the Invitation to Bid 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 Invitation to Bid.

4. **Bid Opening.** Bids will be opened at or after the time indicated for receipt of bids.

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. Each Bidder must complete and submit all of the following documents as its Bid:

- Bid Form
- Bid Bond or other security
- Designated Subcontractors List
- Noncollusion Declaration
- Iran Contracting Act Certification

- a. **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.

- b. **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.
 - c. **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.
 - 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.
 - e. **Iran Contracting Act Certification.** Bidders shall submit the Iran Contracting Act Certification with their Bids. Bids submitted without the Iran Contracting Act Certification 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. **DVBE.** Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended on projects that receive state funding. For any project that is at least partially state-funded, the low Bidder must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification Participation Forms

are attached. Bidders should not submit these forms with their Bids.

11. **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 Existing Information and Documentation Regarding Project Site, 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 Architect 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 Architect 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 Existing Information and Documentation Regarding Project Site, 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.

12. **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 Information and Documentation Regarding Project Site applies to all supplied “as-built” drawings.

13. **Questions.** All questions about the meaning or intent of the Contract Documents are to be directed in writing to the District. 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.

14. **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.

15. **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 **FOURTEEN (14)** 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.

16. **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 Invitation to Bid.

17. **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 four (4) copies, each bearing an original signature.
- b. **Escrow of Bid Documentation:** This must include all required documentation. See the document Escrow of Bid Documentation for more information.
- c. **Performance Bond (100%):** On the form provided in the Contract Documents and fully executed as indicated on the form.
- d. **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.

- e. Insurance Certificates and Endorsements as required.
 - f. Certifications to be Completed by Contractor
 - g. Disabled Veterans' Business Enterprise Participation Certification.
 - h. Criminal Background Investigation/Fingerprinting Certification.
18. **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.
19. **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.
20. **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).
21. **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 31 19

EXISTING INFORMATION AND DOCUMENTATION REGARDING PROJECT SITE

1. Summary

This document describes existing conditions at or near the Project and use of information available regarding existing conditions. This document is **not** part of the Contract Documents. See General Conditions for definition(s) of terms used herein. Contractor is required to request from the District a copy of any reports that it believes are necessary to perform Contractor's Work in a safe, efficient and workman-like manner.

2. Reports and Information on Existing Conditions

- a. Documents providing a general description of the Site and conditions of the Work may have been collected by District, its consultants, contractors, and tenants. These documents may include previous contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding underground facilities.
- b. Information regarding existing conditions may be inspected at the District offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports, documents, and other information are **not** part of the Contract Documents.
- c. Information regarding existing conditions may also be included in the Project Manual, but shall **not** be considered part of the Contract Documents.
- d. The reports and other data or information regarding existing conditions and underground facilities at or contiguous to the Project are the following:

[LIST ALL EXISTING INFORMATION AND DOCUMENTATION REGARDING PROJECT SITE HERE]

- (1) **Geotechnical Data.** Geotechnical data at or near the Project that is in the District's possession available for Contractor's review.
 - (A) **Geotechnical Reports.** Geotechnical reports that may have been prepared for and around the Site by soil investigation engineers hired by the District and its consultants, contractors, and tenants. Geotechnical reports may be inspected at the District offices or the Construction Manager's offices, if any, and copies may be obtained at cost of reproduction and handling upon Bidder's agreement to pay for such copies. These reports are **not** part of the Contract Documents. The reports and drawings of physical conditions that may relate to the Project are the following:

[LIST ALL GEOTECHNICAL REPORTS HERE]

- (2) **Original Construction Drawings**
- (3) **Survey of Site**
- (4) **Hazardous Material Reports**

- (5) **Asbestos and/or AHERA Reports.** Asbestos survey report, prepared for this Project and/or this Project site:

Title: _____
Date: _____
Author: _____
Availability: _____

_____ CA, _____

- (6) [Other] _____ Report
(7) [Other] _____ Report

3. Use of Information

- a. Information regarding existing conditions was obtained only for use of District and its consultants, contractors, and tenants for planning and design and is **not** part of the Contract Documents.
- b. District does not warrant, and makes no representation regarding, the accuracy or thoroughness of any information regarding existing conditions. Bidder represents and agrees that in submitting a bid it is not relying on any information regarding existing conditions supplied by District.
- c. Under no circumstances shall District be deemed to warrant or represent existing above-ground conditions, as-built conditions, or other actual conditions, verifiable by independent investigation. These conditions are verifiable by Contractor by the performance of its own independent investigation that Contractor must perform as a condition to bidding, and Contractor should not and shall not rely on this information or any other information supplied by District regarding existing conditions.
- d. Any information shown or indicated in the reports and other data supplied herein with respect to existing underground facilities at or contiguous to the Project may be based upon information and data furnished to District by the District's employees and/or consultants or builders of such underground facilities or others. District does not assume responsibility for the completeness of this information, and Bidder is solely responsible for any interpretation or conclusion drawn from this information.
- e. District shall be responsible only for the general accuracy of information regarding underground facilities, and only for those underground facilities that are owned by District, and only where Bidder has conducted the independent investigation required of it pursuant to the Instructions to Bidders, and discrepancies are not apparent.

4. Limited Reliance on Certain Information

- a. Reference is made herein for identification of:
 - (1) Reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by District in preparation of the Contract Documents.
 - (2) Drawings of physical conditions in or relating to existing subsurface structures (except underground facilities) that are at or contiguous to the Site and have been utilized by District in preparation of the Contract Documents.

- b. Bidder may rely upon the general accuracy of the “technical data” contained in the reports and drawings identified above, but only insofar as it relates to subsurface conditions, provided Bidder has conducted the independent investigation required pursuant to Instructions to Bidders, and discrepancies are not apparent. The term “technical data” in the referenced reports and drawings shall be limited as follows:
- (1) The term “technical data” shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment or structures that were encountered during subsurface exploration. The term “technical data” does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures.
 - (2) The term “technical data” shall not include the location of underground facilities.
 - (3) Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder may rely upon the general accuracy of the “technical data” contained in such reports or drawings.
 - (4) Bidder is solely responsible for any interpretation or conclusion drawn from any “technical data” or any other data, interpretations, opinions, or information provided in the identified reports and drawings.

5. Investigations/Site Examinations

- a. Before submitting a Bid, each Bidder is responsible for conducting or obtaining any additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the Site or otherwise, that 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 or that Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of Contract Documents.
- b. On request, District will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former condition upon completion of its explorations, investigations, tests, and studies. Such investigations and Site examinations may be performed during any and all Site visits indicated in the Invitation to Bid and only under the provisions of the Contract Documents, including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such work, and District’s prior approval.

END OF DOCUMENT

DOCUMENT 00 32 00

PREQUALIFICATION QUESTIONNAIRE FOR PROSPECTIVE BIDDERS

[ONLY IF USED.

DISTRICT'S BOARD MUST PRE-APPROVE CRITERIA, SCORING, ETC.]

_____ , 202_

The **[@DISTRICT]** School District ("District") has determined that contractors on future projects ("Contractor(s)" or "Firm(s)") must be prequalified prior to submitting a bid or proposal on a project. This form must be completed by:

- A Contractor with an A, B, C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46 license(s) that intends to bid as a **general contractor** (prime contractor) directly to the District.
- A Contractor with a C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46 license(s) that intends to bid as a **first-tier subcontractor** to a general contractor (prime contractor) that is bidding directly to the District.

Form Submission. Contractors must complete this District form; no other prequalification documents submitted by a Contractor will meet the District's requirements. All Contractors shall submit completed questionnaires and financial statements as follows:

Location	Date
[@DISTRICT] School District _____ _____, CA _____ Attn: _____	First-tier subcontractors and general (prime) contractors _____, 20__

Contractor List. The District will make available a list of prequalified general contractors and electrical, mechanical, and plumbing subcontractors to all prequalified Contractors at least five (5) Business Days prior to the date for submission of any response to a District bid or other solicitation covered by this prequalification.

References. The District reserves the right to contact any representative at Contractor's previous projects to gather information about the Contractor and/or to base the District's prequalification determination on a scoring of Contractor's references' responses to questions.

[OPTIONAL; REMOVE IF NOT WANT TO UTILIZE.] Project Size. The District reserves the right to prequalify a Contractor up to a maximum project size based on _____ percent (____%) of the Contractor's largest previous project within the past five (5) years.

Updates. Contractors who are prequalified must update their prequalification questionnaire if or when Contractor's status or information changes. The District reserves the right to adjust, suspend, or rescind the prequalification rating of any Contractor based on subsequently learned information.

Non-responsiveness. A Contractor's prequalification questionnaire shall be deemed nonresponsive if, without limitation, the Contractor's prequalification questionnaire is not returned on time, does not provide all requested

information, is not signed under penalty of perjury by an individual who has the authority to bind the Contractor, is not updated as required or is misleading or inaccurate in any material manner (e.g., financial resources are overstated; previous violations of law are not accurately reported).

Rejection/Waiver/Request. The District reserves the right, in its sole discretion, to reject any or all prequalification questionnaires, to waive irregularities in any prequalification questionnaire or to request further information or documentation from any Contractor.

Public Records. Although the names of Contractors seeking prequalification may be public information, pursuant to, without limitation, Public Contract Code sections 20111.5(a) and 20111.6 (b), each Contractor's questionnaire and financial statements "shall not be public records and shall not be open to public inspection." However, the contents of Contractor's prequalification questionnaires and financial statements may be disclosed to third parties for purposes of clarification or investigation of material allegations or in any appeal process.

Appeal. A Contractor may appeal the District's decision. If a Contractor decides to appeal the District's prequalification decision, it must follow the following procedure:

1. Contractor shall submit, in writing, within five (5) Business Days from District's determination, a request for a written response from the District to explain the District's determination.
2. Within five (5) Business Days from receipt of the District's written response to the Contractor's request, Contractor may submit, in writing, a request for a meeting with the District's staff. Contractor may submit with the request any and all information that it believes supports a finding that District's determination should be changed.
3. District staff shall hold a meeting with the Contractor. If the Contractor continues to contest the District's determination after that meeting with District staff, then the Contractor may address the Board at the next public noticed meeting of the District's governing board, pursuant to the governing board's procedures for public comment. **TO PRESERVE THE CONTRACTOR'S RIGHT TO CHALLENGE THE DISTRICT'S DETERMINATION, THE CONTRACTOR SHALL ADDRESS THE BOARD AT THE NEXT PUBLIC NOTICED MEETING OF THE BOARD AFTER CONTRACTOR'S MEETING WITH DISTRICT STAFF.**
4. **FAILURE OF A CONTRACTOR TO TIMELY FOLLOW ALL APPEAL STEPS SHALL BE A WAIVER OF THE CONTRACTOR'S RIGHT TO APPEAL THE DISTRICT'S DECISION.**

CONTRACTOR (OR "FIRM") INFORMATION

Contractor's company name:		
Address:		
Telephone:		
Mobile telephone:		
E-mail:		
Years in business under current company name:		
Years at the above address:		
Types of work performed with own forces:		
Gross revenue of the Firm for the past three (3) years:		
\$	\$	\$
<p>Submit an audited or reviewed financial statement for the past two (2) full fiscal years. A letter verifying availability of a line of credit may also be attached; however, it will be considered as supplemental information only, and is not a substitute for the required financial statement.</p>		
Name of license holder exactly as on file with the California State License Board:		
License classification(s):		
License Number(s):		
License expiration date(s):		
Department of Industrial Relations registration number (Per Labor Code section 1725.5):		
Number of years license holder has held the listed license(s):		
Number of years Contractor has done business in California under contractor's license law:		
Number of years Contractor has done business in California under <u>current</u> Contractor's license:		
Has your Firm changed name(s) or license number(s) in the past five (5) years? (Y / N). If "yes", explain on a separate signed sheet, including the reason for the change.		
Has there been any change in ownership of the Firm at any time in the past five (5) years? NOTE: A corporation whose shares are publicly traded is not required to answer this question. (Y / N). If "yes", explain on a separate signed sheet, including the reason for the change.		
Is the Firm a subsidiary, parent, holding company, or affiliate of another construction firm? NOTE: Include information about other firms if one firm owns ten percent (10%) or more of another, or if an owner, partner, or officer of your Firm holds a similar position in another firm. (Y / N). If "yes", explain on a separate signed sheet, the name of the related company(ies) and the percent ownership.		

CONTRACTOR'S BONDING COMPANY (SURETY) INFORMATION

Name(s) of bonding company(ies) your Firm has utilized over the past five (5) years (not broker or agency):

Address(es) of those bonding company(ies):

Number of years Contractor has been with those bonding company/surety:

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Name of broker/agent:

Address of broker/agent:

Telephone number of broker/agent:

E-mail of broker/agent:

Contractor's total current bonding capacity: \$

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10/01/2021
BID
SURETY



CONTRACTOR'S INSURANCE INFORMATION

Name of insurance company(ies) your Firm has utilized over the past five (5) years (not broker or agency):

Address of those insurance company(ies):

"Best" rating(s) for those insurance company(ies):

--	--	--

Number of years Contractor has been with those insurance company(ies):

--	--	--

Name of broker/agent:

Address of broker/agent:

Telephone number of broker/agent:

E-mail of broker/agent:

Contractor's current insurance limits for the following types of coverage:

Commercial General Liability	Each occurrence	\$
	General aggregate	\$
Product Liability & Completed Operations	Each occurrence	\$
	General aggregate	\$
Automobile Liability – Any Auto	Combined Single Limit (per occurrence)	\$
Employers' Liability		\$
Builder's Risk (Course of Construction)		

Workers' Compensation Experience Modification Rate for the past five (5) premium years:

(1) Current year:	(2)	(3)
	(4)	(5)

QUESTIONS

Pass/Fail Questions (Essential Criteria)

1a.	<p>GENERAL CONTRACTORS ONLY: [REVIEW, REVISE AND ADAPT FOR EACH PROJECT]</p> <p>Has your Firm contracted for and completed construction of a minimum of:</p> <ul style="list-style-type: none"> • Four (4) California K-12 public school district construction projects, • Each with a value of at least \$1,000,000, and • All within the past five (5) years? (Please circle one). <p>NOTE: You must list these projects in the “Contractor Project References” Section.</p>	<p><u>YES</u> <u>NO</u> NO = cannot prequalify</p>
1b.	<p>FIRST-TIER SUBCONTRACTORS ONLY: [REVIEW, REVISE AND ADAPT FOR EACH PROJECT]</p> <p>Has your Firm contracted for and completed construction of a minimum of:</p> <ul style="list-style-type: none"> • Four (4) California K-12 public school district construction projects, • Each with a value of at least \$200,000, and • All within the past five (5) years? (Please circle one). <p>NOTE: You must list these projects in the “Contractor Project References” Section.</p>	<p><u>YES</u> <u>NO</u> NO = cannot prequalify</p>
2.	<p>Does your Firm currently hold all contractors’ license(s) necessary to perform the work and have those license(s) been consistently active for at least five (5) years without revocation or suspension? (Please circle one).</p>	<p><u>YES</u> <u>NO</u> NO = cannot prequalify</p>
3.	<p>Has your Firm or an Associated Firm been found non-responsible, debarred, disqualified, forbidden, or otherwise prohibited from performing work and/or bidding on work for any public agency within California within the past five (5) years? (Please circle one).</p>	<p><u>YES</u> <u>NO</u> YES = cannot prequalify</p>
4.	<p>Has your Firm or an Associated Firm defaulted on a contract or been terminated for cause by any public agency on any project within California within the past five (5) years and, if so and if challenged, has that default or termination been upheld by a court or an arbitrator? (Please circle one).</p>	<p><u>YES</u> <u>NO</u> YES = cannot prequalify</p>
5.	<p>Has your Firm or an Associated Firm or any of their owners or officers been convicted of a crime under federal, state, or local law involving:</p> <ol style="list-style-type: none"> (1) Bidding for, awarding of, or performance of a contract with a public entity; (2) Making a false claim(s) to any public entity; or (3) Fraud, theft, or other act of dishonesty <p>to any contracting party within the past ten (10) years? (Please circle one).</p>	<p><u>YES</u> <u>NO</u> YES = cannot prequalify</p>
6.	<p>Has a performance bond surety for your Firm or a performance bond surety for an Associated Firm had to:</p> <ol style="list-style-type: none"> (1) Takeover or complete a project, (2) Supervise the work of a project, or (3) Pay amounts to third parties, <p>related to construction activities of your Firm or an Associated Firm within the past five (5) years? (Please circle one).</p>	<p><u>YES</u> <u>NO</u> YES = cannot prequalify</p>



If you answered:
“NO” to questions 1a, 1b, or 2
or
“YES” to questions 3-6, then STOP.
You are not eligible for prequalification at this time.

Scored Questions

1.	<p>Has your Firm paid liquidated damages pursuant to a contract for a project with either a public or private owner within the past five (5) years? (Please circle one).</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the project name(s), damages(s), and date(s).</p>	<u>YE</u> <u>NO</u>
2.	<p>Has your Firm paid a premium of more than one percent (1%) for a performance and payment bond on any project(s) within the past five (5) years? (Please circle one).</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the project name(s), the premium amount(s), and date(s).</p>	<u>YE</u> <u>NO</u>
3.	<p>Has any insurer had to pay amounts to third parties that were in any way related to construction activities of your Firm within the past five (5) years? (Please circle one).</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the project name(s), the amount(s) paid, and date(s).</p>	<u>YE</u> <u>NO</u>
4.	<p>Has your Firm's Workers' Compensation Experience Modification Rate exceeded 1.0 at any time for the past five (5) premium years? (Please circle one).</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the EMR(s) and the applicable date(s).</p>	<u>YE</u> <u>NO</u>
5.	<p>Has there been a period when your Firm had employees but was without workers' compensation insurance or state-approved self-insurance within the past five (5) years? (Please circle one).</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the reason(s) for not having this insurance and the applicable date(s).</p>	<u>YE</u> <u>NO</u>
6.	<p>Has your Firm declared bankruptcy or been placed in receivership within the past five (5) years? (Please circle one).</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the type of bankruptcy, the Firm's current recovery plan, and the applicable date(s).</p>	<u>YE</u> <u>NO</u>
7.	<p>Has your Firm been denied bond coverage by a surety company, or has there been a period of time when your Firm had no surety bond in place during a public construction project when one was required within the past five (5) years? (Please circle one).</p> <p style="text-align: center;">If YES, provide details on a separate signed sheet indicating the date(s) when your Firm was denied coverage and the name of the company or companies which denied coverage; and the period(s) during which you had no surety bond in place.</p>	<u>YE</u> <u>NO</u>
8.	<p>Has a project owner, general contractor, architect, or construction manager filed claim(s) in an amount exceeding \$50,000 against your Firm, or has your Firm filed claim(s) in an amount exceeding \$50,000 against a project owner, general contractor, architect, or construction manager in the past five (5) years?</p> <p style="text-align: center;">If YES, explain and indicate on separate signed sheet(s) the project name(s), claim(s) and the date(s) of claim(s).</p>	<u>YE</u> <u>NO</u>

9.	<p>Has your Firm or an Associated Firm been cited and/or assessed any penalties for non-compliance with state and/or federal laws and/or regulations, including public bidding requirements and Labor Code violations, within the past five (5) years?</p> <p>If "YES," indicate on separate signed sheet(s) the project name(s), violation(s), and date(s) of citation(s) and/or assessment(s).</p>	<u>YE</u> <u>NO</u>
10.	<p>Has your Firm been cited and/or assessed penalties by the Environmental Protection Agency, any air quality management district, any regional water quality control board, or any other environmental agency within the past five (5) years?</p> <p>If "yes," indicate on separate signed sheet(s) the project name(s), violation(s), and date(s) of citation.</p>	<u>YE</u> <u>NO</u>
11.	<p>Has CAL OSHA and/or federal Occupational Safety and Health Administration cited and assessed penalties against your Firm, including any "serious," "willful" or "repeat" violations of safety or health regulations within the past five (5) years?</p> <p>If "yes," indicate on separate signed sheet(s) the project name(s), violation(s), and date(s) of citation. If the citation was appealed and a decision has been issued, state the case number and the date of the decision.</p>	<u>YE</u> <u>NO</u>
12.	<p>Has your Firm been required to pay either back wages or penalties for its failure to comply with California's prevailing wage laws, with California's apprenticeship laws or regulations, or with federal Davis-Bacon prevailing wage laws within the past five (5) years?</p> <p>If "yes," indicate on separate signed sheet(s) the project name(s), the nature of the violation(s), the name and owner of the project(s), the number of employees who were initially underpaid and the amount of back wages and penalties that your Firm was required to pay.</p>	<u>YE</u> <u>NO</u>
13.	<p>Does your Firm require weekly, documented safety meetings to be held for construction employees and field supervisors during the course of a project?</p>	<u>YE</u> <u>NO</u>
14.	<p>Provide the name, address and telephone number of the apprenticeship program (approved by the California Apprenticeship Council) from whom you intend to request the dispatch of apprentices to your Firm for use on any public work project for which you are awarded a contract by the District.</p>	

CONTRACTOR PROJECT REFERENCES

List **ALL** projects in which your Firm has participated as a contractor or first-tier subcontractor during the past **five (5) years** with a Firm contract value of more than **\$500,000**.

- ☐ You may limit your response to the thirty (30) most-recently completed projects, but you **must** include at least the four (4) most recent California K-12 public school projects with a contract value of more than \$500,000 performed by your Firm.
- ☐ Include all information indicated below on separate signed sheets as necessary, and explain or clarify any response as necessary

Project Name/Identification:
Project address/location:
Project owner, contact person, and telephone:
Project architect name and telephone number:
If contractor was a subcontractor on the project, name of general contractor and telephone number:
Scope of Work:
Original completion date:
Date completed:
Initial contract value (as of time of bid award):
Final contract value:
Did the project include constructing or modernizing an earthquake resistant building?

CERTIFICATION

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 Contractor: _____

Signature: _____

By: _____ (Print Name)

Title: _____

DOCUMENT 00 41 13

BID FORM

To: Governing Board of **[@DISTRICT]** School District ("District")

From: (Proper Name of Bidder)

1. **Total Bid.** The undersigned declares that the Contract Documents including, without limitation, the Invitation to Bid, 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 NAME]** ("Project" or "Contract")

and will accept in full payment for that Work the following total lump sum amount, all taxes included:

_____ Dollars	\$ _____
Bid Item No. 1 for _____ [IDENTIFY SCOPE COMPONENT OF TOTAL BASE BID – IF APPLICABLE]	
_____ Dollars	\$ _____
Bid Item No. 2 for _____ [IDENTIFY SCOPE COMPONENT OF TOTAL BASE BID – IF APPLICABLE]	
_____ Dollars	\$ _____
Bid Item No. 3 for _____ [IDENTIFY SCOPE COMPONENT OF TOTAL BASE BID – IF APPLICABLE]	
_____ Dollars	\$ _____
Bid Item No. 4 for _____ [IDENTIFY SCOPE COMPONENT OF TOTAL BASE BID – IF APPLICABLE]	
_____ Dollars	\$ _____
TOTAL BASE BID	

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

2. **Additive/Deductive Alternates:**

[LIST ANY, IF APPLICABLE]

Alternate #1

_____ Dollars	\$ __
[ADD DESCRIPTION] Additive/Deductive:	

Alternate #2

_____ Dollars	\$ __
[ADD DESCRIPTION] Additive/Deductive:	

Descriptions of alternates are primarily scope definitions and do not necessarily detail the full range of materials and processes needed to complete the construction.

3. **Unit Price(s).** The Bidder's Base Bid includes the following unit price(s), which the Bidder must provide and the District may, at its discretion, utilize in valuing additive and/or deductive change orders:

[LIST ANY, IF APPLICABLE]

4. **Allowance(s).** The Bidder's Base Bid shall **NOT** include the following potential Allowance(s). The District will add some or all of the following Allowance(s) amount(s) to the successful bidder's Contract, at the District's discretion. Contractor shall be permitted to invoice for Work under an Allowance in the identical structure as a Change Order.

[LIST ANY, IF APPLICABLE]

_____ Allowance: Allowance to _____ [LIST SCOPE OF ALLOWANCE, IF APPLICABLE]	\$ _____ (TBD) [LIST AMOUNT OF ALLOWANCE]
_____ Allowance: Allowance to _____ [LIST SCOPE OF ALLOWANCE, IF APPLICABLE]	\$ _____ (TBD) [LIST AMOUNT OF ALLOWANCE]

5. **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.

6. **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.

7. **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.

8. **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.

9. **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.

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

- The Bid Bond on the District's form or other security
- The Designated Subcontractors List
- The Noncollusion Declaration
- Iran Contracting Act Certification

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

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

12. **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.

13. **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.
14. **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.
15. **[IF THE DISTRICT IS PREQUALIFYING BIDDERS FOR THIS PROJECT, INCLUDE THE FOLLOWING].**
Prequalification. The Bidder confirms that it has been prequalified by the District. In addition, the bidder confirms that, in addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors, then each of those electrical, mechanical, and plumbing first-tier subcontractors with the following license classifications have also been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46.
16. **[INCLUDE THIS PROVISION IF DISTRICT WILL REQUIRE CONTRACTOR TO BE THE QUALIFIED SWPPP PRACTITIONER] SWPPP QSP.** Bidder specifically acknowledges and understands that if it is awarded the Contract, it shall perform the Work of the Project related to being the District's Qualified SWPPP (Storm Water Pollution Prevention Plan) Practitioner ("QSP") and that the Bidder is certified to be the District's QSP, as required by the current California State Water Board's Construction General Permit.
17. **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.
18. **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 _____

Signature _____

Signed by (Print Name) _____

Title of Person Signing _____

Name of Bidder _____

Type of Organization _____

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

[@DISTRICT] 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

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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 _____, 20__.

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 NAME] ("Project" or "Contract")

1. **Listed.** 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. **Same Scope.** In case more than one subcontractor is named for the same scope of Work, state the portion that each will perform.
3. **No Vendors or Suppliers.** Bidder need not list entities that are only vendors or suppliers of materials.
4. **Not Listed.** As to any Work that Bidder fails to list that is in excess of one-half of one percent (1/2 of 1%) of Bidder's total Bid, Bidder agrees to perform that portion itself or be subjected to penalty under applicable law.
5. **Alternate Work.** 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.
6. **[IF THE DISTRICT IS PREQUALIFYING BIDDERS FOR THIS PROJECT, INCLUDE THE FOLLOWING]**
Prequalification. If components of the Project will be performed by electrical, mechanical, or plumbing subcontractors, then each of those electrical, mechanical, and plumbing first-tier subcontractors with the following license classifications must also have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46.
7. **DVBEs.** 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.
8. **CSLB Number.** Bidder must provide the Contactor State License Board number ("CSLB No.") for all listed subcontractors.
9. **DIR Number.** Bidder must provide the Department of Industrial Relations registration number ("DIR No.") for all listed subcontractors.
10. **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.**
11. **Additional Sheets.** 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.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

I certify and declare under penalty of perjury under the laws of the State of California that all the information listed on the following page(s) is complete, true, and correct.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

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.: _____

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.: _____

Subcontractor Name: _____ **Location:** _____

GLENDAL UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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.: _____

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.: _____

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.: _____

END OF DOCUMENT

BID SET
10/01/2021

DOCUMENT 00 43 40

NONCOLLUSION DECLARATION

Public Contract Code § 7106

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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: _____

END OF DOCUMENT

DOCUMENT 00 43 50

IRAN CONTRACTING ACT CERTIFICATION (Public Contract Code § 2204)

_____ **[@PROJECT NAME]** (“Project” or “Contract”)

Pursuant to Public Contract Code (PCC) section 2204, an Iran Contracting Act certification is required for solicitations of goods or services of one million dollars (\$1,000,000) or more.

Bidder shall complete **ONLY ONE** of the following three paragraphs.

1. Bidder’s Total Base Bid is less than one million dollars (\$1,000,000).

OR

2. Bidder’s Total Base Bid is one million dollars (\$1,000,000) or more, but Bidder is **not** on the current list of persons engaged in investment activities in Iran created by the California Department of General Services (“DGS”) pursuant to Public Contract Code § 2203(b), and Bidder is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

OR

3. Bidder’s Total Base Bid is one million dollars (\$1,000,000) or more, but the District has given prior written permission to Bidder to submit a proposal pursuant to PCC 2203(c) or (d). **A copy of the written permission from the District is included with Bid.**

I certify that I am duly authorized to legally bind the Bidder to this certification, that the contents of this certification are true, and that this certification is made under the laws of the State of California.

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 00

NOTICE OF AWARD

Dated: _____, 20__

To: _____
("Contractor")

(Address)

From: Governing Board ("Board") of [@DISTRICT] School District ("District")

Re: _____ [@PROJECT NAME] ("Project" or "Contract")

Contractor was awarded the Contract on _____, 20__, [CHOOSE ONE:] by action of the District's Board [OR] 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 _____.

Three (3) copies of each of the Contract Documents (except Drawings) accompany the Notice of Award. Three (3) 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 four (4) 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. Escrow of Bid Documentation: Include all required documentation. Refer to the Escrow of Bid Documentation document for details.
- c. Performance Bond (100%): Fully executed form provided in the Contract Documents.
- d. Payment Bond (100%) (Contractor's Labor and Material Bond): Fully executed form provided in the Contract Documents.
- e. Insurance Certificates and Endorsements as required.

- f. Certifications to be Completed by Contractor
- g. Disabled Veterans' Business Enterprise Participation Certification.
- h. 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.

[@DISTRICT] SCHOOL DISTRICT

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

BID SET
10/01/2021



DOCUMENT 00 45 10

AGREEMENT

This agreement is made and entered into on _____, 201_____, by and between the **[@DISTRICT]** School District ("District") 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 NAME]** ("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/Order of Precedence:** 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 49 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 _____ **[SPELL OUT COMPLETION DAYS]**

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

PRIOR TO PUTTING OUT TO BID] (_____) **[INDICATE NUMBER OF DAYS]** consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed. 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. **[IF COMPLETION DATE IS REQUIRED, THEN PUT IN SPECIFIC COMPLETION DATE – THIS WOULD BE AN EXCEPTION TO THE STANDARD LISTING OF THE NUMBER OF DAYS. ENSURE THIS PARAGRAPH IS CONSISTENT WITH THE NOTICE TO PROCEED.]**

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"):

[ADAPT THIS SECTION FOR EACH PROJECT]

- **Submittal of any item on approved Submittal Schedule:** _____ dollars **[SPELL OUT LIQUIDATED DAMAGE AMOUNT]** (\$) _____ **[INDICATE NUMERICAL AMOUNT]** per day as Liquidated Damages for each and every day's delay beyond the time herein prescribed for each item on approved Submittal Schedule.
 - **Milestone No. 1:** _____ dollars **[SPELL OUT LIQUIDATED DAMAGE AMOUNT]** (\$) _____ **[INDICATE NUMERICAL AMOUNT]** per day as Liquidated Damages for each and every day's delay beyond the time herein prescribed in finishing the Work of Milestone No. 1.
 - **Milestone No. 2:** _____ dollars **[SPELL OUT LIQUIDATED DAMAGE AMOUNT]** (\$) _____ **[INDICATE NUMERICAL AMOUNT]** per day as Liquidated Damages for each and every day's delay beyond the time herein prescribed in finishing the Work of Milestone No. 2.
 - **Project Completion:** _____ dollars **[SPELL OUT LIQUIDATED DAMAGE AMOUNT]** (\$) _____ **[INDICATE NUMERICAL AMOUNT]** 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. It is hereby understood and agreed that neither the total cumulative Liquidate Damages amount nor any portion of the Liquidated Damage amount are penalties.
- b. 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. 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.

- c. 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.
- d. 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. **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 (\$ _____)
	(Base Contract Amount)	
+		Dollars (\$ _____)
	Allowance Amount) [LIST ALLOWANCE TYPE AND AMOUNT, IF APPLICABLE]	
+		Dollars (\$ _____)
	Allowance Amount) [LIST ALLOWANCE TYPE AND AMOUNT, IF APPLICABLE]	
=		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.
- c. The District may, at its sole discretion, increase or decrease the Contract Price 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 the that item did not form a basis for award of the Agreement or delete any such Alternate Bid

Item(s) if that item formed a basis for award of the Agreement. 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.

7. **Insurance and Bonds:** Contractor shall provide all required certificates of insurance, and payment and performance bonds.
8. **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.
9. **Authority of Architect, Project Inspector, and DSA:** Contractor hereby acknowledges that the Architect(s), the Project Inspector(s), and the Division of the State Architect 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.
10. **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.
11. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type _____ Contractor's license(s) [ENSURE ALL REQUIRED LICENSES ARE LISTED HERE] 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.
12. **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.
13. **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.
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.

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

Dated: _____, 20____

Dated: _____, 20____

[@DISTRICT] SCHOOL DISTRICT

_____ **CONTRACTOR**

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

10/01/2021
BID SET



DOCUMENT 00 45 40

CERTIFICATIONS TO BE COMPLETED BY CONTRACTOR

THE UNDERSIGNED MUST CHECK EACH BOX AND EXECUTE THIS FORM AND HEREBY CERTIFIES TO THE GOVERNING BOARD OF THE DISTRICT THAT:

- He/she is a representative of the Contractor,
- He/she is familiar with the facts herein certified and acknowledged,
- He/she is authorized and qualified to execute this Agreement and these certifications on behalf of Contractor and that by executing this Agreement he/she is certifying the following items.

Labor Code Sections 1860-1861 (Workers' Compensation). In accordance with Labor Code section 3700, every contractor will be required to secure the payment of compensation to his or her employees. I certify that 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 this contract.

Government Code Sections 8355-8357 (Drug-Free Workplace). I certify that I 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 the actions that 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) Any available 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 by subdivision (a) and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I also acknowledge that this Contract may be subject to suspension of payments under the contract or grant or termination of the contract or grant, or both, and the contractor or grantee thereunder may be subject to debarment, in accordance with the requirements of the above-referenced statute, if the contracting or granting agency determines that any of the following has occurred:

- (1) The contractor or grantee has made a false certification under Section 8355.
- (2) The contractor or grantee violates the certification by failing to carry out the requirements of subdivisions (a) to (c), inclusive, of Section 8355.

I also acknowledge that the Department of General Services shall establish and maintain a list of individuals and organizations whose contracts or grants have been canceled due to failure to comply with the above-referenced statute. This list shall be updated monthly and published each month. No state agency shall award a contract or grant to a person or organization on the published list until that person or organization has complied with the above-referenced statute.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

Tobacco-Free Environment. 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 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. The District also prohibits electronic cigarettes, "vaping" or similar product uses on District sites.

No Hazardous Materials. I certify 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. I have instructed our employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

- (i) 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. 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.
- (ii) 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.

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.

Imported Materials. All soils, aggregate, or related materials (“Fill”) that Contractor, a Subcontractor, agent or supplier, in any way, provides or delivers and/or supplies to the Project Site shall be free of any and all hazardous material as defined in section 25260 of the Health and Safety Code, shall satisfy the requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, sections 21000 et seq. of the Public Resources Code (“CEQA”), and shall comply with the requirements of sections 17210 et seq. of the Education Code, including requirements for a Phase I environmental assessment acceptable to the State of California Department of Education and Department of Toxic Substances Control. I acknowledge that, to the furthest extent permitted by California law, the indemnification provisions in the Contract Documents apply to, without limitation, any claim(s) connected with providing, delivering, and/or supplying Fill.

I certify that I am duly authorized to legally bind the Contractor to this certification, that the contents of this certification are true, and that this certification is made under the laws of the State of California.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 55

DISABLED VETERAN BUSINESS ENTERPRISE PARTICIPATION CERTIFICATION

Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program ("Program") for the construction and/or modernization of school buildings to have a participation goal for disabled veteran business enterprises ("DVBE(s)") of at least three percent (3%), per year, of the overall dollar amount expended each year by the school district on projects that receive state funding.

Section 2001 of the Public Contract Code requires school districts to require each Bidder to provide in its bid certain information about its Subcontractors. In addition to completing this certification as indicated herein, each Bidder must provide the information related to DVBEs as required in the Designated Subcontractors List.

1. **Disabled Veteran Business Enterprise.** A DVBE is a business enterprise certified by the California Office of Small Business as a DVBE.
2. **DVBE Participation Policy.** The District is committed to achieving this DVBE participation goal. The District encourages Contractor to ensure maximum opportunities for the participation of DVBEs in the Work of the Contract.
3. **DVBE Participation Goal.** The three percent (3%) participation goal is not a quota, set-aside or rigid proportion.
4. **Certification of Participation.** At the time of execution of the Contract, the Contractor will provide a statement to the District of anticipated participation of DVBEs in the contract.
5. **Submission of Report.** During performance of the Contract, Contractor shall monitor the Work of the Contract, award of subcontracts and contracts for materials, equipment and supplies for the purpose of determining DVBE participation in the Work of the Contract.
 - a) Contractor shall report on a monthly basis all DVBEs utilized in the performance of the Work, the type or classification of the Work performed by each DVBE, and the dollar value of the Work performed by each DVBE.
 - b) Upon completion of the Work of the Contract, Contractor shall submit a report to the District in the form attached hereto identifying all DVBEs utilized in the performance of the Work, the type or classification of the Work performed by each DVBE, and the dollar value of the Work performed by each DVBE.
 - i) The submission to the District of this report is a condition precedent to the District's obligation to make payment of the Final Payment under the Contract Documents. The submission of this report shall be in addition to, and not in lieu of, any other conditions precedent set forth in the Contract Documents for the District's obligation to make payment of the Final Payment.
 - ii) The District reserves the right to request additional information or documentation from the Contractor evidencing efforts to comply with the three percent (3%) DVBE participation goal.

DVBE PARTICIPATION REPORT

Contractor Name: _____ Date: _____

Project Name: _____ Project Number: [PROJECT NO.]

DVBE Firm Name	Trade / Portion of Work	Subcontract/ Contract Value
Add more sheets as needed to include all information for each DVBE		

Does the cumulative dollar value of these DVBE contracts meet or exceed the participation goal of three percent (3%) of the final Contract Price, as adjusted by all change orders?

YES _____

NO _____

If your response is "NO," please attach to this report a detailed description of the reasons your firm did not achieve the participation goal of three percent (3%) of the final Contract Price.

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 Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOCUMENT 00 45 85

CRIMINAL BACKGROUND INVESTIGATION / FINGERPRINTING CERTIFICATION

The undersigned does hereby certify to the governing board of the District that he/she is a representative of the Contractor, is familiar with the facts herein certified, is authorized and qualified to execute this certificate on behalf of Contractor; and 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:) 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 54 50

ESCROW OF BID DOCUMENTATION

1. Requirement to Escrow Bid Documentation

- a. Contractor shall submit, within **SEVEN (7)** calendar days after the date of the Notice of Award, one copy of all documentary information received or generated by Contractor in preparation of bid prices for this Contract. This material is referred to as "Escrow Bid Documentation." The Escrow Bid Documentation will be held in escrow by the District for the duration of the Contract.
- b. Contractor agrees, as a condition of award of the Contract, that the Escrow Bid Documentation constitutes **ALL** written information used in the preparation of its bid, and that no other written bid preparation information shall be considered in resolving disputes or claims. Contractor also agrees that nothing in the Escrow Bid Documentation shall change or modify the terms or conditions of the Contract Documents.
- c. The Escrow Bid Documentation will not be opened by District except as indicated herein. The Escrow Bid Documentation will be used only to assist in the negotiation of price adjustments and change orders or the settlement of disputes or claims.
- d. Contractor's submission of the Escrow Bid Documentation, as with the bonds and insurance documents required, is considered an essential part of the Contract award. Should the Contractor fail to make the submission within the allowed time specified above, District may deem the Contractor to have failed to enter into the Contract, and the Contractor shall forfeit the amount of its bid security, accompanying the Contractor's bid, and District may award the Contract to the next lowest responsive responsible bidder.
- e. **NO PAYMENTS WILL BE MADE, NOR WILL DISTRICT ACCEPT PROPOSED CHANGE ORDERS UNTIL THE ESCROW BID DOCUMENTATION IS SUBMITTED AND APPROVED.**
- f. The Escrow Bid Documentation shall be submitted in person by an authorized representative of the Contractor to the District.

2. Ownership of Escrow Bid Documentation

- a. The Escrow Bid Documentation is, and shall always remain, the property of Contractor, subject to review by District, as provided herein.
- b. As trade secrets, the Escrow Bid Documentation is proprietary and confidential to the extent allowed by law. Escrow Bid Documentation constitute trade secrets, not known outside Contractor's business, known only to a limited extent and only by a limited number of employees of Contractor, safeguarded while in Contractor's possession, extremely valuable to Contractor, and could be extremely valuable to Contractor's competitors by virtue of it reflecting Contractor's contemplated techniques of construction. Subject to the provisions herein, District agrees to safeguard the Escrow Bid Documentation, and all information contained therein, against disclosure to the fullest extent permitted by law.

3. Format and Contents of Escrow Bid Documentation

- a. Contractor may submit Escrow Bid Documentation in its usual cost-estimating format; a standard format is not required.

- b. Escrow Bid Documentation must clearly itemize the estimated costs of performing the work of each bid item contained in the bid schedule, separating bid items into sub-items as required to present a detailed cost estimate and allow a detailed cost review.
- c. **Subcontractors.** The Escrow Bid Documentation shall include all subcontractor bids or quotes, supplier bids or quotes, quantity takeoffs, crews, equipment, calculations of rates of production and progress, copies of quotes from subcontractors and suppliers, and memoranda, narratives, add/deduct sheets, and all other information used by the Contractor to arrive at the prices contained in the bid proposal.
- d. Estimated costs should be broken down into Contractor's usual estimate categories such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials, and subcontract costs as appropriate. Plant and equipment and indirect costs should be detailed in the Contractor's usual format. The Contractor's allocation of indirect costs, contingencies, markup, and other items to each bid item shall be identified.
- e. **All costs shall be identified.** For bid items amounting to less than \$10,000, estimated unit costs are acceptable without a detailed cost estimate, provided that labor, equipment, materials, and subcontracts, as applicable, are included and provided that indirect costs, contingencies, and markup, as applicable, are allocated.
- f. Bid Documentation provided by District should not be included in the Escrow Bid Documentation unless needed to comply with the following requirements.

4. Submittal of Escrow Bid Documentation

- a. The Escrow Bid Documentation shall be submitted by the Contractor in a sealed container/envelope within **SEVEN (7)** calendar days after the date of the Notice of Award. The container/envelope shall be clearly marked on the outside with the Contractor's name, date of submittal, project name and the words ***"Escrow Bid Documentation – To be opened only after written notice to Contractor and District."***
- b. By submitting Escrow Bid Documentation, Contractor represents that the material in the Escrow Bid Documentation constitutes of all the documentary information used in preparation of the bid and that the Contractor has personally examined the contents of the Escrow Bid Documentation container and has found that the documents in the container are complete.
- c. **Subcontractors.** If Contractor's proposal is based upon subcontracting any part of the work, each subcontractor whose total subcontract price exceeds five percent (5%) of the total contract price proposed by Contractor, shall provide separate escrow documents to be included with those of Contractor. Those documents shall be opened and examined in the same manner and at the same time as the examination described above for Contractor. Each subcontractor's documents can be sealed within Contractor's Escrow Bid Documentation and will only be opened if the change order or dispute at issue relates to that subcontractor(s)' scope of work.
- d. If Contractor wishes to subcontract any portion of the Work after award of the Contract, District retains the right to require Contractor to submit escrow documents for the Subcontractor before the subcontract is approved.

5. Storage, Examination and Final Disposition of Escrow Bid Documentation

- a. The Escrow Bid Documentation will be placed in escrow, for the term of the Contract, at the District

offices.

- b. The Escrow Bid Documentation may be examined by the District, by the Contractor, and/or by both parties, upon **Five (5) Business Days** written notice from the party noticing the examination to the other party.
- c. An examination is permissible at any time that one party reasonably believes that an examination of the Escrow Bid Documentation is necessary to assist in the negotiation of price adjustments and change orders or the settlement of disputes or claims. In the case of legal proceedings, Escrow Bid Documentation may be subject to the terms of an appropriate protective order, if requested via motion by Contractor and ordered by a court of competent jurisdiction.
- d. If Contractor or District fails to designate a representative or fails to appear for the noticed examination, then the Contractor or District representative may examine the Escrow Bid Documents alone if a representative of the Contractor or District does not appear at the time set.
- e. **Subcontractor.** If a subcontractor has submitted sealed information that is included in the Escrow Bid Documentation and that subcontractor is reasonably involved in the negotiation of price adjustments and change orders or the settlement of disputes or claims, then the party requesting examination (the Contractor or the District) is required to also notify that Subcontractor with the same **Five (5) Business Days** written notice that the requesting party sends to the other party.
- f. The Escrow Bid Documentation will be returned to Contractor when the District accepts Project Completion, when all of Contractor's claims (if any) have been resolved to District's and Contractor's satisfaction, and when the Contractor certifies that it has no further claims against the District.

END OF DOCUMENT

DOCUMENT 00 54 55

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION
(Public Contract Code § 22300)

This Escrow Agreement ("Escrow Agreement") is made and entered into on _____, 201_____, by and between the following:

[@DISTRICT] School District ("District"), whose address is _____, California, and

_____ ("Contractor"), whose address is _____, and

_____ ("Escrow Agent"), a state or federally chartered bank in California, whose address is _____.

For the consideration hereinafter set forth, District, Contractor, and Escrow Agent agree as follows:

1. Pursuant to section 22300 of Public Contract Code of the State of California, which is hereby incorporated by reference, Contractor has the following two (2) options:

Deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by District pursuant to the Construction Contract No. _____ entered into between District and Contractor for the _____ Project, in the amount of _____ (\$ _____) dated, _____, 20_____, (the "Contract");

OR

On written request of Contractor, District shall make payments of the retention earnings for the Contract directly to Escrow Agent.

When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify District within ten (10) calendar days of the deposit. The market value of the securities at all times from substitution until the termination of the Escrow Agreement shall be at least equal to the cash amount then required to be withheld as retention pursuant to the Contract.

Securities shall be held in name of **[@DISTRICT] SCHOOL DISTRICT**, and shall designate Contractor as beneficial owner.

2. District shall make payments to Contractor for those funds which otherwise would be withheld from payments pursuant to Contract provisions, provided that Escrow Agent holds securities in the form and amount specified above.

3. When District makes payment of retention earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the Parties shall be equally applicable and binding when District pays Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

the Escrow Account, and all expenses of District. The District will charge Contractor \$_____ for each of District's deposits to the escrow account. These expenses and payment terms shall be determined by District, Contractor, and Escrow Agent.

5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to District.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from District to Escrow Agent that District consents to withdrawal of amount sought to be withdrawn by Contractor.
7. District shall have the right to draw upon the securities and/or withdraw amounts from the Escrow Account in event of default by Contractor. Upon seven (7) days written notice to Escrow Agent from District of the default, if applicable, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by District.
8. Upon receipt of written notification from District certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on written notifications from District and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Escrow Agreement and District and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth above.
10. Names of persons who are authorized to give written notice or to receive written notice on behalf of District and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of District:

Title

Name

Signature

Address

On behalf of Contractor:

Title

Name

Signature

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

At the time the Escrow Account is opened, District and Contractor shall deliver to Escrow Agent a fully executed copy of this Escrow Agreement.

IN WITNESS WHEREOF, the parties have executed this Escrow Agreement by their proper officers on the date first set forth above.

On behalf of District:

Title

Name

Signature

Address

On behalf of Contractor:

Title

Name

Signature

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

END OF DOCUMENT

DOCUMENT 00 54 70

STORM WATER POLLUTION PREVENTION PLAN

[IF THE DISTRICT HAS A STORM WATER POLLUTION PREVENTION PLAN (SWPPP), THE DISTRICT SHOULD INCLUDE REFERENCE TO ITS SWPPP HERE OR ATTACH A COPY OF THE SWPPP.

IF THE DISTRICT DOES NOT HAVE AN SWPPP ON THE PROJECT, THE DISTRICT CAN STATE "NOT APPLICABLE" HERE.

IF THE DISTRICT INTENDS TO HAVE THE CONTRACTOR BE ITS QUALIFIED SWPPP PRACTITIONER, IT SHOULD STATE THAT HERE ALSO.

ALSO, THERE ARE SWPPP REQUIREMENTS IN THE FOLLOWING DOCUMENTS:

? DOCUMENT 00 71 00 (SPECIAL CONDITIONS)

? DIVISION ONE, INCLUDING DOCUMENT 01 57 10 (STORM WATER POLLUTION PREVENTION PLAN – CONSTRUCTION)]

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 **[@DISTRICT]** 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:

("Project" or "Contract") **(Project Name)**

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
GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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 _____, 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

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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 **@DISTRICT** 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

_____ (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.

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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 63 00

DISTRICT CONTRACT FORMS

[IF THE DISTRICT HAS SPECIFIC FORMS THAT IT WISHES THE CONTRACTOR TO USE (E.G., PAYMENT APPLICATION FORM, CHANGE ORDER FORM, RFI FORM, ETC.) ATTACH THOSE HERE.

IF THE DISTRICT DOES NOT HAVE SPECIFIC FORMS IT WISHES THE CONTRACTOR TO USE, THE DISTRICT CAN STATE "NOT APPLICABLE" HERE.]

END OF DOCUMENT

BID SET
10/01/2021

DOCUMENT 00 65 00

DISTRICT CLOSEOUT FORMS

[IF THE DISTRICT HAS SPECIFIC FORMS THAT IT WISHES THE CONTRACTOR TO USE FOR CLOSEOUT (E.G., DSA 6 FORM, KEY LOG, COMMISSIONING CERTIFICATION, ETC.) ATTACH THOSE HERE.

IF THE DISTRICT DOES NOT HAVE SPECIFIC FORMS IT WISHES THE CONTRACTOR TO USE, THE DISTRICT CAN STATE "NOT APPLICABLE" HERE.]

END OF DOCUMENT

BID SET
10/01/2021

DOCUMENT 00 65 10

NOTICE TO PROCEED

Dated: _____, 20__

To: _____
("Contractor")

(Address)

From: Governing Board ("Board") of **[@DISTRICT]** School District ("District")

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___. **[ENSURE THIS PARAGRAPH IS CONSISTENT WITH THE "TIME OF COMPLETION" SECTION OF THE AGREEMENT (DOCUMENT 00 45 10)]**

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.

[@DISTRICT] SCHOOL DISTRICT

BY: _____

NAME: _____

TITLE: _____

END OF DOCUMENT

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

DOCUMENT 00 65 36

WARRANTY AND GUARANTEE FORM

1. _____ ("Contractor")

hereby agrees that the _____ ("Work" of Contractor)

which Contractor has installed for the **@DISTRICT** 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

BID SET
10/01/2021

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

1. CONTRACT TERMS AND DEFINITIONS1

1.1. Definitions1

1.2. Laws Concerning the Contract5

1.3. No Oral Agreements5

1.4. No Assignment5

1.5. Confidentiality.....5

1.6. Notice And Service Thereof5

1.7. No Waiver6

1.8. Substitutions for Specified Items6

1.9. Materials and Work.....6

2. DISTRICT7

3. ARCHITECT7

4. CONSTRUCTION MANAGER8

5. INSPECTOR, INSPECTIONS AND TESTS8

5.1. Project Inspector8

5.2. Tests and Inspections9

5.3. Costs for After Hours and/or Off Site Inspections.....10

6. CONTRACTOR10

6.1. Status of Contractor.....10

6.2. Contractor’s Supervision.....10

6.3. Duty to Provide Fit Workers.....11

6.4. Personnel12

6.5. Prohibition on Harassment12

6.6. Conferences and Meetings13

6.7. Purchase of Materials and Equipment14

6.8. Documents on Work15

6.9. Preservation of Records.....15

6.10. Integration of Work16

6.11. Obtaining of Permits and Licenses16

6.12. Work to Comply with Applicable Laws and Regulations16

6.13. Safety/Protection of Persons and Property17

6.14. Working Evenings and Weekends19

6.15. Noise and Dust Control19

6.16. Cleaning Up20

7. SUBCONTRACTORS21

8. OTHER CONTRACTS/CONTRACTORS22

9. DRAWINGS AND SPECIFICATIONS22

9.8. Ownership of Drawings23

10. CONTRACTOR’S SUBMITTALS AND SCHEDULES23

10.1. Schedules, Safety Plan and Complete Subcontractor List23

10.2. Monthly Progress Schedule(s).....26

10.3. Material Safety Data Sheets (MSDS)26

10.4. Logistic Plan.....27

10.5. Information Included in Submittals.....27

10.6. Verification of Submittal Information27

10.7. Contractor Responsibility for Deviations.....27

10.8. No Performance of Work Without Architect Review27

10.9. District and Architect Review of Submittals28

10.10. Deferred Approval Items28

10.11. Contractor Responsibility for Deviations.....28

11. SITE ACCESS, CONDITIONS AND REQUIREMENTS	28
11.1. Site Investigation	28
11.2. Soils Investigation Report	28
11.3. Access to Work	29
11.4. Layout and Field Engineering	29
11.5. Utilities for Construction.....	29
11.6. Sanitary Facilities.....	29
11.7. Surveys.....	29
11.8. Regional Notification Center.....	29
11.9. Existing Utility Lines.....	30
11.10. Notification	30
11.11. Hazardous Materials.....	30
11.12. No Signs	30
12. TRENCHES.....	31
12.1. Trenches Greater Than Five Feet.....	31
12.2. Excavation Safety	31
12.3. No Tort Liability of District.....	31
12.4. No Excavation without Permits.....	31
12.5. Discovery of Hazardous Waste, Unusual Conditions and/or Unforeseen Conditions.....	31
13. INSURANCE AND BONDS	32
13.1. Insurance.....	32
13.2. Contract Security – Bonds.....	35
14. WARRANTY/GUARANTEE/INDEMNITY.....	35
14.1. Warranty/Guarantee.....	35
14.2. Indemnity.....	36
15. TIME.....	36
15.1. Notice to Proceed	36
15.2. Hours of Work	37
15.3. Progress and Completion.....	37
15.4. Schedule.....	37
15.5. Expeditious Completion.....	37
16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES.....	37
16.1. Contractor’s Notice of Delay.....	37
16.2. Excusable and Compensable Delay(s)	39
16.3. Excusable and Non-Compensable Delay(s).....	39
16.4. Unexcused Delay(s) – Liquidated Damages	40
17. CHANGES IN THE WORK.....	41
17.1. No Changes Without Authorization	41
17.2. Architect Authority.....	42
17.3. Change Orders.....	42
17.4. Unilateral Change Orders.....	43
17.5. Force Account Directives	43
17.6. Price Request.....	44
17.7. Proposed Change Order\	44
17.8. Format for Proposed Change	45
17.9. Change Order Certification	49
17.10. Determination of Change Order Cost	50
17.11. Deductive Change Orders	50
17.12. Discounts, Rebates and Refunds	50
17.13. Accounting Records	51

17.14.	Notice Required.....	51
17.15.	Applicability to Subcontractors.....	51
17.16.	Alteration to Change Order Language.....	51
17.17.	Failure of Contractor to Execute Change Order.....	51
18.	REQUEST FOR INFORMATION.....	51
19.	PAYMENTS.....	52
19.1.	Contract Price.....	52
19.2.	Applications for Progress Payments.....	52
19.3.	Progress Payments.....	55
19.4.	Decisions to Withhold Payment.....	56
19.5.	Subcontractor Payments.....	58
20.	COMPLETION OF THE WORK.....	58
20.1.	Completion.....	58
20.2.	Closeout Procedures.....	59
20.3.	Final Inspection.....	60
20.4.	Costs of Multiple Inspections.....	61
20.5.	Partial Occupancy or Use Prior to Completion.....	61
21.	FINAL PAYMENT AND RETENTION.....	61
21.1.	Final Payment.....	61
21.2.	Prerequisites for Final Payment.....	61
21.3.	Retention.....	62
21.4.	Substitution of Securities.....	62
21.5.	Claims Asserted After Final Payment.....	63
22.	UNCOVERING WORK, CORRECTION OF WORK AND RIGHT TO TAKEOVER WORK.....	63
22.1.	Uncovering of Work.....	63
22.2.	Rejection of Work.....	63
22.3.	Nonconforming Work.....	63
22.4.	Correction of Work.....	63
22.5.	District's Right to Takeover Work.....	64
23.	TERMINATION AND SUSPENSION.....	64
23.1.	District's Right to Terminate Contractor for Cause.....	64
23.2.	Emergency Termination of Public Contracts Act of 1949.....	66
23.3.	Termination of Contractor for Convenience.....	67
23.4.	Suspension of Work.....	67
23.5.	Scope Reduction.....	68
24.	CLAIMS RESOLUTION.....	68
24.1.	Exclusive Remedy.....	68
24.2.	Performance during Claim Resolution Process.....	68
24.3.	Waiver.....	68
24.4.	Intention.....	68
24.5.	Other Provisions.....	69
24.6.	Claim Presentation.....	69
24.7.	Subcontractors.....	69
24.8.	Documentation of Resolution.....	73
24.9.	Claim Resolution Process – Non-Applicability.....	73
25.	LABOR, WAGE & HOUR, APPRENTICE AND RELATED PROVISIONS.....	74
25.1.	Contractor & Subcontractor Registration.....	74
25.2.	Wage Rates, Travel and Subsistence.....	74
25.3.	Hours of Work.....	75
25.4.	Payroll Records.....	76
25.5.	Apprentices.....	77

25.6.	Non-Discrimination	78
25.7.	Labor First Aid	79
26.	MISCELLANEOUS	79
26.1.	Assignment of Antitrust Actions	79
26.2.	Excise Taxes	80
26.3.	Taxes	80
26.4.	Shipments	80
26.5.	Compliance with Government Reporting Requirements	80

CONTRACT TERMS AND DEFINITIONS

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. Architect:** The individual, partnership, corporation, joint venture, or any combination thereof, named as Architect that has the rights and authority assigned to the Architect in the Contract Documents. The term Architect means the District's Architect on this Project or the Architect'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.** Notice to Bidders / Invitation to Bid
- 1.1.11.2.** Instructions to Bidders
- 1.1.11.3.** Bid Form
- 1.1.11.4.** Bid Bond
- 1.1.11.5.** Designated Subcontractors List
- 1.1.11.6.** Noncollusion Declaration
- 1.1.11.7.** Iran Contracting Act Certification
- 1.1.11.8.** Certifications to be Completed by Contractor
- 1.1.11.9.** Disabled Veteran's Business Enterprise Participation Certification
- 1.1.11.10.** Criminal Background Investigation/Fingerprinting Certification
- 1.1.11.11.** Notice of Award
- 1.1.11.12.** Agreement
- 1.1.11.13.** Escrow of Bid Documentation (if applicable)
- 1.1.11.14.** Escrow Agreement for Security Deposits in Lieu of Retention
- 1.1.11.15.** Storm Water Pollution Prevention Plan (if applicable)
- 1.1.11.16.** Hazardous Materials Procedures and Requirements
- 1.1.11.17.** Notice to Proceed
- 1.1.11.18.** Performance Bond
- 1.1.11.19.** Payment Bond (Contractor's Labor and Material Bond)
- 1.1.11.20.** District Contract Forms (if applicable)
- 1.1.11.21.** District Closeout Forms (if applicable)
- 1.1.11.22.** Warranty and Guarantee Form
- 1.1.11.23.** General Conditions
- 1.1.11.24.** Special Conditions

- 1.1.11.25.** Project Plans, Specifications, Technical Specifications, and Drawings
- 1.1.11.26.** Addenda to any of the above documents
- 1.1.11.27.** Schedules if approved in writing by the District
- 1.1.11.28.** 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 Architect 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 Architect 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 Architect and signed by the District and the Architect, 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, Architect, 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 Architect 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 Architect 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. ARCHITECT

- 3.1. Architect 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. Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection may be necessary, in Architect'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 Architect considers it necessary or advisable, for implementation of the intent of the Contract Documents, the Architect 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 Architect nor a decision made in good faith by the Architect 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. Architect 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. Architect 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 Architect at the same time as that communication is made to Architect, 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 Architect, 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 Architect, 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
GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING
MARCH 10, 2021

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 Architect, 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 Architect 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 contact 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, Architect, 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 Architect 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 Architect 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 Architect or the Construction Manager; such objections or corrections shall be submitted to the Architect 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, Architect, Architect'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 Architect 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 Architect 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 Architect. 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 Architect, 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 Architect 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, Architect, 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, Architect, 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 Architect 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 Architect. 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 Architect 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 Architect'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 Architect's review or comments thereon.

10.8. No Performance of Work Without Architect Review.

The Contractor shall perform no portion of the Work requiring the District's and Architect's review of Submittals until the District and Architect 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 Architect review in review of Submittals and other applicable portions of the Contract Documents.

10.9. District and Architect Review of Submittals.

The purpose of the District's and Architect's review of Submittals and the time for the District's and Architect's return of Submittals to the Contractor shall be as set forth elsewhere in the Contract Documents. If the District and/or Architect 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 Architect'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 Architect's review of the Submittals is for the limited purposes described in the Contract Documents. The District and Architect 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 Architect'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 Architect's review of Submittals unless the Contractor has specifically informed the District and the Architect in writing of such deviation at the time of submission of the Submittal and the District and the Architect 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 Architect'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 approved in writing by District and Architect. Any required Record and/or As-Built Drawings of Site development shall be prepared by the approved civil engineer.

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 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 Architect, 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 or 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 Architect(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 Architect(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 Architect'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, Architect, 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 Architect(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 Architect(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:

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 Architect 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 Architect 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 Architect 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 Architect 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. Architect Authority

The Architect 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 Architect'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 Architect and signed by the District (as authorized by the District's governing board), the Contractor, the Architect, 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 Architect 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 Architect and signed by the District and the Architect, 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 Architect requesting the Contractor to submit to the District and the Architect 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 Architect, 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 the address the basis for the PCI. 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

	<u>SUBCONTRACTOR PERFORMED WORK</u>	<u>ADD</u>	<u>DEDUCT</u>
(A)	<u>Labor Charge</u> 1. Hours. Attach total itemized hours. 2. 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)	<u>Labor Burden & Worker's Compensation Charge</u> 1. This shall be no more than twenty percent (20%) of item (A) , the Labor Charge. 2. 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)	<u>Subtotal (A+B)</u>		
(D)	<u>Material Charge</u> Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s).		
(E)	<u>Equipment Charge</u> Attach invoice(s) from supplier(s).		
(F)	<u>Subtotal (C+D+E)</u>		

(G)	Subcontractor's Overhead and Profit Charge 1. This shall be no more than five percent (5%) of item (F) . 2. 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 1. This shall be no more than six percent (6%) of Item (F) . 2. 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

	<u>CONTRACTOR PERFORMED WORK</u>	<u>ADD</u>	<u>DEDUCT</u>
(A)	<p><u>Labor Charge</u></p> <p>1. Hours. Attach total itemized hours.</p> <p>2. 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.</p>		
(B)	<p><u>Labor Burden & Worker’s Compensation Charge</u></p> <p>1. This shall be no more than twenty percent (20%) of item (A), the Labor Charge.</p> <p>2. This shall be the total cumulative charge permitted for all labor performed by Contractor.</p>		
(C)	<u>Subtotal (A+B)</u>		
(D)	<p><u>Material Charge</u></p> <p>Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s).</p>		
(E)	<p><u>Equipment Charge</u></p> <p>Attach invoice(s) from supplier(s).</p>		
(F)	<u>Subtotal (C+D+E)</u>		
(G)	<p><u>Contractor’s Overhead, Profit, Bond and Insurance</u></p> <p>1. This shall be no more than six percent (6%) of Item (F).</p> <p>2. This shall be the total mark-up permitted for Contractor.</p>		
(H)	<u>Subtotal (F+G)</u>		
(I)	<u>Time</u>	_____	Days
(J)	<p><u>Contractor’s Home Office Overhead</u></p> <p>This shall be no more than \$200 times the number of days of Item (I) (i.e., not to exceed \$200/day)</p>		
(M)	<u>TOTAL (H+J)</u>		

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 the 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 Architect and any other design consultant to the Architect 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 Architect 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 Architect 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 Architect 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 Architect.

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 Architect'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 Architect'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 Architect.

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 Architect 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. 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.

20.1.2. 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.

20.1.3. 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 Architect when Contractor considers the Work complete. Upon notification, Architect 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, Architect 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 Architect, who shall again inspect such Work. If the Architect finds the Work complete and acceptable under the Contract Documents, the Architect will notify Contractor, who shall then jointly submit to the Architect 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, Architect, 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 Architect 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 Architect will issue a final Certificate of Payment or similar document indicating Architect'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 Architect 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. Architect 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 Architect'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 Architect approval or not in compliance with the Contract Documents, it must, if required in writing by the District, the Project Inspector, or the Architect, be uncovered for the Project Inspector's or the Architect'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 Architect 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 Architect 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 Architect, 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 Architect'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. If the Claim involves a request for additional compensation for escalation of materials costs, then this provision exclusively governs those request(s) by Contractor and the following are all conditions precedent to Contractor's submission of a Change Order Request or Claim for additional compensation for escalation of materials costs.

24.7.3.1.6.1. Contractor shall not be entitled to submit a request for compensation for escalation of materials unless the actual cost of materials exceeds ten percent (10%) of the **total** material costs on the Project.

24.7.3.1.6.2. The cost escalation is the result of unusual and unforeseeable market conditions not reasonably foreseeable at the time of award of the Contract and was not an escalated cost resulting from any action or inaction of the Contractor.

24.7.3.1.6.3. Contractor timely ordered and/or purchased the materials at issue.

24.7.3.1.6.4. Contractor's material costs were reasonable at the time of Contractor's bid for the Project.

24.7.3.1.6.5. Contractor demonstrates an actual increase in the cost of materials in its Contract Price at the time of award of the Contract and/or as reflected in Contractor's escrowed bid documents compared to Contractor's actual material payment cost paid either at time of purchase or delivery, whichever is earlier.

24.7.3.1.6.6. An actual year-to-date price increase has occurred and can be substantiated by the E.N.R. 20-City Average Material Cost Index for the material at issue that demonstrates the claim for an increase in price of the material at the time of delivery of the higher priced material to the Project.

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 Architect, 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. In addition, Contractor may be subject to criminal prosecution under California Penal Code §72 and/or civil liability under False Claims Act. If so, the District may be entitled to recover its costs incurred to investigate any False Claim, including but not limited to attorneys' fees and expert fees incurred in connection with that investigation.

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 Invitation to Bid 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

[THIS DOCUMENT MUST BE MODIFIED AND ADAPTED FOR EACH SPECIFIC PROJECT]

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. **District Delay(s) [OPTIONAL PROVISION RELATED TO DAMAGES THE DISTRICT WOULD PAY TO CONTRACTOR FOR DISTRICT-CAUSED DELAYS]**

If the Contractor is delayed by the District or anyone employed by it and granted an extension of time, or if the Contractor is delayed and the District is held responsible for such delay, the Contractor and the District agree that it is impractical and infeasible to determine the amount of actual damage suffered by the Contractor as a result of such delay. Such damages include, but are not limited to, extended home and field office overhead, impairment of bonding capacity, lost opportunity, and all other damages or claims, regardless of tier, attributable, or claimed to be attributable to any such delay. **Accordingly, in such an instance, it is agreed that the District will pay to the Contractor as fixed and liquidated damages, and not as a penalty, the following sum for each calendar day of delay beyond the Contract Time:** _____ dollars **[SPELL OUT AMOUNT]** (\$ _____) **[INDICATE NUMERICAL AMOUNT].**

3. **Prequalification [IF PREQUALIFICATION IS REQUIRED PURSUANT PUBLIC CONTRACT CODE 20111.6]**

All bidders are required to have been prequalified by the District. In addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors performing under the following license classification(s), then each of those subcontractors that intend to bid as a first-tier subcontractor to a general contractor (prime contractor) are required to have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46. The following Subcontractors have been prequalified by the District:

- Mechanical Subcontractors

_____, _____, CA; CSLB No. _____
_____, _____, CA; CSLB No. _____
_____, _____, CA; CSLB No. _____
_____, _____, CA; CSLB No. _____
_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

• **Electrical Subcontractors**

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

• **Plumbing Subcontractors**

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

_____, _____, CA; CSLB No. _____

4. Mitigation Measures

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 section 21000 et. seq.)

5. 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.

6. **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 Architect, 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.

7. 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.

8. 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.

9. 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:

[MODIFY DAYS FOR AREA OF PROJECT]

January	[11]	July	[0]
February	[10]	August	[0]
March	[10]	September	[1]
April	[6]	October	[4]
May	[3]	November	[7]
June	[1]	December	[10]

10. **Insurance Policy Limits.** Contractor's insurance shall be with insurance companies with an A.M. Best rating of no less than _____ [E.G. A: IX, **MODIFY RATING OF CARRIER, AS DESIRED.**] The limits of insurance shall not be less than:

[MODIFY LIMITS OF INSURANCE FOR PROJECT, AS DESIRED]

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.

11. Contractor's Risk Insurance: Contractor's Risk "All Risk" Insurance.

- a. **[NO EARTHQUAKE OR FLOOD]** 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 Architect'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.
- 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.
- d. The deductible for this insurance shall be paid by Contractor.

12. Computerized Job Cost Reporting System. [OPTIONAL PROVISION RELATED TO CONTRACTOR'S OBLIGATION TO MAINTAIN JOB COST REPORTS.]

- a. **Job Cost Reporting.** The Contractor and each Subcontractor with a Subcontract valued at Three Hundred Thousand Dollars (\$300,000) or greater shall maintain a computerized job cost reporting system conforming to the requirements set forth herein. The computer program(s) utilized by the Contractor and applicable Subcontractors shall be subject to the review and acceptance by the District. The job cost reporting systems for the Work shall be updated in regular intervals of not more than one (1) calendar month.
- b. **Job Cost Reporting System Requirements.** The computerized job cost programs utilized by the Contractor and applicable Subcontractors shall conform and comply with generally accepted accounting principles applied in a consistent manner and with recognized and generally accepted construction industry accounting standards, guidelines and procedures. The job cost reporting system format and configuration shall follow the general format of the District approved Cost Breakdown (Schedule of Values) and budgets established for each line item shall be traceable to a bid estimate of costs. The job cost reporting systems utilized by the Contractor and applicable Subcontractors shall be capable of: (a) providing overall cost status on a monthly and cumulative basis; (b) providing comparative analysis of the original budgeted costs, actual costs, remaining budget, and projected cost of completion; the job cost reporting system shall be capable of providing comparative analysis for individual line items and the totality of the Work reflected in the job cost report and; (c) tracking adjustments to original budget amounts for Changes to the Work (including, without limitation, issued, pending and potential Change Orders).
- c. **Job Cost System Information.** Upon request of the District, the Contractor and applicable Subcontractors shall make available written job cost reports and provide the District and the

Project Manager with the electronic files of the then current or requested job cost report. The Contractor's obligations hereunder are material.

13. 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:

[MODIFY PERMITS THAT DISTRICT WILL PROCURE AND PAY FOR ON THIS SPECIFIC PROJECT]

- (1) **[E.G. (WATER CONNECTION FEES)]**
- (2) **[E.G. (SEWER CONNECTION FEES)]**
- (3) **[E.G. (IMPACT FEES)]**
- (4) **[E.G. (CAPACITY CHARGES)]**

c. Storm Water Permits

[MODIFY BASED ON WHETHER THE DISTRICT WILL DESIGNATE THE CONTRACTOR AS THE QSP.]

(1) Contractor shall perform the Work of the Project related to being District's Qualified SWPPP (Storm Water Pollution Prevention Plan) Practitioner ("QSP").

(2) As District's QSP, Contractor shall be responsible for storm water and non-storm water visual observations, sampling, and analysis per the District's SWPPP.

(3) Contractor shall strictly follow the requirements to implement all the provisions of the SWPPP including, without limitation, preparation of monitoring and recording reports and providing those to District.

(4) Contractor's indemnity obligations are applicable to any damages, penalties, fees, charges, or related expenses assessed or charged to the District by any water boards or agencies with jurisdiction related to compliance with the Storm Water Permits.

d. Project Inspection

In addition to the requirements in the Contract Documents related to cooperation with and authority of the DSA Project Inspector(s) for the Project, Contractor acknowledges that the DSA inspection, approval and certification process for projects was revised in 2012-2013 and that Contractor must comply with the requirements of the most recent versions of DSA document PR 13-01. Below are provisions of this document from 2012-2013: PR 13-01 (Procedure: Construction Oversight Process) - Duties of Contractor related to the use of "Project Inspection Card" (Form DSA 152).

- (1) The Contractor shall carefully study the DSA approved documents and shall plan a schedule of operations well ahead of time.
- (2) If at any time it is discovered that work is being done which is not in accordance with the DSA approved construction documents, the Contractor shall correct the work immediately.
- (3) Verify that forms DSA 152 are issued for the project prior to the commencement of construction.
- (4) Meet with the design team, the Laboratory of Record and the Project Inspector to mutually communicate and understand the testing and inspection program and the methods of communication appropriate for the project.
- (5) Notify the Project Inspector, in writing, of the commencement of construction of each and every aspect of the work at least 48 hours in advance by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.
- (6) Notify the Project Inspector of the completion of construction of each and every aspect of the work by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.
- (7) Consider the relationship of the signed off blocks and sections of the form DSA 152 and the commencement of subsequent work. Until the Project Inspector has signed off applicable blocks and sections of the form DSA 152, the Contractor may be prohibited from proceeding with subsequent construction activities that cover up the unapproved work. Any subsequent construction activities, that cover up the unapproved work, will be subject to a "Stop Work Order" from the DSA or the District and are subject to removal and remediation if found to be in non-compliance with the DSA approved construction documents.

END OF DOCUMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES:

- 1.1.1 Work Covered by Contract Documents
- 1.1.2 Work by Others
- 1.1.3 Contractor Use of Premises

1.2 WORK COVERED BY CONTRACT DOCUMENTS:

1.2.1 Work Included: The work to be performed by the Contractor shall conform to the requirements of all of Division 1 as well as the General Conditions, Special Conditions, Specifications, all sheets in Drawings and other related documents, and includes the furnishing of all supervision, labor, materials, tools, equipment, transportation, plan and services necessary therefore and incidental thereto to complete the project. The work shall consist of, but not be limited to, the following:

1.2.1.1 Provide all scope of work shown on the plans and specifications, to include all site work, site demolition to existing asphalt paving, tree removal and or tree trimming, demo drive entrance fencing/gate, demo existing underground utilities and or re-routing of existing underground utilities, all demo work as shown on the site demo plan or elsewhere on the drawings. Provide new finish site work, in general, consisting of new asphalt paving and base, site signage, building signage, concrete walkways and base, trenching & backfill for new utilities or re-routed of existing utilities, grading, building pad over excavation for new 2-story building foundations and underfloor vents, coordination with the 2-story manufacture for the manufacturer's placement of the new 2-story building onto the new foundations/footings. Contractor to provide all work and installation of all modular building foundations, rat slab, sub-floor vents, reinforcement bars, hold-downs/anchor bolts for all sill plates in accordance to the manufacturer foundation/elevator plans. Building foundation plans are, (S0.0 Light Gauge Steel Member Properties, S1.0 Foundation Plans, S1.1 Foundation Details, S1.2 Foundation Details, S1.3 Foundation Details & S1.4 Foundation Details, S1.5 Stair Footing plans). Elevator foundation plans are (S1 Cover Sheet, S1A testing & Inspection Criteria, S2 General Notes and Abbreviations, S3 Foundation Pit Plan, S3.1A Foundation Details for Max 44'-0" Tower Height, VT1 Elevator Data, VT2 Elevator Layout (Partial Machine Room), & VT2A Elevator Layout). NOTE: THE LISTED FOUNDATION DRAWINGS ABOVE FOR THE MODULAR BUILDINGS, ELEVATOR AND MACHINE ROOM ARE THE PLANS FOR ALL BUILDING FOUNDATIONS INFORMATION, HOWEVER THERE ARE OTHER DRAWINGS NOT LISTED, I.E., BUILDING SECTIONS AND FRAMING PLANS & DETAILS WHICH ARE INCLUDED IN THE BID PACKAGE THAT MAY BE PERTINENT TO ERRECT AND INSTALL THE REQUIRED FOUNDATION HARDWARE OR FOR DIMENSIONS TO COMPLETE & PROVIDE A PROPER FOUNDATION SYSTEM. CONTRACTOR SHALL REVIEW ALL STRUCTURAL PLANS TO BE SURE ALL ITEMS TO INSTALLED FOR A COMPLETE FOUNDATION SYSTEM ARE NOT

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

OVERLOOKED. Provide all work and installation of all elevator building foundations, slab, elevator pit slab, ladder, sump pump (if required) all anchor plates, hold-bolts and anchor bolts, embeds in accordance to the manufacturer elevator foundation plans sheets as listed above. Once the modular buildings are installed and anchored to the foundation system there are work to be installed to the interior of the modular, i.e., data/communication/fire alarm wiring and devices, non-ADA toilet accessories as shown on the drawings. All work shown on the electrical, mechanical, plumbing, civil, drawings and all work as shown on all drawings, documents, addendas, and as described in all specification's sections.

1.2.1.2 Site contractor shall obtain, in writing and signed, from AMS Manufacturer an inspection letter stating all building/elevator/machine room foundation forms, placement of all anchor plates, hold-downs, anchor bolts, rat slab preparation, underfloor vents placements and locations, building/elevator/machine room dimensions for all foundations, forms/placement for all concrete piers or interior footings, all reinforcement placement layouts, all dowel placements, all embeds and all building foundation scope of work as described in 1.2.1.1 prior to placement of any concrete.

If AMS Manufacturer finds that any portion of the foundation system/layout is **NOT** to the exact standards, form placements, tolerances, dimensions and placements of all foundation hardware/embeds, the site contractor shall make all adjustments and corrections (at site contractor own expenses and at no cost to the Owner) per AMS Manufacturers strict standards and requirements for a proper building/elevator/machine room foundation installation. The contractor is to meet with AMS Manufacturer prior to start of any foundation work for a coordination meeting. Such meeting shall include the Owner's representative, Architect's representative and site Inspector. Site contractor shall obtain any necessary drawings other than the foundation drawings from AMS Manufacturer to aid the site contractor for all foundation set-up, installation for a complete foundation system.

1.2.1.3 The contractor shall provide daily off-site clean up using a City type street sweeper of all mud, dirt, dust and debris from the construction entrance through Eden Ave. to portions of Mt. Carmel Dr. and terminating at Glenoaks Blvd.

1.2.1.4 Provide cutting, saw-cutting, and demolition required per the plans and/or specifications section 017329 to facilitate underground utility installation to be performed.

1.2.1.5 Review all as-builts, site survey plot plans, and contact all agencies and the Architect prior to excavation to ensure that all utility services will not be disrupted.

1.2.1.6 Provide all necessary shoring, barricades, caution tape, and trench plates for open excavations made by this bid package to maintain safety requirements and as necessary to meet building and safety codes that are required in the General Conditions.

- 1.2.1.7 Provide temporary access as required for their work. This includes scaffolding, catwalks, scissor lifts, but is not limited to the Contractor to perform all required work.
- 1.2.1.8 Continuous housekeeping and daily clean up is mandatory. The Contractor shall provide a separate debris box onsite and shall put all debris in debris box and/or remove debris from site at the Contractor's own expense prior to the end of the work day or as directed by the District's Architect. All debris boxes and containers shall be kept free of graffiti at all times. If the Contractor fails to perform daily clean up, the District's Architect shall order that clean up be done at the Contractor's expense.
- 1.2.1.9 Punch list, final clean up, and closeout for this bid package per contract construction schedule. Parties agree that delays to punch list, final clean up, and closeout would constitute a delay in project completion and, therefore, entitles the District to withhold and retain potential liquidated damages per the Contract Documents from the Contractor's progress payments.
- 1.2.2 Existing Site Conditions: The Contractor shall make a thorough examination of the site to determine all existing conditions affecting the work.
- 1.2.3 Location of Site: The new site is located at 2015 Glenoaks Blvd., Glendale, CA. 91206.
- 1.2.4 Work Not Included: None
- 1.3 CONTRACT METHOD:
 - 1.3.1 Construct the Work under a single Lump Sum Contract.
- 1.4 CONTRACTOR USE OF PREMISES:
 - 1.4.1 The Contractor shall have use of the premises for the execution of the work.
 - 1.4.2 The Contractor shall coordinate use of the premises under the direction of the District's Architect.
 - 1.4.3 Assume full responsibility for the protection and safekeeping of products under the Contract that are stored on the site.
 - 1.4.4 Move any stored products under the Contractor's control that interferes with the operations of the Owner or a separate Site Contractor.
 - 1.4.5 Obtain and pay for the use of additional storage or work areas needed for operations.
 - 1.4.6 The Contractor shall assume all responsibility for parking his own and his subcontractor's vehicles at the direction of the District's Architect. The Contractor shall direct all material deliveries to the construction gate.

- 1.4.7 All District property is tobacco free, drug free, alcohol free, weapons free and graffiti free. Contractor shall enforce these rules to his crew, subcontractors and suppliers.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

1.1 SUMMARY

This Section requires the three apparent low bidders to attend and participate in a POST BID INTERVIEW with the DISTRICT'S ARCHITECT, prior to award of any contract by the DISTRICT. The POST BID INTERVIEW will be scheduled by the DISTRICT'S ARCHITECT _____ starting at _____ a.m. Respective three (3) lowest bidders will be notified of the schedule time. The Conditions of the Contract and all other Sections of the Contract apply to this Section as fully as if repeated herein.

1.2 REQUIRED ATTENDANCE

- 1.2.1 A duly authorized representative of the apparent low bidder is required to attend the POST BID INTERVIEW, in person.
- 1.2.2 The apparent low bidder's authorized representative must have signatory authority on behalf of the apparent low bidder.
- 1.2.3 Failure to attend the POST BID INTERVIEW will be considered just cause for the District to reject the Bidder's Bid.

1.3 POST BID INTERVIEW PROCEDURE

- 1.3.1 The DISTRICT'S ARCHITECT and ARCHITECT will review the Bidder's Proposal with the attendees.
- 1.3.2 The DISTRICT'S ARCHITECT and ARCHITECT will review the Contract Documents with the attendees, including but not limited to:
 - 1.3.2.1 Insurance
 - 1.3.2.2 Bonding
 - 1.3.2.3 Addenda
 - 1.3.2.4 Pre-Bid Clarifications
 - 1.3.2.5 Scope of Work (Section 011100)
 - 1.3.2.6 Bid Alternates and Voluntary Alternates
 - 1.3.2.7 Value Engineering
 - 1.3.2.8 The Contract Plans
 - 1.3.2.9 The Contract Specifications
 - 1.3.2.10 The Master Schedule
 - 1.3.2.11 Critical Materials
 - 1.3.2.12 General Contract Schedule Requirements
 - 1.3.2.13 Prevailing Wage Requirements
 - 1.3.2.14 Critical Dates Requirement for Other Bid Packages
 - 1.3.2.15 Liquidated Damages
 - 1.3.2.16 Required Documentation for Contract Administration
 - 1.3.2.17 Contract Coordination Requirements
 - 1.3.2.18 All Documents
 - 1.3.2.19 Prime Contractors/Subcontractor Licenses

1.4 POST BID INTERVIEW DOCUMENTATION

The DISTRICT'S ARCHITECT will document the POST BID INTERVIEW on the form attached to this Section. Both the Apparent Low Bidder and the DISTRICT'S ARCHITECT are required to sign the POST BID INTERVIEW Documentation. The POST BID INTERVIEW Documentation is a Contract Document, and all items recorded in the POST BID INTERVIEW Documentation are part of the Contract and shall be enforced accordingly. POST BID INTERVIEWS will be conducted at **9:00 a.m., 10:15 a.m., and 11:30 a.m.** The three (3) apparent lowest bidders will be notified of their respective time schedule unless the notification to the three (3) apparent lowest bidders state otherwise.

**SEE QUESTIONNAIRE STARTING
ON NEXT PAGE**

**GLENOAKS ELEMENTARY SCHOOL – 2-STORY MODULAR BUILDING
POST BID INTERVIEW**

DISTRICT'S ARCHITECT

Glendale Unified School District
223 NORTH JACKSON STREET, GLENDALE CA 91206 PHONE (818) 507-0201

BIDDER: _____

DATE: _____ TIME: _____ PHONE # _____

I. INTRODUCTIONS: (SIGN IN BELOW)

A. Present _____
CONTRACTOR NAME _____
DC ARCHITECTS NAME _____
DISTRICT'S NAME _____

II. PROPOSED CONTRACT:

III. PURPOSE OF INTERVIEW IS TO ASSURE:

A. The Contractor acknowledgment of a complete and accurate bid.	Yes	No
B. The Contractor submission of a fair and equitable bid.	Yes	No
C. Fair comparisons of bid.	Yes	No

IV. CONTRACTUAL REQUIREMENTS:

A. Do you understand you are a prime contractor?	Yes	No
B. Can you meet all specified insurance requirements?	Yes	No
C. You are required to obtain a Performance, and a Labor and Material Bond for 100% of the Contract price		
1. Is this acceptable?	Yes	No
2. Will you provide bonds as stipulated?	Yes	No

**GLENOAKS ELEMENTARY SCHOOL – 2-STORY MODULAR BUILDING
POST BID INTERVIEW**

IV. CONTRACTUAL REQUIREMENTS (continued):

3. Cost for bond: _____% Yes No
4. Is the cost of the bond in your base bid? Yes No
5. Is your insurance company California licensed? Yes No
- D. Do you possess a valid and active license for this project? Yes No
- E. Are your listed subcontractors possess a valid and active license and such license is for the proper trade necessary to perform the work called for in the Contract Documents? Yes No
- F. Acknowledged Receipt of Addenda _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
- G. Are costs for Addenda items included in your proposal? (if applicable) Yes No

V. SCOPE OF WORK:

- A. You have a complete understanding of your Scope of Work under the proposed Agreement. Yes No
- B. You have re-reviewed the documents and understand the Scope of the Work. Are there any items that need to be identified or require clarification? Yes No

If yes, please identify item.

1. _____
2. _____
3. _____
4. _____
5. _____

Is (are) the cost(s) for items V.B.1-5 (as applicable) included in your bid proposal? Yes No

- C. Review bid alternatives (if applicable) Yes No

VI. VALUE ENGINEERING: (describe) **BASE BID:\$** _____

1. _____ Add / Deduct

2. _____ Add / Deduct

3. _____ Add / Deduct

4. _____ Add / Deduct

REVISED TOTAL \$ _____

VII. SCHEDULE:

Do you acknowledge and agree to complete the project no later than **as Specified in the Agreement**, and as outlined in Section 011216?

1. Can you expedite the schedule? Yes No

If not, what must change and why? _____

B. Identify critical materials, deliveries, and dependencies, including Owner
Furnished items that could affect the completion of your work.

1. _____
2. _____
3. _____

C. You have reviewed Section 011216, CONSTRUCTION SCHEDULE and you understand your work must be completed in accordance with the **Master Schedule**. You further understand the District **MAY** assess liquidated damages if you fail to meet the Master Schedule requirements. You further understand delays by you may cause other contractors to be delayed, and that you **WILL** accelerate your work upon written direction by the District's Architect and/or the Architect with no additional cost to District.

CRITICAL DATES	
PROJECT COMPLETION	See Agreement
<u>Milestone Dates</u>	
Notice to Proceed	To Be Announced
All front end documents must be received by GUSD	7 days from Notice to Proceed
All submittals must be received by GUSD	30 days from Notice to Proceed
Mobilize	To Be Determined
You agree that failure to meet the project completion date is just cause for the USD to assess and retain Liquidated Damages in accordance with the Contract Documents.	

GLENDAL Unified School District

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

**GLENOAKS ELEMENTARY SCHOOL – NEW 2-STORY MODULAR BUILDING
POST BID INTERVIEW**

VIII. CONTRACTOR COMMENTS / SUGGESTIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

IX. CONTRACTOR

NOTE: You agree the information contained herein is part of your contractual obligations. Your signature acknowledges your agreement to perform all work discussed herein, and that costs for all work are included in your proposal.

The foregoing information is true and accurate, and I am authorized to sign as an officer of the company I am representing.

Company Name

Signature: _____ Title: _____

Date: _____

X. DISTRICT'S ARCHITECT

Signature: _____ Title: _____

Date: _____

XI. WITNESS

Signature: _____ Title: _____

Date: _____

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

The Work includes the preparation and submission of the schedules and reports specified herein, including the up-to-date maintenance thereof as required by the DISTRICT'S ARCHITECT. The Conditions of the Contract and the other Sections of Division 1 apply to this section as fully as if repeated herein.

The CONTRACTOR will provide the necessary resources to complete construction. TIME IS OF THE ESSENCE.

GLENOAKS ELEMENTARY SCHOOL – NEW 2-STORY MODULAR BUILDING

Notice to Proceed	To Be Announced
All Front End Documents received by Architect	6 days from Issuance of the Notice to Proceed
All Submittals received to the Architect.....	30 days from issuance of the Notice to Proceed or in advance of construction
Mobilize.....	To be Determined
Project Completion (including final cleanup and punchlist).....	To be Determined

The Contractor shall submit a detailed construction schedule to the District's Project Manager within six (6) days of issuance of the Notice to Proceed for approval by the District's Project Manager. The baseline dates shown above must be incorporated into this schedule. This schedule shall include all pertinent schedule tasks and durations. After approval of the construction schedule by the District's Project Manager, this schedule will become the official project schedule by which the project will be tracked, monitored, and enforced.

Rain days will be considered to be built into this schedule. No additional time extensions will be given to any contractor for any activities due to rain days. The only exception will be if it is determined by the Contractor that there has been an excessive amount of rain days that would be considered above normal seasonal rainfall in number of rain days only, not inches of rainfall, for the City of Perris, where this project is being constructed.

The Contractor shall plan on coordinating and adjusting their forces as necessary to meet the Contract Completion Date for a Final Completion.

HOURS OF CONSTRUCTION OPERATIONS

Weekdays:	7:00 a.m. to 8:00 p.m.
Saturday:	7:00 a.m. to 8:00 p.m.
Sundays and Holidays	8:00 a.m. to 5:00 p.m.

1.2 SUBMITTALS and SHOP DRAWINGS

Complete and transmit to ARCHITECT all submittals and shop drawings, which will allow for the proper review time by the Architect, within thirty (30) calendar days from the Notice to Proceed to assure timely scheduled procurement of products, materials, and/or assemblies.

1.3 FABRICATION AND PROCUREMENT

Establish fabrication and/or procurement lead times which will assure that no operation will be delayed from its scheduled starting date. Ten (10) calendar days after the issuance of the Notice to Proceed, in writing, notify ARCHITECT, the delivery dates of all long lead items. (Examples: casework, switchgear, ornamental iron fencing, roofing, sheet metal, and any other items necessary to assure timely completion of the Project.)

1.4 DEFINITIONS

1.4.1 Day: As used throughout the Contract, the word "day" means, "calendar day" unless otherwise indicated.

1.4.2 Adverse weather that is normal for the area and the season is taken into account in the Construction Schedule. Any overtime, weekend work, and/or acceleration necessary to comply with the construction schedule shall be included in the Contractor's bid at no additional cost to the District.

1.5 DAILY WRITTEN MANPOWER REPORTS

The Superintendent for the CONTRACTOR shall submit to the DISTRICT'S ARCHITECT a brief daily written report by 3:00 PM on EACH AND EVERY WORKING DAY CONTRACTOR or HIS SUBCONTRACTOR is performing work on the Project site, which identifies each of the following:

1.5.1 The name and classification of each employee working on the project that day, including subcontractors. Also provide the number of hours each employee worked that day, and provide a description of what work each employee performed that day.

1.5.2 Estimated 100 percent completion date of each activity or activities currently under construction that day.

1.5.3 Specific problems, if any, with the actions and/or inaction of Subcontractors, the DISTRICT, ARCHITECT, consulting engineers, or the Contract Documents, which are preventing the CONTRACTOR'S work from being properly completed per the schedule.

1.6 COORDINATION

The CONTRACTOR must coordinate all work with subcontractors, if any, on the project in order to complete each activity of their work within the fixed duration assigned to same as shown on the "PROJECT CONSTRUCTION SCHEDULE".

1.7 PERSONNEL AND EQUIPMENT

CONTRACTOR is expected to provide properly trained and skilled personnel in adequate numbers and equipment needed and/or required in order to properly and efficiently complete all work activities per the schedule. Should DISTRICT'S PROJECT MANAGER determine at any time that CONTRACTOR is not providing an adequate work force armed with the proper materials and/or equipment, DISTRICT'S PROJECT MANAGER shall give CONTRACTOR written notice of same. (See General Conditions, DISTRICT's Right to do Work.)

1.8 RESPONSIBILITY FOR COMPLETION

The CONTRACTOR agrees that at the sole judgment of DISTRICT'S PROJECT MANAGER, whenever it becomes apparent from the current monthly updated Contract Baseline Schedule that the contract completion date will not be met, it will take some or all of the following actions, as approved by DISTRICT'S PROJECT MANAGER, at no additional cost to DISTRICT:

- 1.8.1 Increase construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of PROJECT MANAGER, the backlog of work.
- 1.8.2 Increase the number of working hours per shift, shifts per working day, working days per week, or the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate, in the judgment of DISTRICT'S PROJECT MANAGER, the backlog of work. This paragraph shall not be construed to permit the CONTRACTOR to violate the work hour restrictions specified in the Contract Documents.
- 1.8.3 Reschedule activities to achieve maximum practical concurrence of accomplishment of activities.

END OF SECTION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work included: Provide alternative bid proposal as described in this section:

1. DEDUCTIVE ALTERNATE #1 (the low voltage, and any other associate work for the New 2-Story Modular Building:

ADD _____ Dollars
(written amount)
(\$ _____)

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, the Conditions of the Contract and Sections in Division 1 of these Specifications.
2. Extent: It is the responsibility of each Bidder to determine to his own satisfaction and for his own purposes the limits and extent of the work affected by each Alternate and to make full and proper allowance therefore in the submission of his Proposal. Where alternate details are furnished which relate to the Alternate Bid, the Bidder shall base his Alternate Bid on such details. Work required by Alternate Bids shall be performed in accordance with the Specifications of the trade sections affected.

C. Procedures:

1. Provide alternative proposals to be added to or deducted from the amount of the Base Bid if the corresponding change in scope is accepted by the DISTRICT.
2. Include within the alternative bid prices all costs, including labor, materials, installations, and fees.
3. Show the proposed alternative amounts opposite their proper description on the Contractor's Proposal.

1.1.4 Acceptance or Rejection:

1. Acceptance or rejection of Alternate Bids is subject to DISTRICT's discretion. The DISTRICT reserves the right to award any or none of the Alternate Proposal items as the DISTRICT may deem to be in its best interests and without regard to the order in which such items are listed in the Proposal.

END OF SECTION

PART 1 – GENERAL

1.1 SUMMARY

1.1.1 Section includes: General requirements for the proposal of substitutions.

1.2 MATERIAL

1.2.1 Equipment, materials, and articles incorporated into the work shall be new and suitable for the purposes intended.

1.2.2 Reference to equipment, material, article, or patented process by trade name or catalog number shall not be construed as limiting competition.

1.2.2.1 In cases where the Specifications designate a material, product, thing, or service by specific proprietary brand or trade name, and there is only one brand or trade name listed, the item involved is:

1.2.2.1.1 Used as a standard of quality which must be satisfied without compromise, or

1.2.2.1.2 The only brand or trade name known to the District and Architect.

1.2.2.2 Wherever in the Contract Documents a material, article, or process is indicated or specified by trade, patent, proprietary name, or name of manufacturer, such indication shall be deemed to be followed by the words, "or equivalent, as accepted in writing by the Architect".

1.2.2.2.1 Contractor shall submit a substitution request for Architect's written acceptance.

1.2.2.3 If the phrase "NO SUBSTITUTIONS" is used, the product is required to be used since it is a unique product application.

1.2.3 The naming of more than one manufacturer in a Section does not imply that all products of named manufacturers are acceptable for use on the Project. Where more than one proprietary name is specified, provide materials or equipment of any one of the manufacturers specified, only if full compliance with other portions of the Specifications can be provided.

1.2.4 Construction shall be in compliance with the cited standards for the materials specified.

1.3 SUBSTITUTIONS

1.3.1 Should the Contractor wish to substitute an item purported to be equal to the one specified, then the Contractor shall, no later than 35 days after Award of Contract, furnish to the Architect the name of the manufacturer, model number, color options and other pertinent data and information respecting the "or equivalent" item which has been proposed in the bid and which the Contractor contemplates incorporating in the work. If the "or equivalent" item is not found by the Architect to be, in fact, equivalent or better, then the item specified in the

Contract Documents shall be furnished. When colors have been indicated prior to Bid, Contractor shall be required to provide a custom color to match.

- 1.3.2 When required by the Contract Documents, or when directed by the District, furnish full information concerning the material or article proposed for incorporation into the work. Testing of a proposed substitute material to assure compliance with the Specifications may be required by the District at the Contractor's expense. When so directed, submit samples for acceptance. Equipment, material, and articles installed or used without required acceptance shall be at the risk of subsequent rejection, and replacement at Contractor's cost.
- 1.3.3 Substitutions shall comply with, or exceed, requirements of dimension, function, structure, durability, and appearance without exception. Use of accepted substitutions shall in no way relieve the Contractor from responsibility for compliance with the Contract Documents after installation. It shall be incumbent upon the Contractor using accepted substitutions to assume extra costs caused by the use of such substitutions where they affect other work.
- 1.3.4 Do not substitute materials, equipment, or methods unless such substitution has been reviewed and approved by the Architect. Substitutions shall be submitted to the Division of the State Architect for approval prior to acceptance by Architect.
- 1.3.5 "Or Equivalent"
- 1.3.5.1 Where the phrases "or equivalent", "or approved equivalent", or "or equivalent as approved by the Architect" occur in the Contract Documents, do not assume that materials, equipment, or methods will be accepted as equal unless the item has been specifically accepted, in writing, for the Work by the Architect and by the Division of the State Architect, Office of Regulation Services for items which "affect health, safety or welfare."
- 1.3.6 Failure to place orders for specified equipment or material sufficiently in advance of the scheduled installation date will not be considered a valid reason upon which the Contractor may base his request for substitutions or for deviations from the Drawings and Specifications.
- 1.3.7 In the event the Contractor requests changes or revisions requiring drawings or services of the Architect or his consultants, to facilitate installation or erection of any portion of work, the Contractor shall accept the responsibility to hire and pay for the Architect's or Consultant's services. A standard hourly rate, as agreed upon, shall be paid by the Contractor whether the change is accepted or rejected. In the event the change is approved, this fee shall be deducted, and paid, from the Contract Sum.
- 1.3.8 Redesigning by the Contractor: Redesigning shall be by an Engineer licensed, in the State of California, to perform such work. In the event approval is required from authorities having jurisdiction, such approval shall be obtained by the Contractor at his expense before submitting the revised design or substitution to the Architect.
- 1.3.9 Revision After Approval: When a submittal has been reviewed by the Architect, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an explanation acceptable to the Architect as to the

reason substitution is considered necessary. Changes in Plans and Specifications, which effect safety, health or welfare, shall be made by Addenda or Change Orders approved by the Division of the State Architect.

1.4 SUBSTITUTION REQUEST FORM:

1.4.1 Submittal of the requested information shall be accompanied by the attached Substitution Request Form. Submit seven copies of each request to the Architect. Architect will distribute as appropriate.

PART 2 – PRODUCTS

(Not Applicable)

PART 3 – EXECUTION

(Not Applicable)

ATTACHMENT: Substitution Request Form

END OF SECTION

SUBSTITUTION REQUEST FORM

Re: GLENOAKS ELEMENTARY SCHOOL – NEW 2-STORY MODULAR BUILDING
Project Name

Project Manual Section Number

Item

To: DC Architects
Architect

From: _____
Contractor

Reviewed for timeliness and completeness by General Contractor:

We hereby submit for your consideration the following product comparisons of the specified item and the proposed substitution:

A.	Comparison	Specified Item	Substitution
1.	Product Name/Model	_____	_____
2.	Manufacturer	_____	_____
	Address	_____	_____
	Address	_____	_____
	Phone Number	_____	_____
3.	Product Cost	_____	_____
	Installation/Labor Cost	_____	_____
4.	Delivery Time	_____	_____
	Installation Time	_____	_____
5.	Product Characteristics	_____	_____
		_____	_____
		_____	_____
		_____	_____
6.	Dimensions/Effects	_____	_____
		_____	_____

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

7. Guarantee/Warranty

8. ICBO No.

9. UL Rating

B. Substantiating Data:

Attach manufacturer's literature for both specified item and substitution.

C. Samples: Provide samples for both specified item and substitution, if applicable.

D. Similar Projects for Reference:

1.

Name _____ Date _____

Address _____

Address _____

Contact _____

Telephone _____

2.

Name _____ Date _____

Address _____

Address _____

Contact _____

Telephone _____

E. Maintenance Service/Parts/Supplier:

Name

Address

Address

Telephone

F. What effect does this substitution have on applicable code requirements?

G. Change Data:

Attach complete information for changes to be made to drawings and project manual.

Certification of equal performance and assumption of liability for equal performance.

The Contractor shall agree to pay for costs involved in changing the building design; including engineering, drafting and detail cost caused by the proposed substitution.

Submitted by:

Name Signature

Title Date

Firm

Address

City State Zip Telephone

Remarks:

Signature must be by persons having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

For Use by District's Representative:

Accepted Not Accepted

Owner's Consultant:

By: _____

Date: _____

Accepted Not Accepted

School District:

By: _____

Date: _____

END OF SECTION

PART 1 - GENERAL

1.1 DESCRIPTION

1.1.1 Work included: Make such changes in the Work, in the Contract Sum, in the Contract Time of Completion, or any combination thereof, as are described in written Change Orders signed by the DISTRICT and the ARCHITECT and issued after execution of the Contract, in accordance with the provisions of this Section.

1.1.2 Related work:

1.1.2.1 Documents affecting work of this Section include, but are not necessarily limited to the Conditions of the Contract and Sections in Division 1 of these specifications.

1.1.2.2 Changes in the Work are described further in Article 66 of the General Conditions.

1.2 QUALITY ASSURANCE

1.2.1 Include within the Contractor's quality assurance program such measures as are needed to assure familiarity of the Contractor's staff and employees with these procedures for processing Change Order data.

1.3 SUBMITTALS

Make submittals through the ARCHITECT. Submit the number of copies called for under the various items listed in this Section.

1.4 PRODUCT HANDLING

The ARCHITECT shall maintain and coordinate a Register of Bulletins and Change Orders at the job site, accurately reflecting current status of all pertinent data as submitted by the CONTRACTOR. Make the Register available to the ARCHITECT for review at his request.

1.5 PROCESSING CHANGES INITIATED BY THE DISTRICT

1.5.1 Should the DISTRICT contemplate making a change in the Work or a change in the Contract Time of Completion, the ARCHITECT will issue a "Bulletin" to the CONTRACTOR.

1.5.1.1 Bulletins will be dated and will be numbered in sequence.

1.5.1.2 The Bulletin will describe the contemplated change, and will carry one of the following instructions to the CONTRACTOR:

1.5.1.2.1 Make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion;

- 1.5.1.2.2 Make the described change in the Work, credit or cost for which will be determined in accordance with Article 66 of the General Conditions;
 - 1.5.1.2.3 Promptly advise the ARCHITECT as to credit or cost proposed for the described change. This is not an authorization to proceed with the change.
 - 1.5.2 If the CONTRACTOR has been directed by the ARCHITECT to make the described change in the Work at no change in the Contract Sum and no change in the Contract Time of Completion, but the CONTRACTOR wishes to make a claim for one or both of such changes, the CONTRACTOR shall proceed with the change and shall notify the ARCHITECT of its intention to make a claim.
 - 1.5.3 If the CONTRACTOR has been directed by the ARCHITECT to promptly advise him as to credit or cost proposed for the described change, the CONTRACTOR shall:
 - 1.5.3.1 Analyze the described change and its impact on costs time;
 - 1.5.3.2 Secure the required information and forward it to the ARCHITECT for review;
 - 1.5.3.3 Meet with the ARCHITECT as required to explain costs and, when appropriate, determine other acceptable ways to achieve the desired objective;
 - 1.5.3.4 Alert pertinent personnel and subcontractors as to the impending change and, to the maximum extent possible, avoid such work as would increase the DISTRICT'S cost for making the change, advising the ARCHITECT in writing when such avoidance no longer is practicable.
- 1.6 PROCESSING CHANGES INITIATED BY THE CONTRACTOR
 - 1.6.1 Should the CONTRACTOR discover a discrepancy among the Contract Documents, or other cause for suggesting a change in the Work, a change in the Contract Sum, or a change in the Contract Time of Completion, he shall notify the ARCHITECT.
 - 1.6.2 Upon agreement by the ARCHITECT that there is reasonable cause to consider the Contractor's proposed change, the ARCHITECT will issue a Bulletin or written direction.
- 1.7 PROCESSING BULLETINS (And/or Work Orders)
 - 1.7.1 Make written reply to the ARCHITECT in response to each Bulletin.
 - 1.7.1.1 State proposed change in the Contract Sum, if any.
 - 1.7.1.2 State proposed change in the Contract Time of Completion, if any. (There will be no additional time allotted for completion of the Project, including all overtime as required.)

- 1.7.2 Clearly describe other changes in the Work required by the proposed change.
 - 1.7.2.1 CONTRACTOR to include full backup data such as subcontractor's letter of proposal or similar information. (Including quantities and unit lists for labor and material.)
 - 1.7.2.2 Submit this response in single copy to the ARCHITECT.
- 1.7.3 When cost or credit for the change has been agreed upon by the ARCHITECT and the CONTRACTOR, the ARCHITECT will prepare a "Change Order" and submit to the CONTRACTOR, for signatures.
 - 1.7.3.1 Upon receipt of Contractor's signature, forward back to ARCHITECT for submittal and distribution to DISTRICT and other parties.

1.8 PROCESSING CHANGE ORDERS

- 1.8.1 Change Orders will be dated, numbered in sequence and contain the D.S.A. Application No. and File No. as well as O.P.S.C. Application No. and File No. (D.S.A. and O.P.S.C. No.'s required only if applicable.)
- 1.8.2 Each change order shall include the following information:
 - 1.8.2.1 A detailed description of the change required, with back-up documentation (Bulletin, Change Order Request, cost data, letters, etc.).
 - 1.8.2.2 The reason for the change.
 - 1.8.2.3 Who requested the change.
 - 1.8.2.4 The dollar amount of each item (add, deduct, or no cost).
- 1.8.3 The DISTRICT, ARCHITECT shall review, approve, and sign the Change Orders.
- 1.8.4 The ARCHITECT will distribute the required number of copies (minimum of seven (7)) of each Change Order prepared, signed and submitted to the DISTRICT.
 - 1.8.4.1 The ARCHITECT will retain one signed copy in his file, will forward the other signed copies to the Division of the State Architect (D.S.A.), and the Office of Public School Construction (O.P.S.C.) for approval (if applicable).
 - 1.8.4.2 The DISTRICT, upon approval, will sign all copies, retain one (1) signed copy for their file and return the remaining copies through the ARCHITECT for distribution.
 - 1.8.4.2.1 All Change Orders and Addenda must be approved by D.S.A. in accordance with Section 4-338 Title 24, Part 1, C.C.R. and O.P.S.C. (if applicable) prior to change being made in the Work.
 - 1.8.4.3 All Change Orders must be approved by the DISTRICT'S Board prior to the CONTRACTOR invoicing the DISTRICT for that change.

END OF SECTION

BID SET
10/01/2021

APPLICATION AND CERTIFICATE FOR PAYMENT

Page One of _____ Pages

TO: _____ PROJECT: **GLENOAKS E.S.-NEW 2-STORY MODULAR BLDG.** APPLICATION NO. _____ PERIOD TO: _____ Distribution to:

FROM: _____ ARCHITECT: DC Architects _____ OWNER
 ARCHITECT
 CONTRACTOR
 OTHER

CONTRACT FOR: _____ Project No. _____ CONTRACT DATE: _____

DSA No.: 03-121340
DCA Project No. 2019-026

CONTRACTOR'S APPLICATION FOR PAYMENT

CHANGE ORDER SUMMARY		
Change Orders approved in previous months by Owner	ADDITIONS	DEDUCTIONS
TOTALS:		
Approved this Month		
Number	Date Approved	
TOTALS		
Net change by Change Orders		

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates of Payment were issued and payments received from the Owner, and that current payments shown herein is now due.

CONTRACTOR:
BY: _____ DATE: _____

ARCHITECT'S CERTIFICATE FOR PAYMENT

INSPECTOR:
BY: _____ DATE: _____

OWNER:
BY: _____ DATE: _____

1. Original contract sum: \$ _____
2. Net change by Change Orders: \$ _____
3. Contract sum to date: \$ _____
4. Total completed and stored to date: \$ _____
(Column G on Schedule of Values sheet)
5. Retainage:
 - a. 10 % of Completed Work
(Column D + E on Schedule of Values Sheet)
 - b. 10 % of Stored Material
(Column F on Schedule of Values Sheet)
 Total Retainage (Line 5a + 5b or Total in Column 1 of Schedule of Values Sheet) \$ _____
6. Total earned less Retainage: \$ _____
(Line 4 less Line 5 Total)
7. Less previous certificates for payment: \$ _____
(Line 6 from prior Certificate)
8. Current payment due: \$ _____
9. Balance to finish, plus retainage: \$ _____
(Line 3 less Line 6)

State of: _____ County of: _____

Subscribed and sworn to before me this _____ day of _____, 20____

Notary Public: _____

My Commission expires: _____

AMOUNT CERTIFIED: \$ _____
(Attach explanation if amount certified differs from the amount applied for)

ARCHITECT: DC Architects
BY: _____ Date: _____

Application is made for Payments as shown below, in connection with the Contract. Schedule of Values is attached.

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

INSTRUCTION SHEET
AIA DOCUMENTS G702a/G703a

A. GENERAL INFORMATION

AIA Document G702, Application and Certificate for Payment, is to be used in conjunction with AIA Document G703, Continuation Sheet. These documents are designed to be used on a project where a Contractor has a direct Agreement with the Owner. Procedures for their use are covered in AIA Document A20L General Conditions of the Contract for Construction, 1976 Edition.

B. COMPLETING THE G702 FORM:

After the Contractor has completed AIA Document G703, Continuation Sheet, summary information should be transferred to AIA Document G702, Application and Certificate for Payment.

The Contractor should sign the form, have it notarized and submit it, together with G703, to the Architect.

The Architect should review it and, if it is acceptable, complete the Architect's Certificate for Payment on this form. The completed form should be forwarded to the Owner.

C. COMPLETING THE G703 FORM:

Heading: Complete the information here consistent with similar information on AIA Document G702, Application and Certificate for Payment.

Columns A, B & C: These columns should be completed by identifying the various portions of the project and their scheduled value consistent with the schedule of values submitted to the Architect at the commencement of the project or as subsequently adjusted. The breakdown may be by sections of the Work or by Subcontractors and should remain consistent throughout the Project. Multiple pages should be used when required.

Column C should be subtotaled at the bottom when more than one page is used and totaled on the last page. Initially, this total should equal the original Contract Sum. The total of column C may be adjusted by Change Orders during the project.

Column D: Enter in this column the amount of completed Work covered by the previous application. This is the sum of columns D and E from the previous application. Values from column I (Materials Presently Stored) from prior payments should not be entered in this column.

Column E: Enter here the value of Work completed until the time of this application, including the value of materials incorporated in the project which were listed on the previous Application and Certificate for Payment under Materials Presently Stored (column F).

Column F: Enter here the value of Materials Presently Stored for which payment is sought. The total of the column must be recalculated at the end of each pay period. This value covers both materials newly stored for which payment is sought and materials previously stored which are not yet incorporated into the Project. Mere payment by the Owner for stored materials does not result in a deduction from this column. Only as materials are incorporated into the Project is their value deducted from the column and incorporated into column E (Work Completed-This Period).

Column G: Enter here the total of columns D, E and F. Calculate the percentage completed by dividing column G by column C.

Column H: Enter here the difference between column C (Scheduled Value) and column G (Total Completed and Stored to Date).

Column I: This column is normally used only for contracts where variable retain age is permitted on a line-item basis. It need not be completed on projects where a constant retain age is withheld from the overall contract amount.

Change Orders: Although Change Orders could be incorporated by changing the schedule of values each time a Change Order is added to the Project, this is not normally done. Usually, Change Orders are listed separately, either on their own G703 form or at the end of the basic schedule. The amount of the original contract adjusted by Change Orders is to be entered in the appropriate location on the G702 form.

D. MAKING PAYMENT

The owner should make payment directly to the Contractor based on the amount certified by the Architect on AIA Document G702, Application and Certificate for Payment. The completed form contains the name and address of the Contractor. Payment should not be made to any other party unless specifically indicated on this form.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

PART 1 - GENERAL

1.1 SUMMARY

1.1.1 Section Includes: Administrative and procedural requirements governing the Contractor's Applications for Payment.

1.1.2 Related Work:

1.1.2.1 The Progress Schedule is included in Section 013216 and shall be coordinated with the work of this Section.

1.1.2.2 RECORD DOCUMENTS: All requirements for record documents, Specifications Section 017800, shall be satisfied to the Owner's satisfaction prior to Owner's processing of each month's Application for Payment.

1.2 SCHEDULE OF VALUES

1.2.1 Coordinate preparation of the Schedule of Values with preparation of the Network Analysis Schedule.

1.2.2 Submit the Schedule of Values to the Architect at the earliest feasible date, but in no case later than 10 days after the issuance of the Notice to Proceed. Include with initial submission a projected monthly payment request schedule for total cost of project, for Owner's cash flow planning.

1.2.3 Acceptance of the Schedule of Values by the Architect and the District is required prior to approval and payment of the first application for payment.

1.2.4 Format and Content: The Project Manual Table of Contents may be used as a general guide to format the Schedule of Values; specific item numbers may be sequentially numerical.

1.2.4.1 The Schedule of Values shall be a detailed breakdown of the price to provide and install each item of work and material on the project.

1.2.4.2 Each line item on the Schedule of Values shall be presented to allow the Architect to easily find that item of work within the construction during his review of the construction operations and evaluate whether that line item is 100 percent complete or not.

1.2.4.3 Each line item of the Schedule of Values shall be given a value by the Contractor that, in the opinion of the Contractor, best represents the value of that work, and if required to present evidence of his opinion, the Contractor will be able to substantiate the value by the use of supplier and/or subcontractor written quotations, labor wages/rates, hourly estimates, and/or by industry recognized cost estimating references.

1.2.4.4 Each line item of the Schedule of Values shall be in such detail and coordinated with other line items of work and with the contractor's Construction Schedule, that when making application for payment each month, each line item depicts a portion of work that can be completed

within one month's pay period, reviewed by the Inspector and the Architect; if that line item is 100 percent complete, recommended to the Owner for payment. If, in the opinion of the Architect, the line item is not 100 percent complete, the line item will not be recommended for payment.

- 1.2.4.5 Arrange the Schedule of Values in a tabular form with separate columns to indicate the following for each item listed. Each sheet of the Schedule of Values shall be titled and numbered sequentially.

1.2.4.5.1 Line Item Number

1.2.4.5.2 Description of Item

1.2.4.5.3 Quantity

1.2.4.5.4 Unit of Measure

1.2.4.5.5 Unit Price

1.2.4.5.6 Value of Line Item

1.2.4.5.7 Line Item Value Request this month

1.2.4.5.8 Line Item Value Previously completed

1.2.4.5.9 At the bottom of each sheet, the Total Amount of Columns f and g shall be tabulated and carried forward on each page and the TOTAL AMOUNT presented at the end.

- 1.2.5 Do not round any dollar amounts, the total shall equal the Contract Sum.

- 1.2.6 Schedule Updating: Update and resubmit the Schedule of Values when Change Orders or Construction Change directives result in a change in the Contract Sum.

1.3 APPLICATIONS FOR PAYMENT

- 1.3.1 Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.

1.3.1.1 The initial Application for Payment, the Application for Payment at the time of Substantial Completion, and the final Application for Payment involve additional requirements.

1.3.1.2 Submit a pencil draft of the approved schedule of values to the Architect by the 25th of each month.

- 1.3.2 Payment Application Times: The date for each progress payment is the 1st day of each month. The period of construction Work covered by each Application for Payment is the period ending the last day of the month and starting the day following the end of the preceding period. For example, the period of a progress payment dated November 1st would be October 1st through October 31st.

- 1.3.3 Payment Application Forms: Use AIA Document G702 and the form of Schedule of Values accepted by the Architect and approved by the District.
- 1.3.4 Application Preparation: Complete each entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Owner. Incomplete applications will be returned without action.
 - 1.3.4.1 Entries shall match data on the Network Analysis Schedule. Use updated schedules if revisions have been made.
 - 1.3.4.2 Include amounts of Owner-approved Change Orders issued prior to the last day of the construction period covered by the application.
- 1.3.5 Transmittal: Submit six (6) executed copies (one original and five copies) of each Application for Payment to the ARCHITECT. All copies shall be complete, including waivers of lien and similar attachments, when required.
- 1.3.6 Waivers of Mechanics Lien: With each Application for Payment, submit waivers of mechanics lien from entity who may lawfully be entitled to file a mechanics lien arising out of the Contract, and related to the Work covered by the payment.
 - 1.3.6.1 Submit each Application for Payment with the Contractor's waiver of mechanics lien for the period covered by the Application.
 - 1.3.6.2 Submit final Application for Payment with or preceded by final waivers from entity involved with performance of Work covered by the application who could lawfully be entitled to a lien.
- 1.3.7 Initial Application for Payment: Administrative actions and submittals that must precede submittal of the first Application for Payment include the following:
 - 1.3.7.1 List of subcontractors
 - 1.3.7.2 Schedule of Values
 - 1.3.7.3 Schedule of unit prices, if applicable
 - 1.3.7.4 Copies of permits as may be required to start the Work (encroachment permits, etc., may be obtained as necessary for sequence of construction).
 - 1.3.7.5 Copies of authorizations and licenses from governing authorities for performance of the Work.
 - 1.3.7.6 Certificates of insurance and insurance policies
 - 1.3.7.7 Performance and payment bonds

Note: Each preceding item shall be submitted to the Architect, accepted by the Architect and approved by the Owner prior to the certification and approval of the first payment to the Contractor.

- 1.3.8 Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work. Administrative actions and submittals that shall proceed or coincide with this application include:
- 1.3.8.1 Occupancy permits and similar approvals
 - 1.3.8.2 Warranties (guarantees) and maintenance agreements
 - 1.3.8.3 Test/adjust/balance records
 - 1.3.8.4 Maintenance instructions
 - 1.3.8.5 Meter readings
 - 1.3.8.6 Start-up performance reports
 - 1.3.8.7 Change-over information related to Owner's occupancy, use, operation, and maintenance
 - 1.3.8.8 Final cleaning
 - 1.3.8.9 Application for reduction of retainage and consent of surety
 - 1.3.8.10 Advice on shifting insurance coverage
 - 1.3.8.11 Final progress photographs
 - 1.3.8.12 List of incomplete Work, recognized as exceptions to Architect's Certificate of Substantial Completion. Each work item value shall be listed and the total amount deducted from amounts owed over and above the retention.
- 1.3.9 Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
- 1.3.9.1 Completion of Project closeout requirements
 - 1.3.9.2 Completion of items specified for completion after Substantial Completion
 - 1.3.9.3 Written assurance that unsettled claims will be settled
 - 1.3.9.4 Written assurance that Work not complete and not accepted will be completed without undue delay.
 - 1.3.9.5 Transmittal of required Project construction records to Owner
 - 1.3.9.6 Certified property survey.
 - 1.3.9.7 Proof that taxes, fees, and similar obligations have been paid

1.3.9.8 Removal of temporary facilities and services

1.3.9.9 Removal of surplus materials, rubbish, and similar elements

1.3.9.10 Change of door locks to Owner's access

PART 2 - PRODUCTS
(Not Applicable)

PART 3 - EXECUTION
(Not Applicable)

END OF SECTION

- See Attached:
 - Application and Certificate for Payment
 - Continuation Sheet
 - Instruction Sheet

FROM: _____
(Trade Contractor)

REQUEST FOR INFORMATION	Project Name:	RFI#: _____
	GLENOAKS E.S. - NEW 2-STORY MOD.	
	Architect's Project No.: 2019-026	DATE: _____

TO: _____ Attn: _____
Fax _____

Brief Summary of this RFI: (Provide attachment if additional space is needed)

DRAWINGS REFERENCE: _____ SPEC REFERENCE: _____

PROPOSED SOLUTION: (Provide attachment if additional space is needed)

IMPACT CONTRACT TIME: _____ IMPACT CONTRACT PRICE: _____

RESPONSE NEEDED BY: WHY? (if less than 1 week): _____	SUBMITTER'S SIGNATURE: _____
--	---------------------------------

RESPONSE:

DATE: _____	DC Arch. SIGNATURE: _____ Organization: _____
-------------	--

ARCHITECT
DC Architects
820 N. Mountain Ave., Ste. 200
Upland, CA 91786
Phone: (909) 985-6939 Fax: (909) 985-0864

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED:

1.1.1 Each CONTRACTOR shall coordinate his Work and Work of his subcontractors for the Project.

1.1.2 Each Contractor shall:

1.1.2.1 Coordinate work of his own employees and suppliers.

1.1.2.2 Expedite his work to assure compliance with schedules.

1.1.2.3 Coordinate his work with that of other Contractors, subcontractors, and work by DISTRICT.

1.1.3 Each Contractor shall coordinate his work and the work of his subcontractors with other Contractors on Project.

1.2 RELATED REQUIREMENTS:

1.2.1 The General Conditions of the Contract; Authority and responsibilities of the Contractor and subcontractor.

1.3 CONSTRUCTION ORGANIZATION AND START-UP:

1.3.1 The Contractor shall establish on-site lines of authority and communications, and each Contractor shall:

1.3.1.1 Attend pre-construction meeting and mandatory weekly progress meetings.

1.3.1.2 Establish procedures for inter-project communications:

1.3.1.2.1 Submittals

1.3.1.2.2 Reports and records

1.3.1.2.3 Recommendations

1.3.1.2.4 Coordination drawings

1.3.1.2.5 Resolution of conflicts

1.3.1.3 Interpret Contract Documents:

1.3.1.3.1 Consult with ARCHITECT to obtain interpretation.

1.3.1.3.2 Assist in resolution of questions or conflicts which may arise.

1.3.1.3.3 Transmit written interpretations to subcontractors and to other concerned parties.

1.3.1.4 Assist in obtaining permits and approvals:

1.3.1.4.1 Building permits and special permits required for all Work or for temporary facilities.

1.3.1.4.2 Verify that subcontractors have obtained inspections for all Work through the D.S.A. approved INSPECTOR.

1.3.1.5 Control the use of site:

1.3.1.5.1 Supervise field engineering and site layout.

1.3.1.5.2 Allocate space for each subcontractor's use for field offices, sheds, and work and storage areas as approved by the ARCHITECT.

1.3.1.5.3 Establish access, traffic, and parking allocations and regulations.

1.3.1.5.4 Monitor use of site during construction.

1.4 GENERAL DUTIES:

1.4.1 Construction Schedules - Each Contractor shall:

1.4.1.1 Monitor schedules as work progresses:

1.4.1.1.1 Identify potential variances between scheduled and probable completion dates for each phase.

1.4.1.1.2 Recommend to ARCHITECT adjustments in schedule to meet required completion dates.

1.4.1.1.3 Adjust schedules of subcontractors as required.

1.4.1.1.4 Document changes in schedule, submit to DISTRICT and ARCHITECT and to involved subcontractors.

1.4.1.1.5 Upon written notice by ARCHITECT, CONTRACTOR shall, within three (3) calendar days, provide a complete recovery schedule, including manpower loading, resource loading, detailing how the CONTRACTOR and his subcontractors will recover CONTRACTOR'S original scheduled milestone dates. Recovery schedule shall show overtime, weekends, or multiple shifts as necessary to meet each milestone of the original schedule.

1.4.1.2 Observe Work of each subcontractor to monitor compliance with schedule.

1.4.1.2.1 Verify that labor and equipment are adequate for the Work and the schedule.

- 1.4.1.2.2 Confirm that product procurement schedules are adequate.
 - 1.4.1.2.3 Confirm that product deliveries are adequate to maintain schedule.
 - 1.4.1.2.4 Report noncompliance to District, D.S.A. approved INSPECTOR, with recommendation for changes.
- 1.4.2 Process Shop Drawings, product data, and samples - Each Contractor shall:
- 1.4.2.1 Prior to submittal to ARCHITECT, review for compliance with Contract Documents:
 - 1.4.2.1.1 Field dimensions and clearance dimensions.
 - 1.4.2.1.2 Relation to available space.
 - 1.4.2.1.3 Relation to other contracts and to other trades.
 - 1.4.2.1.4 Effect of any changes on the Work of any other contracts or other trades.
 - 1.4.2.1.5 Provide written approval that submittals have been approved by Contractor.
- 1.4.3 Review coordination drawings prepared by mechanical and electrical Contractors - Each Contractor shall:
- 1.4.3.1 Prior to submittal to ARCHITECT, review for compliance with Contract Documents.
 - 1.4.3.2 Resolve conflicts and assure coordination of the Work of, or affected by, mechanical and electrical trades, or by special equipment requirements.
- 1.4.4 Inspection and testing - Each Contractor shall:
- 1.4.4.1 Inspect Work to assure performance in accordance with requirements of Contract Documents.
 - 1.4.4.2 Bring to ARCHITECT'S attention the need of any special testing and inspections of suspect Work.
 - 1.4.4.3 Reject Work which does not comply with requirements of Contract Documents.
 - 1.4.4.4 Coordinate Testing Laboratory services:
 - 1.4.4.4.1 Verify that required laboratory personnel are present.
 - 1.4.4.4.2 Verify that tests are made in accordance with specified standards.
 - 1.4.4.4.3 Review test reports for compliance with specified criteria.

- 1.4.4.4 Recommend and administer any required retesting.
- 1.4.5 Monitor the use of temporary utilities - Each Contractor shall verify that adequate services are provided and maintained.
- 1.4.6 Monitor the CONTRACTOR'S periodic cleaning - Each Contractor shall:
 - 1.4.6.1 Enforce compliance with Specifications.
 - 1.4.6.2 Resolve any conflicts.
- 1.4.7 Arrange for delivery of DISTRICT furnished products - Each Contractor shall:
 - 1.4.7.1 Inspect for condition at delivery.
 - 1.4.7.2 Turn over to appropriate subcontractor, obtain receipt.
- 1.4.8 Changes and substitutions - Each Contractor shall:
 - 1.4.8.1 Recommend necessary or desirable changes to DISTRICT and to ARCHITECT.
 - 1.4.8.2 Review subcontractor's requests for changes and substitutions. Submit recommendations to DISTRICT and to ARCHITECT.
 - 1.4.8.3 Assist ARCHITECT in negotiating Change Orders.
 - 1.4.8.4 Promptly notify all subcontractors of pending changes or substitutions.
- 1.5 CLOSE-OUT DUTIES:
 - 1.5.1 Mechanical and electrical equipment start-up:
 - 1.5.1.1 Coordinate check-out of utilities, operations systems, and equipment.
 - 1.5.1.2 Assist in initial start-up and testing.
 - 1.5.1.3 Record dates of start of operation of systems and equipment.
 - 1.5.1.4 Submit to DISTRICT written notice of beginning of warranty period for equipment put into service.
 - 1.5.2 At completion of Work of each Contract, conduct an inspection to assure that:
 - 1.5.2.1 Specified cleaning has been accomplished.
 - 1.5.2.2 Temporary facilities have been removed from site.
 - 1.5.3 Substantial Completion:
 - 1.5.3.1 Conduct an inspection to confirm or supplement Contractor's list of work to be completed or corrected.

1.5.3.2 Assist ARCHITECT in preparation of correction list.

1.5.3.3 Supervise correction and completion of Work as established in Certificate of Substantial Completion.

1.5.4 When DISTRICT occupies a portion of Project prior to final completion, coordinate established responsibilities of CONTRACTOR and DISTRICT.

1.5.5 Final Completion:

1.5.5.1 When each Contractor determines that Work is finally complete, conduct an inspection to verify completion of Work, prior to Punchlist.

1.5.5.2 Assist ARCHITECT in verification of final completion.

1.5.6 Administration of Contract Close-out: - Each Contractor shall:

1.5.6.1 Review final submittals and as-builts prior to transmittal.

1.5.6.2 Transmit to ARCHITECT with recommendations for action.

1.6 REQUEST FOR INFORMATION

1.6.1 Each Contractor shall plan, schedule, coordinate and sequence Work so Requests for Information (RFI), if necessary, may be submitted to the Architect in a timely manner so as not to delay progress of Work. Submission of and responses to RFI(s) with copies to District shall be transmitted via facsimile (FAX) equipment or hand-delivered.

1.6.2 Architect shall have three days and an additional four days if Architect's consultants are involved, to respond to RFI(s). When Architect responds to an RFI within the time frame allotted per the contract documents but when the response already is contained or included within contract documents, or is based on referenced standards, or is based on established and common construction practices, Contractor shall reimburse the Architect at the current DCA hourly rates.

If RFI requires Architect's Consultant(s) acknowledgement, Contractor shall reimburse consultant(s), at the same hourly rate for consultant's staff; Contractor shall also pay to the Architect, a percentage for overhead and profit to the consultant's fee, equal to the markup the Contractor adds to "Change Orders".

1.6.3 Contractor shall be billed at "Request for Payment" meeting, and payment is due on the 10th day of the following month. If payment is not received by Architect by that date, Architect's response to pending RFIs will be delayed by the same number of days as the days the payment check for RFI services is late.

1.6.4 No damages for delay due to RFI response beyond allotted time will be allowed, unless Contractor can show that RFI was not foreseeable with proper planning, scheduling, coordination, and sequencing, and the Architect's late response delayed timely purchase or delivery of equipment or material, or limited construction personnel from proceeding with their task(s), within previously listed "Construction Schedule" activity period(s).

1.7 QUALITY ASSURANCE

1.7.1 Familiarity With Contract Documents:

1.7.1.1 Contractor and all Subcontractors shall conduct a study necessary to become completely familiar with all requirements. Applicable requirements indicated or described in the Contract Documents, and the publications referred to, are a part of the Work required as though repeated in each such Section.

1.7.1.2 In the event discrepancies or conflicts are encountered, notify the Architect immediately. Where there is discrepancy between different parts of the contract documents, including referenced codes and standards, the documents requiring the higher quality, the greater quantity, or the more difficult work shall govern, unless determined otherwise by the Architect.

1.7.1.3 Promptly distribute required information to entities concerned and ensure the needed actions are taken.

1.7.2 Reporting: Unless otherwise noted by the Contractor in his transmittals, all of the Contractor's data transmittals to the Architect for the Architect's review will be construed as stipulating that the Contractor has thoroughly and completely reviewed and coordinated the data prior to transmittal.

1.7.3 Interfacing: It shall be solely the responsibility of each Contractor to make sure that the assigned work completes in a timely manner and that all interfaces are prepared, connected, and function as required.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION

3.1 PLANNING THE WORK

3.1.1 By thorough advance planning of activities, coordinate the following in addition to other coordination activities required:

3.1.1.1 Materials, services, and equipment purchasing.

3.1.1.2 Shipping.

3.1.1.3 Receipt and storage at the site.

3.1.1.4 Installation, including interface with related items.

3.1.1.5 Inspection and testing, to the extent required under the Contract.

3.1.1.6 Assistance in initial start-up and operational tests.

3.1.1.7 Completion of the Work, including removal and disposal of Contractor's surplus material and equipment, and final cleaning of structures and sites.

3.2 COORDINATION

3.2.1 Coordinate construction activities included under various Sections of these Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections of the Specifications that are dependent upon each other for proper installation connection and operation.

3.2.2 Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and ensure orderly progress of the Work.

3.3 GENERAL INSTALLATION PROVISIONS

3.3.1 Coordination methods used by the Contractor are at the Contractor's option, except that the Architect may disapprove Work completed by the Contractor or data submitted by the Contractor when, in the Architect's judgment, coordination has been inadequate to ensure the specified quality.

3.3.2 Mounting Heights: Where mounting heights are not indicated, install individual components at standard mounting heights recognized within the industry for the particular application indicated. Refer questionable mounting height decisions to the Architect for final decision.

END OF SECTION

Attachment: RFI form

PART 1 - GENERAL

1.1 DESCRIPTION

1.1.1 Work included: To enable orderly review during progress of the Work and to provide for systematic discussion of problems, the ARCHITECT will conduct project meetings throughout the construction period.

1.1.2 Related work:

1.1.2.1 Documents affecting work of this Section include, but are not necessarily limited to, the Conditions of the Contract and Sections in Division 1 of these Specifications.

1.1.2.2 The THE CONTRACTOR's relations with his subcontractors and materials suppliers, and discussions relative thereto, are the THE CONTRACTOR'S responsibility and normally are not part of project meetings content.

1.2 QUALITY ASSURANCE

1.2.1 For those persons designated by the THE CONTRACTOR to attend and participate in project meetings, THE CONTRACTOR shall provide required authority to commit the THE CONTRACTOR to solutions agreed upon in the project meetings.

1.3 SUBMITTALS

1.3.1 Agenda items: To the maximum extent practicable, advise the ARCHITECT at least 24 hours in advance of project meetings regarding items to be added to the agenda.

1.3.2 Minutes:

1.3.2.1 The ARCHITECT will compile minutes of each project meeting and will fax or make available required copies to the THE CONTRACTOR and required copies to the DISTRICT, ARCHITECT, and INSPECTOR.

1.3.2.2 Recipients of copies may make and distribute such other copies at their discretion.

PART 2 – PRODUCTS
(Not Applicable)

PART 3 – EXECUTION

3.1 MEETING SCHEDULE

3.1.1 Except as noted below for Pre-Construction Meeting, project meetings will be held weekly.

3.1.2 Coordinate as necessary to establish mutually acceptable schedule for meetings.

3.2 MEETING LOCATION

3.2.1 The ARCHITECT will schedule all meetings at the job site office. To the maximum extent possible, all meetings will be held at the job site office.

3.3 PRE-CONSTRUCTION MEETING

3.3.1 Pre-Construction Meeting will be scheduled by the ARCHITECT and prior to the commencement of construction, as scheduled by the ARCHITECT.

3.3.1.1 Provide attendance by authorized representatives of the CONTRACTOR and major subcontractors. (Major subcontractors pre-approved by the ARCHITECT)

3.3.1.2 The ARCHITECT will advise other interested parties, including the DISTRICT, ARCHITECT'S Consultants, Inspector, and Testing Lab and request their attendance. In all cases, the meetings shall be coordinated by the ARCHITECT to maximize meeting input and minimize the number of meetings required.

3.3.2 Minimum Agenda: Data will be distributed and discussed on at least the following items.

3.3.2.1 Organizational arrangement of CONTRACTOR'S forces and personnel, and those of subcontractors, materials, suppliers, and ARCHITECT.

3.3.2.2 Channels and procedures for communication

3.3.2.3 Construction schedule, including sequence of critical work.

3.3.2.4 Contract Documents, including distribution of required copies of original Documents and revisions.

3.3.2.5 Processing of Shop Drawings and other data submitted to the ARCHITECT for review.

3.3.2.6 Processing of Bulletins, field decisions, Work Orders, and Change Orders.

3.3.2.7 Rules and regulations governing performance of the work.

3.3.2.8 Procedures for safety and first aid, security, quality control, housekeeping, and related manners.

3.3.2.9 Format and procedures for submitting "Application and Certificate for Payment" and "Schedule of Values" forms.

3.4 PROJECT MEETINGS

3.4.1 Attendance:

3.4.1.1 The CONTRACTOR will assign the same person or persons to represent the CONTRACTOR at the mandatory project meetings throughout progress of the Work.

3.4.1.2 Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved, as pre-approved by the ARCHITECT.

3.4.2 Minimum Agenda:

3.4.2.1 Review, revise as necessary, and approve minutes of previous meetings.

3.4.2.2 Review progress of the Work since last meeting, including status of long-lead submitted material and equipment.

3.4.2.3 Identify problems that impede planned progress.

3.4.2.4 Develop corrective measures and procedures to regain planned schedule.

3.4.2.5 Complete other current business.

3.4.2.6 Revisions to minutes

3.4.2.7 Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting (meetings are scheduled every seven (7) days, they will be accepted as properly stating the activities and decisions of the meeting.

3.4.2.8 Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.

3.4.2.9 Challenge to minutes shall be settled as priority portion of "old business" at the next regularly scheduled meeting.

END OF SECTION

PART 1 - GENERAL

1.1 DEFINITIONS

- 1.1.1 Day: As used throughout the Contract, the word "day" means "calendar day" unless otherwise indicated.
- 1.1.2 Adverse weather that is normal for the area and the season shall be taken into account in the Construction Schedule.

1.2 QUALITY ASSURANCE

1.2.1 Reliance Upon Published Schedule.

- 1.2.1.1 The published schedule, as accepted, shall be an integral part of the contract and will establish interim Contract completion dates for various activities.
- 1.2.1.2 Should any activity fail to be completed within five (5) days after the stipulated schedule date, the owner shall reserve the right to order the contractor to submit a detailed recovery schedule showing all recovery dates and durations to fully recover the schedule.
- 1.2.1.3 Should any activity fail to be completed within 10 days after the stipulated schedule date, the Owner shall have the right to order the Contractor to expedite completion of the activity by whatever means the Owner deems appropriate and necessary, without additional compensation to the Contractor, and as set forth in the General Conditions of the Contract.
- 1.2.1.4 Should any activity fall behind schedule, the Owner shall have the right to perform the activity or have the activity performed by whatever method the Owner may deem appropriate, and as set forth in the General Conditions of the Contract.
- 1.2.1.5 Cost incurred by the Owner in connection with expediting construction shall be deducted from the Contract amount.
- 1.2.1.6 Failure by the Owner to exercise the option to either order the Contractor to expedite an activity or to expedite the activity by other means, will not be considered a precedent for any other activities nor a waiver of the Owner's rights to exercise his rights on subsequent occasions.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

SUBMITTAL TRANSMITTAL LETTER

DC Architects

Project Title: Glenoaks E.S. - New 2-Story Modular Building	DSA Number: _____	Specification Section _____	Submittal No.: _____
School District: Glendale Unified School District	03-121340		
Architect: DC Architects Address: 820 N. Mountain Avenue, Suite 200 Upland, CA 91786 Phone Number: 909-985-6939 Contact Name: _____		General Contractor: Address: _____ Phone Number: _____ Contact: _____	
Submittal Description:			
Resubmittal? <input type="checkbox"/> No <input type="checkbox"/> Yes Substitution? <input type="checkbox"/> No <input type="checkbox"/> Yes		Previous Submittal No.: _____ Specified Item: _____	

SUBMITTAL HISTORY

Date Received From Contractor: _____	Architect/Engineer's Shop Drawing Stamp <div style="border: 1px solid black; padding: 5px;"> <input type="checkbox"/> MAKE CORRECTIONS NOTED <input type="checkbox"/> NO EXCEPTION TAKEN <input type="checkbox"/> REJECTED <input type="checkbox"/> REVISE AND RESUBMIT <input type="checkbox"/> SUBMIT SPECIFIED ITEMS </div> <p style="font-size: small;">CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL TRADES AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.</p> SIGNED _____ DATE _____																											
Consultant Review: <input type="checkbox"/> Civil <input type="checkbox"/> Electrical <input type="checkbox"/> Kitchen <input type="checkbox"/> Structural <input type="checkbox"/> Landscape <input type="checkbox"/> D.S.A. <input type="checkbox"/> Mechanical <input type="checkbox"/> Hardware	Remarks:																											
Date Sent: _____ Date Due: _____ Date Received: _____																												
Distribution Date: _____ Number of Copies to: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:10%;"></th> <th style="width:15%;">P.D.</th> <th style="width:15%;">S.D.</th> <th style="width:15%;">MISC.</th> </tr> </thead> <tbody> <tr> <td>Consultant</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Architect</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Owner</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Inspector</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Contractor</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Other</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table>			P.D.	S.D.	MISC.	Consultant	_____	_____	_____	Architect	_____	_____	_____	Owner	_____	_____	_____	Inspector	_____	_____	_____	Contractor	_____	_____	_____	Other	_____	_____
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Owner	_____	_____	_____																									
Inspector	_____	_____	_____																									
Contractor	_____	_____	_____																									
Other	_____	_____	_____																									

DC Architects
820 N. Mountain Ave., Ste. 200, Upland, CA 91786
Phone (909) 985-6939 / Fax (909) 985-0864

PART 1 - GENERAL

1.1 SUMMARY

1.1.1 Section Includes:

1.1.1.1 Whenever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined, either by manufacturer's name and catalog number, by reference to recognized industry standards, or description of required attributes and performance.

1.1.1.2 To help ensure that the specified products are furnished and installed in accordance with design intent, submit design product and data in advance for review by the Architect. Review by the Architect and the design consultants in no way relieves the contractor, subcontractor, or supplier from providing the products or construction as described in the Contract Documents.

1.1.1.3 Make submittals required by the Contract Documents. Revise and resubmit as necessary to establish compliance with the specified requirements.

1.1.2 Related Work Described Elsewhere: Additional requirements for submittals are described in other Sections of these Specifications and the General Conditions.

1.2 QUALITY ASSURANCE

1.2.1 Coordination of Submittals: Prior to each submittal, review and coordinate each item being submitted and verify that each item and the submittal conform with the requirements of the Contract Documents. By affixing the Contractor's signature to each submittal, the contractor certifies that this coordination has been performed.

1.2.2 Certificates of Compliance

1.2.2.1 Certify that materials used in the Work comply with specified provisions thereof. Certification shall not be construed as relieving the Contractor from furnishing satisfactory materials if, after tests are performed on selected samples, the material is found not to meet specified requirements.

1.2.2.2 Show on each certification the name and location of the Work, name and address of Contractor, quantity and date or dates of shipment or delivery to which the certificate applies, and name of the manufacturing or fabricating company. Certification shall be in the form of letter or company-standard form containing required data. An officer of the manufacturing or fabricating company shall sign certificates.

1.2.2.3 In addition to the above information, laboratory test reports submitted shall show the date or dates of testing, the specified requirements of which testing was performed, and results of the test or tests.

1.3 SUBMITTALS

1.3.1 Contractor shall submit all shop drawings, samples, requests for substitutions, mix designs, and other items, in accordance with this Section within thirty (30) calendar days after Award of the Contract.

1.3.2 The required number of copies to submit for all shop drawings, manufactures literature, and samples shall be seven (7). Submittals will not be accepted by the Construction Manager if the correct number of copies is not received at the time of submission. Two (2) copies will be returned to the Prime Contractor. The Contractor shall make and distribute copies required for the Contractors purposes.

1.3.3 Provide required submittals for the following products to interface with other portions of the Work. Submit data to verify compliance only.

1.3.3.1 For products specified only by reference standard, select product meeting that standard, by manufacturer.

1.3.3.2 For products specified by naming several products or manufacturers, select one of the products or manufacturers named.

1.3.3.3 For products specified by naming one or more products or manufacturers and stating "or other approved", or "or approved equivalent", or other such wording on drawings or within specifications sections, submit a request for substitutions for product or manufacturer which is not specifically named, but only after submitting bid on specified products and systems.

PART 2 – PRODUCTS

2.1 SHOP DRAWINGS AND COORDINATION DRAWINGS:

2.1.1 Scale and Measurements: Make shop drawings to a scale sufficiently large to shown pertinent aspects of the item and its method of connection to the Work.

2.1.2 Reproduction of Reviewed Shop Drawings: Printing and distribution of reviewed shop drawings for the Architect's use will be by the Architect.

2.1.3 Review comments of the Architect will be shown on one bond copy when it is returned to the Contractor. The Contractor shall make and distribute copies required for his purposes.

2.2 MANUFACTURER'S LITERATURE

2.2.1 General: Where submitted literature from manufacturers includes data not pertinent to the submittal, indicate which portion of the contents is being submitted for review. Submittals not clearly marked will be returned without review.

2.3 SAMPLES

- 2.3.1 Accuracy of Samples: Precise article proposed to be furnished shall be identified with a submittal number.
- 2.3.2 Reuse of Samples: In situations accepted by the Architect, the Architect's retained sample may be used in the construction as one of the installed items.
- 2.3.3 Size of Samples: Samples shall be 6 inches by 6 inches, or manufactured width by 12 inches, unless otherwise required by the pertinent Specification section.

2.4 COLORS AND PATTERNS

Unless the precise color and pattern is specifically described in the Contract Documents, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern charts to the Architect for review and selection. Submit data to verify compliance only.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS:

- 3.1.1 General: Consecutively number submittals within the respective specification section. Accompany each submittal with transmittal cover letters attached to the end of this Section. Fill out each transmittal cover letter completely, number sequentially, include specification section, name of supplier or installer, and contact person and telephone number.
- 3.1.2 Internal Identification: On the first page of each copy of each submittal, and elsewhere as required for positive identification, indicate the submittal number.
- 3.1.3 Resubmittals: When material is resubmitted, transmit under a new letter of transmittal and with same submittal number plus a "alphabetic" suffix indicating it is a resubmittal, e.g. 033000.
- 3.1.4 Submittal Log: Maintain submittal log for the duration of the Contract. Show current status of submittals, with columns showing "approved", "approved as corrected", etc., to match Architect's categories. Make the submittal log available for the Architect's review upon request. Log shall be available and will be reviewed at each project meeting.

3.2 COORDINATION OF SUBMITTALS

- 3.2.1 The Contractor's Project Engineer shall be responsible to coordinate and review all submittals prior to forwarding to Architect. All submittals shall be stamped with Contractor's stamp, signed and dated, stating:
 - 3.2.1.1 Contractor has reviewed submittal for compliance with requirements of the Contract Documents.
 - 3.2.1.2 Contractor has reviewed submittal for proper interfacing with other trades.
- 3.2.2 General: Prior to making submittals, coordinate materials including, but not necessarily limited to:

3.2.2.1 Determine and verify interface conditions, catalog numbers, and similar data.

3.2.2.2 Coordinate with other trades as required.

3.2.2.3 Clearly indicate deviations from requirements of the Contract Documents. Deviations which are not clearly called out as a deviation and which subsequently becomes a part of an approved submittal can under no circumstances be considered legitimate grounds for an additive change order.

3.2.3 Grouping of Submittals: Make submittals in groups containing associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying and the Contractor shall be strictly liable for occasioned delays.

3.2.4 Color selections for materials in the same space or same elevation shall be submitted at one time. "Piece meal" submission of the color samples or charts is unacceptable and will be returned awaiting a "complete" submission.

3.3 TIMING OF SUBMITTALS

3.3.1 General: Make submittals far enough in advance of dates scheduled for installation to provide time required for reviews, for possible revisions and resubmittals, for placing orders and securing delivery, and as otherwise required by Part 1.3 of this Section.

3.3.2 Architect's Review Time: In scheduling, allow at least seven (7) calendar days for review by the Architect following his receipt of the submittal or as otherwise may be required under each Specification section. Allow an additional 10 days for reviews involving Architect's consultants or as otherwise may be required under each Specification section.

3.3.3 Delays: Delays caused by tardy submission of submittals or resubmittals will not be an acceptable basis for extension of the Contract completion time.

3.4 ARCHITECT'S REVIEW

3.4.1 General: Corrections or comments made on Shop Drawings during his review shall not relieve the Contractor from compliance with requirements of the Drawings and Specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. The Contractor is responsible for confirming and correlating quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his work with that of other trades, and performing his work in a safe and satisfactory manner.

3.4.1.1 Authority to Proceed: The notations "Furnish as Submitted" or "Furnish as Corrected" authorize the Contractor to proceed with fabrication, purchase, or both or the items so noted, subject to the revisions, if any, required by the Architect's review comments.

3.4.1.2 Revisions: The notations "Revise and Resubmit" or "Submit Specified Item" means make revisions required by the Architect and resubmit. If the Contractor considers required revision to be a change, he shall so notify the Architect as provided for under "Changes" or "Changes in the Work" in the General Conditions. Show each drawing revision by number, date, and subject in a revision block on the Drawing. Make only those revisions directed by or accepted by the Architect.

3.4.1.3 Rejection: The notation "Rejected" means the submission does not meet requirements of project contract documents. Make new submission meeting project contract documents.

END OF SECTION

Attachment: Contractor's SUBMITTAL TRANSMITTAL LETTER

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

1.1.1 Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

1.2.1 This Section specifies administrative requirements for compliance with governing regulations, codes, and standards.

1.2.1.1 Requirements include obtaining permits, licenses, inspections, releases, and similar documentation, as well as payments, statements, and similar requirements associated with regulations, codes, and standards.

1.2.1.2 Refer to General Conditions for requirements for compliance with governing regulations.

1.3 DEFINITIONS

1.3.1 GENERAL

Definitions contained in this Article are not necessarily complete, but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

1.3.2 INDICATED

Refers to graphic representations, notes, or schedules on the Drawings, or other Paragraphs or Schedules in Specifications, and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference; no limitation on location is intended except as specifically noted.

1.3.3 DIRECTED

Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the ARCHITECT, and similar phrases. However, no implied meaning shall be interpreted to extend the ARCHITECT'S responsibility into the CONTRACTOR'S area of construction supervision.

1.3.4 APPROVED

The term "approved," where used in conjunction with the ARCHITECT'S action on the CONTRACTOR'S submittals, applications, and requests, is limited to the responsibilities and duties of the ARCHITECT stated in General Conditions. Such approval shall not release the CONTRACTOR from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.

1.3.5 REGULATION

The term "Regulations" includes laws, statutes, ordinances, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work, whether they are lawfully imposed by authorities having jurisdiction or not.

- 1.3.6 FURNISH
The term "furnish" is used to mean "supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations."
- 1.3.7 INSTALL
The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."
- 1.3.8 PROVIDE
The term "provide" means "to furnish and install, complete and ready for the intended use."
- 1.3.9 INSTALLER
An "Installer" is an entity engaged by the CONTRACTOR either as an employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.
- 1.3.9.1 The term "experienced," when used with the term "Installer" means having a minimum of five (5) previous projects similar in size and scope to this project, having familiarity with the precautions required, and having compliance with requirements of the authority having jurisdiction.
- 1.3.10 PROJECT SITE
"Project Site" is the space available to the CONTRACTOR for performance of the Work, either exclusively or in conjunction with others performing other construction as part of the Project. The extent of the Project Site is shown on the Drawings, and may or may not be identical with the description of the land upon which the Project is to be built.
- 1.3.11 TESTING LABORATORIES
A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.
- 1.3.12 DAYS
Days shall mean calendar days in every case.

1.4 SPECIFICATION FORMAT AND CONTENT EXPLANATION

This Article is provided to help the user of these Specifications understand the format, language, implied requirements, and similar conventions. None of the explanations shall be interpreted to modify the substance of Contract Requirements.

- 1.4.1 SPECIFIED FORMAT
These Specifications are organized into Divisions, Sections, or Trade Headings based on Construction Specifications Institute's 16-Division format and the MASTER FORMAT numbering system. This organization conforms generally to recognized construction industry practice.

1.4.2 SPECIFIED CONTENT

This Specification has been produced employing conventions in the use of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:

1.4.2.1 Language used in the Specifications and other Contract Documents is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and where the full context of the Contract Documents so indicates.

1.4.2.2 Imperative Language is used generally in the Specifications. Requirements expressed imperatively are to be performed by the CONTRACTOR. At certain locations in the text, for clarity, subjective language is used to describe responsibilities which must be fulfilled indirectly by the CONTRACTOR, or by others when so noted.

1.4.3 ASSIGNMENT OF SPECIALISTS

The Specification requires that certain specific construction activities shall be performed by specialists who are recognized experts in the operations to be performed. The specialists must be engaged for those activities, and the assignments are requirements over which the CONTRACTOR has no choice or option. Nevertheless, the ultimate responsibility for fulfilling Contract requirements remains with the CONTRACTOR.

1.4.3.1 This requirement shall not be interpreted to conflict with enforcement of building codes and similar regulations governing the Work. It is also not intended to interfere with local trade union jurisdictional settlements and similar conventions.

1.4.3.2 Trades: Use of titles such as "carpentry" is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.

1.5 DRAWING SYMBOLS

1.5.1 GRAPHIC SYMBOLS

Graphic Symbols used on Drawings are those recognized in the construction industry for purpose indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards," published by John Wiley & Sons, Inc., Seventh Edition.

1.5.2 MECHANICAL / ELECTRICAL DRAWINGS

Graphic Symbols used on mechanical and electrical Drawings are generally aligned with symbols recommended by American Society of Heating, Refrigerating, & Air-Conditioning Engineers (ASHRAE). Where appropriate, they are supplemented by more specific symbols recommended by technical associations including American Society Mechanical Engineers (ASME), American Society of Plumbing Engineers (ASPE), Institute of Electrical and Electronics Engineers (IEEE), and similar organizations. Refer instances of uncertainty to the ARCHITECT for clarification before proceeding.

1.6 INDUSTRY STANDARDS

1.6.1 APPLICABILITY OF STANDARDS

Except where Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents by reference. Individual Sections indicate which codes and standards the CONTRACTOR must keep available at the Project site for reference.

1.6.1.1 Referenced standards take precedence over standards that are not referenced but recognized in the construction industry as applicable.

1.6.1.2 Unreferenced standards are not directly applicable to the Work, except as a general requirement of whether the Work complies with recognized construction industry standards.

1.6.1.3 Unreferenced standards. Except as otherwise limited by the Contract Documents, standards not referenced but recognized in the industry as applicable will be informed for performance of the Work. The ARCHITECT will decide whether a code or standard is applicable, or which of several are applicable.

1.6.2 PUBLICATION DATES

Where compliance with an industry standard is required, comply with the standard in effect as of date of Contract Documents.

1.6.2.1 Updated standards. At the request of the ARCHITECT, CONTRACTOR or authority having jurisdiction, submit a Change Order proposal where an applicable code or standard has been revised and issued after the date of the Contract Documents and before performance of Work affected. The ARCHITECT will decide whether he will issue a Change Order to proceed with the updated standard.

1.6.3 CONFLICTING REQUIREMENTS

Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the Contract Documents indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the ARCHITECT for a decision before proceeding.

1.6.3.1 Minimum Quantities or Quality Levels: In every instance the quantity or quality level shown or specified shall be the minimum to be provided or performed. The actual installation may comply exactly, within specified tolerances, with the minimum quantity or quality specified, or it may exceed that minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum values, as noted, or appropriate for the context of the requirements. Refer instances of uncertainty to the ARCHITECT for Decision before proceeding.

1.6.4 COPIES OF STANDARDS

Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.

1.6.4.1 Where copies of standards are needed for performance of a required construction activity, the CONTRACTOR shall obtain copies directly from the publication source.

1.6.4.2 Although copies of standards needed for enforcement of requirements may be part of required submittals, the ARCHITECT reserves the right to require the CONTRACTOR to submit additional copies as necessary for enforcement of requirements.

1.6.5 ABBREVIATIONS AND NAMES

Trade association names and titles of general standards are frequently abbreviated. Where acronyms or abbreviations are used in the Specifications or other Contract Documents they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

1.7 GOVERNING REGULATIONS / AUTHORITIES

The ARCHITECT has contacted authorities having jurisdiction where necessary to obtain information necessary for the preparation of Contract Documents; that information may or may not be of significance to the CONTRACTOR. Contact authorities having jurisdiction directly for information and decisions having a bearing on the Work.

1.8 SUBMITTALS

1.8.1 PERMITS, LICENSES, AND CERTIFICATES

For the DISTRICT records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS
(Not Applicable)

PART 3 – EXECUTION
(Not Applicable)

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- 1.1.1 Throughout the Contract Documents, reference is made to codes and standards, which establish qualities and types of workmanship and materials as well as methods for testing and reporting on the pertinent characteristics.
- 1.1.2 Provide materials and workmanship that meet or exceed the specifically named code or standard.
- 1.1.3 Deliver to the ARCHITECT required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or standard. Such proof shall be in the form requested by the ARCHITECT and will generally be required to be copies of a certified report of tests conducted by a testing agency acceptable for that purpose to the ARCHITECT.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- 1.2.1 Specific naming of codes or standards occurs on the Drawings and in other Sections of these Specifications. Comply with laws, ordinances, and regulations of authorities having jurisdiction. Proof of compliance with laws, ordinances, and regulations shall be by the signed approval of the respective authorities having jurisdiction. Costs relative thereto shall be borne by the CONTRACTOR.

1.3 QUALITY ASSURANCE

- 1.3.1 Familiarity with Pertinent Codes and Standards: Verify the requirements of the specifically named codes and standards as well as requirements mandated by law, ordinance, and authority. Verify that the items procured and installed in this Work meet or exceed the specified requirements.
- 1.3.2 Rejection of Noncomplying Items: The ARCHITECT reserves the right to reject items incorporated into the Work, which fail to meet such minimum requirements.

1.4 APPLICABLE CODES

- 1.4.1 Work of the project shall conform to the following Codes, copies of which shall be maintained at the job site by the CONTRACTOR throughout the duration of the work:
 - 1.4.1.1 2019 Building Standards Administrative Code, Part 1, Title 24, C.C.R.
 - 1.4.1.2 2019 California Building Code (CBC), Part 2, Title 24, C.C.R.
(2018 International Building Code with 2019 California Amendments)
 - 1.4.1.3 2019 California Electric Code (CEC), Part 3, Title 24, C.C.R.
(2017 National Electric Code with 2019 California Amendments)
 - 1.4.1.4 2019 California Mechanical Code (CMC), Part 4, Title 24, C.C.R.
(2018 Uniform Mechanical Code with 2019 California Amendments)
 - 1.4.1.5 2019 California Plumbing Code (CPC), Part 5, Title 24, C.C.R.
(2018 Uniform Plumbing Code with 2019 California Amendments)

- 1.4.1.6 2019 California Energy Code (CEnC), Part 6, Title 24, C.C.R.
- 1.4.1.7 2019 California Fire Code (CFC), Part 9, Title 24, C.C.R.
(2018 International Fire Code with 2019 California Amendments)
- 1.4.1.8 2019 California Referenced Standards Code, Part 12, Title 24, C.C.R.
- 1.4.1.9 Regulations of the State Fire Marshal, C.C.R. Title 19
- 1.4.1.10 NFPA 13 Automatic Sprinkler Systems, 2016 edition (CA Amended)
- 1.4.1.11 NFPA 14 Standpipe & Hose Systems, 2016 edition (CA Amended)
- 1.4.1.12 NFPA 17 Dry Chemical Extinguishing Systems, 2017 edition
- 1.4.1.13 NFPA 17A Wet Chemical Extinguishing Systems, 2017 edition
- 1.4.1.14 NFPA 20 Stationary Fire Pumps for Fire Protection, 2016 edition
- 1.4.1.15 NFPA 24 Private Fire Service Mains, 2016 edition (CA Amended)
- 1.4.1.16 NFPA 25 Inspection, Testing and Maintenance of Water Based Fire Protection Systems, 2013 California Edition
- 1.4.1.17 NFPA 37 Installation and Use of Stationary Combustion Engines and Gas Turbines, 2015 edition.
- 1.4.1.18 NFPA 72 National Fire Alarm and Signaling Code, 2016 edition (CA Amended)
- 1.4.1.19 NFPA 80 Fire Doors and other Opening Protectives, 2016 edition
- 1.4.1.20 NFPA 101 Life Safety Code, 2018 Edition
- 1.4.1.21 NFPA 110 Emergency and Standby Power Systems, 2016 edition
- 1.4.1.22 NFPA 170 Standard for Fire Safety and Emergency Symbols, 2018 edition
- 1.4.1.23 NFPA 221 Standard for High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls, 2018
- 1.4.1.24 NFPA 2001 Clean Agent Fire Extinguishing Systems, 2015 edition
- 1.4.1.25 ICC 300 Standards on Bleachers, Folding and Telescopic Seating, and Grandstands 2017 edition
- 1.4.1.26 ICC-ES AC77 Acceptance Criteria for Smoke Containment Systems Used with Fire-resistance-rated Elevator Hoistway Doors and Frames
- 1.4.1.27 SFM Std. 12-10-1 Power Operated Exit Doors

- 1.4.1.28 SFM Std. 12-10-2 Single-Point Latching or Locking Devices
- 1.4.1.29 SFM Std. 12-10-3 Emergency Exit and Panic Hardware
- 1.4.1.30 SFM Std. 12-7A Materials and Construction Methods for Exterior Wildfire Exposure
- 1.4.1.31 UBC Std. 15-2 Test Standard for Determining the Fire Retardancy of Roof-Covering Materials
- 1.4.1.32 UL 38 Manual Operating Signal Boxes, 1999 edition w/ revisions through February 2, 2005 as amended.
- 1.4.1.33 UL 268 Smoke Detectors for Fire Protective Signaling Systems, 2009 edition
- 1.4.1.34 UL 268A Smoke Detectors Duct Applications, 1999 edition w/revisions through October 22, 2003
- 1.4.1.35 UL 294 Standard for Access Control System Units, 1999 edition w/revisions through February 2015
- 1.4.1.36 UL 305 Standard for Panic Hardware, 2012 edition
- 1.4.1.37 UL 346 Waterflow indicators for Fire Protective Signaling Systems, 2005 Edition
- 1.4.1.38 UL 464 Audible Signal Appliances, 2003 edition
- 1.4.1.39 UL 521 Heat Detectors for Fire Protective Signaling Systems, 1999 edition, w/revisions through July 20, 2005
- 1.4.1.40 UL 864 Control Units for Fire Protective Signaling Systems, 2003 edition w/revisions through December 2014
- 1.4.1.41 UL 2034 Standard for Single- and Multiple Station Carbon Monoxide Alarms, 2017 edition

Reference code section for NFPA Standards- 2019 CBC (SFM) Chapter 35.
See Chapter 35 for State of California amendments to NFPA Standards.

1.5 REFERENCE STANDARDS

- 1.5.1 Standards referenced in the Specifications are usually referred to by the abbreviation of the organization's name and the designation of the document

(e.g., ASTM A 36). Documents in common use may be referred to by their own designation (e.g., the National Electrical Code is published by the National Fire Protection Association as NFPA-70, but is referred to as NEC and is part of a series of documents or standards referred to as the National Fire Code). References are to the latest issue of the publication available on the date stipulated for the receipt of bids.

STANDARDS ORGANIZATIONS

AA	Aluminum Association
AAMA	American Architectural Manufacturer's Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AISC	American Institute of Steel Construction
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association, Inc.
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
ARI	Air Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Material
AWPA	American Wood Preservers' Association
AWPB	American Wood Preservers' Bureau
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders' Hardware Manufacturers Association
CDA	Copper Development Association
CCR	California Code of Regulations
CGA	Compressed Gas Association

CISPI	Cast Iron Soil Pipe Institute
CPSC	Consumer Product Safety Commission
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard of U.S. Dept. of Commerce
CTI	Ceramic Tile Institute
CSMA	Chemical Specialties Manufacturing Association
EPA	Environmental Protection Agency
FGMA	Flat Glass Marketing Council
FM	Factory Mutual System
FS	Federal Specification
GA	Gypsum Association
HI	Hydraulic Institute, Hydraulics Institute
IAPMO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
MIL	Military Specifications
ML/SFA	Metal Lath/Steel Framing Association
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
NAAMM	National Association of Architectural Metal Manufactures
NBS	National Bureau of Standards
NEBB	National Environmental Balancing Bureau
NEC	National Electric Code (NFPA)
NEMA	National Electric Manufacturers Association
N FLUID PA	National Fluid Power Association

NFPA	National Fire Protection Association
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NWWDA	National Wood Window and Door Association
PS	Product Standard (of NBS)
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SDI	Steel Deck Institute
SJI	Steel Joist Institute
SSPC	Steel Structures Painting Council
TCA	Tile Council of America
CBC	California Building Code, 2019
CBC	California Building Standards Administrative Code (Part 1, Title 24, CCR). 2019 California Building Code, Volumes 1, 2, and 3 (Part 2, Title 24, CCR). (2018 Edition International Building Code with 2019 California Amendments).
UL	Underwriters' Laboratories
WIC	Woodwork Institute of California
WLPDIA	Western Lath Plaster Drywall Industries Association
CMC	California Mechanical Code – See IAPMO
CPC	California Plumbing Code – See IAPMO
TITLE	Title 24, C.C.R., Parts 1 and 2

PART 2 - PRODUCTS
(Not Applicable)

PART - 3 EXECUTION
(Not Applicable)

END OF SECTION

PART 1 – GENERAL

1.1 GENERAL

1.1.1 DISTRICT will employ and pay for the services of an Independent Testing Laboratory approved by D.S.A. to perform specified Testing.

1.1.1.1 The CONTRACTOR shall cooperate with the Laboratory and shall in no way relieve the CONTRACTOR's obligation to perform the Work of the Contract.

1.1.1.2 Employment of the Laboratory shall in no way relieve the CONTRACTOR's obligations to perform the Work of the Contract.

1.2 RELATED WORK

1.2.1 Related Requirements in other parts of the Project Manual:

1.2.1.1 Inspections and testing required by laws, ordinances, rules, regulations, orders or approval of public authorities: General Conditions.

1.2.2 Related Requirements Specified in Other Sections:

1.2.2.1 Certification of Products: The respective section of this Specification.

1.2.2.2 Test, Adjust, and Balance of Equipment: The respective section of this Specification.

1.2.2.3 Laboratory Test Required, and Standards for Testing: The respective sections of this Specification.

1.3 DISTRICT INSPECTOR

1.3.1 An Inspector, approved by D.S.A., employed by the DISTRICT in accordance with the Requirements of the State of California Code of Regulation, Title 24, will be assigned to the Work. His/her duties are specifically defined in Title 24, Part 1, Section 4-342.

1.3.2 The work of construction in all stages of progress shall be subject to the personal continuous observation of the Inspector. He shall have free access to any or all parts of the Work at any time. The CONTRACTOR shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep him fully informed respecting the progress and manner of the work and the character of the materials. Inspection of the Work shall not relieve the CONTRACTOR from any obligation to fulfill this Contract.

1.4 QUALIFICATION OF LABORATORY

1.4.1 Meet "Recommended Requirements for Independent Laboratory Qualification" published by American Council of Independent Laboratories.

1.4.2 Meet basic requirements of ASTM E 329, "Standards for Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction."

1.5 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

1.5.1 Laboratory is not authorized to:

1.5.1.1 Release, revoke alter or enlarge on requirements of Contract Documents.

1.5.1.2 Approve or accept any portion of the Work.

1.5.1.3 Perform any duties of the CONTRACTOR.

1.6 CONTRACTOR'S RESPONSIBILITIES

1.6.1 Cooperate with Laboratory personnel and provide access to Work and to manufacturer's operations.

1.6.2 Secure and deliver to the Laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.

1.6.3 Provide to the Laboratory the preliminary design mix proposed to be used for material mixed which require control by the testing laboratory.

1.6.4 Furnish incidental labor and facilities:

1.6.4.1 To provide access to Work to be tested.

1.6.4.2 To obtain and handle samples at the project site or at the source of the product to be tested.

1.6.4.3 To facilitate inspections and tests.

1.6.4.4 For storage and curing of test samples.

1.6.5 Notify D.S.A. approved Inspector a minimum of 24 hours in advance of operations to allow for Laboratory assignment of personnel and scheduling of tests.

1.6.5.1 When tests or inspections cannot be performed after such notice, reimburse DISTRICT for Laboratory personnel and travel expenses incurred due to CONTRACTOR'S negligence.

1.6.6 Make arrangements through the DISTRICT'S PROJECT MANAGER and INSPECTOR and pay for additional samples and tests required for the CONTRACTOR'S negligence.

1.6.7 Employ and pay for the services of a separate, equally qualified Independent Testing Laboratory to perform additional inspection, sampling and testing required when initial tests indicate Work does not comply with Contract Documents.

1.6.8 The District shall pay and back charge the CONTRACTOR for additional testing of all failed tests for this project and special testing required which may be required due to any failed test samples.

1.6.9 The CONTRACTOR shall pay for all tests and inspections of materials which require testing of material outside of the State for where this Project is constructed to include providing travel expenses, lodging expenses, tools or testing devices, etc., for the testing laboratory personnel.

1.7 SUBMITTALS

1.7.1 Furnish copies of reports promptly for distribution as follows:

1.7.1.1 One (1) copy to DISTRICT

1.7.1.2 One (1) copy to ARCHITECT

1.7.1.3 One (1) copy to Structural Engineer

1.7.1.4 One (1) copy to D.S.A. approved Inspector

1.7.1.5 Two (2) copies to the Division of the State Architect (D.S.A.) or as required by codes and ordinances.

1.7.2 Each report shall include, as applicable:

1.7.2.1 Date issued.

1.7.2.2 Project title and DSA Application Number.

1.7.2.3 Testing laboratory name, address, and telephone number.

1.7.2.4 Name and signature of laboratory inspector.

1.7.2.5 Date and time of sampling or inspection.

1.7.2.6 Record of temperature and weather conditions.

1.7.2.7 Date of test.

1.7.2.8 Identification of product and specification section.

1.7.2.9 Location of sample test in the Project.

1.7.2.10 Type of inspection or test.

1.7.2.11 Results of tests and compliance with Contract Documents.

1.7.2.12 Interpretation of test results, when requested by ARCHITECT.

1.7.2.13 All tests made, regardless of whether such tests indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported.

1.7.2.14 That the material or materials were sampled and tested in accordance with the requirements of Title 24 and with this Specification.

1.8 SCHEDULE OF INSPECTIONS AND TESTS BY OWNER'S TESTING AGENCY

1.8.1 Site Excavation, Fills and Foundation Preparation (Title 24, Part 2):

1.8.1.1 All earthwork, including earth fill compaction – 1704A.7

1.8.1.2 Inspection of Excavation/fill Installation – 1704A.7

1.8.2 Concrete (Title 24, Part 2, Chapter 19A):

1.8.2.1 Materials

1.8.2.1.1 Portland Cement - 1903A, 1916A.1, 1704A.4.1

1.8.2.1.2 Concrete Aggregates – 1903A, 1903A.5, 1704A.4.1

1.8.2.1.3 Reinforcing Bars – 1903A, 1916A.2

1.8.2.1.4 Admixtures – 1903A, 1903A.4

1.8.2.1.5 Waiver of Material Testing (Reinforcing Bars) – 1916A.2

1.8.2.2 Concrete Quality

1.8.2.2.1 Proportions of Concrete - 1904A, 1905A.1, 1905A.2, 1905A.3, 1905A.4, 1905A.5

1.8.2.2.2 Strength Tests – 1905A.6, 1905A.1.1

1.8.2.3 Concrete Inspection

1.8.2.3.1 Job Site Inspection – 1704A.4.5, 1704A.6, 1905A.7

1.8.2.3.2 Batch Plant Inspection – 1704A.4.2

1.8.2.3.3 Waiver of Batch Plant Inspection – 1704A.4.3

1.8.2.3.4 Reinforcing Bar Welding Inspection – 1704A.4.1

1.8.2.3.5 Drilled-in Expansion Anchors – 1916A.7

1.8.3 Masonry (Title 24, Part 2, Chapter 21A)

1.8.3.1 Materials

1.8.3.1.1 Masonry Units – 2103A.1

1.8.3.1.2 Mortar – 2103A.8

1.8.3.1.3 Grout – 2103A.12

1.8.3.1.4 Reinforcing Bars – 1903A.7, 1916A.2, 2103A.13

1.8.3.2 Masonry Quality

1.8.3.2.1 Portland Cement Tests – 1903A, 1916A.1

1.8.3.2.2 Mortar and Grout Tests – 2105A.2.2.1.4

1.8.3.2.3 Masonry Core Tests – 2105A.4

1.8.3.2.4 Masonry Prism Tests – 2105A.2.2.2

1.8.3.2.5 Masonry Unit Tests – 2105A.2.2.1

1.8.3.3 Masonry Inspection

1.8.3.3.1 Reinforced Masonry – 1704A.5

1.8.3.3.2 Reinforcing Bar Welding Inspection – 1704A.4.3.1.3

1.8.4 Structural Steel (Title 24, Part 2, Chapter 22A)

1.8.4.1 Materials

1.8.4.1.1 Structural Steel, Cold Formed Steel – 2205A.1

1.8.4.1.2 Cold Formed Steel – 2209A.1

1.8.4.1.3 Material Identification - 2203A.1

1.8.4.1.4 High Strength Bolts, Nuts, Washers – 2212A.1

1.8.4.2 Structural Steel Inspection

1.8.4.2.1 Shop Fabrication Inspection – 1704A.3.2

1.8.4.2.2 High Strength Bolt Inspection – 1704A.3.3

1.8.4.2.3 Welding Inspection – 1704A.3.1

1.8.5 Miscellaneous Fasteners:

1.8.5.1 Anchorage test methods as shown on drawings and specified in respective sections.

1.8.6 Wood (Title 24, Part 2, Chapters 23):

1.8.6.1 Materials

1.8.6.1.1 Lumber and Plywood Grading – 2303.1

1.8.6.1.2 Glued-Laminated Members – 2303.1.3

1.8.6.2 Wood Inspection

1.8.6.2.1 Glued-Laminated Fabrication – 1704A.6.3.1, 2303.1.3

Note: Chapters and Articles refer to the 2019 Edition CBC with 2018 State of California amendments and Title 24, Parts 1 and 2.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

- 1.1 SECTION INCLUDES: Furnishing and installing required temporary facilities as indicated or specified as required for proper performance of the Contract. Locate temporary facilities where directed by the ARCHITECT and maintain in a safe and sanitary condition at all times until completion of the Contract.
- 1.1.1 Related Documents: The Conditions of the Contract and the other sections of Division 1 apply to this section as fully as if repeated herein.
- 1.2 REGULATORY REQUIREMENTS:
- 1.2.1 Comply with governing regulations and utility company regulations and recommendations.
- 1.2.2 Comply with pollution and environmental protection regulations for use of water and energy, for discharge of wastes and storm drainage from Project Sites, and for control of dust, air pollution, and noise.
- 1.2.3 Temporary construction shall conform to requirements of State, County, and local authorities and underwriters which pertain to operation, health, safety, and fire hazard. CONTRACTOR shall furnish and install items necessary for conformance with such requirements, whether or not called for under the separate division of these specifications.
- 1.2.4 Comply with Federal Storm Water Mitigation requirements.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

- 3.1 TEMPORARY HEATING AND VENTILATING:
- 3.1.1 The CONTRACTOR shall provide adequate forced ventilation of enclosed areas for curing of their installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, or gases from his operation.
- 3.1.2 The CONTRACTOR shall provide and pay for venting and cooling for their labor throughout the Project to ensure adequate levels to permit personnel to properly perform their construction activities and to ensure a safe working condition.
- 3.1.3 The CONTRACTOR shall maintain required room temperature needed per manufacturer recommendation for their construction material installation.
- 3.2 CONSTRUCTION EQUIPMENT:
- 3.2.1 The CONTRACTOR shall, at his own cost, provide necessary equipment as required and, upon completion of the Work, remove such temporary equipment.

- 3.2.2 CONTRACTOR shall erect, equip, and maintain construction equipment in strict accordance with applicable statutes, laws ordinances, rules, and regulations of authority having jurisdiction.
- 3.2.3 CONTRACTOR shall provide, maintain, and remove, upon completion of the Work, all temporary rigging, scaffolding, hoisting equipment, rubbish chutes, ramps, stairs, runways, platforms, ladders, railings, and other temporary construction as required for all Work thereunder.
- 3.3 STORAGE:
- 3.3.1 Operations of the CONTRACTOR, including storage of materials, shall be confined to areas approved. CONTRACTOR shall be liable for damage caused by him during such use of property of the DISTRICT or other parties. CONTRACTOR shall save the DISTRICT and the ARCHITECT and his employees free and harmless from liability of any nature or kind arising from any use, trespass, or damage occasioned by his operations on premises of third persons. Storage facilities shall provide protection of products from excessive cold, heat, moisture, humidity, or physical abuse as specified in the respective sections for the products stored.
- 3.4 STORM PROTECTION:
- 3.4.1 Should warnings or presence of heavy rain or high winds be noted, the CONTRACTOR shall take every practical precaution to eliminate or prevent danger to the Work and to adjacent property. These precautions shall include closing all openings to make them weather tight, removing loose materials, tools, or equipment from exposed locations, and removing or securing scaffolding.
- 3.4.2 CONTRACTOR to develop a Storm Water Mitigation Plan to be approved by the local authorities meeting the Federal Act of September 1993, and provide the DISTRICT a copy.
- 3.4.3 The CONTRACTOR shall implement all required Storm Water Mitigation measures associated with their operations. (Not required for these projects)
- 3.5 MAINTENANCE AND REMOVAL
- 3.5.1 Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work, and as directed by the ARCHITECT.
- 3.5.2 Remove temporary facilities and controls, such as temporary office facilities barricades, storage sheds, utilities, and other construction of a temporary nature as rapidly as the progress of the Work will permit, and as directed by the ARCHITECT, and recondition and restore portions of the site occupied to original condition to be acceptable to DISTRICT and ARCHITECT.

END OF SECTION

1.1 WORK SPECIFIED IN THIS SECTION

1.1.1 Work In this section includes all labor, equipment, and materials necessary for the implementation, maintenance, and monitoring of the STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.). A copy of the S.W.P.P.P. is available from the DISTRICT.

1.1.2 Principal items of Work included Herein:

1.1.2.1 Plan administration, maintenance, and updates.

1.1.2.2 Placement of Erosion/Pollution control devices.

1.1.2.3 Maintenance and monitoring of control devices.

1.1.2.4 Non-Storm Water Manager.

1.1.2.5 Miscellaneous related work necessary for plan compliance.

1.1.2.6 Reports and Certificates

1.2 RELATED WORK SPECIFIED IN OTHER SECTIONS

1.2.1 All other sections of this Specification shall comply with the requirements of this section. All trades working on the Project need to be aware of and in compliance with the S.W.P.P.P.

1.2.2 All materials that can potentially enter and/or pollute storm water discharges and the generation of non-storm water discharges shall be in compliance with the S.W.P.P.P. Representative materials and procedures include erosion control of native and fill materials, construction vehicles and equipment, soil treatment chemicals, and general construction debris potentially entering the storm drain system's natural flow course.

1.3 REGULATORY REQUIREMENTS

1.3.1 Prior to the beginning of construction on this site, the DISTRICT will be filing with the State of California, State Water Resources Control Board a Notice of Intent (N.O.I.) that this Project will comply with the terms of the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Permit No. CA5000002, Waste Discharge Requirements (WDRS) for discharge of storm water run-off associated with construction activity. With the filing of the N.O.I., the THE CONTRACTOR will be obligated to comply with the requirements of the State's General Permit with the implementation and maintenance of the S.W.P.P.P.

1.4 QUALITY ASSURANCE

1.4.1 Pre-construction Conference: The CONTRACTOR, all Subcontractors, and all heavy equipment operators shall attend the pre-construction conference, at which time the working copies of the S.W.P.P.P. will be presented to the THE CONTRACTOR and the S.W.P.P.P. requirements will be reviewed.

- 1.4.2 THE CONTRACTOR shall submit a list of measures they will execute for their respective bid package(s) within thirty-five (35) calendar days after issuance of the Letter of Intent and/or the Notice to Proceed.
- 1.4.3 THE CONTRACTOR, ARCHITECT, PROJECT ENGINEER, and Construction Superintendent shall become familiar with all aspects of the S.W.P.P.P. (including the State's General Permit) and shall be responsible for ensuring compliance with the S.W.P.P.P. for the project.
- 1.4.4 THE CONTRACTOR shall educate, direct, and enforce compliance with the requirements of the S.W.P.P.P. by all subcontractors.

1.5 PERFORMANCE REQUIREMENTS

- 1.5.1 The Storm Water Pollution Prevention Plan is a minimum requirement that THE CONTRACTOR and all subcontractors shall abide by. Revisions and modifications to the S.W.P.P.P. are acceptable only if they maintain levels of protection equal to or greater than originally specified.
- 1.5.2 The CONTRACTOR and all Subcontractors shall read and be thoroughly familiar with all of the requirements of the S.W.P.P.P. The CONTRACTOR shall be responsible for the performance of Subcontractors. The CONTRACTOR shall inspect and monitor all Subcontractors' work and storage areas for compliance with the S.W.P.P.P. prior to any anticipated rain.
- 1.5.3 Penalties: THE CONTRACTOR shall pay any fines and be liable for any other penalties that may be imposed by the regulatory agency for non-compliance with the S.W.P.P.P. during the course of Work. In the cases of violations, CONTRACTORS shall be responsible to complete any and all corrective measures, at his own expense, as may be directed by the regulatory agency.

1.6 MATERIALS

- 1.6.1 Provide all temporary and permanent storm water pollution prevention facilities, equipment, and materials as required by or as necessary to comply with the S.W.P.P.P.
- 1.6.2 Provide Erosion Control/Storm Water Pollution Prevention measures and Temporary Fencing per drawings.

1.7 IMPLEMENTATION

- 1.7.1 All measures required by the S.W.P.P.P. shall be implemented concurrent with the commencement of construction. Pollution prevention practices and devices shall be followed or installed as early in the construction schedule as possible with frequent upgrading of devices as construction progresses.
- 1.7.2 THE CONTRACTOR shall conduct an inspection of all erosion control and pollution prevention devices prior to any anticipated storm event to verify all S.W.P.P.P. measures are in place and to identify and mitigate any new potential pollution sources created or caused by the ongoing construction.

1.7.3 After storm events, the THE CONTRACTOR shall conduct an inspection of the Project site to verify the performance of the erosion control and pollution prevention devices in reducing pollutant loading of the discharged storm water associated with the construction activity.

1.7.4 THE CONTRACTOR and all subcontractors will be required to eliminate or reduce to the extent feasible the discharge of materials other than storm water to the storm drain system and/or receiving waters as dictated by the State General Permit and S.W.P.P.P.

1.8 REPORTING

1.8.1 THE CONTRACTOR shall prepare all inspection records for each inspection done prior to and just after all storm events as required by the S.W.P.P.P. with two copies forwarded to the DISTRICT.

1.8.2 THE CONTRACTOR shall prepare the overall certification based upon the inspection reports for DISTRICT'S use in certifying the Project site's compliance with the S.W.P.P.P. and the State's General Permit.

1.9 COMPLETION OF WORK

1.9.1 Clean-up shall be performed as each portion of the Work progresses. All refuse, excess material, and possible pollutants shall be disposed of in a legal manner off-site and all temporary and permanent S.W.P.P.P. devices shall be in place and maintained in good condition.

1.9.1.1 At completion of work, THE CONTRACTOR, ARCHITECT and DISTRICT shall inspect installed S.W.P.P.P. devices, and CONTRACTOR shall present the currently implemented S.W.P.P.P. with all backup records to the DISTRICT.

END OF SECTION

<p>DISTRICT LOGO</p>	<p>← 2" WIDE BORDER STRIPE</p>
<p>GLENOAKS E. S. NEW 2-STORY MODULAR BUILDING GLENDALE UNIFIED SCHOOL DISTRICT</p>	<p>← 8" Ø DISTRICT LOGO [See Drawing T1-1]</p> <p>← 4" HIGH LETTERS</p>
<p>Funded by Statewide School Construction Bonds Administered by the State Allocation Board and the Department of General Services through The Office of Public School Construction</p>	<p>← 3" HIGH LETTERS</p>
<p>BOARD OF EDUCATION</p>	
<p>President Name Vice President Name Clerk Name Member Name Member Name</p>	<p>← 2" ALL REMAINING LETTERS</p>
<p>SUPERINTENDENT OF SCHOOLS Name</p>	
<p>ASSISTANT SUPERINTENDENTS Name Name Name</p>	<p>← 4' X 8' MDO PLYWOOD SIGN</p>
<p>ARCHITECT Company Contact Name Address</p>	<p>(SIGN MAY BE HORIZONTAL)</p> <p>TYPE STYLE: HELVETICA MEDIUM</p> <p>PAINT BACKGROUND AMERITONE IM48E "MANGROVE"</p> <p>PAINT LETTERS & BORDER STRIPE BLACK</p>
<p>GENERAL CONTRACTOR Name</p>	

PART 1 – GENERAL

1.01 SIGNS

- A. Contractor shall provide and post the following sign in a place as directed by the Architect. Keep sign in good condition until construction is complete. Remove when project is complete or as directed by the Architect.
1. Wording: Similar to Attachment, to be provided by District.
 2. Colors: To be provided by District.
 3. Plywood Panel: $\frac{3}{4}$ inch thick, MDO Douglas fir, Exterior Grade.
 4. Posts: 4 inches by 4 inches minimum.; redwood Merchantable Grade; or pressure-treated Douglas fir, No. 1 Grade.
 5. Footings: Set posts 3 feet 0 inches deep min. into 12 inches minimum diameter concrete footings.

END OF SECTION

- See Attachment A

PART 1 – GENERAL

1.1 SUMMARY

1.1.1 Section Includes: General requirements for delivery, storage, and handling of materials and equipment applicable to the product sections of this specification and necessary for the construction of the Project.

1.1.2 Related Sections:

1.1.2.1 Section 012513 – Product Substitution Procedures.

1.2 GENERAL

1.2.1 Material and Equipment incorporated into the Work:

1.2.1.1 Conform to applicable specification and standards.

1.2.1.2 Comply with size, make, type, and quality specified.

1.2.2 Manufactured and Fabricated Products:

1.2.2.1 Design, fabricate, and assemble in accordance with the best engineering and shop practices.

1.2.2.2 Manufacture like parts of duplicate units to standard sizes and gauges for interchangeability.

1.2.2.3 Two or more items of the same kind shall be identical, by the same manufacturer.

1.2.3 Reused Materials: Where the contract documents indicate that existing materials may be reused, such materials must be of like-new sound condition when reincorporated in the work.

1.2.3.1 Metals must be free of rust, corrosion, and dents, and must be restored to a like-new finish by cleaning, polishing, or refinishing, whichever is appropriate.

1.2.3.2 Materials to be reused shall be approved for reuse by the Inspector.

1.2.4 Supplementary materials not specifically described in each Section, but required for a complete and proper installation of the Work, shall be new, first quality of their respective kinds, and subject to review and acceptance by the District.

1.3 DELIVERY

1.3.1 Arrange deliveries of products in accordance with construction schedules and in ample time to facilitate inspection prior to installation. Notify the Inspector of Record, in writing, when items are delivered to the site, so he may inspect and verify quality and quantities delivered are as intended.

- 1.3.2 Coordinate deliveries to avoid conflict with work and conditions at site, taking into consideration:
 - 1.3.2.1 Work of the Contractors, or District.
 - 1.3.2.2 Limitations of storage space.
 - 1.3.2.3 Availability of equipment and personnel for handling products.
 - 1.3.2.4 District's use of premises.
- 1.3.3 Deliver products in undamaged condition in original containers or packaging and with identifying labels intact and legible.
- 1.3.4 Partial deliveries of component parts of equipment shall be clearly marked to identify the equipment to permit easy accumulation of parts and to facilitate assembly.
- 1.3.5 Immediately on delivery, inspect shipment to ensure:
 - 1.3.5.1 Product complies with requirements of Contract Documents and reviewed submittals.
 - 1.3.5.2 Quantities are correct.
 - 1.3.5.3 Containers and packages are intact and labels are legible.
 - 1.3.5.4 Products are undamaged and properly protected.
- 1.3.6 The District reserves the right to observe delivered materials, to review the accompanying bills of lading, and to reject the following:
 - 1.3.6.1 Materials not identifiable as accepted products of the accepted manufacturer.
 - 1.3.6.2 Materials exhibiting shelf-lives in excess of those stipulated by the manufacturer.
 - 1.3.6.3 Materials not bearing the appropriate label of Underwriters Laboratories (UL), where applicable.
 - 1.3.6.4 Materials in opened or excessively damaged containers.
 - 1.3.6.5 Materials exhibiting evidence of moisture, organic matter, or other adulterants.
- 1.3.7 In the event of damage or rejection by the District for stipulated cause, immediately make repairs and replacements necessary to the acceptance of the Architect at no additional cost to the District.

1.4 STORAGE

- 1.4.1 Payment will not be made by the District for materials stored off-site, until such time as the materials are incorporated into the Work
- 1.4.2 Store products immediately on delivery, store in accordance with manufacturer's instructions and protect until installed in the Work.
- 1.4.3 Store products subject to damage by elements in weather tight enclosures.
 - 1.4.3.1 Maintain temperatures within limits recommended by manufacturer's instructions.
 - 1.4.3.2 Provide humidity control for sensitive products, as required by the manufacturer.
 - 1.4.3.3 Store unpacked products in a manner accessible for inspection.
- 1.4.4 Exterior Storage:
 - 1.4.4.1 Provide substantial platforms, blocking, or skids to support fabricated products above ground and prevent soiling or staining.
 - 1.4.4.1.1 Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet coverings. Provide adequate ventilation to avoid condensation.
 - 1.4.4.2 Store loose granular materials on solid paved surfaces or provide plywood platforms to prevent mixing with foreign matter.
 - 1.4.4.2.1 Provide surface drainage to prevent flow or ponding of rainwater.
 - 1.4.4.2.2 Prevent mixing of refuse or chemically injurious materials or liquids.
- 1.5 MAINTENANCE OF STORAGE
 - 1.5.1 Maintain periodic system of inspection of stored products on scheduled basis to assure that:
 - 1.5.1.1 State of storage facilities is adequate to provide required conditions.
 - 1.5.1.2 Required environmental conditions are maintained on a continuing basis.
 - 1.5.1.3 Surfaces of products exposed to elements are not adversely affected.
 - 1.5.2 Mechanical and electrical equipment which requires servicing during long term storage shall have complete manufacturer's instructions for servicing accompanying each item, with notice of enclosed instructions shown on exterior of package.

1.6 PROTECTION AFTER INSTALLATION

1.6.1 Provide protection of installed products to prevent damage from subsequent operations. Remove protection materials when no longer needed, prior to completion of work.

1.6.2 Control traffic to prevent damage to equipment and surfaces.

PART 2 – PRODUCTS
(Not Applicable)

PART 3 – EXECUTION
(Not Applicable)

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: General requirements for field engineering necessary to provide horizontal and vertical control, including:
 - 1. Survey work required in execution of the project.
 - 2. Civil Engineering and Land Surveying services specified or required to execute contractor's construction methods.
 - 3. Coordination with testing laboratory or agency and Soils Engineer.
 - 4. Contractor furnished assistance.
 - 5. Verification of conditions.
 - 6. Reporting procedures.
- B. Requirements not in this section:
 - 1. Specific test procedures performed in accordance with Section 014523 – Testing Laboratory and Inspection Services.

1.02 QUALIFICATIONS OF ENGINEER OR SURVEYOR

- A. Qualifications: Registered Civil Engineer qualified to perform land surveying or licensed Land Surveyor acceptable to the Contractor and Owner. The Prime Contractor shall furnish to the Owner prior to start of work the name and license or registration number issued by the State of California, Board of Registration for Professional Engineers and Land Surveyors. Contractor shall provide notice to the Owner during the course of construction should the identification of the individual responsible for this work change from time to time and shall obtain approval of the Owner for the replacement.
- B. All field engineering services furnished during the course of this project shall be under the direct supervision and control of the named individual Civil Engineer or Land Surveyor.

1.03 FIELD ENGINEERING REQUIREMENTS

- A. Survey Reference Points:
 - 1. Existing basic horizontal and vertical control points for the project are those designated on the drawings.
 - 2. Locate and protect control points prior to starting site work, and preserve permanent reference points during construction. Identify and protect survey monuments on the site discovered during construction, which are not referenced on the project drawings. Tie out such monuments and notify Architect prior to allowing them to be disturbed.

3. Replace any permanent boundary markers disturbed during construction with new permanent monuments and file the required Record of Survey or Corner Record in accordance with applicable State and County laws, at no additional cost to the Owner.

1.04 PROJECT SURVEY REQUIREMENTS

- A. Establish a minimum of two permanent horizontal and vertical control points on the site, remote from the "Building Pad Area" and referenced to data established by the survey control points.
 1. Site Improvements:
 - a. Provide stakes for grading, fill, and topsoil placement.
 - b. Locate utility lines, including, but not limited to, storm drains, sewers, water mains, gas, electric, and telephone lines. Provide adequate horizontal control to locate the lines and provide vertical control in proportion to the slope of the line as required for accurate construction.
 2. Provide curb stakes and elevations as required to construct paving and on and off-site concrete work.
 - a. Calculate and layout subgrade elevations and intermediate controls as required to provide smooth transitions between the spot elevations indicated on the plans.
 - b. From time to time, verify layouts of work by the same methods.

1.05 RECORDS

- A. Maintain a complete, accurate log of control and survey work as it progresses.

1.06 SUBMITTALS

- A. Submit name and address of Licensed Surveyor or Civil Engineer to Architect, including changes as they may occur from time to time.
- B. On request of the Architect, submit documentation to verify accuracy of the field engineering work.
- C. Project Record (As-Built) Drawings:
 1. At the project completion, deliver to the Architect, final "as-built" drawings of the work, prepared on Bond Paper. Clearly indicate differences between original drawings and completed work within specified tolerances.
 2. Show as-built locations by coordinates of utilities on-site with top of pipe elevations at major grade and alignment changes.
 3. Completed as-built drawings shall be signed and certified as correct by the licensed Surveyor or Civil Engineer.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

4. Furnish any required Engineering Survey information for all utility easements for any required document recording.
5. Submit certification of subgrade completion and building location on the building pads showing the actual specified elevation of the completed constructed subgrade, to the nearest five hundredth of a foot (0.05 foot).

PART 2 – PRODUCTS
(Not Applicable)

PART 3 – EXECUTION
(Not Applicable)

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

1.1 DESCRIPTION

1.1.1 Work included: This Section establishes general requirements pertaining to cutting (including excavating), fitting, and patching of the Work. Each THE CONTRACTOR shall do all cutting, fitting, or patching of Work as required to make its several parts come together properly and fit to receive or be received by work of other THE CONTRACTORS shown upon, or reasonably implied by, the Drawings and Specifications for the completed structure as ARCHITECT may direct. In addition, the THE CONTRACTOR shall do the following:

1.1.1.1 Uncover work to provide for installing, inspecting, or both, of ill-timed work;

1.1.1.2 Remove and replace work not conforming to requirements of the Contract Documents; and

1.1.1.3 Remove and replace defective work.

1.1.2 All costs caused by defective or ill-timed work shall be borne by THE CONTRACTOR.

1.1.3 The THE CONTRACTOR shall not endanger any work by cutting, excavating, or otherwise altering work and shall not cut or alter work of any other THE CONTRACTOR except with consent of ARCHITECT.

1.1.4 Related work:

1.1.4.1 Documents affecting work of this Section include, but are not necessarily limited to, the Conditions of the Contract and Sections in Division 1 of these Specifications.

1.1.4.2 In addition to other requirements specified, upon the ARCHITECT'S request, uncover work to provide for inspection by the ARCHITECT of the covered work and remove samples of installed materials for testing.

1.2 QUALITY ASSURANCE

1.2.1 Use adequate numbers of skilled personnel who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.3 SUBMITTALS

1.3.1 Request for ARCHITECT'S consent:

1.3.1.1 Prior to cutting which effects structural safety, submit written request to the ARCHITECT for permission to proceed with cutting.

1.3.1.2 Should conditions of the Work, or schedule, indicate a required change of materials or methods for cutting and patching, so notify the ARCHITECT and secure written permission.

PART 2 - PRODUCTS

2.1 MATERIALS

- 2.1.1 For replacement of items removed, use materials complying with pertinent Section of these Specifications.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

3.1.1 Inspection:

- 3.1.1.1 Inspect existing conditions, including elements subject to movement or damage during cutting, excavating, patching, and backfilling.

- 3.1.1.2 After uncovering the work, inspect conditions affecting installation of the new work.

3.1.2 Discrepancies:

- 3.1.2.1 If uncovered conditions are not as anticipated, immediately notify the ARCHITECT, and secure needed directions.

- 3.1.2.2 Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION PRIOR TO CUTTING

- 3.2.1 Provide required protection including, but not necessary limited to, shoring, bracing, and support to maintain structural integrity of the Work.

- 3.2.2 Locate all utilities prior to cutting and/or excavation.

3.3 PERFORMANCE

- 3.3.1 Perform required excavating and backfilling as required under other pertinent Sections of these Specifications.

- 3.3.1.1 Perform cutting and demolition by methods that will prevent damage to other portions of the Work and provide proper surfaces to receive installation of repair and new work.

- 3.3.1.2 Perform fitting and adjusting of products to provide finished installation complying with the specified tolerances and finishes.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

- 1.1.1 Section includes: Cleaning throughout the construction period and final project cleaning prior to the acceptance tour.
- 1.1.2 Related Work Described Elsewhere: In addition to standards specified herein, comply with requirements for cleaning as described in other sections of these Specifications.

1.2 QUALITY ASSURANCE

- 1.2.1 Inspection: Conduct daily inspection and more often if necessary, to verify that requirements of cleanliness are being met.
- 1.2.2 Codes and Standards: In addition to the requirements specified herein, comply with pertinent requirements of authorities having jurisdiction.

PART 2 - PRODUCTS

2.1 CLEANING MATERIALS AND EQUIPMENT

- 2.1.1 Provide required personnel, equipment, and materials needed to maintain the specified standard of cleanliness.

2.2 COMPATIBILITY

- 2.2.1 Use cleaning materials and equipment that are compatible with the surfaces being cleaned, as recommended by the manufacturer of the material to be cleaned.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING

- 3.1.1 General:
 - 3.1.1.1 Retain stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
 - 3.1.1.2 Do not allow the accumulation of scrap, debris, waste materials, and other items not required for construction of this work. Debris shall be removed from the site and disposed of in a lawful manner. Disposal receipts of dump tickets shall be furnished to Architect upon request.
 - 3.1.1.3 At least twice each month, and more often if necessary, remove scrap, debris, and waste material from the job site.

3.1.1.4 Provide adequate storage for items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

3.1.2 Site:

3.1.2.1 Daily, and more often if necessary, inspect the site and pick up all scrap, debris, and waste material. Remove items to the place designated for their storage. Combustible waste shall be removed from the site. Flammable waste shall be kept in sealed metal containers until removed from the site.

3.1.2.2 Weekly, and more often if necessary, inspect arrangements of materials stored on the site; restack, tidy, or otherwise service arrangements to meet the requirements specified above.

3.1.2.3 Maintain the site in a neat and orderly condition.

3.1.3 Structures:

3.1.3.1 Daily, and more often if necessary, inspect the structures and pick up scrap, debris, and waste material. Remove items to the place designated for their storage.

3.1.3.2 Daily, and more often if necessary, sweep interior spaces clean.

3.1.3.2.1 "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from dust and other materials capable of being removed by use of reasonable effort and a handheld broom, i.e., "broom-clean".

3.1.3.3 As required preparatory to installation of succeeding materials, clean the structures of pertinent portions thereof to the degree of cleanliness recommended by the manufacturer of the succeeding material, using equipment and materials required to achieve the required cleanliness.

3.1.3.4 Following the installation of finish floor materials, clean the finish floor daily, and more often if necessary, and while work is being performed in the space in which finish materials have been installed.

3.1.3.4.1 "Clean", for the purpose of this subparagraph, shall be interpreted as meaning free from foreign material which, in the opinion of the Architect, may be injurious to the finish floor material, i.e., "vacuum-clean".

3.2 FINAL CLEANING

3.2.1 Definition: Except as otherwise specifically provided, "clean", for the purpose of the Article, shall be interpreted as meaning the level of cleanliness generally provided by skilled cleaners using commercial quality building maintenance equipment and materials, i.e., "scrub and polish clean".

- 3.2.2 General: Prior to completion of the work, remove from the job site all tools, surplus materials, equipment, scrap, debris, and waste and conduct final progress cleaning as described above.
- 3.2.3 Site: Unless otherwise specifically directed by the Architect, water and broom clean paved areas on the site and public paved areas directly adjacent to the site. Remove resultant debris.
- 3.2.4 Structures:
- 3.2.4.1 Exterior: In areas affected by the work under this contract, visually inspect exterior surfaces and remove traces of soil, waste material, smudges, and other foreign matter. Remove traces of splashed material from adjacent surfaces. If necessary to achieve a uniform degree of exterior cleanliness, hose down the exterior of the structure.
- In the event of stubborn stains not removable with water, the Architect may require light sandblasting or other cleaning at no additional cost to the District.
- 3.2.4.2 Interior: In areas affected by the work under this contract, visually inspect interior surfaces and remove traces of soil, waste material, smudges, and other foreign matter. Remove traces of splashed materials from adjacent surfaces. Remove paint drippings, spots, stains, and dirt from finished surfaces. Use only the cleaning materials and equipment instructed by the manufacturer of the surface material.
- 3.2.4.3 Glass: Clean glass inside and outside.
- 3.2.4.4 Polished surfaces: On surfaces requiring the routine application or buffed polish, apply the polish recommended by the manufacturer of the material being polished. Glossy surfaces shall be cleaned and shined as intended by the manufacturer.
- 3.2.5 Timing: Schedule final cleaning as accepted by the Architect to enable the District to accept a completely clean project.
- 3.3 CLEANING DURING DISTRICT'S OCCUPANCY
- 3.3.1 Should the District occupy the work or any portion thereof prior to its completion by the Contractor and acceptance by the District, responsibilities for interim and final cleaning of the occupied spaces shall be determined by the Architect in accordance with the General Conditions of the Contract.

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- 1.1.1 Starting systems.
- 1.1.2 Demonstration and instructions.
- 1.1.3 Testing, adjusting, and balancing.

1.2 STARTING SYSTEMS

- 1.2.1 Coordinate schedule for start-up of various equipment and systems.
- 1.2.2 Notify D.S.A. approved Inspector and ARCHITECT prior to start-up of each item.
- 1.2.3 Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions that may cause damage.
- 1.2.4 Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- 1.2.5 Verify wiring and support components for equipment are complete and tested.
- 1.2.6 Execute start-up under supervision of responsible manufacturer's representative and/or CONTRACTOR'S personnel in accordance with manufacturer's instructions.
- 1.2.7 When specified in individual specification Sections, require manufacturer to provide authorized representative to be present at site to inspect, check equipment or system installation prior to start-up, and to supervise placing equipment or system operation.
- 1.2.8 Submit a written report to the ARCHITECT that equipment or system has been properly installed and is functioning correctly.
- 1.2.9 Notify and assist ARCHITECT and INSPECTOR for coordination of all utility hook-ups prior to hook-up.

1.3 DEMONSTRATION AND INSTRUCTIONS

- 1.3.1 Demonstrate operation and maintenance of Products to DISTRICT'S personnel within seven (7) calendar days of Substantial Completion, prior to occupancy.
- 1.3.2 Demonstrate Project equipment by a qualified manufacturer's representative who is knowledgeable about the Project.
- 1.3.3 For equipment or systems requiring seasonal operation, perform demonstration for other seasons within six (6) months.

- 1.3.4 Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with DISTRICT'S personnel in detail to explain all aspects of operation and maintenance.
- 1.3.5 Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times at equipment location.
- 1.3.6 Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- 1.3.7 The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

PART 2 - PRODUCTS
(Not Applicable)

PART 3 - EXECUTION
(Not Applicable)

END OF SECTION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- 1.1.1 Close-out procedures
- 1.1.2 Final cleaning
- 1.1.3 Adjusting
- 1.1.4 Project record documents
- 1.1.5 Operation and maintenance data
- 1.1.6 Warranties
- 1.1.7 Spare parts and maintenance materials
- 1.1.8 Instructions to Personnel

1.2 CLOSE-OUT PROCEDURES

All close-out data to be submitted no later than 10 days after completion of construction schedule.

1.2.1 Partial Occupancy and substantial Completion - Each Contractor shall:

1.2.1.1 Conform to Part 1, Title 24, Section 4-336 CCR, Requirements for Verified Reports and Close-out Procedures.

1.2.1.2 In conjunction with the Project Inspector, prepare a list of items to be completed or corrected. List may be developed by areas, when approved by the ARCHITECT.

1.2.1.3 Within a reasonable time after receipt of the list, the ARCHITECT will inspect to determine status of completion.

1.2.1.4 Should the ARCHITECT determine that Work is not substantially complete:

1.2.1.4.1 The ARCHITECT will promptly notify the CONTRACTOR in writing, giving the reason for his determination.

1.2.1.4.2 CONTRACTOR shall remedy the deficiencies and notify the ARCHITECT when the Work is ready for re-inspection.

1.2.1.4.3 The ARCHITECT will re-inspect the Work.

1.2.1.5 When the ARCHITECT concur that work is substantially complete

1.2.1.5.1 The ARCHITECT will prepare a "Certificate of Substantial Completion" on AIA Form G704, accompanied by the CONTRACTOR's list of items to be completed or corrected as verified by the ARCHITECT.

1.2.1.5.2 The ARCHITECT will submit the Certificate to the DISTRICT and to the CONTRACTOR for their written acceptance of the responsibilities assigned to them in the Certificate.

1.2.2 Final Completion - Each Contractor shall:

1.2.2.1 Prepare and submit a notice that Work is ready for final inspection and acceptance.

1.2.2.2 Verify the Work is complete.

1.2.2.3 Certify that:

1.2.2.3.1 Work has been inspected by all governing agencies and is in compliance with Contract Documents,

1.2.2.3.2 Work has been inspected for compliance with the Contract Documents.

1.2.2.3.3 Work has been completed in accordance with the Contract Documents.

1.2.2.3.4 Equipment and systems have been tested as required and are operational.

1.2.2.3.5 Work is completed and ready for final inspection.

1.2.2.4 The ARCHITECT will make an inspection to verify status of completion.

1.2.2.5 Should the ARCHITECT determine the Work is incomplete or defective work.

1.2.2.5.1 The ARCHITECT will promptly notify the CONTRACTOR in writing, listing incomplete or defective Work.

1.2.2.5.2 CONTRACTOR shall remedy the deficiencies promptly and notify the ARCHITECT when ready for re-inspection.

1.2.2.6 When the ARCHITECT determines the Work is acceptable under the Contract Documents, he will request the CONTRACTOR to make close-out submittals.

1.2.3 Close-out submittals include, but are not necessarily limited to - Each Contractor shall:

1.2.3.1 Project Record Documents

1.2.3.2 Operation and maintenance data for items so listed in pertinent Sections these Specifications and for other items when so approved by the ARCHITECT.

1.2.3.3 Warranties

1.2.3.4 Keys and keying schedule.

- 1.2.3.5 Spare parts, materials, extra stock to be turned over to the DISTRICT.
- 1.2.3.6 Evidence of compliance with requirements of governmental agencies having jurisdiction, including, but not limited to:
 - 1.2.3.6.1 Date of final inspection and list of persons in attendance.
 - 1.2.3.6.2 List of any items that do not conform to the Contract Documents.
 - 1.2.3.6.3 Certificates of Inspection.
 - 1.2.3.6.4 Certificates of Occupancy.
- 1.2.3.7 Evidence of payment and release of liens, when requested by the DISTRICT.
- 1.2.3.8 List of SUBCONTRACTORS, service organizations and principal vendors including names, addresses and telephone numbers, when contacted for emergency service at all times, including nights and holidays.
- 1.2.3.9 Consent of final payment from surety company.
- 1.2.3.10 Statement of Project Completion, including punchlist items.
- 1.2.3.11 DSA Form 6.
- 1.2.4 Final Payment - Each Contractor shall:
 - 1.2.4.1 Submit a Final Payment Request, showing all adjustments to the Contract Sum.
 - 1.2.4.2 Retention will be released no sooner than 35 days after Notice of Completion has been filed with the District, and the District has complied with County recording requirements.
- 1.3 ADJUSTING - Each Contractor shall:
 - 1.3.1 Adjust operating products and equipment to ensure smooth and unhindered operation.
- 1.4 SPARE PARTS AND MAINTENANCE MATERIALS - Each Contractor shall:
 - 1.4.1 Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- 1.5 INSTRUCTIONS TO DISTRICT PERSONNEL
 - 1.5.1 Instruct the DISTRICT personnel in proper operation and maintenance of all systems, equipment and similar items which were provided as part of the Work.
 - 1.5.2 The CONTRACTOR shall provide a schedule to the DISTRICT for approval for each of the instruction periods required.

- 1.5.2.1 Organize the instruction sessions into group sizes and schedule the elapsed time for instruction in a manner to Provide complete coverage of the subject matter, prior to occupancy.
- 1.5.3 Instruction sessions will be held in a DISTRICT designated area on the project site and CONTRACTOR to coordinate date and time with ARCHITECT and DISTRICT.
- 1.5.4 Instructions shall be qualified by the product manufacturer in the subject matter presented at each session.
 - 1.5.4.1 Submit names of instructors and qualifications to the ARCHITECT and DISTRICT for approval, 30 days prior to each scheduled session.
 - 1.5.4.2 Substitution of instructors will not be Permitted without prior approval of ARCHITECT and DISTRICT.

PART 2 - PRODUCTS
(Not Applicable)

PART 3 - EXECUTION
(Not Applicable)

END OF SECTION

**CERTIFICATE OF
SUBSTANTIAL COMPLETION**

AIA DOCUMENT G704

(Instructions on reverse side)

- OWNER
- ARCHITECT
- CONTRACTOR
- FIELD
- OTHER

PROJECT:
(Name and address)

PROJECT NO.:

CONTRACT FOR:
CONTRACT DATE:

TO OWNER:
(Name and address)

TO CONTRACTOR:
(Name and address)

DATE OF ISSUANCE:
PROJECT OR DESIGNATED PORTION SHALL INCLUDE:

The Work performed under this Contract has been reviewed and found, to the Architect's best knowledge, information and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion thereof designated above is hereby established as

which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

ARCHITECT BY _____ DATE _____

The Contractor will complete or correct the Work on the list of items attached hereto within _____ days from the above date of Substantial Completion.

CONTRACTOR BY _____ DATE _____

The Owner accepts the Work or designated portion thereof as substantially complete and will assume full possession thereof at _____ (time) on _____ (date).

OWNER BY _____ DATE _____

The responsibilities of the Owner and the Contractor for security, maintenance, heat, utilities, damage to the Work and insurance shall be as follows:

(Note—Owner's and Contractor's legal and insurance counsel should determine and review insurance requirements and coverage.)



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G704-1992

PART 1 - GENERAL

1.1 SUMMARY

- 1.1.1 Section includes: Requirements for Record Documents.
- 1.1.2 Throughout progress of the work of the contract, maintain an accurate record of changes in the Contract Documents, as described below.
- 1.1.3 Upon completion of the work of this Contract, transfer the recorded changes to a set of Record Documents, as described herewith.

1.2 QUALITY ASSURANCE

- 1.2.1 General: Delegate the responsibility for maintenance of Record Documents to one person on the Contractor's staff as accepted in advance by the Architect.
- 1.2.2 Accuracy of Records: Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of drawings and other documents where such entry is required to properly show the change. Accuracy of records shall be such that future search for items shown in the Contract Documents may reasonably rely on information obtained from the accepted Record Documents.
- 1.2.3 Timing of Entries: Make entries within 24 hours after receipt of information.

1.3 PAYMENT WITHHELD

- 1.3.1 The Architect reserves the right to withhold certification of payment requests for failure on the part of the Contractor to maintain Record Drawings in conformance with this Section.

1.4 SUBMITTALS

- 1.4.1 General: The Architect's review of the current status of Record Documents will be a prerequisite to the Architect's review of requests for progress payment and request for final payment under the contract.
- 1.4.2 Progress Submittals: Prior to submitting each request for progress payment, secure the Architect's review of the Record Documents as currently maintained.
- 1.4.3 Final Submittal: Prior to submitting request for final payment, submit the final Record Documents to the Architect and secure his acceptance.

1.5 PRODUCT HANDLING

- 1.5.1 The Contractor shall markup and maintain a job set of Record Documents to be kept on site and protected from deterioration and from loss and damage until completion of the work and transfer of the recorded data to the final Record Documents.

The Contractor will also mark up the Architect's job set of drawings that are kept in the Architect's office on a daily basis as work is being installed.

- 1.5.2 In the event of loss of recorded data, use means necessary to again secure the data to the Architect's acceptance; such means shall include, if necessary in the opinion of the Architect, removal and replacement of concealing materials and, in such case, replacements shall be to the standards originally specified in the Contract Documents.

PART 2 - PRODUCTS

2.1 RECORD DOCUMENTS

- 2.1.1 Final Record Documents: The Contractor will transfer job set drawing markups to one (1) clean set on bond paper. Contractor will then submit this set to the Architect as the Final As-Built Drawing(s).
- 2.1.2 Before commencing backfilling of utilities or any other underground pipes, ducts, conduits, or structures, take photographs showing relationship of below ground utilities to structure(s) or other physical reference point. Provide three-ring binder containing 3-1/2 inches by 5 inches mounted and numbered prints of photos, plus the negatives, categorized by locations and indicating utilities shown. Provide a photo(s) of all connections, crossings, stubs, or other critical points. If the Contractor neglects to take such photographs, Contractor shall uncover, at the Contractor's expense, the area(s) so neglected in order to provide the requisite photos.

Provide a bond composite Utility Site Plan with the number of each photograph placed on the plan at the location the photo was taken from and a mark indicating which way the camera was pointed. All numbers and marks shall be in ink and shall be clear, legible, and neatly done. Photo binder and photo plan shall be considered part of the Record Documents.

PART 3 - EXECUTION

3.1 MAINTENANCE OF JOB SET

- 3.1.1 Identification: Upon receipt of the job set, identify each of the documents with a title "RECORD DOCUMENTS-JOB SET".
- 3.1.2 Preservation:
- 3.1.2.1 Considering the contract completion time, the probable number of occasions upon which the job set must be taken out for new entries and for examination and the conditions under which these activities will be performed, devise a suitable method for protecting the job set for the review of the Architect.
- 3.1.2.2 Use the job set for no purpose other than entry of new data and for review by the Architect, until start of transfer of data to final Record Documents.
- 3.1.2.3 Maintain the job set at the site of work as that site is designated by the Architect.

- 3.1.3 Making Entries on Drawings: Using an erasable colored pencil (not ink nor indelible pencil), clearly describe the change by note and by graphic line, as required. Date entries. Call attention to the entry by a “cloud” around the area or areas affected. In the event of overlapping changes, different colors may be used for each of the changes. In the event of superseding changes to any area of the drawing, erase only that portion of the preceding change that is affected by the subsequent change before entering the subsequent change.
- 3.1.4 Making Entries on Other Documents:
- 3.1.4.1 Where changes are caused by directives issued by the Architect, clearly indicate the change by note in ink, colored pencil, or rubber stamp, and reference Division of the State Architect approved addenda and change orders.
- 3.1.4.2 Where changes are caused by Contractor originated proposals reviewed by the Architect, including inadvertent errors by the Contractor that have been accepted by the Architect, clearly indicate the change by note in erasable colored pencil.
- 3.1.4.3 Make entries in the pertinent documents as reviewed by the Architect.
- 3.1.5 Conversion of Schematic Layouts:
- 3.1.5.1 In most cases on the Drawings, arrangement of conduits and circuits, piping, ducts, and other similar items, is shown schematically and is not intended to portray precise physical layout. Final physical arrangement shall be as determined by the Contractor, subject to the Architect’s review. However, design of future modifications of the facility may require accurate information as to the final physical arrangement of items and location of utilities which are shown only schematically on the Drawings.
- 3.1.5.2 Show on the job set of record Drawings, by dimension accurate to within 1 inch, the centerline of each run of items such as are described in the preceding paragraph above. Clearly identify the item by accurate note such as “cast-iron drain”, “galvanized water pipe”, etc. Show by symbol or note, the vertical location of the item (“under slab”, “in ceiling plenum”, “exposed”, etc.). Make identification sufficiently descriptive that it may be related reliably to the Specifications.
- 3.1.5.3 The Architect may waive the requirements for conversion of schematic layouts where, in the Architect’s judgment, such conversion serves no beneficial purpose. However, do not rely upon waivers being issued except as specifically issued in writing by the Architect.
- 3.1.5.4 Timing of Entries: Be alert to changes in the work from how it is shown in the Contract Documents: Promptly, and in no case later than 24 hours after the change has occurred and been made known to the Contractor, make the entry or entries required.

3.1.6 Accuracy of Entries: Use means necessary, including proper instruments or tools for measurement, to determine actual locations of the installed items.

3.2 FINAL RECORD DOCUMENTS

General: The purpose of the final Record Documents is to provide factual information regarding the work, both concealed and visible, which will enable future modification of design to proceed without lengthy and expensive site measurement, investigation, and examination.

3.3 CHANGES SUBSEQUENT TO ACCEPTANCE

The contractor shall have no responsibility for recording changes in the work subsequent to acceptance of the work by the District, except for changes resulting from replacements, repairs, and alterations made by the Contractor as a part of his guarantee. No changes will be allowed without approval of the Division of the State Architect.

END OF SECTION

PART 1 - GENERAL

1.1 WORK INCLUDED:

1.1.1 Work includes the following:

1.1.1.1 Compilation of product data and related information appropriate for District's maintenance and operation of products furnished under the Contract.

1.1.1.2 Instruction of District's personnel in the maintenance of products and in the operation of equipment and systems.

1.2 RELATED WORK:

1.2.1 Related Work Specified Elsewhere:

1.2.1.1 Section 013300 – Submittal Procedures.

1.2.1.2 Section 017000 – Contract Closeout.

1.3 QUALITY ASSURANCE:

1.3.1 Preparation of data shall be done by personnel:

1.3.1.1 Trained and experienced in maintenance and operation of the described products.

1.3.1.2 Familiar with requirements of the Section specified.

1.3.1.3 Skilled in technical writing to the extent required to communicate essential data.

1.3.1.4 Skilled as draftsmen competent to prepare required drawings.

1.4 SUBMITTALS:

1.4.1 Comply with pertinent provisions of Section 013300.

1.4.2 Initial: Prior to the first Pay Application, submit a blank, tabbed binder in the proper format for review by Architect. Approved binder will be returned for collection of information during the course of construction.

1.4.3 Preliminary: Submit two (2) copies of a preliminary draft of the proposed Manual or Manuals to the ARCHITECT review and approval.

1.4.3.1 Show general arrangement, nature of contents in each portion, probable number of drawings and their size, and proposed method of binding and covering.

1.4.3.2 Secure the Architect's approval prior to proceeding.

- 1.4.4 Final: Complete the Manuals in strict accordance with the approved preliminary drafts and the Architect's review comments.
 - 1.4.4.1 Submit three (3) copies of the final Manual to the Architect at least ten (10) days prior to final inspection or acceptance.
 - 1.4.4.2 Video tape or DVD each indoctrination and instruction session (in-service) and submit three (3) copies of each trade. Videotapes shall be in VHS or DVD format.
- 1.4.5 Revisions:
 - 1.4.5.1 Following the indoctrination and instruction of operating and maintenance personnel, review all proposed revisions of the Manual with the Architect.
 - 1.4.5.2 Submit specified number of copies of approved data in final form ten (10) days after final inspection or acceptance.

PART 2 - PRODUCTS

2.1 FORMAT

- 2.1.1 Size: Minimum 4 inch, three-ring binders for 8-1/2 inches by 11 inches punched pages, and completely clear plastic covers for insertion of labels on spines and covers.
- 2.1.2 Provide identifying tabbed pages. Classify by Division and by Section. All tabbing shall be in numerical order.
- 2.1.3 Drawings:
 - 2.1.3.1 Provide reinforced punched binder tab. Bind drawings with text.
 - 2.1.3.2 Fan fold larger drawings to size of text pages, for easy foldout.
- 2.1.4 Cover: Identify each volume with typed or printed label. List:
 - 2.1.4.1 Title of Project.
 - 2.1.4.2 Identity of separate structures as applicable.
 - 2.1.4.3 Identity of general subject matter covered in the manual.
- 2.1.5 Spine: Identify each volume with typed or printed label stating OPERATING AND MAINTENANCE INSTRUCTIONS, GUARANTIES AND SERVICE CONTRACTS, and the following information:
 - 2.1.5.1 Title of Project.
 - 2.1.5.2 Divisions and Sections included within volume.
 - 2.1.5.3 Volume number (i.e. 1 of 4)

PART 3 - EXECUTION

3.1 CONTENT OF MANUAL:

3.1.1 Neatly typewritten table of contents for each volume, arranged in a systematic order.

3.1.1.1 Contractor, name of responsible principal, address, and telephone number.

3.1.1.2 A list of each product required to be included, indexed to the content of the volume.

3.1.1.3 List, with each product, the name, address, and telephone number of:

3.1.1.3.1 Subcontractor and/or installer.

3.1.1.3.2 Maintenance contractor, as appropriate.

3.1.1.3.3 Identify the area of responsibility of each.

3.1.1.3.4 Local source of supply for parts and replacement.

3.1.1.4 Identify each product by product name and other identifying symbols as set forth in the Contract Documents.

3.1.2 Product Data:

3.1.2.1 Include only those sheets that are pertinent to the specific product.

3.1.2.2 Annotate each sheet to:

3.1.2.2.1 Clearly identify the specific product or part installed.

3.1.2.2.2 Clearly identify the data applicable to the installation.

3.1.2.2.3 Delete references to inapplicable information.

3.1.3 Drawings:

3.1.3.1 Supplement product data with drawings as necessary to clearly illustrate:

3.1.3.1.1 Relations of component parts of equipment and systems.

3.1.3.1.2 Control and flow diagrams.

3.1.3.2 Coordinate drawings with information in Section 017700, Contract Closeout, with regard to Project Record Drawings to assure correct illustration of completed installation.

3.1.3.3 Project Record Drawings shall not be used as maintenance drawings.

- 3.1.4 Instructions: Written text, as required to supplement product data for the particular installation:
 - 3.1.4.1 Organize in a consistent format under separate headings for different procedures.
 - 3.1.4.2 Complete instructions regarding operation and maintenance of all equipment involved including lubrication, disassembly, and reassembly.
 - 3.1.4.3 Complete nomenclature for all parts of equipment.
 - 3.1.4.4 Complete nomenclature and part number of replaceable parts, name and address of nearest vendor, and other data pertinent to procurement procedures.
- 3.1.5 Copy of each warranty, bond, and service contract issued.
 - 3.1.5.1 Provide information sheet for District's personnel, giving:
 - 3.1.5.1.1 Proper procedures in the event of failure or emergencies.
 - 3.1.5.1.2 Instances that might affect the validity of warranties or bonds.
- 3.2 MANUAL FOR MATERIALS AND FINISHES:
 - 3.2.1 Instructions for care and maintenance:
 - 3.2.1.1 Manufacturer's recommendation for types of cleaning agents and methods.
 - 3.2.1.2 Cautions against cleaning agents and methods that are detrimental to the product.
 - 3.2.1.3 Recommended schedule for cleaning and maintenance.
- 3.3 MANUAL FOR EQUIPMENT AND SYSTEMS:
 - 3.3.1 Content, for each unit of equipment and system, as appropriate:
 - 3.3.1.1 Description of unit and component parts:
 - 3.3.1.1.1 Function, normal operating characteristics, and limiting conditions.
 - 3.3.1.1.2 Performance curves, engineering data, and tests.
 - 3.3.1.1.3 Complete nomenclature and commercial number of all replaceable parts.
 - 3.3.1.2 Operating procedures:
 - 3.3.1.2.1 Start-up, break-in, routine, and normal operating instructions.

- 3.3.1.2.2 Regulation, control, stopping, shut-down, and emergency instructions.
 - 3.3.1.2.3 Summer and winter operating instructions.
 - 3.3.1.2.4 Special operating instructions.
 - 3.3.1.3 Maintenance Procedures:
 - 3.3.1.3.1 Routine operations.
 - 3.3.1.3.2 Guide to "trouble-shooting".
 - 3.3.1.3.3 Disassembly, repair, and reassemble instructions.
 - 3.3.1.3.4 Alignment, adjusting, and checking.
 - 3.3.1.4 Servicing and lubrication schedule: List of lubricants required.
 - 3.3.1.5 Manufacturer's printed operating and maintenance instructions.
 - 3.3.1.6 Description of sequence of operation by control manufacturer.
 - 3.3.1.7 Original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
 - 3.3.1.7.1 Predicted life of parts subject to wear.
 - 3.3.1.7.2 Items recommended to be stocked as spare parts.
 - 3.3.1.8 As-installed control diagrams by manufacturer of controls.
 - 3.3.1.9 Each contractor's coordination drawings: As-built color coded piping diagrams.
 - 3.3.1.10 Charts of valve tag numbers, with the location and function of each valve.
 - 3.3.1.11 List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 - 3.3.1.12 Other data as required under pertinent sections of this Specification.
- 3.3.2 Content, for each electric and electronic system, as appropriate:
- 3.3.2.1 Description of system and component parts:
 - 3.3.2.1.1 Function, normal operating characteristics, and limiting conditions.
 - 3.3.2.1.2 Performance curves, engineering data, and tests.

- 3.3.2.1.3 Complete nomenclature and commercial number of replaceable parts.
- 3.3.2.2 Circuit directories of panel boards:
 - 3.3.2.2.1 Electrical service.
 - 3.3.2.2.2 Controls.
 - 3.3.2.2.3 Communications.
- 3.3.2.3 As-built color coded wiring diagrams.
- 3.3.2.4 Operating procedures:
 - 3.3.2.4.1 Routine and normal operating instructions.
 - 3.3.2.4.2 Sequences operating instructions.
 - 3.3.2.4.3 Special operating instructions.
- 3.3.2.5 Maintenance procedures:
 - 3.3.2.5.1 Routine operations.
 - 3.3.2.5.2 Guide to "trouble-shooting".
 - 3.3.2.5.3 Disassembly, repair, and reassembly.
 - 3.3.2.5.4 Adjustment and checking.
- 3.3.2.6 Manufacturer's printed operating and maintenance instructions.
- 3.3.2.7 List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
- 3.3.3 Prepare and include additional data when the need for such data becomes apparent during instruction of District personnel.
- 3.4 INSTRUCTION OF DISTRICT PERSONNEL:
 - 3.4.1 Prior to final inspection or acceptance, fully instruct District designated operating and maintenance personnel in the operation, adjustment, and maintenance of all products, equipment, and systems, prior to occupancy.
 - 3.4.1.1 Provide services of factory-trained instructors from the manufacturer of each major item of equipment or system.
 - 3.4.1.2 Provide for each instruction session or "in-service", a camcorder operator and VHS or DVD camcorder to video tape the session. Videotapes shall be clearly labeled as to project, subject, and date. Submit tapes in triplicate.

- 3.4.2 Operating and maintenance manual shall constitute the basis of instruction.
- 3.4.2.1 Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.
- 3.4.2.2 Where warrants for further instruction or additional instruction is required to instruct the District designated personnel, the Contractor shall provide such additional instruction to include service of factory trained instructors. The cost for additional instruction will be reviewed for each individual basis by the Architect.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

1.1 WORK INCLUDED:

- 1.1.1 This Section specifies general requirements for written warranties, guaranties, and bonds required by the Contract Documents.
- 1.1.2 Submittal to and approval by the District of the warranties, guaranties, and bonds are prerequisites to final payment under the Contract.

1.2 RELATED WORK

1.2.1 Related work specified elsewhere:

1.2.1.1 Section 017000 – Contract Closeout

1.2.1.2 Section 017823 - Operation and Maintenance Data: Incorporation of warranties, guaranties, and bonds into instruction manuals.

- 1.2.2 Approval of the warranties, guaranties, and bonds by the Owner is a prerequisite to payment at Substantial Completion and agendizing for acceptance by the Governing Board of the Owner.

1.3 TIME PERIOD

Deliver all manufacturer's warranties, guaranties, and bonds required by Contract Documents, with District named as beneficiary. For equipment and machinery, or components thereof, bearing a manufacturer's warranty or guaranty that extends for a longer time period than the Contractor's warranty and guaranty, deliver manufacturer's warranties or guaranties in same manner.

1.4 FORM

Written warranties and guaranties, except manufacturer's standard printed warranties and guaranties shall be submitted on the Contractor's, Subcontractor's, material suppliers, or manufacturer's own letterhead, addressed to District. Warranties and guaranties shall be submitted in duplicate and in the form shown on the following page, signed by all pertinent parties and by Contractor in every case, with modifications as approved by District to suit the conditions pertaining to the warranty or guaranty.

1.5 SUBMITTAL

- 1.5.1 The Contractor shall collect and assemble written warranties and guaranties from all subcontractors, material suppliers, and manufacturers into a bound booklet form and deliver the bound books to Architect for delivery to the District's attorney for final review and approval.
- 1.5.2 Submit required warranty/guaranty on letterhead of Contractor responsible for each type of Work in accordance with attached sample form.

END OF SECTION

* See Attached Form on next Page

WARRANTY / GUARANTY FORM

FOR _____ WORK

We, the undersigned, do hereby warranty and guaranty that the parts of the work described above which we have furnished or installed for:

GLENOAKS ELEMENTARY SCHOOL – NEW 2-STORY MODULAR BUILDING

are in accordance with the Contract Documents and that all said work as installed will fulfill or exceed all the Warranty and Guaranty requirements. We agree to repair or replace work installed by us, together with any other work which is displaced or damaged by so doing, that proves to be defective in workmanship, material, or operation within a period of _____ () year(s) from the date Notice of Completion is registered with the **LOS ANGELES** County Recorder, ordinary wear and tear and unusual neglect or abuse excepted.

In the event of our failure to comply with the above-mentioned conditions within a reasonable time period determined by the Owner, after notification in writing, we, the undersigned, all collectively and separately, hereby authorize the Owner to have said defective work repaired and / or replaced and made good, and agree to pay to the Owner upon demand all moneys that the Owner may expend in making good said defective work, including all collection cost and reasonable attorney fees.

Date: _____
(Subcontractor, Sub-subcontractor, Manufacturer or Supplier)

By: _____

Title: _____

State License No.: _____

Local Representative: For maintenance, repair, or replacement service, contact:

Name: _____

Address: _____

Phone Number: _____

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for material, fabrications and installation of all concrete formwork as shown on the drawings. Work shall include primarily but is not limited to:

1.1.1 Formwork for cast-in place concrete, with shoring, bracing and anchorage

1.1.2 Openings for other work

1.1.3 Form accessories

1.1.4 Form stripping

1.1.5 Clean up

1.2 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION:

1.2.1 Section 033000 – Concrete Work: Supply of concrete accessories for placement by this Section.

1.2.2 Section 042200 – Concrete Block Masonry. **(NOT USED)**

1.2.3 Section 055000 – Miscellaneous Metal: Supply of metal fabrications for placement by this Section.

1.3 RELATED SECTIONS:

1.3.1 Section 321600 – Concrete Paving, Curbs and Walks.

1.3.2 Section 032000 – Concrete Reinforcement.

1.3.3 Section 033000 – Concrete Work.

1.4 REFERENCES AND STANDARDS:

1.4.1 ACI 347 – Guide to Formwork for Concrete.

1.4.2 PS – 1 Construction and Industrial Plywood.

1.5 DESIGN REQUIREMENTS:

1.5.1 Design, engineer, and construction formwork, shoring and bracing to conform to design and code requirements, with resultant concrete conforming to required shape, line, and dimension.

1.6 QUALITY ASSURANCE:

1.6.1 Perform Work in accordance with ACI 301, 318, and 347, latest edition.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

1.7 REGULATORY REQUIREMENTS:

1.7.1 Conform to Title 24, Part 2, California Code of Regulations

1.8 COORDINATION:

1.8.1 Coordinate work under provisions of Section 013113.

1.8.2 Coordinate this Section with other Sections of work that require attachment of components to formwork.

1.8.3 If formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement, request instructions from Architect before proceeding.

1.9 PRODUCT HANDLING:

1.9.1 On delivery to Project Site, place materials in area protected from weather.

1.9.2 Store materials above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation and ventilation. Handle materials to prevent damage.

PART 2 – PRODUCTS

2.1 WOOD FORM MATERIALS:

2.1.1 Formwork Re-Use Criteria

2.1.1.1 Provide all new materials, except for factory fabricated reusable joist forms.

2.1.1.2 Materials may be reused during the progress of the work, provided surface finish, formwork quality and structural capability are maintained.

2.1.1.3 Completely clean and recondition all reused formwork materials

2.1.2 Softwood Plywood – Vertical and horizontal surfaces.

2.1.2.1 Grade Certification: APA Grade stamped, complying with PS-1.

2.1.2.2 Type: APA Plyform, Exterior Type. 5/8 inch minimum.

2.1.2.3 Class/Face Veneer: Class I or II B-B Veneer.

2.1.2.4 Panel Finish: Where concrete with sack finish will be exposed to view in final project, with either painted and non-painted finish, provide HDO resin fiber overlay.

2.1.3 Lumber: Provide Douglas Fir, standard or better grade, 2-inch nominal thickness, dressed S4S.

2.1.4 Exposed Concrete Molding and Ornamental Surfaces: Provide reverse molded soft pine mold properly placed and secured in forms. Dress molded surfaces to true, smooth surfaces and coated with approved released agent. Construct all projection wood moulds to allow for removal without damage to concrete surface.

2.1.4.1 Use of high-density extruded styrene foam is an approved alternate.

2.1.4.2 Use of clean smooth surfaced steel is an acceptable alternate.

2.2 FORMWORK ACCESSORIES:

2.2.1 Form Ties:

2.2.1.1 Concealed Condition

2.2.1.1.1 Burke Penta-Tie or equal. Snap-off type, fixed length, cone type, 1-inch black break dimension, 3/8-inch center rod, free of defects that could leave holes larger than 1 inch in concrete surface; provide flush plugs for cone holes.

2.2.1.1.2 Burke Taper Ties or equal

2.2.1.2 Exposed Condition: Snap-off type, fixed length, cone type, 1-inch back break dimension, free of defects that could leave holes larger than 1 inch in concrete surface; provide semi-recessed plugs for cone holes.

2.2.1.3 Exposed Condition at Sack (Type 2) Finish: SuperTie fiberglass form the system or equal, as manufactured by RJD Industries, phone (800) 344-4753. Provide gray color rod and all necessary accessories and installation devices.

2.2.2 Form Release Agent: Cresset or equal, colorless, water-based material which will not stain concrete, or absorb moisture, or impair natural bonding or color characteristics of coating intended for use on concrete.

2.2.2.1 Select type suitable and appropriate for achieving CCS 2 surface at concealed applications.

2.2.2.2 Select type suitable and appropriate for achieving CCS 2 surface at concealed applications.

2.2.3 Corners: Chamfered, rigid plastic or wood strip type 3/4 by 3/4 inch size; maximum possible lengths.

2.2.4 Sleeves for pipe penetrations: Corrosion Resistant metal/Polyvinyl Chloride pipe, size as required for necessary clearances and installation of sealants.

2.2.5 Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

2.2.6 Form Stakes: Steel bar stock, pre-drilled for nails.

- 2.2.7 Formwork Panel Edge: Provide foam edge stripping at exposed formwork panel edges to minimize mortar leakage.
 - 2.2.8 Spreaders: Metal (not wood)
 - 2.3 TUBE FORM:
 - 2.3.1 Provide Burke Smooth Tube by Burke Co, Sonoco Products, Plastic lined or approved equal
 - 2.3.1.1 Light pole bases: Seamless Series, wall type as required by application
 - 2.4 OTHER MATERIALS:
 - 2.4.1 Provide all materials, not specifically described but required for complete and proper installation of this as selected by the Contractor and subject to the approval of the Architect.
- PART 3 – EXECUTION
- 3.1 SURFACE CONDITIONS:
 - 3.1.1 Inspection
 - 3.1.1.1 Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence. Starting work implies acceptance of surfaces as satisfactory.
 - 3.1.1.2 Verify that work of this Section may be installed in strict accordance with the original design, all pertinent codes and regulations, and all pertinent portions of the referenced standards.
 - 3.1.1.3 In the event of discrepancy, immediately notify the Architect.
 - 3.1.1.4 Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
 - 3.2 EARTH FORMS:
 - 3.2.1 Earth forms may be used for footings and grade beams where soil is stable. Any exposed footings shall be formed.
 - 3.2.2 Hand trim sides and bottom of earth forms. Remove loose soil prior to placing concrete. Increase width of earth formed members 1 inch each side.
 - 3.2.3 Construct wood edge forms, as specified below, to extend not less than 2 inches below soil level. Do not permit stakes to extend into or through footing zone. Form all concrete without penetrating footing concrete
 - 3.2.4 Fill over-excavated footings and foundations with concrete at no additional contract cost.

- 3.2.5 Excavate as necessary to accommodate installation and removal of formwork.
- 3.2.6 Fill voids resulting from collapse or sloughing of foundation excavation and sidewalls with concrete at no additional contract cost.
- 3.2.7 Prior to pour footings or foundations, remove all debris, loose material, and water from excavation.
 - 3.2.7.1 Where water has accumulated in excavation, obtain Architects and Geotechnical Engineers review of the suitability of sub-grade condition.
 - 3.2.7.2 Repair sub-grades required by Geotechnical Engineer at no additional contract cost
 - 3.2.7.3 Do not place concrete on mud or saturated soils.
- 3.3 ERECTION – FORMWORK:
 - 3.3.1 Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 347.
 - 3.3.2 Formwork bracing and supports:
 - 3.3.2.1 Provide bracing to ensure stability of formwork.
 - 3.3.2.2 Provide trussed supports when adequate foundations for shores and struts cannot be secured.
 - 3.3.2.3 Shore or strengthen formwork subject to overstressing by construction loads.
 - 3.3.2.4 Provide shores and struts with positive means of adjustment capable taking up formwork settlement during concrete placing operations, using edges, jacks or a combination of the two.
 - 3.3.2.5 Do not permit form stakes to extend into or through footing zone. Form all concrete without penetrating footing concrete.
 - 3.3.2.6 Provide top form at inclined surfaces where slope is too steep for concrete placement without sagging or sloughing.
 - 3.3.3 Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. Provide crush plates or other approved guards where stripping operation may damage concrete. Kerf wood inserts to permit easy removal.
 - 3.3.4 Chamfer exposed corners. Seal Joints between chamfer and form panel. Miter chamfer strips at changes in direction.
 - 3.3.5 Plywood Lay-out
 - 3.3.5.1 Place plywood panels with horizontal joints level, vertical joints plumb.

- 3.3.5.1.1 Unless noted otherwise, place panel edge at center of surface and extend in equal dimension in each direction.
- 3.3.5.2 Keep form joints to a minimum. Use maximum size panels.
- 3.3.5.3 Back all joints by a stud or solid blocking, and provide shaped filler where necessary for smoothness. Provide foam form edge striping to prevent grout washout.
- 3.3.5.4 Reused panels shall be thoroughly cleaned, damaged edges or surfaces repaired and both sides and edges coated with specified material.
- 3.3.5.5 Nail plywood along edges and to intermediate supports with common wire nails spaced as necessary to maintain alignment and prevent warping.
- 3.3.6 Openings in structural members that are not indicated on Drawings are not permitted.
- 3.3.7 Depressions and transitions: Review all drawings and identify all areas requiring depressions and transitions. Coordinate with work in other sections to verify required depth and profile prior to setting forms.
- 3.3.8 Construct formwork and appurtenances to meet design and code requirements. Construct of sound materials, of correct shape and dimensions, mortar tight, and of sufficient strength to prevent sagging, buckling, movement and failures. Provide adequate shores of wood or metal to safely carry imposed loads and adjustable to prevent displacements during the work.
- 3.3.9 Align joints and make them watertight.
- 3.3.10 Set reinforcing accurately and ensure secure placement.
- 3.4 APPLICATION – FORM RELEASE AGENT:
 - 3.4.1 Apply form release agent of formwork in accordance with manufacturer's recommendations.
 - 3.4.2 Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
 - 3.4.3 Do not apply form release agent where concrete surfaces will receive special finishes or applied coverings which are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces wet prior to placement of concrete.
- 3.5 INSERTS, EMBEDDED PARTS, AND OPENINGS:
 - 3.5.1 Provide formed openings where required for items to be embedded in or passing through concrete work.
 - 3.5.2 Locate and set in place items which will be cast directly into concrete.

- 3.5.3 Coordinate work other Sections in forming and placing openings, slots, reglets, recesses, chases, sleeves, bolts, anchors, and other inserts.
 - 3.5.4 Install accessories in accordance with manufacturer's instructions, straight, level, and plumb. Ensure items are not disturbed during concrete placement.
 - 3.5.5 Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.
 - 3.5.6 Close temporary openings with tight fitting panels, flush inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.
- 3.6 FORM CLEANING:
- 3.6.1 Clean and remove foreign matter within forms as erection proceeds
 - 3.6.2 Clean formed cavities of debris prior to placing concrete
 - 3.6.3 Flush with water or use compressed air to remove remain foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
- 3.7 FORMWORK TOLERANCES:
- 3.7.1 Construct formwork to maintain tolerances required by ACI 347.
- 3.8 FIELD QUALITY CONTROL:
- 3.8.1 Erected formwork, shoring, and bracing will be inspected under the provision of Section 014523 to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure.
 - 3.8.2 Request inspection 48 hours prior to placing concrete.
 - 3.8.3 An inspection of forms and joints will be made for approval of finished work and general layout only.
 - 3.8.4 Unless otherwise specified, do not reuse wood formwork for concrete surfaces to be exposed to view. Do not patch formwork.
 - 3.8.5 Deformation of formwork under load causing finish surface to be out of line, level or plumb will be caused for rejection of concrete and subsequent removal.
- 3.9 FORM REMOVAL:
- 3.9.1 Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads.
 - 3.9.2 Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
 - 3.9.3 Store removed forms in manner that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.

3.9.4 In addition to Section 1906A.2, Chapter 19A, Part 2, Title 24, CCR, the following are minimum times for forms and shoring to remain in place prior to removal:

3.9.4.1 Footings and grade beams – 1 day.

3.9.4.2 Walls and columns – 3 days.

3.9.4.3 Exceptions: Forms used for footings and grade beams may be removed in 48 hours provided approved curing compound is applied and curing compound specifications are reviewed by the Architect and Structural Engineer for approval.

3.10 SHORES AND SUPPORTS

3.10.1 Comply with ACI 347 for shoring and reshoring.

3.11 ADJUSTING AND CLEANING:

3.11.1 Upon completion of this work, clean up and remove from site equipment and debris resulting from this work.

3.11.2 Surfaces to be painted shall be smooth and free of substances such as dirt, wax, excessive laitance grease or materials that would prevent proper bonding of finishes.

3.11.2.1 Removal of foregoing contaminants, and complete removal of form and curing compounds affecting proper paint bond, shall be responsibility of this section of work. Sandblast cleaning shall not be employed without specific approval of structural engineer.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for materials, fabrications and installation of Concrete Reinforcement and accessory items as shown on drawings and necessary to complete the Concrete Work. Work to include but not be limited to administration and materials necessary for supporting and fastening reinforcement in place, including but not limited to:

1.1.1 Reinforcing steel bars, wire fabric and accessories for cast-in-place concrete.

1.2 RELATED SECTIONS:

1.2.1 Section 014523 – Tests and Inspections.

1.2.2 Section 321600 – Concrete Curbs, Gutters, Walks and Pavement.

1.2.3 Section 031000 – Concrete Formwork.

1.2.4 Section 033000 – Concrete Work.

1.2.5 Section 042200 – Masonry Concrete Block. **(NOT USED)**

1.2.6 Section 055000 – Miscellaneous Metals.

1.3 REFERENCES AND STANDARDS:

1.3.1 ACI 301 – Specifications for Structural Concrete.

1.3.2 ACI 318 – Building Code Requirements for Reinforced Concrete.

1.3.3 ACI 315 – Details and Detailing of Concrete Reinforcement.

1.3.4 ASTM A82 – Cold Drawn Steel Wire for Concrete Reinforcement.

1.3.5 ASTM A185 – Welded Steel Wire Fabric for Concrete Reinforcement.

1.3.6 ASTM A615 – Deformed and Plain Billet Steel Bars for Concrete Reinforcement.

1.3.7 ASTM A706 – Low Allow Steel Deformed Bars for Concrete Reinforcement.

1.3.8 CRSI – Concrete Reinforcing Steel Institute Manual of Standard Practice.

1.3.9 CRSI – Placing Reinforcing Bars

1.3.10 ANSI/AWS D1.4 Structural Welding Code – Reinforcing Steel.

1.4 REGULATORY REQUIREMENTS:

1.4.1 Conform to Title 24, Part 2, California Code of Regulations

1.5 SUBMITTALS:

1.5.1 Identify shop drawings with reference thereon to sheet and detail numbers from contract drawings.

1.5.2 Submit under provisions of Section 013300.

1.5.3 Test Reports: Submit certified copies of mill test report of reinforcing steel analysis to testing laboratory, indicating products meet or exceed specified requirements. Include: grades, physical and chemical properties.

1.5.3.1 Where welding of reinforcing steel is required, submit mill reports indicating the chemical composition and the carbon equivalent (C.E.).

1.5.4 Submit steel reinforcement shop drawings in accordance with ACI 315 for reinforcing work which deviates from structural drawings and specifications. Correctness of all reinforcing requirements and work is the responsibility of Contractor.

1.6 QUALITY ASSURANCE:

1.6.1 Perform work in accordance with CRSI, ACI 315, ACI 318, and applicable sections of Chapter 19A, Part 2, Title 24, CCR.

1.7 DELIVERY, STORAGE, AND HANDLING:

1.7.1 Packing and Shipping: Deliver reinforcing materials to the Project Site in bundles marked with metal tags indicating bar size and length and in a manner that facilitates ready access for inspection and identification.

1.7.2 Storage and Protection: Handle and store materials to prevent damage, contamination, accumulation of dirt or excessive rust.

1.7.3 Deliver and store welding electrodes in accordance with AWS D1.4.

1.8 QUALIFICATIONS:

1.8.1 Manufacturer:

1.8.1.1 Manufacturer shall have produced the specified products for a period of five (5) years prior to beginning work of this section, and shall have the capacity to produce the specified products to the delivery and quantity criteria of the project.

1.8.1.2 Unless noted otherwise, reinforcing steel may be of domestic or imported origin, subject to compliance with specified criteria.

1.8.2 Fabricator/Erector:

1.8.2.1 For fabrication and installation work, use only personnel who are thoroughly trained and experienced in the skills required, have installed similar applications of the specified products within one year prior to beginning work on this section, and who are completely familiar with the requirements of this work.

1.8.2.2 Fabricator shall be a current member of the Concrete Reinforcing Steel Institute.

1.9 COORDINATION:

1.9.1 Coordinate work under provisions of Section 013113.

1.9.2 Coordinate with placement of formwork, formed openings and other Work.

PART 2 – PRODUCTS.

2.1 REINFORCEMENT:

2.1.1 Reinforcing Steel:

2.1.1.1 Non-Welded Systems: ASTM A615, deformed billet steel bars, plain finish.

2.1.1.1.1 Bar size No. 4 and larger: grade 60.

2.1.1.1.2 Bar size less than No. 4: grade 40.

2.1.1.2 Welded Systems: ASTM A706, Grade 60.

2.1.1.3 Deformed wire: ASTM A496.

2.1.2 Welded Steel Wire Fabric: ASTM A185, Plain Type: flat sheets; plain finish.

2.1.3 Dowels: Same as 2.1.1.

2.2 ACCESSORY MATERIALS:

2.2.1 Tie Wire: Minimum 16-gauge annealed type.

2.2.2 Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.

2.2.3 Electrodes for welding ASTM A706 reinforcing steel: Conform to requirements of Specifications for Low Alloy Steel Covered Arc-Welding Electrodes, AWS A5.5, E80XX Series, low hydrogen, having a minimum yield point of 80,000 psi.

2.3 FABRICATION:

- 2.3.1 Fabricate concrete reinforcing in accordance with CRSI Manual of Standard Practice, ACI 315, and ACI 318.
- 2.3.2 Do NOT bend or straighten bars in manner that will weaken or injure bar. Do not re-bend # 5 bars and larger.
- 2.3.3 Do NOT use heat to bend bars.
- 2.3.4 Remove and replace reinforcement with following fabrication defects:
 - 2.3.4.1 Bar lengths, depths and bends exceeding specified fabrication tolerances.
 - 2.3.4.2 Bends or kinks not shown on Drawings or final shop drawings.
 - 2.3.4.3 Bars with reduced cross-section due to excessive rusting or other cause.
- 2.3.5 Locate reinforcing splices as shown on Drawings. Obtain approval of Structural Engineer for splices not shown on drawings.

2.4 SOURCE QUALITY CONTROL AND TESTING:

- 2.4.1 Provide for testing under the provision of Section 014523.
 - 2.4.1.1 Reinforcing Bars: Sections 1916A.2 and 1704A.4.1, Chapter 19A, Part 2, Title 24, CCR.
 - 2.4.1.2 Cost of testing for unidentified stock shall be reimbursed to the Owner by the Contractor.
- 2.4.2 Provide mill test certificates indicating the following information:
 - 2.4.2.1 Steel Source and Description.
 - 2.4.2.2 Ultimate tensile strength, Bend Test, Elongation percentage and Yield point.
 - 2.4.2.3 Heat number and Chemical analysis.
- 2.4.3 Sample and test reinforcing for compliance with ASTM A615 and ASTM A706.
 - 2.4.3.1 When materials are delivered with heat number and mill test, the Testing Laboratory shall make one series of tests (tensile and bend) for each 10.0 tons, or fraction, of each size and kind of reinforcing steel.
 - 2.4.3.2 When materials cannot be identified, the Testing Laboratory shall make one series of tests (tensile and bend) for each 2.5 tons, or fraction, of each size and kind of reinforcing steel.
 - 2.4.3.3 Payment for such testing will be borne by Contractor.

2.5 OTHER MATERIALS:

- 2.5.1 Provide all other materials, not specifically described but required for complete and proper installation of this work, as selected by the Contractor and subject to the approval of the Architect.

PART 3 – EXECUTION:

3.1 SURFACE CONDITIONS:

3.1.1 Inspection

- 3.1.1.1 Prior to work of this section, carefully inspect previously installed work. Verify all such work is complete to the point where this installation may properly commence.
- 3.1.1.2 Verify that work of this section may be installed in strict accordance with the original design, all pertinent codes and regulations, and all pertinent portions of the referenced standards.
- 3.1.1.3 In the event of discrepancy, immediately notify the Architect.
- 3.1.1.4 Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 PLACEMENT:

- 3.2.1 Provide reinforcing of sizes, gauges, and length indicated, bent to indicated shapes and as required. All bars shall be bent cold. Do not field bend Bars partially embedded in concrete except as shown on approved shop drawings. Before placing, clean reinforcing of loose scale, rust, oil, dirt, and any coating adversely affecting concrete bond.
- 3.2.2 All reinforcement shall be accurately set in place, lapped, spliced, spaced rigidly and securely held in place and tied with specified wire at all splices and crossing points. All wire tie ends shall point away from the form. Carefully locate all dowel steel to align with wall and column steel.
- 3.2.2.1 Bars shall be in long lengths with laps and splices as shown. Offset laps in adjacent bars. Place steel with clearances and cover as shown. Bar laps shall be as indicated on the Drawings. Tie all laps and intersections with the specified wire.
- 3.2.2.2 Maintain clear space between parallel bars not less than 1-1/2 times normal diameter, but in no case shall clear space be less than 1-1/2 times maximum size concrete aggregate.
- 3.2.2.3 Reinforcing dowels for slabs shall be placed as detailed. Sleeves may be used if reviewed by the Structural Engineer before installation. Install dowel through all construction and expansion joints for all slabs on grade.

- 3.2.3 Bar Supports: Support and securely fasten bars with chairs, spacers and ties to prevent displacement by construction loads or placement of concrete beyond the tolerances specified. Conform to CRSI as a minimum standard.
- 3.2.4 Accurately position and secure reinforcing in place as indicated and specified. Secure reinforcing so that it will not be displaced while placing concrete.
- 3.2.5 Use metal chairs to hold reinforcement the proper distance above form bottoms. In beams and slab construction, use chairs under the top slab reinforcement as well as displaced under a man's weight. Use metal spacers to secure proper spacing. Stirrups shall be accurately and securely wired to the bars at both top and bottom. At slabs, footings, and beams in contact with earth, use concrete blocks to hold reinforcement proper distance above the earth.
- 3.2.6 Place and secure reinforcement so as to maintain the proper clearance between parallel bars, and between bars and the forms. Lapped splices shall be made wherever possible in a manner to provide proper clearance between sets of bars. Lapped splices shall, in general, be staggered. Dowels and bars extending through construction joints shall be secured in position against displacement before concrete is placed, and shall be cleaned of concrete adhering immediately after completion of the pour while the incrustations are still soft.
- 3.2.7 Do not place reinforcing in supported slabs and beams until the walls and columns have been poured to the underside of the slabs and beams, nor until construction joints have been thoroughly cleaned.
- 3.2.8 Reinforcing shall be checked before concrete is placed and cleaned again if required.
- 3.2.9 Use deformed bars everywhere except for where drawings or specifications note otherwise.
- 3.2.10 Provide dowelled joints at interruptions of reinforcing.
- 3.2.11 Do NOT bend or straighten bars after placement.
- 3.2.12 Standard reinforcement splices: Lap ends, placing bars in contact, tightly wire tie. Unless shown otherwise, comply with requirements of ACI 318 for minimum lap of spliced bars.
- 3.2.13 Welded splices: Comply with the requirements of AWS D1.4 and structural drawings.
 - 3.2.13.1 Welding is not permitted unless specifically detailed on Drawings or approved by Engineer.
 - 3.2.13.2 Use only welders who have passed the AWS standard qualification tests within the previous year.
 - 3.2.13.3 Weld spliced to develop 125 percent of the specified yield strength of the bars, or of smaller bar in transition splices.

- 3.2.13.4 Clean bars of oil, grease, dirt and other foreign substance and flame-dry before welding.
 - 3.2.13.5 Preheat bars as required by AWS D1.4 before welding. Stagger splices in adjacent bars.
 - 3.2.13.6 Prepare ends of bars in compliance with AWS D1.4.
 - 3.2.14 Welding: Comply with the requirements of AWS D1.4 for field welding. Prior to field welding, determine the weldability of reinforcing bars by a laboratory chemical analysis of steel, except for ASTM A706 bars. Only steel conforming to the chemical requirements specified in AWS D1.4 may be welded.
 - 3.2.15 Mesh Fabric: Roll out, straighten, cut to required size, and lay out flat in place. Lap 1-1/2 spaces at sides and 12 inches at ends and wire to each other. Stagger end laps. At edges of slab and joints, extend mesh to within 1 inch of pour. As concrete is poured, lift mesh reinforcement in slabs at intervals to insure proper embedment. Locate mesh in center of slab unless indicated otherwise on the drawings.
 - 3.2.16 Do not disturb or damage vapor barrier while placing concrete reinforcing. If damage does occur, repair areas before placing concrete.
- 3.3 FIELD QUALITY CONTROL:
- 3.3.1 Field inspection will be performed under provisions of Section 014523.
 - 3.3.2 Notify Architect 48 hours minimum prior to placement of concrete.
 - 3.3.3 Inspections and tests of welds as required by AWS D1.4 will be made by the Testing Laboratory for reinforcing bar welds, including:
 - 3.3.3.1 Certification of welders engaged in welding of reinforcing.
 - 3.3.3.2 Inspection of reinforcing bar welds.
 - 3.3.3.3 Perform two (2) tensile tests of sample welds of the largest size bar for each type of welding.
 - 3.3.4 Deficient welds will require the Contractor to provide and pay for such additional tests and inspections as required. Repair or replaced defective welds as acceptable.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for materials, fabrications and installation of Concrete and accessory items as shown on Drawings and necessary to complete the Concrete Work. Work includes but is not necessarily limited to the following:

- 1.1.1 Examine all other sections for work related to those sections which are required to be included as work of this Section.
- 1.1.2 Provide concrete work of strengths and weights as indicated on Drawings. Where not indicated, concrete strength shall not be less than 4,500 p.s.i.
- 1.1.3 Placement, leveling, protection, bonding, jointing, filling, grouting, sacking, honing, rubbing of concrete and concrete surfaces, except as otherwise specified.
- 1.1.4 Bonding, drypacking, grouting, setting of plates, bolts and dowels; setting and securing of sleeves, inserts, anchorage and embedded items in forms.
- 1.1.5 Setting screeds and fine grading for concrete cast on grade.
- 1.1.6 Curing all concrete and curing, sealing and hardening all exposed interior and exterior concrete flatwork including floor slabs, stairs, walks, pavements, parking and driving areas, etc.
- 1.1.7 Miscellaneous concrete and related work not otherwise provided for.
- 1.1.8 Housekeeping pads for equipment.
- 1.1.9 Capillary break or vapor barrier under floor slabs on grade.

1.2 RELATED SECTIONS:

- 1.2.1 Sleeves, pipes, conduit, hangers, inserts, ties, anchor bolts and anchors and miscellaneous hardware required by other trades to be furnished and located by trades requiring same.
- 1.2.2 Section 014523 – Tests and Inspections.
- 1.2.3 Section 031000 – Concrete Formwork.
- 1.2.4 Section 032000 – Concrete Reinforcement.

1.3 STANDARDS AND REFERENCES:

- 1.3.1 CONFORM with applicable requirements of ACI Standards 301, 302, 303, 304, 305, 306, 308, 309.

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MARCH 10, 2021

1.3.2 AMERICAN CONCRETE INSTITUTE (ACI)

- 1.3.2.1 ACI 117 Standard Specification for Tolerances for Concrete Construction and Materials.
- 1.3.2.2 ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete.
- 1.3.2.3 ACI 211.2 Standard Practice for Selecting Proportions for Structural Lightweight Concrete.
- 1.3.2.4 ACI 301 Structural Concrete for Buildings.
- 1.3.2.5 ACI 302R Guide for Concrete Floor and Slab Construction
- 1.3.2.6 ACI 305R Hot Weather Concreting.
- 1.3.2.7 ACI 306R Cold Weather Concreting.
- 1.3.2.8 ACI 308 Standard Specification for Curing Concrete
- 1.3.2.9 ACI 309R Guide for Consolidation of Concrete
- 1.3.2.10 ACI 318 Building Code Requirements for Reinforced Concrete.
- 1.3.2.11 301-05 Specifications for Structural Concrete, Part 2.
- 1.3.2.12 301M-05 Specifications for Structural Concrete (metric)

1.4 REGULATORY REQUIREMENTS

- 1.4.1 Conform to Title 24, Part 2, California Code of Regulations

1.5 SUBMITTALS:

- 1.5.1 Refer to Section 013300 for procedures.

1.5.2 Mix Designs:

- 1.5.2.1 Mix designs will be prepared by a Professional Engineer Licensed in the State of California for each grade of concrete to be used on the Project. Contractor shall prepare and submit the mix designs for Owner, Architect and Testing Laboratories approval.
- 1.5.2.2 Specially identify where in the Project the concrete from each mix design will be used.
- 1.5.2.3 Mix design shall include individual and combined aggregate gradations and aggregate source and characteristics.

1.5.2.4 If admixtures are proposed for use in the mix, submit all information required by Section 013300. Include ICC Reports for proposed admixtures.

1.5.3 Other Products: When requested by Architect, submit manufacturer's certification showing compliance with standard specifications.

1.6 SAMPLE PANEL:

1.6.1 Construct sample reinforced panels at the jobsite to review the color, finish, form tie pattern and the results of the forming, placement and curing techniques proposed for the Project for each type of finish. The panels are to include details and conditions that will be encountered on the Project.

1.6.2 The panels must be of sufficient size as to be representative of a full pour height and provide enough surface areas of all types of finish required on Project.

1.6.3 Test patching techniques on the sample panel. The patching technique must be approved before the exposed concrete work begins.

1.6.4 Sample Panel: Remains at jobsite until exposed concrete work is completed and approved. Use sample panel as the standard by which completed "in-place" exposed concrete will be judged.

1.6.5 Remove sample when exposed concrete work for Project is completed and approved.

1.6.6 Should quality of sample panel indicate that the techniques used in its fabrication do not produce an acceptable exposed concrete result, produce additional sample panels.

1.7 QUALITY ASSURANCE:

1.7.1 Conform to Section 1905A, and other applicable sections of Chapter 19A, Part 2, Title 24, CCR.

1.7.2 Acquire cement and aggregate from same source for all work.

1.7.3 Floor slab testing for compliance with specified tolerances:

1.7.3.1 Contractor shall retain, at no additional cost to the Owner, a testing lab, approved by the Architect, with demonstrated familiarity with testing methods defined by ASTM E 1155.

1.7.3.2 Approved testing lab shall maintain calibrated measuring devices equivalent to "dipstick" or profilometer.

1.7.3.3 Comply with testing and reporting procedure specified in this Section.

PART 2 – PRODUCTS:

2.1 MATERIALS:

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GLENOAKS ELEMENTARY SCHOOL
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- 2.1.1 General: Where two (2) or more identical articles are required, provide products of same manufacturer. If specified materials are discontinued, furnish updated product at no additional cost.
- 2.1.2 Portland Cement: ASTM C150, Type V. One brand of cement shall be used throughout to maintain uniform color for all exposed concrete.
- 2.1.3 Concrete Aggregate: Fine and coarse aggregates shall be regarded as separate ingredients. Each size of coarse aggregate, as well as combination of sizes when two or more are used, shall conform to grading requirements of appropriate ASTM Standards and CCR Section 1903A.5, Chapter 19A, Part 2, Title 24.
 - 2.1.3.1 Concrete Aggregates for Standard Weight Concrete: ASTM C33.
 - 2.1.3.2 Aggregates:
 - 2.1.3.2.1 Conform to ASTM C33, or when applicable Title 24, Sec. 1903A.5 and as specified herein. Each specified or required size shall be graded and batched separately. Include pit source and characteristics of each type of aggregate in mix design submittal.
 - 2.1.3.2.2 Sources of Aggregate: Obtain coarse and fine aggregates from heavy media separation processes or from previously tested and approved sources. Test aggregate from other sources for reactivity. Reactive aggregate shall not be used.
 - 2.1.3.2.3 Fine Aggregate: Washed natural sand of hard strong particles which contain not more than 1 percent of deleterious material.
 - 2.1.3.2.4 Coarse Aggregate: Clean washed gravel or sound crushed rock with not more than 5 percent flat, thin, elongated or laminated material. Shall not contain more than 1 percent deleterious substances.
 - 2.1.3.2.4.1 Slabs, columns, walls: Class designation 5S per ASTM C33, Table 3, with 1-inch grading.
 - 2.1.3.2.4.2 Foundations: Class designation 3S per ASTM C33, Table 3, with 1-1/2-inch grading.
 - 2.1.3.2.5 Aggregate Size Requirements: Use largest practicable aggregate size for each condition of placement. Pea gravel mix 3/8-inch diameter maximum aggregate concrete shall not be used. Maximum size not to exceed the following limitations:
 - 2.1.3.2.5.1 3/4 of clear distance between reinforcing and form surfaces.
 - 2.1.3.2.5.2 1/3 of depth of slab section.

2.1.3.2.5.3 1/5 minimum clear distance between non-reinforced width in vertical sections.

Table 3 – Grading of Combined Aggregates:

Minimum and Maximum Percentage passing by weight.

Sieve Size		1" Maximum	1-1/2" Maximum
1-1/2	inch	-	95 to 100
1	Inch	90 to 100	70 to 90
3/4	Inch	70 to 95	50 to 80
3/8	Inch	45 to 70	40 to 60
#4	mesh	35 to 55	35 to 55
#8	mesh	27 to 45	25 to 40
#16	mesh	20 to 38	16 to 34
#30	mesh	12 to 37	12 to 25
#50	mesh	5 to 15	2 to 12
#100	mesh	0 to 5	0 to 3

2.1.4 Water: Clean and free from injurious amounts of oil, acids, alkali, organic matter and other deleterious substances; suitable for domestic consumption.

2.1.5 Admixtures shall be subject to prior DSA approval, in accordance with CCR Section 1903A, Chapter 19A, Part 2, Title 24 (CCR) and ACI 318.05 Section 3.6. Calcium Chloride is not permitted.

2.1.5.1 Water Reducing

2.1.5.1.1 ASTM C494 Type A – for use in cool weather.

2.1.5.1.2 ASTM C494 Type D – for use in hot weather.

2.1.5.1.3 Concrete admixtures shall be subject to prior approval by the jurisdictional authority and Architect. Calcium Chloride or admixtures containing Chloride shall not be used. Admixture(s) shall not adversely affect concrete strength or color of colored concrete, where occurs.

2.1.5.1.4 Fly ash or other pozzolan can be used as a partial substitute for ASTM 150 Portland Cement. Conform to ASTM C618, Class F.

2.1.5.2 Air Entraining

2.1.5.2.1 Conform to ASTM C260

2.1.5.3 Mid-Range Water-Reducers

2.1.5.3.1 Master Builders "Polyheed" or approved equal.

2.1.5.4 Water Resisting

2.1.5.4.1 Moxie 1800 Super Admix by Moxie International or approved equal formulated to resist moisture vapor migration and alkali efflorescence.

2.1.6 Vapor Barrier:

2.1.6.1 Vapor Barrier must have the following qualities

2.1.6.1.1 Water Vapor Transmission Rate ASTM E96 0.008 WVTR or lower

2.1.6.1.2 Water Vapor Barrier ASTM E1745 Meets Class A (Plastics)

2.1.6.2 Vapor Barrier Products

2.1.6.2.1 Stego Wrap 15-mil Vapor Barrier by STEGO INDUSTRIES LLC, San Juan Capistrano, CA (877) 464-7834 www.stegoindustries.com.

2.1.6.2.2 W.R. Meadows Premoulded Membrane with Plasmatic Core.

2.1.6.2.3 Zero-Perm by Alumiseal.

2.1.7 Vapor Barrier

2.1.7.1 Seam Tape

2.1.7.2 Tape must have the following qualities:

2.1.7.2.1 Water Vapor Transmission Rate ASTM E96 0.3 perms or lower

2.1.7.2.2 Seam Tape

2.1.7.2.2.1 Stego Tape by STEGO INDUSTRIES LLC, San Juan Capistrano, CA (877) 464-7834 www.stegoindustries.com.

2.1.8 Vapor Proofing Mastic

2.1.8.1 Mastic must have the following qualities:

2.1.8.1.1 Water Vapor Transmission Rate ASTM E96 0.3 perms or lower

2.1.8.2 Mastic

2.1.8.3 Stego Tape by STEGO INDUSTRIES LLC, San Juan Capistrano, CA
(877) 464-7834 www.stegoindustries.com.

2.1.9 Pipe Boots

2.1.9.1 Construct pipe boots from vapor barrier material, pressure sensitive tape and/or mastic per manufacturer's instructions.

2.1.10 Sand: Clean, dry, well graded, complying with ASTM C33.

2.1.11 Curing Materials:

2.1.11.1 Curing materials must exceed moisture requirement of ASTM C309, Type I, Class "B", "Standard Specifications for Liquid Membrane Forming Compounds for Curing Concrete".

2.1.11.1.1 "Masterseal-W" manufactured by Master Builders, "VOCOMP-20/25 System" manufactured by W. R. Meadows, Inc., or equal.

2.1.11.1.2 Material must provide moisture retention not to exceed a loss of 0.555 gm/cm² when used at a coverage of 20 sq. ft. per gallon tested in accordance with ASTM C156.

2.1.11.2 Waterproof Curing Paper: ASTM C171, "Sisalkraft", "Leatherback 300" or equal.

2.1.12 Joint Sealers and Fillers:

2.1.12.1 Joint Sealer for Exposed Concrete Slabs: Refer to Section 079000.

2.1.12.2 Premoulded Expansion Joint Filler: ½ inch thick premoulded asphalt-saturated fiber material conforming to ASTM D1751.

2.1.12.3 Filler-Sealer for Joints Under Resilient Flooring: Refer to Division 9 for neoprene based underlayment compound, applied as part of resilient floor covering work.

2.1.13 Expansion Joint Filler:

2.1.13.1 Joint fill shall be a preformed non-extruded resilient filler, saturated with bituminous materials and conforming to ASTM D1751. Products shall be equivalent to Burke "Fiber Expansion Joint", W. R. Meadows "Fibrated Expansion Joint Filler", or approved equal.

2.1.14 Bonding Agent: Sonneborn "Sonobond", the Euclid Chemical Company "Euco-Weld", Larsen Products Corp., "Weld-Crete" or approved equivalent.

2.1.15 Cement Grout and Drypack:

2.1.15.1 Precision support grout to consist of a hydraulic cementitious system, specially graded and processed natural fine aggregate and additional

technical components. Masterflow 928 Grout as manufactured by Master Builders, SonogROUT as manufactured by Sonneborn Building Products, Sealtight 588 Grout by W. R. Meadows or equal.

2.1.15.2 Drypack: Premixed grout mixed with water to make a stiff consistency, "Sealtight Pac-It Grout" by W. R. Meadows, "Set Grout" by Master Builders, or equal. Mix not to exceed a 1:3 cement to sand mix. Use premixed grout under base plates per manufacturer's printed recommendations.

2.1.16 Color-Conditioned Concrete Admixture: L. M. Scofield Company "Chromix Admix"; Admixtures, Inc., "Colorful"; Davis Colors, or equal. Submit manufacturer's standards for review and selection by Architect.

2.1.17 Concrete Sealer: Cure and Seal, as manufactured by the Euclid Chemical Company "Aqua-Cure VOX", Sonneborn "Kure-N-Seal WB", Burke "Spartan-Cote", W. R. Meadows "Intex" or approved equal conforming to ASTM C309, Type I, Class B requirements, and conforming to State of California Air Resources Board VOC Regulations.

2.1.18 Concrete Hardener/Sealer: Clear, water soluble, sprayable in-organic silicate-based hardener/sealer or acrylic co-polymer resin. Products shall be equal to Euclid Chemical Company "Eucosil", Burke "Spartan-Cote", Sonneborn "Sonosil", W. R. Meadows "Pena-Lith", or approved equal and must conform to State of California Air Resources Board VOC Regulations.

2.1.19 Concrete Dry Shake Floor Hardener: Free flowing powder applied prior to smooth steel trowel finish in accordance with manufacturer's requirements. Products shall be equal to Euclid Chemical Company "Surflex" or approved equal.

2.1.20 Expansion Anchors: All expansion bolts installed in concrete shall be KB-TZ expansion bolts as manufactured by Hilti Inc., or equal, unless noted otherwise. See Structural Drawings for installation requirements and tension testing requirements as applicable. See Drawings for special head requirements as needed. Substitution of other brands or anchors shall proceed only after written approval from the Structural Engineer and DSA has been obtained.

2.1.21 Concrete slab-on-grade base: Crushed rock, 3/8" grading, clean washed, complying with ASTM C33 & ASTM D-2940.

2.2 CONCRETE:

2.2.1 Concrete Mixes. **NOTE:** If structural drawing specified concrete strengths differ than the concrete strengths specified below, the specified concrete strengths on the structural drawings shall govern.

2.2.1.1 Type A Concrete: Use for unexposed foundations, thrust blocks, concrete except as otherwise specified. At Contractor's option, Type B concrete may be substituted for this.

2.2.1.1.1 Strength: 4,500 lbs. per square inch at 28 days.

- 2.2.1.1.2 Maximum Aggregate Size: 1-1/2 inch.
- 2.2.1.1.3 Cement Content: As determined by mix design (CBC Section 1905A).
- 2.2.1.1.4 5.0 sacks per yard minimum, 7 sacks per yard maximum.
- 2.2.1.1.5 Maximum Water to Cement Ratio: 0.45.
- 2.2.1.1.6 Admixture: Water Reducing.
- 2.2.1.1.7 Weight: 145 lbs. per cubic foot.
- 2.2.1.1.8 Maximum Fly Ash content as a percentage of total cementitious material: 15 percent.
- 2.2.1.2 Type B Concrete: For general concrete construction throughout Project, including structural walls, building slabs on grade, at all exposed locations, except as otherwise specified.
 - 2.2.1.2.1 Strength: 4,500 lbs. per square inch at 28 days.
 - 2.2.1.2.2 Maximum Aggregate Size: 1 inch.
 - 2.2.1.2.3 Minimum Cement Content: As determined by mix design. (CCR Section 1905A), Chapter 19A, Part 2, Title 24.
 - 2.2.1.2.4 5.5 sacks per yard minimum, 7 sacks per yard maximum.
 - 2.2.1.2.5 Maximum Water to Cement Ratio: 0.45.
 - 2.2.1.2.6 Admixture: Water reducing. Water resisting at floor slabs (verify with Owner).
 - 2.2.1.2.7 Weight: 145 lbs. per cubic foot.
 - 2.2.1.2.8 Maximum Fly Ash content as a percentage of total cementitious material: 15 percent.
- 2.2.2 Consistency of Concrete: Concrete slump, measured in accordance with ASTM C143, shall fall within following limits:
 - 2.2.2.1 For footings, slabs on grade, and mass concrete: 3 inches \pm 1 inch.
For other concrete: 4 inches \pm 1 inch.
 - 2.2.2.2 Mixes employing the specified mid-range water reducer shall provide a measured slump not to exceed 7 inch \pm 1 inch after dosing, 2 inch \pm 1 inches before dosing.
 - 2.2.2.3 Concrete slump shall be taken at point of placement. Use water reducing admixtures as required to provide a workable consistency for pump mixers. Water shall not be added at the jobsite.

2.2.3 Mix Design:

2.2.3.1 Mix design shall be prepared for all concrete by a Professional Engineer Licensed in the State of California, experienced in concrete mix design in accordance with CBC Section 1905A., Chapter 19A, Part 2, Title 24. In the event that additional mix designs are required due to depletion of aggregate sources, aggregate not conforming to Specifications, or at request of Contractor, these mixes shall be prepared as above.

2.2.3.2 Fly Ash shall not exceed the percentages of the total cementitious material listed in the Concrete Mixes above.

2.2.3.3 Provide 6 percent air entrainment typical for exterior concrete exposed to freeze-thaw cycles.

2.2.4 Mixing:

2.2.4.1 Equipment: All concrete shall be machine mixed. Provide adequate equipment and facilities for accurate measurement and control of materials.

2.2.4.2 Method of Mixing:

2.2.4.2.1 Transit Mixing: Comply with ASTM C94. Ready mixed concrete shall be used throughout, except as specified below.

2.2.4.2.2 On-Site Mixing: Use only if method of storing material, mixing of material and type of mixing equipment is approved by Architect. Approval of site mixing does not relieve Contractor of any other requirements of Specifications.

2.2.4.2.3 Mixing shall be in accordance with CCR Section 1905A.8, Chapter 19A, Part 2, Title 24.

2.2.4.3 Mixing Time: After mix water has been added, concrete shall be mixed not less than 1-1/2 minutes nor more than 1-1/2 hours. Concrete shall be rejected if not deposited within the time specified.

2.2.4.4 Admixtures:

2.2.4.4.1 Air entraining and chemical admixtures shall be charged into mixer as a solution and shall be dispensed by an automatic dispenser or similar metering device. Powdered admixtures shall be weighed or measured by volume as recommended by manufacturer. Accuracy of measurement of any admixture shall be within plus or minus 3 percent.

2.2.4.4.2 Two or more admixtures may be used in same concrete, provided such admixtures are added separately during batching sequence, and provided further that admixtures used in that combination retain full efficiency and have not deleterious effect on concrete or on properties of each other.

2.2.4.5 Retempering:

2.2.4.5.1 Concrete shall be mixed only in quantities for immediate use. Concrete which has set shall be discarded, not retempered.

2.2.4.5.2 Indiscriminate addition of water to increase slump is prohibited.

2.2.4.5.3 When concrete arrives at project with slump below that suitable for placing, concrete shall be rejected.

2.2.4.6 Cold Weather Batching: When temperature is below 40 degrees F or is likely to fall below 40 degrees F during 24-hour period after placing, provide adequate equipment for heating concrete materials. No frozen materials or materials containing ice shall be used. Temperatures of separate materials, including mixing water, when placed in mixer shall not exceed 100 degrees F. When placed in forms concrete shall have a temperature between 50 degrees F and 85 degrees F.

2.2.4.7 Hot Weather Batching: Concrete deposited in hot weather shall have a placing temperature below 85 degrees F. If necessary, ingredients shall be cooled to accomplish this.

2.3 FLOOR LEVELING AND FILL MATERIALS:

2.3.1 Epoxy Concrete Mortar: Floor leveling, non-shrink trowel applied epoxy concrete mortar; TPM 115 General Polymers Corp., A-H Emery Epoxy Topping No. 170 Anti-Hydro Corp., or approved equal, where areas to fill are less than 1/4 inch thick.

2.3.2 Concrete Mortar: Floor leveling, patching and repair, non-shrink trowel applied concrete mortar: Master Builders EMBECO 411-A, Euclid EUCO, or approved equal, where areas of fill are greater than 1/4 inch thick.

2.3.3 Cementitious Floor Leveling Material: Shall be self-leveling or trowelable with a minimum 28-day compressive strength of 3,000 psi in accordance with ASTM C109. Material shall be equal to Quikrete No. 1249, Ardex V-800/K-55, Mapei "Ultra/Flex" or approved equal.

2.3.4 SOURCE QUALITY CONTROL AND TESTING

2.3.4.1 Provide for testing under the provisions of Section 014523

2.3.4.1.1 Cement: CBC Section 1903A and 1916A.1, Chapter 19A, Part 2, Title 24, CCR.

2.3.4.1.2 Aggregate: CBC Section 1903A, Chapter 19A, Part 2, Title 24, CCR.

2.3.4.1.3 Batch Plant Inspection: CBC Section 1704A.4.3, Chapter 19A, Part 2, Title 24, CCR, and criteria specified in this Section.

PART 3 – EXECUTION:

3.1 PLACEMENT:

- 3.1.1 Before any concrete is placed, the following items of work shall have been completed in the area of placing:
 - 3.1.1.1 Forms shall have been erected, adequately braced, cleaned, sealed, lubricated if required, and bulkheaded where placing is to stop.
 - 3.1.1.2 Any wood forms other than plywood shall be thoroughly water soaked before placing any concrete. The wetting of forms shall be started at least 12 hours before concreting.
 - 3.1.1.3 Reinforcing steel shall have been placed, tied and supported.
 - 3.1.1.4 Embedded work of all trades shall be in place in the forms and adequately tied and braced.
 - 3.1.1.5 The entire place of deposit shall have been cleaned of wood chips, sawdust, dirt, debris, hardened concrete and other foreign matter. No wooden ties or blocking shall be left in the concrete except where indicated for attachment of other work.
 - 3.1.1.6 Reinforcing steel, at the time the concrete is placed around it, shall be cleaned of scale, mill scale or other contaminants that will destroy or reduce bond.
 - 3.1.1.7 Concrete surfaces to which fresh concrete is to be bonded shall be brush cleaned to remove all dust and foreign matter and to expose the aggregate, and then coated with bonding adhesive herein specified.
 - 3.1.1.8 Prior to placing concrete for any slabs or grade, the moisture content of the subgrade below the slabs shall be adjusted to at least optimum moisture.
 - 3.1.1.9 No concrete shall be placed until formwork and reinforcement has been approved by Inspector and Architect. Clean forms of all debris and remove standing water. Thoroughly clean reinforcement and all handling equipment for mixing and transporting concrete. Concrete shall not be placed against reinforcing steel that is hot to the touch. Notify Inspector and Architect 48 hours in advance of concrete pour.
- 3.1.2 Conveying: handle concrete from mixer to place of final deposit by methods which will prevent separation or lose of ingredients. Deposit concrete in forms as nearly as practicable at its final position in a manner which will ensure that required quality is obtained. Chutes shall slope not less than 4 inches and not more than 6 inches per foot of horizontal run.
- 3.1.3 Depositing: Deposit concrete into forms in horizontal layers not exceeding 24 inches in thickness around building, proceeding along forms at a uniform rate and consolidating into previous pour. In no case shall concrete be poured into an

accumulation of water ahead of pour, nor shall concrete be flowed along forms to its final place of deposit. Fresh concrete shall not be permitted to fall from a height greater than 5 feet without use of adjustable length pipes or, in narrow walls, of adjustable flex hose sleeves. Concrete shall be scheduled so that placing is a continuous operation for the completion of each section between predetermined construction joints. If any concreting operation, once planned, cannot be carried on in a continuous operation, concreting shall stop at temporary bulkheads, located where resulting construction joints will least impair the strength of the structure. Location of construction joints shall be as shown on the drawings or as approved by Structural Engineer. The rate of rise in walls shall not be less than 2 feet per hour.

3.1.3.1 Consolidation: Concrete shall be thoroughly compacted and worked to all points with solid continuous contact to forms and reinforcement to eliminate air pockets and honeycombing. Power vibrators of approved type shall be used immediately following pour. Spading by hand, hammering of forms or other combination of methods permitted. In no case shall vibrators be placed against reinforcing steel or used for extensive shifting of deposited fresh concrete. Provide and maintain standby vibrators, ready for immediate use.

3.1.3.2 Hot Weather Concreting: Unless otherwise directed by the Architect, perform all work in accordance with ACI 305 when air temperature rises above 90 degrees F and the following:

3.1.3.2.1 Mixing Water: Keep water temperature as low as necessary to provide for the required concrete temperature at time of placing. Ice may be required to provide for the design temperature.

3.1.3.2.2 Aggregate: Keep aggregate piles continuously moist by sprinkling with water.

3.1.3.2.3 Temperature of Concrete: The temperature of the concrete mix at the time it is being placed in the forms shall not exceed 85 degrees F. The method employed to provide this temperature shall in no way alter or endanger the design mix or the design strength required.

3.1.3.2.4 Dampen subgrade and formwork before placing concrete. Remove all excess water before placing concrete. Keep concrete continuously wet when air temperature exceeds 90 degrees F for a minimum of 48 hours after placing concrete.

3.1.3.2.5 Protection: Minimize evaporation from concrete in place by providing shade and windbreaks. Maintain such protection in place for 14 days minimum.

3.1.3.3 Cold Weather Concreting: Follow recommended ACI 306 procedures when air temperature falls below 50 degrees F, as approved by Architect. Concrete placed in freezing temperatures shall have a temperature of not less than 50 degrees F. Maintain this temperature for

at least seven (7) days. No chemicals or salts shall be used to prevent freezing and no accelerating agents shall be used without prior approval from Architect.

- 3.1.4 Construction Joints: Install only as indicated and noted on Drawings. Joints not indicated on Drawings shall be so located, when approved, as to least impair strength of structure, and shall conform to typical details. Construction joints shall have level tops, vertical sides. Horizontal construction joints shall be thoroughly cleaned and roughened by removing entire surface film and exposing clean aggregate solidly embedded in mortar matrix. Joints between concrete and masonry shall be considered construction joints. Vertical construction joints need not be roughened. See Drawings for doweling and required keys.

3.1.4.1 Roughen construction joints by any of the following methods:

3.1.4.1.1 By sandblasting joint.

3.1.4.1.2 By thoroughly washing joint, using a high-pressure hose, after concrete has taken initial set. Washing shall be done not less than 2 hours nor more than 4 hours after concrete has been poured, depending upon setting time.

3.1.4.1.3 By chipping and wire brushing.

3.1.4.2 All decisions pertaining to adequacy of construction joint surfaces and to compliance with requirements pertaining to construction joints shall be reviewed with the Structural Engineer.

3.1.4.3 Just before starting new pour, horizontal and vertical joint surfaces shall be dampened (but not saturated).

3.1.4.4 Before placing regular concrete mix, horizontal construction joint surfaces shall be covered with a layer of mortar composed of cement and fine aggregate of same proportions as that used in prescribed mix, but omitting coarse aggregate.

3.1.5 Extreme Weather Protection:

3.1.5.1 Do not place concrete when air temperature is below +50 degrees F or above +90 degrees F (100 degrees F when high-range admixtures are used) at the time of placing or it is likely to go below +50 degrees F or above +90 degrees F (100 degrees F when high-range admixtures are used) before the concrete has had its initial set. Take precautions to assure concrete temperature of +70 degrees F for at least 24 hours, and between +50 degrees F and +90 degrees F for an additional nine days, unless climatic conditions make longer periods of controlled concrete temperature desirable. During cold weather, concrete placement must conform with requirements of ACI 306. During hot weather, concrete placement must conform with requirements ACI 305. Submit protective measures proposed for Owner's Representative's approval. Do not mix chemicals or other foreign materials with concrete for purpose of

preventing freezing or drying out. In freezing weather, use an approved membrane sprayed curing compound in lieu of moist curing.

3.1.5.2 Do not allow concrete to freeze or dry out in cold or hot weather under any circumstances during the curing period. Provide equipment necessary to prevent these two events from happening. Should any concrete either freeze or dry out, it may be required, at the discretion of the Owner's Representative that the concrete in question be removed and replaced with new concrete.

3.1.5.3 Keep permanent temperature record showing date and outside temperatures. Take Thermometer readings at start of work in morning and noon and high-low during night. Record readings obtained.

3.1.5.4 Heating for Cold Weather Concreting:

3.1.5.4.1 Provide and maintain space heaters to provide temporary heat 24 hours a day to protect curing concrete work when outdoor temperatures at site are below +50 degrees F. Distribute space heaters to provide inside temperature of +50 degrees F in parts of building where concrete is being placed or being cured. When temporary heat is required, enclose work with tarpaulins, ballooned at top and bottom so that all sections of work will be maintained at +50 degrees F or higher. Enclosure: Windproof and strong enough to resist weather and wind conditions. Enforce strict fire prevention methods. Take caution to direct heat so that the concrete is not subjected to excessive temperatures or drying out. In place of space heaters for outside form surfaces, vapor-proof blanket insulation may be used, provided that above concrete temperatures are maintained. Provide adequate and tight moisture barriers for at least 5 days to prevent drying of concrete.

3.1.5.4.2 Temporary Heat: Use smokeless and vented hot air unit heaters or steam. Salamanders not permitted. Keep temporary heating equipment properly fueled and attended.

3.1.6 Concrete Slabs on Grade:

3.1.6.1 Exterior concrete slabs on grade shall be poured as required under this Section. Base shall be accurately leveled and dampened (but not saturated) prior to placing of concrete.

3.1.6.2 Typically, all interior slabs on grade shall be poured over a vapor barrier over crushed rock base. Lap all joints of vapor barrier a minimum of 12 inches, and seal with manufacturers tape. Seal all penetrations per manufacturers instructions. Repair damaged areas per manufacturers instructions.

3.1.7 Vapor and barrier installation:

- 3.1.7.1 Proof roll subgrade.
- 3.1.7.2 Place crushed rock base.
- 3.1.7.3 Placer vapor barrier over crushed rock base, lapping edges 12 inches. Tape and seal edges and penetrations. Extend vapor barrier to footing face and turn down to bottom of footing.
- 3.1.7.4 Obtain inspectors approval of vapor barrier installation before placing concrete.
- 3.1.7.5 Exercise care in placing reinforcing steel and concrete to avoid puncturing the sheeting. Do not drive stakes through the barrier. Use flat base screed supports.
- 3.1.7.6 At stage or platforms and/or where resilient wood flooring system are shown on the finish schedule, provide minimum two (2) layers of vapor barrier membrane where resilient wood flooring is specified and extend vapor barrier a minimum 24 inches beyond all edges.
- 3.1.8 Gymnasium Floor Room B Screed Placement and Leveling. **(NOT USED)**
- 3.1.9 Control Jointing – Slabs on Grade:
 - 3.1.9.1 Joints shall be in locations indicated on drawings, or as directed by Architect.
 - 3.1.9.2 Joints in interior slabs shall be made by one of the following methods:
 - 3.1.9.2.1 By use of construction joints laid out in checkerboard pattern; pour and allow alternate slabs to set; fill out balance of checkerboard pattern with second pour.
 - 3.1.9.2.2 By use of tooled joints at least 1/2 deep and 1/4-inch edge radius. These joints may be sawcut as soon as wet concrete can support the weight of the equipment and operator. Delaying sawcutting past this point will make jointing ineffective.
 - 3.1.9.3 Control jointing in exterior paving slabs shall be poured in a checkerboard pattern as described above, but with joint edges tooled to provide a uniform joint at least 3/8 inch in depth.
 - 3.1.9.4 Slab Reinforcing need not be terminated at control joints.
 - 3.1.9.5 Construction and expansion joints shall be counted as control joints.
- 3.1.10 Expansion Joints – Slabs on Grade:
 - 3.1.10.1 Unless otherwise indicated, use 3/8-inch-thick expansion joint filler as indicated in this Specification Section.

3.1.10.2 Joints in interior slabs on grade shall be in locations indicated, or, where not indicated, locate joints at uniformly spaced intervals not exceeding 30 feet.

3.1.10.3 Joints in exterior slabs on grade shall be installed at each side of structures, at curb transitions opposite apron joints, at ends of curb returns, at back of curb when adjacent to sidewalk, and at uniformly spaced intervals not exceeding 30 feet on center unless detail in the plans or specified elsewhere in the Project Manual.

3.1.10.4 Edges of concrete at joints shall be edge finished to approximately 3/8-inch radius.

3.1.11 Score markings on exterior slabs on grade shall be located as indicated. Where not indicated, mark slabs into rectangles of not less than 12 square feet nor more than 20 square feet using a scoring tool which will leave edges of score markings rounded.

3.2 CURING AND PROTECTION:

3.2.1 Curing: Exposed surfaces of all concrete used in structure shall be maintained in a moist condition for at least seven (7) days after placing. The following final curing processes shall normally be considered to accomplish this. Concrete shall be maintained at not less than 50 degrees F nor more than 100 degrees F for a period of 72 hours after being deposited, per Title 24, Part 2 Section 1905A.11 and Chapter 19A (CCR).

Liquid Membrane-Forming Curing Compound: Liquid type non-wax membrane-forming curing compound complying with ASTM C309, Type I, Class B. Moisture loss not more than 0.055 gr./sq. cm. when applied at 200 sq. ft./gal./product shall be compatible with finishes to be applied to concrete.

Products: Subject to compliance with requirements, provide one of the following:

"CS2000"	Creteseal
"Sealtight #1100"	W.R. Meadows
"Master-kure"	Master Builders
"Kurez W B"	Euclid Chemical Co.

3.2.1.1 Initial Curing Process:

3.2.1.1.1 Mist Spraying: As soon as troweling of concrete surfaces is completed, exposed concrete shall be sprayed continuously with a special atomizer spray nozzle, capable of producing a fine mist. Spraying shall be done without any dripping of water from nozzle. Amount of spraying shall be such as to maintain surface of concrete moist without any water accumulating on surface. Maintain spraying for a minimum of 12 hours, or until such time as hereinafter described curing process is applied. Mist spraying will not normally be required when the ambient air temperature is below 90 degrees F.

- 3.2.1.2 Final Curing Process: Except as noted, use any of following:
- 3.2.1.2.1 Water Curing: Concrete shall be kept wet by mechanical sprinklers or by any other approved method which will keep surfaces continuously wet.
 - 3.2.1.2.2 Saturated Burlap Curing: Finished surfaces shall be covered with a minimum of two (2) layers of heavy burlap which shall be kept saturated during the curing period.
 - 3.2.1.2.3 Curing Compounds: Apply a water-based curing compound as indicated in Materials. Membrane curing compounds of chlorinated rubber or resin type conforming to ASTM C309 may be used only if specifically approved by Architect. Use of membrane curing compound will not be permitted on surfaces to be painted, or to receive ceramic tile, membrane waterproofing or hardeners and sealers. Membrane curing compound may be used in areas to receive resilient floor tile, provided it is wax-free, compatible with adhesive used and approved by adhesive manufacturer. Agitate curing compounds thoroughly by mechanical means continuously during use and spray or brush uniformly in accordance with manufacturer's recommendations. Apply immediately following final finishing operation. All curing compounds shall conform to State of California Air Resources Board VOC Regulations.
 - 3.2.1.2.4 Waterproof paper conforming to ASTM C171, or opaque polyethylene film, may be used. Concrete shall be covered immediately following final finishing operation. Anchor paper or film securely and seal all edges in such a manner as to prevent moisture escaping from concrete.
- 3.2.1.3 Curing Process – Formed Surfaces: Forms heated by sun shall be kept moist during curing period. If forms are to be removed during curing period, curing as described for flatwork shall be commenced immediately.
- 3.2.2 Refer to Drawings for areas of concrete slab not to receive curing compounds or hardening compounds. Where concrete floors are to receive heavy duty coatings, waterproof coatings and the like, verify with coating installer the type of finish required for specified coating.
- 3.2.3 Protection: Contractor shall be responsible for protection of finished concrete against injury by rain, cold, vibration, animal tracks, marking by visitors, vandalism, etc.
- 3.2.4 Provide additional curing agents or compounds, not necessarily listed herein, but as recommended and or required for use with shake type hardeners or other special coatings and coverings by their manufacturers for a complete and proper installation.

3.2.5 Conform to ACI 308. Use proposed methods in fabricating sample panel.

3.3 FINISHES:

3.3.1 Formed Surfaces:

3.3.1.1 Rough Form Finish Where Specified in the Plan: Surfaces shall be reasonably true to line and plane with no specified requirements for selected facing materials. Tie holes and defects shall be patched and fins exceeding 1/4 inch in height shall be rubbed down with wooden blocks. Fins and other rough spots at surfaces to receive membrane waterproofing shall be completely removed and the surfaces rubbed smooth. Otherwise, surfaces shall be left with the texture imparted by forms.

3.3.1.1.1 Rough finish shall be used for the following areas:

3.3.1.1.1.1 Below grade and unexposed surfaces.

3.3.1.2 Smooth Sack Finish is the required finish unless noted otherwise in the drawing.

3.3.1.2.1 Smooth Sack Finish shall be used for the following areas:

3.3.1.2.1.1 All surfaces above grade unless otherwise specified.

3.3.2 Slab-On-Grade:

3.3.2.1 Unless otherwise indicated or specified, slab-on-grade shall have an integral monolithic finish.

3.3.2.2 Integral Monolithic Finish: Apply as soon as freshly poured concrete slabs will bear weight of workers. Pour slabs full thickness to finish floor elevations indicated. At proper time, tamp surface repeatedly with a wire mesh or grid tamper in a manner to force aggregate down below surface and to bring sufficient mortar to surface to provide for a smooth coating of cement mortar over entire surface. Allow surface mortar to partially set, then float with wooden floats and finish with one of following, as required:

3.3.2.2.1 Broom Finish: Steel trowel surface to a smooth dense surface free of lines, tool marks, cat faces and other imperfections. After troweling, and before final set, give surface a broom finish, brushing in direction noted on Drawings, or as directed. Broom finish shall be used typically on exterior flatwork except as otherwise indicated or specified and shall be "medium" texture as approved by Architect.

3.3.2.2.2 Smooth Steel Trowel Finish: Apply two (2) steel trowelings to obtain hard, smooth surface. All lips, irregularities, uneven levels, etc. shall be worked out before last troweling. All

interior flatwork shall have a smooth steel trowel finish unless specified otherwise. Provide a Dry Shake Floor Hardener at all exposed interior slabs including slabs on metal deck smooth steel trowel finish shall also include the trash and can wash enclosure slab areas.

3.3.2.3 Tolerances:

3.3.2.3.1 For tolerances not indicated, refer to ACI 117.

3.3.2.3.2 Finished surfaces of all interior integral finished flatwork shall be sufficiently even to contact a 10-foot-long straightedge with a tolerance of 1/8 inch.

3.3.2.3.3 Finished surfaces of exterior integral finished flatwork shall not vary more than 1/4 inch from a 10-foot-long straightedge, except at grade changes.

3.3.3 Sacked Surfaces: Exposed surfaces that are unacceptable in appearance to the Architect shall be sacked and all exposed concrete surfaces not specified otherwise in the drawings.

3.3.3.1 Prepare concrete surfaces in accordance with the referenced standards. Remove any form release materials by stoning by hand, power grinding or other method approved by the Architect.

3.3.3.2 Prepare concrete surfaces to receive sack finishing with a light sand blasting.

3.3.3.3 For best results, grout application and rubbing should be performed when areas to be treated are shaded and during cool, damp weather. When work is to be performed in hot and dry weather, a fog spray should be available for continuous use.

3.3.3.4 Prepare grout samples for matching of concrete surfaces for approval by the Architect. These shall be made in the following proportions of gray cement to white cement to sand: 1:1:2, 1:2:3, and 2:1:3, etc. until the correct matching color is obtained on the test areas. Sand should be fine enough to pass the Number 30 sieve. Mixes should be made to a good workable consistency in a clean container and the mix with the best color chosen, or modified if needed.

3.3.3.5 Provide sufficient quantities of sand and cement from the same source for the complete work at the job site.

3.3.3.6 Mixing and Application:

3.3.3.6.1 Mixing of grout on the job should be timed for it to be used up within 1 to 1-1/2 hours.

3.3.3.6.2 Let the grout stand 20 to 30 minutes after mixing, and then remixed before applying.

3.3.3.6.3 Soak the concrete surface thoroughly with water at least 15 minutes before applying grout and again just before application so that the surface is adequately wet during the operation.

3.3.3.6.4 Apply grout with plasterer's towel or sponge rubber float in sweeping strokes from the bottom up. Brush or spray gun applications may be used when approved by the Architect.

3.3.3.6.5 Work in freshly applied grout vigorously with a sponge rubber float, then let sit until some of its plasticity is gone but not until it loses its damp appearance. At this point it shall be rubbed with clean, dry burlap to remove the excess grout, leaving no visible film on the surface but filling all air holes.

3.3.3.6.6 Keep the surface wet for a day after grouting and sack rubbing are completed.

3.3.3.7 Alternate methods of application and materials shall be subject to the approval of the Architect.

3.4 PATCHING:

3.4.1 Formed Surfaces:

3.4.1.1 Promptly upon removal of contact forms and after concrete surfaces have been inspected, form ties shall be removed and all necessary patching and pointing shall be expertly done.

3.4.1.2 Honeycombed areas shall be removed down to sound concrete, coated with a bonding grout or approved compound and patched using a low shrinkage high bond mortar. Patched areas shall be cured by being kept damp for at least five (5) days.

3.4.1.3 Tie holes shall be cleaned, dampened and filled solid with patching mortar or cement plugs of an approved variety.

3.4.2 Slabs on Grade: After entire slab is finished, shrinkage cracks that may appear shall be patched as follows:

3.4.2.1 Where slab is not exposed or where appearance is not important, cracks larger than 1/32-inch-wide shall be filled with cement grout and struck off level with surface.

3.4.2.2 Where slab is exposed and appearance is important, unsightly cracks shall be repaired in a manner satisfactory in appearance to Architect. If this cannot be accomplished, concrete shall be considered defective.

3.4.2.3 "R-Dex" material will not be allowed as a pitching material for any concrete.

3.5 DEFECTIVE CONCRETE:

3.5.1 Defective concrete shall mean any of the following:

3.5.1.1 Concrete not meeting 100 percent of the specified 28-day compressive strength.

3.5.1.2 Concrete exhibiting rock pockets, voids, spalls, streaks, cracks, exposed reinforcing to extent that strength, durability, or appearance is adversely affected.

3.5.1.3 Concrete significantly out of place, line, or level.

3.5.1.4 Concrete not containing the required embedded items.

3.5.2 Upon determination that concrete strength is defective:

3.5.2.1 Should cylinder tests fall below minimum strength specified, concrete mix for remainder of work shall be adjusted to produce required strength. Core samples shall be taken and tested from cast-in-place concrete where cylinders and samples indicate inferior concrete with less than minimum specified strength.

3.5.2.1.1 Cores of hardened concrete shall be taken and tested in accordance with ASTM C42 and C39. Number and location of such cores shall be subject to the approval of Architect.

3.5.2.1.2 Cost of core sampling and testing will be paid by the Contractor.

3.5.2.1.3 "500 psi" and "85 percent" reduction in CBC Section 1905A.6.5., Chapter 19A, Part 2, Title 24 (CCR) will not justify low cylinder tests.

3.5.3 Upon determining that concrete surface is defective, Contractor may restore concrete to acceptable condition by cutting, chipping, pointing, patching, grinding, if this can be done without significantly altering strength of structure. Permission to patch defective areas will not be considered a waiver of the right to require removal if patching does not, in the opinion of the Architect, satisfactorily restore quality and appearance.

3.5.4 If core tests indicate that concrete is below the strength specified, or if patching does not restore concrete to specified quality and appearance, the concrete shall be deemed defective, and shall be removed and replaced without additional cost to the Owner.

3.5.5 No repair work shall begin until procedure has been reviewed by the Architect and Structural Engineer.

3.6 SURFACE HARDENER AND SEALER:

- 3.6.1 Seal all exposed concrete (receiving no other finish product) with clear sealer, except surfaces receiving ceramic tile, quarry tile, poured flooring or other special finishes specified, or as scheduled on the Drawings.
 - 3.6.1.1 Apply sealer in two (2) or three (3) coats, in accordance with manufacturer's directions, using the maximum quantity recommended.
 - 3.6.1.1.1 Concrete floors must be thoroughly cured for a minimum of 30 days and completely dry before treatment.
 - 3.6.1.1.2 Surfaces to be treated must be clean, free of membrane curing compounds, dust, oil, grease and other foreign matter.
 - 3.6.1.1.3 Upon completion, concrete surfaces shall be clean and without discoloration or traces of excess sealer left on the surface.
- 3.6.2 Apply a dry shake hardener at all exposed concrete slabs (receiving no other finish product) as scheduled or indicated in the Drawings. Apply in accordance with the manufacturer's favorably reviewed application instructions and recommendations. A spray-able sealer/hardener may be used at utility areas not normally accessible to the public.
- 3.7 GROUTING:
 - 3.7.1 Prepare and place grout materials at locations as indicated on the Drawings in accordance with the manufacturer's recommendations and installation instructions.
 - 3.7.2 Pack grout materials solidly between bearing surfaces and bases or plates as indicated and to ensure no voids.
- 3.8 TOLERANCES
 - 3.8.1 All tolerances shall be as defined in ACI 117 and as specified.
 - 3.8.2 Classification shall be per General Building: Cast-in-Place, ACI 117, Section 4.0, unless noted otherwise.
 - 3.8.3 Unless noted otherwise, depressions in slab floors between high spots shall be a maximum 3/16 inch in 10 feet, using a metal straight edge placed at any location on slab, and measured within 72 hours of pour.
 - 3.8.4 For the following applications, depressions in slab floors between high spots shall be a maximum 1/8 inch in 10 feet, using a metal straight edge placed at any location on slab, and measured within 72 hours of pour.
 - 3.8.4.1 Slabs receiving thin-set ceramic tile as specified in Section 093000.
 - 3.8.4.2 Slabs receiving resilient athletic flooring as specified in Section 096500.
 - 3.8.5 Slab Floor Tolerance Defects:

3.8.5.1 Repair all slab areas not complying with specified floor values by grinding or filling as required to achieve compliance.

3.8.6 Depressions in bleacher seating slabs between high spots shall be a maximum 3/16 inch in 10 feet, using a metal edge placed at any location on slab.

3.8.7 Tolerance for deviation from designated form line at bleacher seating slabs shall be a maximum of 1/4 inch in any 10 feet, non-cumulative.

3.9 ADJUSTING AND CLEANING:

3.9.1 Remove all debris, excess materials, tools and equipment resulting from or used in this operation at completion of work.

3.10 FIELD QUALITY CONTROL:

3.10.1 Perform work of this section under the supervision of a capable concrete superintendent.

3.10.2 Provide free access to work and cooperate with appointed testing and inspection firm.

3.10.3 Field inspection and testing per CBC section 1903A will be performed in accordance under provisions of section 014523.

3.10.4 Inspector will reject concrete not conforming to this Section, including concrete which is not placed within 90 minutes after batching.

3.10.5 Comply with requirements of CBC Section 1905A.6.2, regarding frequency of testing for concrete test specimens including:

3.10.5.1 Prepare concrete sample(s) for each type of concrete placed each day.

3.10.5.2 Prepare one sample for each 50 cubic yards or fraction thereof.

3.10.5.3 Prepare one sample for each 2000 square feet of slab or wall surface area placed, or fraction thereof.

3.10.6 One slump test will be taken for each set of test cylinders taken.

3.11 TREADS, RISERS AND NOSINGS:

3.11.1 The painted formed grooved, stripe or contrasting metal nosing insert shall have a clear visual contrast and shall be 2 inches wide to a maximum of 4 inches wide placed parallel to and placed not more than 1 inch from the nose of the step or upper approach. The painted formed grooved, stripe or contrasting metal nosing insert shall extend the full width of the concrete step, step or upper approach and shall be of material that is at least as slip resistant as the other treads of the steps/stairs. Painted stripes at concrete steps/stairs are acceptable. CBC Section 11B-504.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for materials, fabrications and installation of Miscellaneous Metal and accessory items as shown on drawings and necessary to complete the Miscellaneous Metal Work. Work to include but not be limited to the following:

- 1.1.1 Examine all other sections for work related to those sections which are required to be included as work of this Section.
- 1.1.2 Pipe railings, pipe sleeves, handrails, guardrails, and brackets.
- 1.1.3 Gratings at floor sinks, etc.
- 1.1.4 Steel roof access ladders and steel ladder up/over roof parapets.
- 1.1.5 Steel angle corner guards, pipe guards and rails.
- 1.1.6 Channel door frames.
- 1.1.7 Structural shapes not included in structural steel work.
- 1.1.8 Formed and bent plate 14 gauge and heavier.
- 1.1.9 Trash enclosure gates.
- 1.1.10 Steel trellis.
- 1.1.11 Metal canopy.
- 1.1.12 Stainless steel counters and stainless steel wire shelves.
- 1.1.13 Stainless steel wall panels and wainscot (20 ga.)
- 1.1.14 Steel angle guards at overhead roll-up doors and loading dock.

1.2 RELATED SECTIONS:

- 1.2.1 Divisions 22 and 26

1.3 REFERENCES AND STANDARDS:

- 1.3.1 ASTM A36 – Structural Steel.
- 1.3.2 ASTM A53 – Hot-Dipped, Zinc-Coated Welded and Seamless Steel Pipe.
- 1.3.3 ASTM A307 – Low-Carbon Steel Externally and Internally Threaded Fasteners.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
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MARCH 10, 2021

- 1.3.4 ASTM A386 – Zinc-Coating (Hot-Dip) on Assembled Steel Products.
- 1.3.5 ASTM A501 – Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- 1.3.6 AWS DI.1 – Structural Welding Code.
- 1.3.7 FS TT-P-31 Paint, Oil: Iron Oxide, Ready Mix, Red and Brown.
- 1.3.8 FS TT-P-641 Primer Coating, Zinc Dust-Zinc Oxide (for Galvanized Surfaces).
- 1.4 REGULATORY REQUIREMENTS:
 - 1.4.1 Conform to Title 24, Part 2, California Code of Regulations
- 1.5 SUBMITTALS:
 - 1.5.1 Provide shop drawings for all items listed and those therein omitted, that require Architect's review and coordination prior to fabrication and erection.
 - 1.5.2 Submit manufacturer's product data and any samples as requested by the Architect to demonstrate size, texture, welds, factory finish, etc.
 - 1.5.3 Submit shop drawings under provisions of Section 013300. Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories.
 - 1.5.4 Include erection drawings, elevations, and details where applicable.
 - 1.5.5 Indicate welded connections using standard AWS welding symbols. Indicate net weld lengths.
- 1.6 QUALITY ASSURANCE:
 - 1.6.1 Use skilled workers who are thoroughly trained and experienced and who are completely familiar with the requirements and methods to perform the scope of work as specified under this Section.
- 1.7 DELIVERY, STORAGE AND HANDLING:
 - 1.7.1 Use all means necessary to store, handle and protect the materials of this Section before, during, and after installation.
- 1.8 REQUIREMENTS:
 - 1.8.1 Field Measurements: Secure field measurements required for fabrication and installation of work. Coordinate fabrication of supports for equipment with manufacturer's printed literature and structural engineering drawings. Measurements are Contractor's responsibility. Field alterations will not be permitted without approval of the Architect.

- 1.8.2 Dissimilar Metals: Where metals are in contact with concrete or other types of metals, paint contact faces of metal with heavy bituminous coating before installation.
- 1.8.3 Railings are to be designed to be in conformance with minimum California Building Code requirements, to resist a load of at least 200 pounds applied in any direction at any point to the top rail and also a vertical and horizontal thrust of 50 pounds per lineal foot applied to the top rail.

PART 2 – PRODUCTS:

- 2.1 GENERAL: Where two (2) or more identical articles or materials are required, provide products of same manufacturer. If specified materials are discontinued, furnish updated product at no additional cost.
- 2.2 ALL METALS must be free from any defects which would impair the strength, durability or appearance, and of the best commercial quality, for purposes intended and adequate to withstand strains and stresses to which they will be subjected. Protect metals from damage at the job, in transit, and until installed, inspected and approved.
- 2.3 MATERIALS:
 - 2.3.1 Structural Steel Such as Rolled Shapes, Angles, Plates, Anchors, Clips, Etc.: Conform with ASTM A36. Standard weight block steel galvanized after fabrication.
 - 2.3.2 Steel Tubing: ASTM A501 or 500 Grade B Seamless.
 - 2.3.3 Architectural and Miscellaneous Steel: Mild steel.
 - 2.3.4 Wrought Iron Bars: ASTM A207 or ASTM A189.
 - 2.3.5 Steel Pipe Other Than Structural Uses: Conform with ASTM A120, seamless.
 - 2.3.6 Steel Sheet: High quality, low carbon, hot-rolled sheet with good welding and forming qualities. ASTM A446 Grade A.
 - 2.3.7 Galvanized Sheets: Hot-dipped and tight coated steel sheet conforming to ASTM A525. Coating weight to be no less than 1.25 oz. per square foot.
 - 2.3.8 Welded Materials: AWS-D.1; Type required for materials being welded.
 - 2.3.9 Galvanized Rolled Shapes, Angles, Channels, Bolts, Etc.: Conform with ASTM A123.
 - 2.3.10 Primer Paint:
 - 2.3.10.1 General: Compatible with type and color of special or finish coatings described. in Section 099100. FS TT-P-31, Red: For shop application and field touch-up.

- 2.3.10.2 Touch-up Primer for galvanized surfaces: FS TT-P-641 or SSFC-20.
- 2.3.10.3 Cleaning Metals Prior to Priming:
 - 2.3.10.3.1 Exterior Exposed Metals: SSPC-SP6 Commercial blast clean.
 - 2.3.10.3.2 Interior Metals: SSPC-SP2 Hand tool clean or SSPC-SP3 Power tool clean.
- 2.3.10.4 Standard Shop Paint: Rust-inhibitive coating conforming to governing air pollution control requirements (AQMD).
 - 2.3.10.4.1 Exterior Exposed Metals: High performance coating primer, to meet slip coefficient and creep requirements for classification as a Class B coating using ASTM A325 or A490 Bolt Specification, Appendix A, No. 90-97 Tneme-Zinc Primer, 2.5 – 3.5 dry mils, as manufactured by Tnemec Company, Compton, California, or equal (no known equal).
 - 2.3.10.4.2 Interior metals: Regular metal primer, No. 10-99 V.O.C. compliant, as manufactured by Tnemec Company, Compton, California, or equal (no known equal).
- 2.3.11 Stainless Steel: ASTM Reference
- 2.3.12 Machine Bolts: Conform with ASTM A307.
- 2.3.13 Expansion Anchors: Not less than 3/8 inch diameter, threaded type for anchoring with the bolt head out, as indicated on drawings. Test by Owner's Testing Laboratory in accordance with criteria noted on drawings.
- 2.3.14 Hook Type Anchors: Not less than 1/2 inch diameter and length as required for minimum 7 inch embedment, with threaded nut and plain washer.
- 2.3.15 Welding Electrodes: Conform with A.W.S. Publication D1.1; use E-70XX series electrodes.
- 2.3.16 Stainless Steel Tube and Pipe: Conform with ASTM A554, ornamental grade, Type 302 or 304, Schedule 40, seamless with No. 4 finish.
- 2.3.17 Stainless Steel Shapes, Angles, Plates, Etc.: conform with ASTM A167, Type 302 or 304 with No. 4 OR rolled finish.
- 2.3.18 Metal Gratings, Trench Covers and Frames: Manufactured by Alhambra, Neenah or equal, cast iron heavy-duty traffic type, sizes and shapes as required.
- 2.3.19 Steel Pipe for Structural Uses: Conform with ASTM A53, Type S seamless, Grade B.

- 2.3.20 Cast Steel: Conform with ASTM A27.
- 2.3.21 Iron Castings: Conform with ASTM A48.
- 2.3.22 Malleable Iron Castings: Conform with ASTM A47.
- 2.3.23 Liquid Galvanizing Compound: "Drygalv", Fesco Inc., Los Angeles (213) 254-9131, "Galvicon", V. B. Anderson Co. (714) 547-6684; "Z.R.C. Cold Galvanizing Compound", Mechanical Distributors (213) 698-6655, or equal.

PART 3 – EXECUTION:

3.1 PREPARATION:

- 3.1.1 Obtain Architect approval prior to site cutting or making adjustments not scheduled.
- 3.1.2 Clean and strip site primed steel items to bare metal where site welding is scheduled.
- 3.1.3 Make provision for erection loads with temporary bracing. Keep work in alignment.
- 3.1.4 Supply items required to be cast into concrete or embedded in masonry with setting templates, to appropriate Sections.

3.2 WELDING:

- 3.2.1 Except for modifications indicated on drawings and specified herein, AISC Code of Standard Practice for Steel Buildings, as amended to date, governs materials, fabrication and erection of work under this Section.
- 3.2.2 Make welds in accordance with best standard practice. Perform welding on unexposed sides to prevent pitting, discoloring, weld-halo and other surface imperfections. Thoroughly clean surfaces to be welded. Welds must show a uniform section and reasonable smoothness without distortion. No exposed spot welding permitted. Dress and finish exposed surfaces of welded joints to produce invisible connections. Furnish welding alloys in the same color and character as the surfaces of the metals joined.

3.3 WORKMANSHIP, FABRICATION AND ERECTION:

- 3.3.1 Insofar as possible, fit and shop assemble work ready for erection. Accurately make jointing and intersections in true planes, and with adequate fastenings. Make exposed joints even and smooth. Grind exposed weld joints smooth and flush.
- 3.3.2 Provide holes of proper size and in correct location for attachment of work of other trades. Cut, tap, and drill as required. Finished items must be free from kinks, twists, burrs and open joints. Damaged or distorted materials are not acceptable.

- 3.3.3 Provide work to be built in concrete or masonry of proper form required for anchorage, or provide with concealed anchors.
 - 3.3.4 Form work true to detail, with clean, straight and sharply defined profiles. Close fit exposed joints and make where least conspicuous.
 - 3.3.5 Install supporting members, fastenings, frames, hangers, bracing, brackets, bolts, angles, and the like as required to set and connect items of miscellaneous metal to concrete, steel or wood framing.
 - 3.3.6 Countersink holes for exposed screwheads. Provide necessary lugs, brackets, and clips so work can be assembled and installed in a neat and suitable manner.
 - 3.3.7 Conceal fastenings where possible. Unless otherwise indicated provide flathead or countersunk oval bolts and screwheads as best suited for the purpose.
 - 3.3.8 Weld in place plates for mounting item(s) of finish hardware.
 - 3.3.9 Provide bolts, anchors, inserts, and other miscellaneous steel and iron fastenings in forms before concrete is poured; or as to be built into masonry, as indicated on drawings, details or schedules, or as necessary to complete the work. Examine and check the Architectural, Structural, Mechanical and Electrical Drawings for number, type and locations of each items.
- 3.4 MISCELLANEOUS ITEMS:
- 3.4.1 Furnish, fabricate, and install miscellaneous angles, channels, bent plate, clips, anchors, and other miscellaneous metal work required and as indicated on drawings. Form as detailed or if not detailed, as required for location and purposes served, and in accordance with the applicable provisions specified herein. Furnish and install miscellaneous metal items not specifically mentioned herein, or in other sections, but which are customarily considered as part of the work, the same as if fully specified herein and detailed on drawings.
 - 3.4.2 Furnish and install light steel structural items not noted on Structural Drawings or called for under "Structural Steel" Section but which are shown on the other drawings.
 - 3.4.3 Furnish and install sleeves through masonry or concrete walls and footings. Fabricate of standard weight steel sections of size sufficient to allow ¼ inch clearance between the sleeve and item to be inserted.
 - 3.4.4 Furnish and install anchors, brackets, and plates of suitable steel where required in connection with steel, masonry, wood and concrete construction.
 - 3.4.5 Fabricate steel channel and angle frames for doors, duct openings, scuttles, mechanical equipment, louvers, and other frames as shown and detailed to exact size required and in accordance with approved shop drawing. Neatly join corners, weld and grind smooth. For securing to concrete or masonry, weld concealed anchors on the back. Secure bar stops to frames with countersunk

flathead screws or plug weld from the back. Prepare steel frames to receive the necessary hardware. Where mechanical equipment such as fans, blowers, etc., and sheet metal are shown or specified to be attached in steel frames, the drilling, tapping and attachment must be done by trade involved.

- 3.4.6 Furnish corner guards, bumpers, etc., of sizes and shapes indicated and with anchors welded to the backs and of sizes and spacing shown.
- 3.4.7 Pipe Guards and Bollards: Provide minimum 4 inch diameter extra-heavy duty steel pipe guard posts set in minimum 16 inch diameter by 48 inch deep concrete footings. Fill pipe solidly with concrete, "rounding-off" top or with a 3/16 inch steel plate cap continuously welded and edges ground smooth.
- 3.4.8 Provide hot-dipped galvanized steel and iron for exterior use.

3.5 FINISH:

- 3.5.1 Except where indicated, or specified to be galvanized, clean miscellaneous steel and iron of any grease, rust, mill scale, or other foreign matter, and give one shop coat of the specified primer. Do not prime material to be embedded in concrete.
- 3.5.2 After welding is completed, repair damage to the galvanizing by applying a liquid galvanizing compound in accordance with manufacturer's instructions to provide a coating equal to original finish.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SUMMARY

1.1.1 Section includes: Waterproofing membrane systems for below-grade vertical and horizontal applications, around pits, and beneath finish flooring systems over occupied or to-be-occupied areas as indicated on the drawings and specified herein.

1.1.2 Related Sections:

1.1.2.1 Dam-proofing

1.1.2.2 Traffic membranes

1.2 GUARANTEE

1.2.1 Provide two (2) year unconditional guarantee against defects of materials and workmanship which allows water or moisture into areas of the structure which were to be protected by this membrane. Pay for costs of repairing or replacing the defective membrane, as well as all costs of exposing and recovering membrane, and consequential damages to persons and property resultant of defective materials of workmanship.

PART 2 – PRODUCTS

2.1 MATERIALS

2.1.1 Horizontal Locations:

2.1.1.1 Provide a fluid applied, self-leveling, polyurethane system such as HLM 5000 manufactured by Sonneborn, Vulkem 201L manufactured by Mameco, or Perma-Gard manufactured by Neogard.

2.1.1.2 Horizontal Protection Course: Sonneborn Protection Course II, "Sealtight PC-2" by W.R. Meadows.

2.1.2 Vertical Below-Grade (Liquid applied not permitted):

2.1.2.1 Provide Mirifi "Miradri", W.R. Grace "Bituthene 4000", W.R. Meadows "Mel-rol".

2.1.2.2 Below grade provide 1/2-inch thick fiberboard, 1/2-inch polystyrene insulation or 1/8-inch asphaltic hardboard protection course. Provide 1/4-inch asphaltic board at planter areas.

2.1.2.3 Drainage Mat: Where indicated on Drawings, provide a single sided drainage mat (filter fabric on one side only) by J.D. Rain 300, as manufactured by JDR Enterprises, Inc., or other approved equal.

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- 2.1.3 Application: Apply membrane water proofing to all retaining walls, seat walls, planter walls 1 foot 0 inches or greater, weir walls and concrete and/or masonry walls 1 foot 0 inches or greater. Apply to platform or stage concrete stem walls 1 foot 0 inches or greater.

PART 3 – EXECUTION

3.1 INSTALLATION

- 3.1.1 Install systems using waterproofing installers. Roofing trades will not be acceptable to perform this work.
- 3.1.2 Install systems in strict accordance with manufacturer's specifications. Obtain manufacturer's approval of substrate conditions prior to installing materials.
- 3.1.3 Filter Fabric Installation:
- 3.1.3.1 Install the filter fabric facing out toward the backfill (the direction from which the water will come).
- 3.1.3.2 Panels shall be lapped by a minimum of two (2) rows of dimples (2 inches) on all edges. Both the core and the filter fabric should be shingled in the direction of the water flow.
- 3.1.3.3 Attach the drain using a general construction grade adhesive, pressure-sensitive adhesive or a mastic used for membrane applications. The membrane and drain core should be clean and dry. Care should be taken that the adhesive is compatible with the damp-proofing material or waterproofing membrane and the drain core.
- 3.1.3.4 At the footing, place the core behind the perimeter drain tile and wrap the filter fabric around it and up behind the drain core.
- 3.1.3.5 The drain shall be cut with a sharp knife or shears.
- 3.1.3.6 Tuck the filter fabric behind the core to cover exposed edges.
- 3.1.3.7 Tears or punctures in fabric shall be covered with new filter fabric.
- 3.1.3.8 Backfill as soon as possible taking care not to over compact.
- 3.1.4 Provide reinforcing strips, and backer rods necessary for joints and cracks.

3.2 FIELD QUALITY CONTROL

- 3.2.1 Tests: Once systems (except horizontal protection course) are installed, water test applications. Perform in such a way that watertight integrity is fully demonstrated. Allow Architect and Owner to witness this test. Correct defects, then re-test. Continue this procedure until no leaks exist.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for material, fabrications and installation of Fire-stopping and accessory items as shown drawings and necessary to complete the Finished Work. Work to include but not be limited to the following:

1.1.1 Fire-stopping materials and accessories for the following applications.

1.1.1.1 Duct, cable, conduit, and piping penetrations through fire-resistive ceiling and wall assemblies.

1.1.1.2 Penetrations of fire resistive vertical service shafts, including annular space at non-dampered duct penetrations.

1.1.1.3 Gaps, separations, and openings resulting from construction and penetrations in fire-resistive ceiling and wall assemblies, including the intersection of such components, including such items as fluted decks.

1.1.1.4 Additional locations where specifically shown on the Drawings or where specified in other Sections of the Project Manual.

1.1.2 Examine all other sections for work-related to those sections which are required to be included as work of this Section.

1.1.3 Sealing of membrane and through-penetrations in fire-rate walls and floors.

1.1.4 Damming material to contain fire-stopping materials.

1.2 RELATED SECTIONS

1.2.1 Section 079000 - Caulking and Sealants

1.3 REFERENCES AND STANDARDS

1.3.1 ASTM E 84 – Test Method for Surface Burning Characteristics of Building Materials.

1.3.2 ASTM E 119 – Method for Fire Tests of Building Construction and Materials.

1.3.3 ASTM E 814 – Test Method of Fire Tests of Through; Penetration Firestops.

1.3.4 Part 2 and Part 3, Title 24 CCR.

1.3.5 Uniform Building Code Standard 7-5

1.4 SUBMITTALS

1.4.1 Fire-stop Schedule

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

- 1.4.1.1 Review fire-stopping conditions and applications required by work.
- 1.4.1.2 Prepare written schedule identifying specific types of penetrating items, wall/ceiling assembly, and proposed system fire-stopping system, incorporating systems as shown on drawings, schedule as specified in this Section and all other conditions not identified. Coordinate with conditions shown on mechanical and electrical drawings.
- 1.4.1.3 Where specific application is not covered by current test results, submit all necessary engineering documentation required to establish equivalent fire resistance values and obtain approval.
- 1.4.1.4 Provide agency approval documentation, including ICBO ES reports, State Fire Marshal Listing, or other approvals.
- 1.4.1.5 Submit in accordance with Section 013300.

1.5 QUALITY ASSURANCE

- 1.5.1 Regulatory Requirements: Comply with applicable portions of codes and regulations of governmental agencies having jurisdiction. Conform to applicable sections of the CBC 2007 code and be in conformance with the National Fire Protection Association (NFPA) and recognized as an approved assembly by the State Fire Marshal (SFM). Where those requirements conflict with the specification, comply with the more stringent.
- 1.5.2 Through and membrane penetration systems must be listed by Underwriters' Laboratories in accordance with U.L. 1479 or by other certified testing agencies in accordance with ASTM E814 when tested under positive pressure per the 1991 UBC. Installed assemblies for 1, 2, and 3-hour ratings, must conform to respective test designs. Top of wall assemblies must be listed and recognized under UL Standard 2079.
- 1.5.3 Materials are to have been tested to provide fire rating equal to or surpassing that required by the design document.

1.6 DELIVERY, STORAGE, AND HANDLING

- 1.6.1 Deliver and store in manufacturer's original unopened containers labeled with date of manufacturer and testing agency approval. Handle all products in a manner to prevent damage and deterioration.
- 1.6.2 Clearly mark labels with manufacturer's name, brand, type, grade, batch number and packaging date.
- 1.6.3 Use all means necessary to protect the installed work and materials of all other trades. Protect completed, installed systems from damage affecting performance.
- 1.6.4 Handle and Store materials per manufacturer's printed instructions in a clean, dry, ventilated location. Protect from soiling, abuse, and moisture.

1.6.5 Products must have been manufactured with previous six (6) months.

1.7 JOB CONDITIONS

1.7.1 Conform to requirements of the manufacturer.

1.7.2 Provide ventilation in areas of work in conformance with manufacturers recommendations.

1.7.3 Provide control of noxious or objectionable odors.

1.7.4 Do not install materials until work within opening has been completed; coordinate with other sections.

1.8 GUARANTEE: Guarantee work against inherent or developed defects in material or installation or failure to maintain integrity in accordance with certified test designs. Guarantee work to remain smoke, fire, toxic fume, and watertight for a period of five (5) years.

PART 2 – PRODUCTS

2.1 GENERAL: For each type of penetration, provide products or fire-stop systems of one manufacturer, for ease of inspection and reduced contractual liability. If specified materials are discontinued, furnish updated product at no additional cost.

2.1.1 Fire-stopping assemblies shall represent an integrated series of materials, coordinated to provide required ratings for project specific conditions.

2.1.2 Manufacturers complying with qualifications criteria and additional specified requirements are acceptable.

2.2 MANUFACTURER: Damming material and penetration sealants must be asbestos-free materials manufactured products tested and approved as complete through-penetration fire-stop systems in compliance with U.L. Classified Design numbers. Products must meet the requirements of ASTM E814 (UL 1479), ASTM E84 (UL 723) with flame spread no more than 0. Approved manufacturers are:

2.2.1 Bio-Fire-shield Inc.

2.2.2 United States Gypsum Company

2.2.3 Flammadur Corporation of America

2.2.4 General Electric Co. Silicone Products Division

2.2.5 Hilti Construction Chemicals Inc.

2.2.6 Metalines Inc.

2.2.7 Minnesota Mining and Manufacturing Co.

2.2.8 Tremco Inc.

2.3 MATERIALS:

2.3.1 Standards and Regulatory Criteria

2.3.1.1 Provide systems listed under categories XHCR and XHEZ in UL Fire Resistance Directory, current edition or approved equivalent.

2.3.1.2 Provide systems providing fire resistance ratings in compliance with the following Sections of Part 2, Title 24, 2007 edition CBC:

2.3.1.2.1 Walls and Partitions: Section 708.1 through 708.9 709, 710 and 715.

2.3.1.2.2 Ceilings: Section 711.

2.3.1.2.3 Construction Joints: Section 713 and 714.

2.3.1.3 Test Standards: Test fire-stopping systems in accordance with following:

2.3.1.3.1 ASTM E 84 – Test Method for Surface Burning Characteristics of Building Materials.

2.3.1.3.2 ASTM E 119 – Method for Fire Tests of Building Construction and Materials.

2.3.1.3.3 ASTM E 814 – Test Method of Fire Tests of Through Penetration Firestops.

2.3.1.3.4 UBC Standard 7-5, Fire Tests of Through – Penetration Fire-stops.

2.3.2 Performance Characteristics

2.3.2.1 Cold Smoke Barrier: Provide system with sealant component capable of preventing cold smoke penetration through fire-stopping.

2.3.2.2 Assembly Construction: In non-symmetrical wall assemblies, select system based on least fire-resistive side.

2.3.2.3 Movement capability

2.3.2.3.1 Provide system with sufficient resiliency and Elastomeric properties to accommodate anticipated thermal movements, vibration and cyclic movement of penetrating item without compromising fire-stopping function.

2.3.2.4 Habitability

2.3.2.4.1 Do not utilize systems generating explosive or flammable gas, including hydrogen, during installation or curing.

2.3.2.4.2 Provide systems without asbestos containing materials, including safing and damming materials.

2.3.2.4.3 Provide material with flow characteristics resulting in smooth, non-sag joints.

2.3.2.5 Verify compatibility of selected system with substrate and penetrating item.

2.3.2.5.1 Do not use systems with materials that stain or bleed into substrate or deposit films on surface of fire-stopping.

2.3.2.5.2 At insulated piping applications, select systems that do not require removal of insulation materials.

2.3.2.6 Fire Safety

2.3.2.6.1 Flame Spread: Maximum value of 25 per ASTM E 84.

2.3.2.6.2 Smoke Contributed: Maximum value of 50 per ASTM E 84

2.3.2.6.3 Damming Materials: Provide non-combustible damming materials for permanent installation conditions.

2.3.2.6.4 Where T ratings are required in corridor conditions, select system providing maximum flexibility for type and size of penetrating item.

2.4 OTHER MATERIALS

2.4.1 Provide all other materials, specifically described but required for complete and proper installation of this work, as selected by the Contractor and subject to the approval of the Architect.

PART 3 – EXECUTION

3.1 INSPECTION

3.1.1 Prior to work of this section, carefully inspect previously installed work. Verify all such work is complete to the point where this installation may properly commence.

3.1.2 Verify that work of this section may be installed in strict accordance with the original design, all pertinent codes and regulations, and all pertinent portions of the referenced standards.

3.1.3 In the event of discrepancy, immediately notify the Architect.

3.1.4 Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 PREPARATION

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

- 3.2.1 Clean substrate surfaces of dirt, dust, grease, oil, and loose material, or other matter which may affect bond of fire-stopping material.
- 3.2.2 Remove incompatible materials that affect bond.
- 3.2.3 Provide curing and ventilation environment as required for system installation.

3.3 INSTALLATION

- 3.3.1 Install selected systems in accordance with listing requirements and the manufacturer's recommendations.
- 3.3.2 Provide fire-stopping at annular space around duct penetrations where duct penetrations do not require fire dampers.
- 3.3.3 Where large openings are created for duct, cable tray, bus duct, and other similar penetrations, close unused portions with fire-stopping tested for large opening conditions.
- 3.3.4 Where wall framing meets uneven surface, such as fluted metal deck, irregular masonry block finish, and similar materials, select system suitable for closing gap and openings.
- 3.3.5 Tool sealant to give surface a smooth concave appearance.

3.4 CLEANING

- 3.4.1 Clean Work under provisions of Section 017400.
- 3.4.2 Clean adjacent surfaces of fire-stopping materials.

3.5 FIELD QUALITY CONTROL

- 3.5.1 Manufacturer's representative shall inspect initial installation of each type of firestop system to verify installation procedures.
- 3.5.2 At completion of work, inspect all firestopping applications to verify compliance with listing requirements.
- 3.5.3 Provide written certification that all firestopping systems were installed in accordance with listing requirements and approved schedule.

3.6 PROTECTION OF FINISHED WORK

- 3.6.1 Protect finished Work.
- 3.6.2 Protect adjacent surfaces from damage by material installation.

3.7 FIRESTOPPING SCHEDULE

	Gypsum	Gypsum
GLENDALE UNIFIED SCHOOL DISTRICT	GLENOAKS ELEMENTARY SCHOOL	GLENOAKS ELEMENTARY SCHOOL
	NEW 2-STORY MODULAR BUILDING	NEW 2-STORY MODULAR BUILDING

FIRESTOPPING PENETRATION MATERIALS
SECTION 078413 - 7

Type	CMU Wall	Stl/Wood 1 Hour 2 Hour	Stl/Wood
Metal Pipe/Conduit	CAJ1017	WL 1001	WL 1001
Metal DWV	CAJ1017	WL 1001	WL 1001
Copper	CAJ1017	WL5014	WL5014
Insulated Pipe	CAJ5041	WL8003	WL8003
Combined Penetrations	CAJ 1066	WL8003	WL8003
Type	CMU Wall	Gypsum Stl/Wood 1 Hour 2 Hour	Gypsum Stl/Wood
Ductwork 10-inch diameter without fire dampers	CAJ7003	WL7008	WL7008
Ductwork 32x14 inch diameter without fire dampers	CAJ7016		
Ductwork 36x30 inch diameter without fire dampers	WL7008	WL7008	

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for material, fabrications and installation of sealants, caulking and associated accessories, except for those specified in other Sections, where indicated on Drawings, and where required to provide for a weather and watertight condition shall be furnished and installed under this section of the specifications.

1.1.1 Examine all other section for work related to those section which are required to be included as work of this section.

1.1.2 Caulking and sealants for exterior glazing of new storefront systems both steel and aluminum, reglazing existing steel and aluminum frames, doors, thresholds, casings, louver frames, access panels or as otherwise noted on the drawings.

1.1.3 Joints between dissimilar materials.

1.1.4 At Concrete Curbs at walk in freeze and walk in cooler box.

1.1.5 Around Stainless steel materials in the kitchens, around kitchen equipment, including back splashes, tops of all countertops and all work surfaces against walls.

1.1.6 At stainless steel Z flashing at FRP locations.

1.1.7 Adhesive product behind wood panels, trims, marlite, FRP panels plywood backboards, Corian, plastic laminates, vinyl tack board, etc.

1.1.8 Sealants and caulking around any wall penetrations in restrooms or the exterior walls or the structure.

1.1.9 Sealants and caulking around all drinking fountains and restroom fixtures, mirrors, partitions, etc.

1.1.10 Fire Caulkings at al fire-rated wall penetrations.

1.1.11 Sealants and caulks at flashings, joints and gaps, etc., as required for a completely watertight structure.

1.2 RELATED SECTIONS

1.2.1 Section 033000 - Expansion joint filler for concrete work

1.2.2 Section 076000 - Sealants for Flashing and Sheet Metal Work

1.2.3 Section 078413 - Fire stop penetration materials

1.3 REFERENCES AND STANDARDS

- 1.3.1 Federal Specifications: TT.S-00154A – Sealing Compound: Silicone Rubber Based
- 1.3.2 ASTM – Test Method C-793-80, Effects of Accelerated Weathering on Elastomeric Joint Sealants
- 1.3.3 ASTM C920 – Standards for Elastomeric Joint Sealants.

1.4 SUBMITTALS

- 1.4.1 Manufacturer's Data: Submit list of materials proposed for use including complete data including color charts and manufacturer's specifications and installation instructions for each type of sealant, caulking compound and associated miscellaneous material required. Include published data, letter of certification, or certified test laboratory report indicating that each material complies with the requirements and is intended generally for the application shown. Include location of each material.
- 1.4.2 Samples: Submit standard color ranges of exposed materials for Architect's selection. Colors shall match adjacent painted or pre-finished surfaces.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- 1.5.1 Materials shall be delivered to job in sealed containers with manufacturer's name, labels, project identification, and lot numbers where appropriate.
- 1.5.2 Store material out of weather in original containers or unopened packages as recommended by manufacturer.
- 1.5.3 Store at 80 degrees F or less in a cool, dry area. Handle materials to prevent their deterioration or damage due to moisture, temperature changes, contaminants or other causes.

1.6 JOB AND ENVIRONMENTAL CONDITIONS

- 1.6.1 Job Conditions: The Sealant and Caulking Contractor shall acquaint himself with all conditions relating to the work of this Section.
- 1.6.2 Environmental Conditions: Do not proceed with installation of sealants under adverse weather conditions or when temperatures are below or above manufacturer's recommended limitations for installation. Proceed with the work only when forecasted weather conditions are favorable for proper cure and development of High Early Bond strength.
- 1.6.3 Scheduling, Sequencing: Schedule application only after concrete has cured and joints are most likely to be normal size.
- 1.6.4 Maintain temperature and humidity recommended by the sealant manufacturer during and after installation. Do not proceed with installation of sealants under

adverse weather conditions, or when ambient and substrate temperatures are below or above manufacturer's recommended limitations for installation or below 40 degrees F. Proceed with the work only when forecasted weather conditions are favorable for proper cure and development of high early bond strength.

- 1.6.5 Do not install solvent curing sealants in enclosed building spaces.
- 1.6.6 Protection: Use all means necessary to protect caulking materials before, during and after installation to protect the installed work and material of all other trades.
- 1.6.7 Surface Conditions: Provide proper primers suited to conditions. Primers may be omitted upon certification by sealant manufacturer that they are not required. Where any doubt exists, prepare sample joints on actual materials as furnished for the job to determine the matter.

1.7 WARRANTY

- 1.7.1 Contractor shall submit two (2) copies of manufacturer's written 10-year warranty agreeing to replace joint sealers which fail to perform as airtight and watertight joints; or fail in joint adhesion/cohesion, abrasion resistance, weather resistance, thermal or moisture resistance, extrusion resistance, migration resistance, ultraviolet resistance, stain or color resistance, surface serviceability, general durability; or appear to deteriorate in any other manner comprising system life.
- 1.7.2 Coverage to include failure to adhere, seal, cohesion, and cure, leading to water leaks or air infiltration.
- 1.7.3 Guarantee: Contractor is to guarantee work against inherent or developed defects in material or installation, agreeing to repair or replace joint sealers, which fail, based on any of the detrimental effects specified above. Guarantee installed work to remain watertight for a period of two (2) years.

PART 2 – PRODUCTS

- 2.1 GENERAL: Where two (2) or more of the following products are required, provide products for each application of a single manufacturer. If specified products are discontinued, furnish updated materials at no additional cost.
- 2.2 MANUFACTURERS: Provide one of the following for each different product required:
 - 2.2.1 Dow Corning Corporation
 - 2.2.2 General Electric Company
 - 2.2.3 Pecora Corporation
 - 2.2.4 Rhodorsil
 - 2.2.5 Schnee-Morehead Inc.
 - 2.2.6 Sika

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

- 2.2.7 Sonneborn Building Products Division
- 2.2.8 Tremco, Inc.
- 2.3 MATERIALS:
 - 2.3.1 General:
 - 2.3.1.1 Colors: For exposed materials provide color as selected by Architect from manufacturer's standard colors. For concealed materials, provide the natural color which has the best overall performance characteristics.
 - 2.3.1.2 Compatibility: Provide joint sealers, joint fillers and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by testing and field experience.
 - 2.3.1.3 Size and Shape: As shown or, if not shown as recommended by the manufacturer for the type and condition of joints, and for the indicated joint performance or movement.
- 2.4 ELASTOMERIC SEALANTS: For elastomeric sealants, comply with ASTM C920 requirements, including those for Type, Grade, Class and Uses.
 - 2.4.1 One-Part Non-Acid Curing Silicone: Type S; Grade NS; Class 25; Uses NT, M, G, A, and, as applicable to joint substrates indicated.
 - 2.4.1.1 Location: Exterior and interior vertical joints in masonry, concrete.
 - 2.4.1.2 Provide "Dow Corning 791 or 795" by Dow Corning Corporation, GE "Silpruf", Spectrum 2 or 3 by Tremco, Pecora 865 or 895, or equal by listed manufacturer.
 - 2.4.2 One-Part Mildew Resistant Silicone: Type S; Grade NS; Class 25; Uses NT, G, A, and, as applicable to nonporous joint substrates indicated.
 - 2.4.2.1 Location: Formulated with fungicide for sealing interior joints with nonporous substrates around sinks, plumbing fixtures and between equipment or counters and walls.
 - 2.4.2.2 Provide "Dow Corning 786" by Dow Corning Corporation, G.E. Sanitary 1700, Pecora 898, Tremco "Tremsil 200" white or clear, or equal by listed manufacturers.
 - 2.4.3 Multi-Part Non-sag Urethane: Type M; Grade NS; Class 25; Uses NT, M, A, and, as applicable to joint substrates indicated.

- 2.4.3.1 Location: Outside and inside faces of exterior wall, door and window frames between wall and frame.
- 2.4.3.2 Provide "Dymeric240 or 511" by Tremco, Inc., "Dynatrol II" by Pecora Corporation, "Vulkem 922" by Mameco, or equal by listed manufacturers.
- 2.4.4 One-Part Nonsag Urethane: Type S; Grade NS; Class 25; Uses NT, M, A, and, as applicable to joints substrates.
 - 2.4.4.1 Location: Metal flashings and reglet joints.
 - 2.4.4.2 Provide "Dymonic" by Tremco, Inc., "Vulkem 921 or 931" by Tremco, "Dynatrol I-XL" by Pecora, or equal by listed manufacturers.
- 2.4.5 Two-Part Pourable Urethane: Type P; Grade NS; Class 25; Uses T, M, A, and, as applicable to joint substrates.
 - 2.4.5.1 Location: Exterior sidewalks and all interior floor joints.
 - 2.4.5.2 Provide "Vulkem 245" by Tremco, THC 900/901 by Tremco, Pecora Urexpam NR-200 or Pecora Dynatrol II-SG (Grade P) or Pecora Dynatred (Shore A or +40 - Grade NS), or equal by listed manufacturers.
- 2.5 LATEX SEALANTS:
 - 2.5.1 Acrylic Emulsion: One part, nonsag, mildew resistant, acrylic emulsion sealant complying with ASTM C834, paintable, recommended by manufacturer for exposed interior applications.
 - 2.5.1.1 Location: Use for all interior joints in field painted vertical and overhead joints not indicated otherwise.
 - 2.5.1.2 Provide "AC-20" by Pecora Corporation, No. 834 by Tremco or equal by listed manufacturers.
- 2.6 FIRE RATED PARTITIONS: At 1 or 2 hr. fire-rated partition penetrations other than those specified in Section 078413, where rated wall assembly is broken at the drywall, use 3M "Fire-Barrier" CP 25N/S with rock wool filler or Tremco Fyre Shield with "Cera Blanket FS" as backing. Color to match adjacent surfaces, as required. Usages shall be in conformance with one or more approved U.L. System Numbers conforming to adjacent construction U.L. 148 or equal.
- 2.7 BOND BREAKER: Polyethylene tape or making tape as recommended by the sealant manufacturer.
- 2.8 SOLVENTS, CLEANING AGENTS: and other accessory materials shall be as recommended by the sealant manufacturer. They should not be used in enclosed non-ventilated spaces.

- 2.9 CAULKING: Where specifically called for on the Drawings, shall be "Plastoid" Type C, Pabco "White Hydroseal", or approved equal conforming to Fed. Spec. TT-C-00598C.
- 2.10 JOINT CLEANER: Non-corrosive, non-staining type and compatible with joint forming materials.
- 2.11 CAULKING TAPE: Extruded Butyl Sealing Tape, Inco No. 7516 or pre-approved equal.
- 2.12 FIRE CAULKING: Fire Caulking shall be pre-approved sealant such as "3M Fire Caulking", manufactured by 3M Products.

PART 3 – EXECUTION

3.1 SURFACE CONDITION: Verify that joint surfaces to receive caulking or sealant are sound, smooth, clean, dry and free of moisture, dirt, dust or other visible contaminants that could interfere with adhesion or bond of the sealant. Applications of non-visible coatings or contaminants to surfaces of rabbet area prior to application of sealant are subject to control by Architect in consultation with sealant manufacturer.

3.2 INSPECTION

3.2.1 Surface Acceptance: Examine all surfaces to be sealed or caulked for acceptance.

3.2.1.1 Joint dimensions shall be inspected and reviewed to verify that they are in conformance with specifications and manufacturer's requirements and are acceptable to receive sealant and backup materials.

3.2.1.2 Joint shall be of sufficient width and depth to accommodate specified backup material or preformed joint filler and sealants, but in no case shall sealant application be less than ¼ inch wide and ¼ inch deep, except as recommended by the manufacturer or otherwise approved by the Architect.

3.2.2 Do not Seal or Caulk Joints until they are in compliance with requirements of the approved manufacturer or materials, the details as shown on the drawings and the specified requirements of other sections of the specifications.

3.2.3 Inspect all existing window and door frames to be reglazed and recaulked to determine any damage which prevents sealants effectiveness. Clean all existing frames as required prior to caulking installation. Commencement of work means acceptance of the existing conditions.

3.2.4 Use only that caulking material that is best suited to the installation and is so recommended by the caulking material manufacturer for that application.

3.3 APPLICATION

3.3.1 Back Up: Install backup material or joint filler of type and size specified at proper depth in joint to provide sealant dimensions as detailed or as recommended by

the manufacturer. Backup material shall be of suitable size and shape so that when compressed (25 to 50 percent), it will fit in joints as required. Sealant shall not be applied without backup material and, if necessity, bond breaker strip. When using backup or hose or rod stock, roll the material into the joint to avoid lengthwise stretching. Hose or rod stock shall not be twisted or braided.

- 3.3.1.1 Perform work in accordance with ASTM 2962 for Elastomeric and C790 for latex based sealants.
- 3.3.2 Bond Breaker: Use specified bond breaker strip between sealant and supporting type backup material. Bond breaker strip shall be used in all joints where sufficient room for backup does not exist or where required to prevent sealant bonding to undesirable surfaces.
- 3.3.3 Apply Masking Tape: Where required, in continuous strips in alignment with joint edge. Remove tape immediately after joints have been sealed and tooled as directed.
- 3.3.4 Prime surfaces to receive joint sealant with primer as recommended by sealant manufacturer. Do not apply primer to exposed finish surfaces.
- 3.3.5 Sealant: Do not use a sealant compound that has exceeded its shelf life or has become too jellied to be discharged in a continuous flow from the gun.
 - 3.3.5.1 Apply sealant with a caulking gun, using proper nozzles. Use sufficient pressure to properly fill the joints with sealant to the back-up material.
 - 3.3.5.2 After joints have been completely filled, they shall be neatly tooled to eliminate air pockets or voids and to provide a smooth, neat appearing finish in intimate contact with interfaces. After tooling, surface at sealant shall be free of ridges, wrinkles, sags, air pockets, and embedded impurities. When tooling white or light color sealants, use clean water, wet or dry tool or tooling solution recommended by sealant manufacturer.
 - 3.3.5.3 Apply at recommended application temperatures.
 - 3.3.5.4 Install sealant free of air pockets, bubbles, foreign matter, ridges or sags.
 - 3.3.5.5 Tool joints concave.
- 3.3.6 Caulk all exterior joints and openings in the building envelope that are obscureable sources of air infiltration.
- 3.3.7 Measurable joint dimensions and size materials to achieve required width/depth ratios.
- 3.3.8 Sealant Schedules
 - 3.3.8.1 Exterior

3.3.8.1.1 PM frames, metal doors, steel and aluminum windows, dissimilar materials, sheet metal flashings and constructions, cap flashings, gutters, downspouts, vents, louvers, etc.

3.3.8.1.2 Thresholds

3.3.8.1.3 At all other conditions indicated on the drawings.

3.3.8.2 Interior

3.3.8.2.1 Glass Glazing, Steel and Aluminum Frames, PM Frames and Metal Doors.

3.3.8.2.2 Base of FRP and ceramic tile walls in kitchens and restrooms.

3.3.8.2.3 At concrete curbs at all cooler boxes and freezer boxes.

3.3.8.2.4 At all restroom wall penetrations such as grab bars, towel bars, soap dishes, for moisture protection of structural elements.

3.3.8.2.5 At all other conditions indicated on the drawings.

3.3.8.2.6 At all drinking fountains, stainless steel countertops, back-splashes, and work top against walls.

3.3.8.2.7 Thresholds and stainless-steel flashings in all prep rooms and wets areas.

3.3.8.2.8 Dissimilar materials.

3.3.8.2.9 Thresholds and stainless-steel flashings in all prep rooms and wet areas.

3.4 PREPARATION OF SURFACES

3.4.1 General: Thoroughly clean all joints, removing all foreign matter such as dust, oil, grease, water, old sealants, paint, surface dirt, etc. Sealant must be applied to the base surface.

3.4.2 Porous Material such as concrete or masonry shall be cleaned where necessary by grinding, sand or water blast cleaning, mechanical abrading, acid washing, or a combination of these methods as required to provide a clean, sound base surface for sealant adhesion.

3.4.2.1 Laitance shall be removed by acid washing, grinding or mechanical abrading.

3.4.2.2 Form oils, release agents or chemical retardants shall be removed by sand or water blast cleaning.

3.4.2.3 Loose particle present or resulting from grinding, abrading or blast cleaning shall be removed by blowing out joints with compressed air (oil-free) prior to application of primer or sealant.

3.4.2.4 Sealants shall not be applied to masonry joints where water repellent or masonry preservative has been applied. Waterproofing treatments shall be applied after sealants and caulking when called for.

3.4.3 Nonporous Surfaces such as metal and glass shall be cleaned either mechanically or chemically. Protective coatings on metallic surfaces shall be removed by a solvent that leaves no residue. Solvent shall be used with clean white cloths or lint free paper towels and wiped dry with clean, dry white cloths or lint free paper towels. Do not allow solvent to air dry without wiping. Joint areas protected with masking tape or strippable films shall be cleaned as above after removal of tape or film.

3.4.4 Sealant Preparation: Do not modify the sealant by addition of liquids, solvents or powders. Mix multi-component Elastomeric sealants in accordance with manufacturer's printed instructions.

3.4.5 Perform preparation in accordance with sealant manufacturer's recommendations.

3.4.6 Protect surrounding areas from damage or disfiguration.

3.4.7 Do not caulk under weather conditions or sun conditions potentially harmful to the set and curing of the caulking material.

3.4.8 Joint Backing: In joints where depth of joint exceeds required depth of sealant, install joint backing to provide backing and uniform depth of sealant.

3.5 CLEAN-UP

3.5.1 Immediately clean adjacent surfaces free of sealant or soiling resulting from this work as work progresses. Use a solvent or cleaning agent as recommended by the sealant manufacturer. All finished work shall be left in a neat clean condition.

3.5.2 Remove masking tape immediately after tooling joints, leaving finished work in a neat and clean condition.

3.5.3 Upon completion of the work of this section, remove all resulting surplus materials, rubbish and debris from the premises.

3.5.4 Repair or replace defaced or disfigured work caused by this section.

3.6 PROTECTION AND CURE

3.6.1 Protect all sealants until cured.

3.6.2 Do not paint until cured. Do not paint silicone sealants at any time.

- 3.6.3 Cure sealants in compliance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability.
- 3.6.4 Protect joint sealers during the construction period, so that they will be without deterioration or damage (other than normal wear and weathering) at the time of Owner's acceptance.

END OF SECTION

BID SET
10/01/2021

NO SUBSTITUTION

PART 1 – GENERAL:

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 SUMMARY

1.1.1 Work includes complete preparation and finishing of all surfaces as indicated in the plans and specifications except surfaces specifically excluded.

1.1.2 Surfaces not to be painted unless otherwise specified:

1.1.2.1 Aluminum, Copper, Brass, Stainless Steel, Nickel or Chrome.

1.1.2.2 Finish hardware.

1.1.2.3 Acoustical ceilings.

1.1.2.4 Flooring.

1.1.2.5 Electrical fixtures and receptacles.

1.1.2.6 Exterior concrete pavements.

1.1.2.7 Toilet compartments and accessories.

1.1.2.8 All items with complete factory finish, except mechanical and electrical items as specified herein.

1.1.2.9 Code required labels, equipment identification and performance rating plates.

1.1.2.10 Items in mechanical rooms.

1.1.2.11 Other surfaces as indicated on the drawings.

1.1.3 Related work:

1.1.3.1 Section 321216 – Asphaltic Concrete Paving

1.2 SUBMITTALS

1.2.1 Submit six (6) copies of a complete list of all materials proposed for use in the work, including manufacturer's technical data, identified by manufacturer's name and product number.

1.2.2 Submit for approval three (3) 8-½" x 11" samples of each color and finish. For natural and stained finishes, provide samples on type and quality of wood used on the product. Identify each sample as to color, finish type, and texture. Color shall be as selected by the Architect.

BID SET
10/01/2021

1.3 QUALITY ASSURANCE

- 1.3.1 Work, equipment and materials must conform to applicable Federal, State, and Local laws and regulations, including compliance with all air quality regulations applicable to the project location. Current manufacturer's material safety data sheets for all materials in use and/or stored at the project site must be on the site at all times.
- 1.3.2 Prepare sample wall areas as directed by the Architect. These areas will represent the standard of work for the project when approved.

1.4 DELIVERY, STORAGE AND HANDLING

- 1.4.1 All materials shall be of the brand and quality specified and shall be delivered at the project site in clean, original, unopened, labeled containers bearing the manufacturer's name, type of paint and instructions for mixing and/or reducing.
- 1.4.2 Store materials as designated. Storage area shall be kept clean and neat at all times. All damage to storage area and surrounding areas shall be cleaned and repaired to new condition.
- 1.4.3 Rags, waste and combustible rubbish shall be stored in approved metal containers and removed daily from site. Take all necessary precautions to prevent fire.
- 1.4.4 Provide one gallon of paint for each type/color of paint used for extra stock.

1.5 PROJECT SITE CONDITIONS

- 1.5.1 Measure moisture content of surfaces using an electronic moisture meter. Do not apply materials unless moisture contents are below the following maximums:
 - 1.5.1.1 Plaster – 8 percent
 - 1.5.1.2. Gypsum Board – 12 percent
 - 1.5.1.3 Masonry, Concrete and Concrete Block – 12 percent
 - 1.5.1.4 Wood – 15 percent
- 1.5.2 Ensure surface temperature fall within recommendations of the material manufacturer.
- 1.5.3 Do not apply materials during fog, rain or mist, or when inclement weather is expected within the dry time specified by the manufacturer.

1.6 SEQUENCING AND SCHEDULING

- 1.6.1 Backpriming of all wood items to be set against concrete, masonry or plaster shall be performed, scheduled and coordinated to avoid delays in installation.
- 1.6.2 Priming of walls scheduled to receive wall covering shall be performed and scheduled to facilitate dry time prior to wall covering installation.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

1.7 MAINTENANCE

- 1.7.1 Provide Owner with unopened, clearly labeled containers of each type and color of finish material installed for maintenance use. Quantities provided shall be a minimum of 2 percent of quantities actually applied, but not less than 1 gallon each.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- 2.1.1 Materials necessary to complete the painting and finishing schedule as specified herein are taken from the stock list of the Architectural finishes of Vista Paint Corporation (no substitution), and are standards for kind, quality and function.

2.2 MATERIALS

- 2.2.1 All materials shall conform with specified standards of quality and shall be of fresh stock, unused, free of defects and imperfections. Where two (2) or more identical or compatible materials are required, they shall be of the same manufacture.
- 2.2.2 Materials shall be ready-mixed except field catalyzed coatings. Field tinting of materials will not be permitted.
- 2.2.3 Materials shall have good flowing and brushing characteristics and dry or cure free from streaks or sags.
- 2.2.4 Paint accessory materials such as putty, spackle, thinners, reducers and shellacs shall be of the highest quality and fully compatible with the specified materials.

PART 3 – EXECUTION

3.1 EXAMINATION

- 3.1.1 Thoroughly examine surfaces scheduled to be painted prior to commencement of work. Report in writing to the Architect any condition that may potentially affect proper application and appearance. Do not commence until such defects in have been corrected.
- 3.1.2 Where directed by the Architect, correct defects in surfaces which may adversely affect work of this section.

3.2 PROTECTION

- 3.2.1 Protect unpainted surfaces, lawns, shrubbery and adjacent surfaces against paint and damage. Repair damage resulting from inadequate protection.
- 3.2.2 Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or splatter from foul surfaces not being painted.

- 3.2.3 Remove electrical plates, surfaces hardware and related fittings prior to commencement of work. Carefully store, clean and replace these items on completion of work in each area.
- 3.2.4 Protect all surfaces, equipment and fixtures from damage resulting from use of fixed, movable and hanging scaffolding, planking and staging. Repair damage resulting from inadequate protection.

3.3 PREPARATION

- 3.3.1 Concrete surfaces shall be dry, clean and free from efflorescence, encrustations and other foreign matter. Any glazed surface shall be slightly roughened or etched. Curing compounds, bond breakers, release agents and other coatings shall be removed with a light sandblast or high pressure power wash.
- 3.3.2 Remove dirt, loose mortar, scale, powder and other foreign matter from concrete block surfaces which are to be painted or treated with a clear sealer.
- 3.3.3 Remove mildew from affected surfaces with a solution of Tri-Sodium Phosphate and bleach.
- 3.3.4 Rinse with clean water and allow to dry completely.
- 3.3.5 Remove all oils and contamination from galvanized and aluminum surfaces scheduled to be painted by washing with mineral spirits.
- 3.3.6 Remove grease, rust, scale, dirt, and dust from ferrous metal surfaces. Prime coating shall be performed not less than 30 minutes, not more than 3 hours after preparation.
- 3.3.7 Sand and scrape shop primed metal to remove loose primer and rust. Touch up bare, abraded and damaged areas with 910 Red Oxide Primer. Feather edges to make touch up patches inconspicuous.
- 3.3.8 Remove dust, grit and foreign matter from wood surfaces. Sand surfaces and dust clean. Spot coat knots, pitch streaks and sappy section with 4200 Terminator II when surfaces are to be painted. Fill nail holes, cracks and other defects after priming and spot prime repairs when fully cured.
- 3.3.9 Plaster surfaces shall be dry and free from efflorescence, encrustations and foreign matter. Fill cracks, holes and imperfections, smoothing repairs to match adjacent texture. Allow repairs to fully cure before priming.
- 3.3.10 Gypsum drywall shall be dusted clean and free from encrustations and other foreign matter.
- 3.3.11 Existing surfaces to be recoated shall be thoroughly cleaned and deglossed by sanding or other means prior to priming and painting. Patched and bare areas shall be spot primed with the same paint as specified for new work.
- 3.3.12 Preparation of other surfaces shall be performed following specific recommendations of the coating manufacturer.

3.4 APPLICATION

- 3.4.1 All work shall be executed in strict accordance with manufacturer's printed directions for materials used. Use application equipment and techniques best suited for substrate and type of material being applied.
- 3.4.2 All materials shall be applied smoothly without runs, sags, skips, holidays or other defects.
- 3.4.3 Enamels and varnishes shall be lightly sanded between coats, dusted and wiped clean before recoating.
- 3.4.4 Back prime all wood to be set against concrete, masonry or plaster.
- 3.4.5 Allow each coat to dry completely before applying succeeding coat.
- 3.4.6 Each coat of paint is to be slightly darker than preceding coat unless otherwise approved by the Architect.
- 3.4.7 Number of coats specified are minimum that shall be applied. Additional coats shall be applied when undercoats, strains, cloudy or mottled conditions or other defects appear in the finish, until the paint film is of a uniform finish, color and appearance.

3.5 INSPECTION

- 3.5.1 All work shall be subject to approval by the Architect. Work not in compliance with specifications shall be properly and promptly corrected.

3.6 PROTECTION

- 3.6.1 Provide "Wet Paint" signs, barricades and other items required to protect newly finished surfaces. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.
- 3.6.2 At the completion of work of other trades, touch-up and repair all damaged and defaced surfaces.

3.7 FINISHING SCHEDULE – EXTERIOR

CONCRETE – PLASTER – STUCCO

FLAT:

First Coat	4600	Uniprime II (100% Acrylic Primer)
		Acribond (100% Acrylic Solid Bodied Stain)
Second Coat	3000	Acribond (100% Acrylic Solid Bodied Stain)
Third Coat	3000	Acribond (100% Acrylic Solid Bodied Stain)
First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	2000	Duratone (100% Acrylic)
Third Coat	2000	Duratone (100% Acrylic)
First Coat	4600	Uniprime II (100% Acrylic Primer)

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

Second Coat	1000	Duraglide (Vinyl Acrylic)
Third Coat	1000	Duraglide (Vinyl Acrylic)
First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	500	Solotex Multi-Mil Acrylic Elastomeric
Third Coat	500	Solotex Multi-Mil Acrylic Elastomeric
	OR	
Second Coat	1900	Weather Master Acrylic Elastomeric
Third Coat	1900	Weather Master Acrylic Elastomeric
	OR	
Second Coat	1800	100% Acrylic Med Build Texture Coat
Third Coat	1800	100% Acrylic Med Build Texture Coat

EGGSHELL:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)

GLOSS:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss (100% Acrylic)

MASONRY – BLOCK – BRICK- SPLIT FACE

FLAT:

First Coat	4600	Uniprime II (100% Acrylic Primer)
	OR	
	018	100% Acrylic Heavy Duty Block Filler
		Acribond (100% Acrylic Solid Bodied Stain)
Second Coat	3000	Acribond (100% Acrylic Solid Bodied Stain)
Third Coat	3000	Acribond (100% Acrylic Solid Bodied Stain)
	OR	
First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	2000	Duratone (100% Acrylic)
Third Coat	2000	Duratone (100% Acrylic)

MASONRY – BLOCK – BRICK- SPLIT FACE -CONT.

FLAT:

First Coat	4600	Uniprime II (100% Acrylic Primer)
	OR	
	018	100% Acrylic Heavy Duty Block Filler
Second Coat	1000	Duraglide (Vinyl Acrylic)
Third Coat	1000	Duraglide (Vinyl Acrylic)
First Coat	4600	Uniprime II (100% Acrylic Primer)
	OR	

	018	100% Acrylic Heavy Duty Block Filler
Second Coat	500	Solotex Multi-Mil Acrylic Elastomeric
Third Coat	500	Solotex Multi-Mil Acrylic Elastomeric
	OR	
Second Coat	1900	Weather Master Acrylic Elastomeric
Third Coat	1900	Weather Master Acrylic Elastomeric

EGGSHELL:

First Coat	4600	Uniprime II (100% Acrylic Primer)
	OR	
First Coat	018	100% Acrylic Heavy Duty Block Filler
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4600	Uniprime II (100% Acrylic Primer)
	OR	
	018	100% Acrylic Heavy Duty Block Filler
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)

GLOSS:

First Coat	4600	Uniprime II (100% Acrylic Primer)
	OR	
	018	100% Acrylic Heavy Duty Block Filler
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss (100% Acrylic)

WOOD: SMOOTH – ROUGH SAWN – HARDBOARD - SIDING

FLAT:

First Coat	4200	Terminator II Acrylic Epoxy-Ester Primer
Second Coat	2000	Duratone (100% Acrylic)
Third Coat	2000	Duratone (100% Acrylic)
First Coat	4200	Terminator II Acrylic Epoxy-Ester Primer
Second Coat	3000	Acribond (Acrylic Stain)
Third Coat	3000	Acribond (Acrylic Stain)

WOOD: SMOOTH – ROUGH SAWN – HARDBOARD – SIDING -CONT.

EGGSHELL:

First Coat	4200	Terminator II Acrylic Epoxy-Ester Primer
Second Coat	8300	Eggshell (100% Acrylic)
Third Coat	8300	Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4200	Terminator II Acrylic Epoxy-Ester Primer
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

Third Coat	8400	Carefree Semi-Gloss (100%) Acrylic)
	OR	
First Coat	6600	AquaLac Undercoater
Second Coat	9400	Aqua Fusion SG (Waterbased Alkyd Emulsion)
Third Coat	9400	Aqua Fusion SG (Waterbased Alkyd Emulsion)
GLOSS:		
First Coat	4200	Terminator II Acrylic Epoxy-Ester Primer
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss (100% Acrylic)
	OR	
First Coat	6600	AquaLac Undercoater
Second Coat	9500	Aqua Fusion Gloss (Waterbased Alkyd Emulsion)
Third Coat	9500	Aqua Fusion Gloss (Waterbased Alkyd Emulsion)
<u>WOOD: STAINED</u>		
Acrylic (Solid Bodied):		
One Coat	3000	Acribond (100% Acrylic)
	OR	
(Solid Bodied):		
One Coat		Olympic Solid Bodied Stain Distributed by Vista Paint Corporation
(Semi-Transparent):		
One Coat		Olympic Solid Bodied Stain Distributed by Vista Paint Corporation
<u>METAL: FERROUS – IRON – STEEL</u>		
FLAT:		
First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	2000	Duratone (100% Acrylic)
EGGSHELL:		
First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8300	Carefree Eggshell (100% Acrylic)
	OR	
First Coat	9610	Protec Metal Prime Red Oxide
Second Coat	9700	Protec Waterbased Alkyd Emulsion Satin Finish
Third Coat	9700	Protec Waterbased Alkyd Emulsion Satin
GLENDALE UNIFIED SCHOOL DISTRICT		GLENOAKS ELEMENTARY SCHOOL NEW 2-STORY MODULAR BUILDING

Finish

SEMI-GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)
	OR	
First Coat	9610	Protec Metal Prime Red Oxide
Second Coat	9800	Protec Waterbased Alkyd Emulsion SG
Third Coat	9800	Protec Waterbased Alkyd Emulsion SG

GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8500	Carefree Gloss (100% Acrylic)
	OR	
First Coat	9610	Protec Metal Prime Red Oxide
Second Coat	9900	Protec Waterbased Alkyd Emulsion Gloss Finish
Third Coat	9900	Protec Waterbased Alkyd Emulsion Gloss Finish

METAL: NON-FERROUS – GALVANIZED – ALUMINUM

FLAT:

First Coat	4800	Metal Pro White Primer
Second Coat	2000	Duratone
Third Coat	2000	Duratone

EGGSHELL:

First Coat	4800	Metal Pro White Primer
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)

METAL: NON-FERROUS – GALVANIZED – ALUMINUM

GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss 100% Acrylic)

3.8 FINISHING SCHEDULE – INTERIOR

CONCRETE – PLASTER – MASONRY

FLAT:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8100	Carefree Flat (100% Acrylic)
Third Coat	8100	Carefree Flat (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Earth Coat Primer (100% Acrylic Primer)
Second Coat	6100	Earth Coat Flat (100% Acrylic)
Third Coat	6100	Earth Coat Flat (100% Acrylic)

LOW SHEEN:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8200	Carefree Velva Sheen (100% Acrylic)
Third Coat	8200	Carefree Velva Sheen (100% Acrylic)

EGGSHELL:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Carefree Earth Coat Primer
Second Coat	6300	Earth Coat Eggshell (100% Acrylic)
Third Coat	6300	Earth Coat Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Earth Coat Primer (100% Acrylic Primer)
Second Coat	6400	Earth Coat Semi-Gloss (100% Acrylic)
Third Coat	6400	Earth Coat Semi-Gloss (100% Acrylic)
		OR
Second Coat	9800	Protec Waterbased Alkyd Emulsion SG Finish
Third Coat	9800	Protec Waterbased Alkyd Emulsion SG Finish

GLOSS:

First Coat	4600	Uniprime II (100% Acrylic Primer)
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss (100% Acrylic)

		OR
First Coat	4900	Prime Coat II
Second Coat	9500	Aqua Fusion Water-based Alkyd Emulsion

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

Third Coat	9500	Aqua Fusion Water-based Alkyd Emulsion
WOOD:		
FLAT:		
First Coat	6600	Aqua Lac- Quick Dry Undercoater
	OR	
	188	Acrylic Primer Prep Coat
Second Coat	8100	Carefree Flat (100% Acrylic)
Third Coat	8100	Carefree Flat
LOWSHEEN:		
First Coat	6600	Aqua Lac- Quick Dry Undercoater
	OR	
	188	Acrylic Primer Prep Coat
Second Coat	8200	Carefree Flat (100% Acrylic)
Third Coat	8200	Carefree Flat (100% Acrylic)
EGGSHELL:		
First Coat	6600	Aqua Lac- Quick Dry Undercoater
	OR	
	188	Acrylic Primer Prep Coat
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)
SEMI-GLOSS:		
First Coat	6600	Aqua Lac- Quick Dry Undercoater
	OR	
	188	Acrylic Primer Prep Coat
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)
GLOSS:		
First Coat	6600	Aqua Lac- Quick Dry Undercoater
	OR	
	188	Acrylic Primer Prep Coat
Second Coat	8500	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8500	Carefree Semi-Gloss (100% Acrylic)
	OR	
First Coat	6600	Aqua Lac- Quick Dry Undercoater
Second Coat	9500	Aqua Fusion Water-based Alkyd Emulsion
Third Coat	9500	Aqua Fusion Water-based Alkyd Emulsion
	OR	
First Coat	6600	Aqua Lac- Quick Dry Undercoater
Second Coat	9900	Aqua Fusion Water-based Alkyd Emulsion
Third Coat	9500	Aqua Fusion Water-based Alkyd Emulsion

DRYWALL:

FLAT:

First Coat	1100	Hi-Build PVA High Solids Sealer
Second Coat	8100	Carefree Flat (100% Acrylic)
Third Coat	8100	Carefree Flat (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Earth Coat Primer (100% Acrylic Primer)
Second Coat	6100	Earth Coat Flat (100% Acrylic)
Third Coat	6100	Earth Coat Flat (100% Acrylic)

LOW SHEEN:

First Coat	1100	Hi-Build PVA High Solids Sealer
Second Coat	8200	Carefree Velva Sheen (100% Acrylic)
Third Coat	8200	Carefree Velva Sheen (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Earth Coat Primer (100% Acrylic Primer)
Second Coat	6200	Earth Coat Eggshell (100% Acrylic)
Third Coat	6200	Earth Coat Eggshell (100% Acrylic)

EGGSHELL:

First Coat	1100	Hi-Build PVA High Solids Sealer
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Earth Coat Primer (100% Acrylic Primer)
Second Coat	6300	Earth Coat Eggshell (100% Acrylic)
Third Coat	6300	Earth Coat Eggshell (100% Acrylic)

SEMI GLOSS:

First Coat	1100	Hi-Build PVA High Solids Sealer
Second Coat	8400	Carefree Gloss (100% Acrylic)
Third Coat	8400	Carefree Gloss (100% Acrylic)

(Low VOC / Low Odor)

First Coat	6000	Earth Coat Primer (100% Acrylic Primer)
Second Coat	6400	Earth Coat Eggshell (100% Acrylic)
Third Coat	6400	Earth Coat Eggshell (100% Acrylic)

GLOSS:

First Coat	1100	Hi-Build PVA High Solids Sealer
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss (100% Acrylic)

OR

First Coat	6600	AquaLac (100% Acrylic)
Second Coat	9500	Aqua Fusion WB Alkyd Emulsion
Third Coat	9500	Aqua Fusion WB Alkyd Emulsion

ACOUSTIC CEILINGS

FLAT:

One Coat	013	Acoustic Kote (Vinyl Flat)
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WOOD: PIGMENTED LACQUER

LACQUER FLAT:

First Coat	NAW 1320	Lacquer Undercoat Valspar
Second Coat	NAW 1321	Flat -Valspar
Third Coat	NAW 1321	Flat -Valspar

LACQUER SATIN:

First Coat	NAW 1320	Lacquer Undercoat -Valspar
Second Coat	NAW 1312	Satin -Valspar
Third Coat	NAW 1312	Satin -Valspar

LACQUER SEMI-GLOSS:

First Coat	NAW 1320	Lacquer Undercoat -Valspar
Second Coat	NAW 1326	Semi-Gloss -Valspar
Third Coat	NAW 1326	Semi-Gloss -Valspar

LACQUER GLOSS:

First Coat	NAW 1320	Lacquer Undercoat -Valspar
Second Coat	NAW 1329	Gloss -Valspar
Third Coat	NAW 1329	Gloss -Valspar

WOOD: CLEAR LACQUER

LACQUER FLAT:

First Coat	0250 VWS Series	Wiping Satin
Second Coat	NAS 1820	Water White Sanding Sealer
Third Coat	NAF 1821	Mar Resistant Flat
Fourth Coat	NAF 1821	Mar Resistant Flat

LACQUER SATIN:

First Coat	0250 VWS Series	Wiping Satin
Second Coat	VWS 1820	Water White Sanding Sealer
Third Coat	WS 1821	Mar Resistant Satin
Fourth Coat	NAF 1821	Mar Resistant Satin

LACQUER SEMI-GLOSS:

First Coat	0250 VWS Series	Wiping Satin
Second Coat	WS 1820	Water White Sanding Sealer
Third Coat	NAF 1826	Mar Resistant Semi-Gloss
Fourth Coat	NAF 1826	Mar Resistant Semi-Gloss

LACQUER GLOSS:

First Coat	0250 VWS Series	Wiping Stain
Second Coat	WS 1820	Water White Sanding Sealer
Third Coat	NAC 1829	Mar Resistant Gloss
Fourth Coat	NAC 1829	Mar Resistant Gloss

METAL: FERROUS – IRON – STEEL

FLAT:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8100	Carefree Flat (100% Acrylic)

LOW SHEEN:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8200	Carefree Velva Sheen (100% Acrylic)

EGGSHELL:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8300	Carefree Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)

GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	4800	Metal Pro White Primer
Third Coat	8500	Carefree Gloss (100% Acrylic)
	OR	
First Coat	4800	Metal Pro White Primer
Second Coat	9900	Protec Waterbased Alkyd Emulsion
Third Coat	9900	Protec Waterbased Alkyd Emulsion

METAL: NON-FERROUS – GALVANIZED – ALUMINUM

FLAT:

First Coat	4800	Metal Pro White Primer
Second Coat	8100	Carefree Flat (100% Acrylic)
Third Coat	8100	Carefree Flat (100% Acrylic)

LOW SHEEN:

First Coat	4800	Metal Pro White Primer
Second Coat	8200	Carefree Velva Sheen (100% Acrylic)
Third Coat	8200	Carefree Velva Sheen (100% Acrylic)

EGGSHELL:

First Coat	4800	Metal Pro White Primer
Second Coat	8300	Carefree Eggshell (100% Acrylic)
Third Coat	8300	Carefree Eggshell (100% Acrylic)

SEMI-GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	8400	Carefree Semi-Gloss (100% Acrylic)
Third Coat	8400	Carefree Semi-Gloss (100% Acrylic)

GLOSS:

First Coat	4800	Metal Pro White Primer
Second Coat	8500	Carefree Gloss (100% Acrylic)
Third Coat	8500	Carefree Gloss (100% Acrylic)
	OR	
First Coat	4800	Metal Pro White Primer
Second Coat	9900	Protec Water-Based Industrial
Third Coat	9900	Protec Water-Based Industrial

END SECTION

PART 1 – GENERAL:

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 WORK INCLUDED:

1.1.1 Work Includes:

- 1.1.1.1 Room identification system
- 1.1.1.2 Required informational signs).
- 1.1.1.3 Site signage.

1.2 RELATED WORK:

1.2.1 Related Work Specified Elsewhere:

- 1.2.1.1 Section 321723 – Parking Striping: Directional arrows and disabled marking.
- 1.2.1.2 Section 033000 – Concrete Work: Footings for signs.

1.3 QUALITY ASSURANCE:

1.3.1 Regulatory Requirements:

- 1.3.1.1 Comply with applicable codes and regulations of the Title 24 Code of Regulations and A.D.A. (Americans with Disabilities Act) requirements.
- 1.3.1.2 Where requirements of applicable codes, regulations and standards conflict with this specification, comply with the more stringent provisions.

1.4 SUBMITTALS:

1.4.1 Product Data: Submit complete manufacturer's description literature and specifications in accordance with the provisions of Section 013300.

1.4.1.1 Materials List: Submit complete lists of materials and equipment proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item where applicable.

1.4.1.2 Manufacturer's Recommendations: Submit the manufacturer's current recommended methods of installation.

1.4.2 Samples: In accordance with the provisions of Section 013300, submit manufacturer's standard palette for the selection of colors and metal finishes.

1.5 DELIVERY, STORAGE, AND HANDLING:

- 1.5.1 Protection: Use all means necessary to protect the materials of this section before, during, and after installation.
- 1.5.2 Replacements: In the event of damage, immediately make repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.6 ACCESSIBILITY CODE GUIDELINES:

1.6.1 **Signage and graphics:**

Raised characters shall comply with **CBC Section 11B-703.2:**

- **Depth:** It shall be 1/32 inch (0.8 mm) minimum above their background and shall be sans serif uppercase and be duplicated in Braille.
- **Height:** It shall be 5/8 inch (15.9 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I". **CBC Section 11B-703.2.5**
 - **Finish and contrast:** Characters and their background shall have a non-glare finish. Character shall contrast with their background with either light characters on a dark background or dark characters on a light background. **CBC Section 11B-703.5.1**
- **Proportions:** It shall be selected from fonts where the width of the uppercase letter "O" is 60 % minimum and 110 % maximum of the height of the uppercase letter "I". Stroke thickness of the uppercase letter "I" shall be 15 % maximum of the height of the character. **CBC Sections 11B-703.4 and 11B-703.6**
- **Character Spacing:** Spacing between individual tactile characters shall comply with **CBC Section 11B-703.2.7 and 11B-703.2.8**
- **Braille:** It shall be contracted (Grade 2) and shall comply with **CBC Sections 11B-703.3 and 11B-703.4**. Braille dots shall have a domed and rounded shape and shall comply with **CBC Table and Figure 11B-703.3.1**.
- **Mounting height:** A tactile sign shall be located 48" minimum to the baseline of the lowest Braille cells and 60" maximum to the baseline of the highest line of raised characters above the finish floor or ground surface.
- **Mounting location:** A tactile sign shall be located on the approach side, as one enters or exits rooms or space, and be reached within 0" of the required clear floor space per **CBC Section and Figure 11B - 703.4.2** as follows:
 - a clear floor space of 18' x 18" minimum, centered on the tactile characters, shall be provided beyond the arc of any door swings between the closed position and 45-degree open position.
 - on the wall at the latch side of a single door.
 - on the inactive leaf of a double door with one active leaf.
 - on the wall at the right side of a double door with two active leaves.
 - on the nearest adjacent wall where there is no wall space at the latch side of a single door or no space at the right side of a double door with two active leaves.
- **Visual characters** shall comply with **CBC Section 11B-703.5** and shall be 40" minimum above finish floor or ground.
- **Pictograms** shall comply with **CBC Section 11B-703.6**.
- **Symbol of accessibility** shall comply with **CBC Section 11B-703.7**.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

- 2.1.1 Design is based on the use of products manufactured by Mohawk Systems, Schenectady, NY (518) 370-3433.
- 2.1.2 Materials shall be the product of one (1) manufacturer and shall be either the ones upon which the design is based or the products of a manufacturer approved in accordance with Section 012513. Contractor to furnish and install all signs.
 - 2.1.2.1 Vomar Products, Inc., Canoga Park, CA (818) 610-5115.
 - 2.1.2.2 ASI Sign Systems, Los Angeles, CA (310) 8645-1400.

2.2 MATERIALS:

- 2.2.1 **General:** Arrange the required letters, numbers and figures with uniform margins, in the letter style and size as selected by the Architect from manufacturer's standard.
- 2.2.2 **Plastic Sign Plates:** Comply with A.D.A. and Title 24. All plastic signs and toilet room plastic symbols shall be Owner furnished and Owner installed **(C.F.C.I.)**
 - 2.2.2.1 All signage shall conform to CBC Sections 11B-703.2. Tactile exit signage shall be provided per CBC Section and Figure 11B-703.4.1 & 11B-703.4.2. **(C.F.C.I.)**
 - 2.2.2.1.1 **Character Type:** Characters on signs shall be raised 1/32-inch (0.794 mm) minimum and shall be sans serif uppercase characters accompanied by Grade 2 Braille (see Note 5 below).
 - 2.2.2.1.2 **Character Size:** Raised characters shall be a minimum of 5/8 inch (15.9 mm) and a maximum of 2 inches (51 mm) high. **(C.F.C.I.)**
 - 2.2.2.1.3 **Finish and Contrast:** Contrast between characters, symbols and their background must be 70 percent minimum and have a non-glare finish. CBC 11B-703.5.1. **(C.F.C.I.)**
 - 2.2.2.1.4 **Proportions:** Characters on signs shall have a width-to-height ratio of between 3:5 and 1.1:1 and a stroke width-to-height ratio of between 1:5 and 1:10. CBC 11B-703.2.4 & 11B-703.2.6. **(C.F.C.I.)**

All letters measured must be uppercase. After choosing a typestyle to test, begin by printing the letters **I**, **X** and **O** at 1-inch height. Place the template's 1.1:1 square over the **X** or **O**, whichever is narrower. If the character is not wider than 1 inch, nor narrower than the 3:5 rectangle, the proportions are correct. Use the 1:5 rectangle to determine if the stroke of the **I** is too broad, and the 1:10 rectangle to see if it is too narrow. If all the tests are passed, the typestyle is compliant with proportion code.
 - 2.2.2.1.5 California Contracted Grade 2 Braille shall be used whenever Braille is required in other portions of these standards. Dots shall be spaced 1/10-inch (2.54 mm) on center in each cell, with 2/10-inch (5.08 mm) space between cells, measured from the second column of dots in the first cell to the first column of dots in the second cell. Dots shall be

raised a minimum of 1/40 inch (0.635 mm) above background. CBC Section 11B-703.2.4 & 11B-703.2.6.

2.2.2.2 All signage shall conform to CBC Sections 11B-703.2.

2.2.2.3 Letter or numbers shall be raised 1/32-inch upper case Helvetica accompanied by contracted Grade 2 Braille. Letters and number sizes shall be from 1 inch to 6 inches as listed below. **(C.F.C.I.)**

2.2.2.3.1 Door room identification name and number plates at 1 inch.

2.2.2.3.2 Occupancy size 2-inch letters.

2.2.2.3.3 Main building signs 18-inch letters.

2.2.2.3.4 Exit signs shall be 5/8 inch minimum to 2 inches maximum letters.

2.2.2.4 All signs shall be anchored to the surface by vinyl tape mounting-VTM and minimum four (4) non-removable screws.

2.2.2.5 All permanent identification shall be installed on the wall adjacent to the latch side of the door. These signs shall be installed at 60 inches from finished floor to center line of sign.

2.2.2.6 Color(s) shall be selected by the Architect.

2.2.3 Text and Location:

2.2.3.1 Room Names: All doors shall have room name signs. Use Finish Schedule as a guide. Actual room names **(C.F.C.I.)**.

2.2.3.2 Door Numbers: All interior and exterior doors shall have numbers. Use the same number on all doors from one space into the other space; from the door schedule. Actual room numbers will be furnished to the Contractor by the District after construction begins. Assume an average of four (4) numerals for each door. **(C.F.C.I.)**

2.2.3.3 Fire Extinguisher Identification: Red, with 1-3/4-inch-high, white letters. Height of sign 2 inches by required length. Furnished by the Contractor and Contractor to install. Contractor Furnished and Contractor Installed **(C.F.C.I.)**

2.2.3.3.1 Signs shall read: "FIRE EXTINGUISHER."

2.2.3.4 Occupancy Signs: Brown, with 2-inch-high white letters. **(C.F.C.I.)**

2.2.3.4.1 Text: "OCCUPANCY ##### PERSONS". Verify actual number with Architect. Height and length of sign as required. Provide a minimum of 12 occupancy signs unless noted otherwise on the drawings. Provide one occupancy sign at each science classroom lab.

2.2.3.5 Miscellaneous Signs and Symbols: As required by code. **(C.F.C.I.)**

2.2.3.5.1 Disabled symbols for toilet room doors per Title 24 Section 11B-703.6, 11B-703.7 and A.D.A. requirements.

2.2.3.5.1.1 Men: 12-inch triangle pictogram with the disabled wheelchair symbol.

2.2.3.5.1.2 Women: 12-inch diameter pictogram disc with disabled wheelchair symbol.

2.2.3.5.2 Non-illuminated EXIT signs per CBC requirements. **(C.F.O.I.)**

2.2.4 All Disabled exterior signage shall be of blue or white background with blue or white graphic, letter, symbol and logo. Disabled striping shall be painted code blue (Fed Blue Color 15090, Fed Std. 595C). Contractor Furnished and Contractor Installed **(C.F.C.I.)**

2.2.5 Disable Directional signs or Warning signs: Provide minimum of disable directional signs as note unless noted otherwise on the drawings. Size of sign shall be as detailed on the drawings and all signs noted shall be wall mounted signs. Contractor Furnished and Contractor Installed **(C.F.C.I.)**

2.2.6 Assistive Listening Device: Provide signs indicating availability of assistive listening devices in compliance with Section 11B-703.7.2.4, Part 2, Title 24, CBC and ADAAG 4.30.7. In addition, provide message on sign stating "CONTACT OWNER ADMINISTRATION TO MAKE ARRANGEMENTS FOR ACCESS TO LISTENING DEVICE FOR USE AFTER OWNER HOURS". Provide 2 (2) signs, located as directed by Architect. Contractor Furnished and Contractor Installed **(O.F.C.I.)**

2.3 WALL MOUNTED SIGNS:

2.3.1 Secure wall-mounted signs to walls with theft-proof fasteners, centered at interior end of parking space with bottom edge of sign a minimum of 36 inches above finished grade unless noted otherwise on the drawings. Fasten into concrete with self-drilling masonry anchors, Phillips Redhead, Bulldog, Rawl Sabertooth, or equal.

2.4 OTHER MATERIALS:

2.4.1 Other materials, not specifically described but required for a complete and proper installation of the work of this section, shall be new, first quality of their respective kinds, and subject to approval of the Architect.

PART 3 – EXECUTION

3.1 INSPECTION:

3.1.1 Examine the substrates and conditions under the specialty signs which are to be installed and remedy any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION:

3.2.1 Install sign units and components at the locations shown or scheduled, securely mounted with adhesive mounting system and screws, unless otherwise indicated. Attach signs to substrates in accordance with manufacturer's instructions.

3.2.2 Install level, plumb, and at the proper height. Cooperate with other trades for installation of sign units to finish surfaces. Repair or replace damaged units as directed by the Architect.

3.2.2 Permanent room, directional and informational signage:

- 3.2.2.1 Install signs after substrate surfaces receive final finish.
- 3.2.2.2 Center room identification signage at 60 inches above floor, located on strike side of door or as directed by Architect.
- 3.2.2.3 Where signs are installed in sealant method on glass panels, provide back plate matching sign at opposite side of glass.
- 3.2.2.4 When sign is installed on window surface or other similar recessed conditions, provide spacer as required to maintain sign face within 3 inches of outermost wall plane.

END OF SECTION

PART 1 – GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 WORK INCLUDED:

1.1.1 Work includes toilet room and custodial accessories.

1.2 RELATED WORK:

1.2.1 Related Work Specified Elsewhere:

1.2.1.1 Section 061000 - Rough Carpentry: Blocking and backing.

1.2.1.2 Section 260500 - General Electrical Provisions

1.3 QUALITY ASSURANCE:

1.3.1 Regulatory Requirements:

1.3.1.1 Comply with applicable codes and regulations of governmental agencies having jurisdiction. All mounting heights shall be per CBC Title 24 requirements.

1.3.1.2 Where requirements of applicable codes, regulations and standards conflict with this specification, comply with the more stringent provisions.

1.4 SUBMITTALS:

1.4.1 Product Data: Submit complete manufacturer's description literature and specifications in accordance with the provisions of Section 013300.

1.4.1.1 Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item where applicable.

1.4.1.2 Manufacturer's Recommendations: Submit the manufacturer's current recommended methods of installation.

1.4.2 Setting Drawings: In accordance with Section 013300, provide setting drawings, templates, instructions and directions for installation of anchorage devices in other work.

1.4.3 Samples: When requested, submit full-size samples of units for review of design and operation. Acceptable samples will be returned and may be used in the work. Compliance with all other requirements is the exclusive responsibility of the Contractor.

1.5 DELIVERY, STORAGE, AND HANDLING:

1.5.1 Protection: Use all means necessary to protect the materials of the section before, during, and after installation.

1.5.2 Replacements: In the event of damage, immediately make repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

1.6 GUARANTEE:

1.6.1 Mirrors shall have a 15-year warranty against silver spoilage.

1.6.2 All accessories shall have a minimum one (1) year warranty against defects in workmanship and materials.

1.7 ACCESSIBILITY CODE GUIDELINES:

1.7.1 **Sanitary Facility Elements:**

Elements of Sanitary facilities shall be mounted at locations in compliance with **CBC Sections 11B-602 through 11B-612.**

Grab bars in toilet facilities and bathing facilities shall comply with **CBC Section 11B-609.**

Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges. The space around the grab bars shall be as follows:

1 ½" between the grab bar and the wall.

1 ½" minimum between the grab bar and projecting objects below and at the ends.

12" minimum between the grab bar and projecting objects above.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

2.1.1 Toilet Accessories:

2.1.1.1 Design is based on the use of products manufactured by Bobrick Washroom Equipment, Inc., North Hollywood, CA (818) 764-1000.

2.1.1.2 Materials shall be the products of one (1) manufacturer and shall be either the accessories upon which the design is based or the products of an approved equal manufacturer. Substitutions shall be per the submittal process in accordance with Section 012513.

2.1.2.2 Materials shall be the products of one manufacturer and shall be either the ones upon which the design is based or the products of a manufacturer approved in accordance with Section 012513.

2.2 MATERIALS:

- 2.2.1 Provide accessories fabricated from 18-8 Type 304 stainless steel, satin finish unless otherwise noted. Gauges shall be as indicated on design-basis manufacturer's technical data sheets.
- 2.2.2 Keyed (tumbler lock) accessories shall be keyed alike with the exception of coin receiving boxes on vending equipment.
- 2.2.3 Embossed, stamped nomenclature or labels on exposed faces of units will not be permitted.

2.3 ACCESSORIES:

- 2.3.1 Toilet accessories and equipment to be provided for this project are shown on the following schedule.
- 2.3.2 Toilet accessories required to be accessible shall be mounted at heights according to CBC Section 11B-609 through 11B-612 and as shown with chart below:

ACCESSORY	ADULT	AGES 5-8
Toilet centerline from wall	17"-18"	12"-15"
Toilet seat height	17"-19"	12"-15"
Grab bar height (Top of Bar)	33"-36"	20"-25"
Toilet paper in front of toilet	7" to 9" to center of Dispenser	7" to 9" to center of Dispenser
Napkin disposal in front of toilet	12" max	12" max
Dispenser or mirror height	40" max.	40" max.
Toilet Dispenser Height	17"-19"	14"-17"
Lavatory/sink top height	34" max.	31" max.
Lavatory/sink knee clearance	27" min.	24" min.
Urinal lip height	17" max.	17" max.
Urinal flush handle height	44" max.	44" max.
Drinking fountain bubbler height	36" max. (low D.F.) High D.F. Bubbler	30" max. (low D.F.) 38" to 43" to High D.F. Bubbler
Drinking fountain knee clearance	27" min.	27" min.
Ramp/star handrail height	34" - 38"	34" - 38"

- 2.3.3 Toilet paper and feminine napkin dispensers located on the grab bar side of an accessible toilet room or stall shall not project more than the grab bar. The grab bar cannot project more than 3 inches into the 48-inch minimum clear space in front of the water closet (CBC 11B-609). The accessory shall not be located closer than 1-½ inches clear of the tangent point of the grab bar.

- 2.3.4 The following list of toilet accessories labeled O.F.C.I. (Owner Furnished Contractor Installed) identifies toilet accessories items that will be supplied by the Owner and installed by the Contractor. Items not labeled O.F.C.I. shall be Contractor Furnished Contractor Installed C.F.C.I.. Contractor shall obtain from the Owner a list of the type of toilet accessories prior to installing the toilet accessories. Contractor shall provide all necessary backing, blocking, recessed openings or mounting supports for all Owner Furnished Toilet Accessories.
- 2.3.5 **THE TOILET ACCESSORIES LIST BELOW ARE FOR NON-ADA TOILET ACCESSORIES ONLY. ALL ADA TOILET ACCESSORIES WILL BE SUPPLIED AND INSTALLED BY AMS MODULAR MANUFACTURER.**

Scott # 46253	SURFACE MOUNTED TOUCHLESS ROLLED HAND TOWEL DISPENSER, 1.75"/44MM HUB-SMOKE. (O.F.C.I.) (One at each classroom typical.)
Maintex # 359009	SURFACE MOUNTED GP JR. JUMBO TOILET TISSUE DISPENSER OR ALLIED WEST PAPER CORP. # 189100 OPTIMA SGL 9", 3.25 CORE, BLACK PEARL/WHITE SAND. (O.F.C.I.) (One at each non-ADA toilet stall typical.)
Maintex # 269105	SURFACE MOUNTED SEAT CIVER DISPENSER HIGH IMPACT WHITE STANDARD 1". (O.F.C.I.) (One at each adult only non-ADA water closet typical.)
Kimberly- Clark Professional # 92145	SURFACE MOUNTED SKIN CARE 1000 ML. CASSETTE LIQUAID SOAP DISPENSER (O.F.C.I.) (One at every non-ADA classroom sink typical.)
Bobrick B-165 Series	SURFACE MOUNTED 24"x36" FLOAT GLASS ASTM C1036 TYPE 1. CLASS 1, QUALITY Q2 MIRROR. PROVIDE SILVERING PROTECTION CHARACTERISTICS COMPLYING TO ASTM C1503 (C.F.C.I.) (One at each non-ADA adult lavatory sink)

Contractor shall install all necessary blocking, backing, recessed openings for all District furnished toilet accessories. Contractor shall obtain from the District a list and type of toilet accessories prior to installing the necessary backing, recessed openings, etc.

2.4 OTHER MATERIALS: **(C.F.C.I.)**

- 2.4.1 Other materials, not specifically described but required for a complete and proper installation of the work of this section, shall be new, first quality of their respective kinds, and subject to approval of the Architect.

PART 3 – EXECUTION

3.1 INSPECTION:

- 3.1.1 Prior to commencing the work of this section, carefully inspect previously installed work and verify that such work is complete to the point where this installation may properly commence.

- 3.1.2 Verify that work of this section may be installed in accordance with applicable codes, regulations and standards, the Contract Documents and the approved submittals.
- 3.2 PREPARATION:
 - 3.2.1 Field Measurements: Prepare required Shop Drawings based on field measurements.
 - 3.2.2 Coordinate location of all toilet accessories to comply with ADA requirements. Verify location of all recessed accessories and provide required blocking for attachment of surface mounted fixtures and accessories.
 - 3.2.3 Protection: Protect previously installed work and materials which may be affected by work of this section.
- 3.3 INSTALLATION:
 - 3.3.1 Install work in strict accordance with the manufacturer's submittals and recommendations, as approved.
 - 3.3.1.1 Use concealed fastenings wherever possible.
 - 3.3.1.2 Provide anchors, bolts and other necessary anchorages, and attach accessories securely to walls and partitions in locations as shown or directed.
 - 3.3.1.3 Install concealed mounting devices and fasteners fabricated of the same materials as the accessories, or of galvanized steel, as recommended by manufacturer.
 - 3.3.1.4 Install exposed mounting devices and fasteners finished to match the accessories.
 - 3.3.1.5 Secure toilet room accessories in accordance with the manufacturer's strict instructions for each item and each type of substrate construction.
- 3.4 ADJUSTING AND CLEANING:
 - 3.4.1 Wipe down and clean all fixtures and accessories. Remove all tape, paper, markers and stickers after installation.
 - 3.4.2 Remove all boxes, packing material and debris related to this work each day to avoid any hazards.
 - 3.4.3 When work of this section is completed and at such other times as may be directed, remove all trash, debris, surplus materials, tools and equipment from the site.

END OF SECTION

PART 1 – GENERAL

1.1 SECTION INCLUDES

- 1.1.1 Extent of potable water systems work is indicated on drawings and schedules, and by requirements of this section.
- 1.1.2 Refer to Section 312300 for excavation and backfill required for potable water systems; not work of this section.

1.2 QUALITY ASSURANCE

- 1.2.1 **Manufacturer's Qualifications:** Firms regularly engaged in manufacture of potable water systems, materials and products, of types and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.
- 1.2.2 **Water Purveyor Compliance:** Comply with requirements of local water agency, supplying water to project, obtain required permits and inspections.
- 1.2.3 **Codes and Standards:**
 - 1.2.3.1 **Regulatory Requirements:** Comply with applicable portions of codes, standards, specifications and regulations of governmental agencies having jurisdiction. Some of the other agencies having jurisdiction are City of Glendale.
 - 1.2.3.2 City of Glendale will inspect and approve all work within their jurisdiction.
 - 1.2.3.3 Pay for all water district permits in conjunction with this work.
 - 1.2.3.1 Comply with the applicable portions of the 2019 California Building Code (CCR Title 24, Part 2) Chapter 33.
 - 1.2.3.2 Comply with the applicable portions of the 2019 California Fire Code (CCR Title 24, Part 9) Chapters 5 and 9.
 - 1.2.3.3 Coordinate work of this Section with Permit provisions of the State of California Water Resources Control Board Order Number 2012-0006-DWQ.
 - 1.2.3.4 The project Storm Water Pollution Prevention Plan.
 - 1.2.3.5 2019 California Electrical Code (CCR Title 24, Part 3).
 - 1.2.3.6 2019 California Plumbing Code (CCR Title 24, Part 5).
 - 1.2.3.7 Cal-OSHA.
 - 1.2.3.8 OSHA.
 - 1.2.3.9 American National Standards Institute (ANSI) A21.10
 - 1.2.3.10 American Society for Testing and Material (ASTM) F 477, Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

- 1.2.3.11 American Water Works Association (AWWA) Publications regarding pipe and installation:
 - 1.2.3.11.1 AWWA C 104
 - 1.2.3.11.2 AWWA C 110.
 - 1.2.3.11.3 AWWA C 111.
 - 1.2.3.11.4 AWWA C 115.
 - 1.2.3.11.5 AWWA C 151.
 - 1.2.3.11.6 AWWA C 600.
 - 1.2.3.11.7 AWWA C 651.
 - 1.2.3.11.8 AWWA C 900.
 - 1.2.3.11.9 AWWA C 901.
 - 1.2.3.11.10 AWWA M 23

1.2.4 Uni-Bell Plastic Pipe Association (UNI) - B - 3 with AWWA C 900.

1.2.5 National Fire Protection Association 24 - Standards for the Installation for Private Fire Service Mains and Their Appurtenances 2019 Edition (NFPA 24)

1.3 SUBMITTALS

1.3.1 Product Data: Submit manufacturer's technical product data and installation instructions for potable water system materials and products.

1.3.2 Shop Drawings: Submit shop drawings for potable water systems, showing piping materials, size, locations, and elevations. Include details of underground structures, connections, thrust blocks, and anchors. Show interface and spatial relationship between piping and proximate structures.

1.3.3 Record Drawings: At project closeout, submit record drawings of installed potable water system piping and products, in accordance with requirements of Division 1.

1.3.4 Maintenance Data: Submit maintenance data and parts lists for potable water system materials and products. Include this data, product data, shop drawings, and record drawings in maintenance manual in accordance with requirements of Division 1.

PART 2 – PRODUCTS

2.1 IDENTIFICATION

2.2.1 Plastic Underground Warning Tapes: Polyethylene plastic tape, 6 inches wide by 4 mils thick, solid blue in color with continuously printed caption in black letters "CAUTION - WATER LINE BURIED BELOW."

- 2.1.2 Metallic-Lined Plastic Underground Warning Tapes: Polyethylene plastic tape with metallic core, 6 inches wide by 4 mils thick, solid blue in color with continuously printed caption in black letters "CAUTION - WATER LINE BURIED BELOW."
- 2.1.3 Nonmetallic Piping Label: Engraved plastic-laminate label, for installation on main electrical meter panel; not less than 1 inch by 3 inches, with captions "CAUTION - THIS STRUCTURE HAS A NONMETALLIC WATER SERVICE."

2.2 PIPES AND PIPE FITTINGS

- 2.2.1 General: Provide piping materials and factory-fabricated piping products of sizes, types, pressure ratings, and capacities as indicated. Where not indicated, provide proper selection as determined by Installer to comply with installation requirements. Provide sizes and types matching piping and equipment connections; provide fittings of materials, which match pipe materials used in potable water systems.
- 2.2.2 Piping: Provide pipes of one of the following materials, of weight/class indicated, unless otherwise indicated on plans. Provide pipe fittings and accessories of same material and weight/class as pipes.
 - 2.2.2.1 Ductile-iron, AWWA C110; asbestos-cement couplings; rubber rings conforming to ASTM D 1869, and joints conforming to AWWA C111.
 - 2.2.2.2 Ductile-Iron Pipe: AWWA C151, with cement mortar lining complying with AWWA C104; Class 51 unless otherwise indicated.
 - 2.2.2.3 Polybutylene (PB) Pipe: AWWA C902 for sizes 1/2" through 3", and ASTM D 2662 for sizes 1/2" through 6"; SIDR 15.
 - 2.2.2.4 Polyvinyl Chloride (PVC) Pipe: AWWA C900 for sizes 4" through 12"; Class 150.
 - 2.2.2.5 Polyvinyl Chloride (PVC) Pipe: ASTM D 1785, Schedule 40 for sizes 1/2" through 3".
 - 2.2.2.6 Polyethylene (PE) Pipe: AWWA C901 for sizes 1/2" through 3".
- 2.2.3 Fittings
 - 2.2.3.1 Ductile Iron Fittings, AWWA C110 or C153
 - 2.2.3.2 All fittings shall be cement-mortar lined in accordance with AWWA C104.

2.3 VALVES

- 2.3.1 Gate Valves: Provide as indicated, gate valves, AWWA C500, 175 psi working pressure. Provide threaded, flanged, hub, or other end configurations to suit size of valve and piping connection. Provide inside screw type for use with curb valve box, iron body, bronze-mounted, double disc, parallel seat, non-rising stem.
 - 2.3.1.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering gate valves which may be incorporated in the work include, but are not limited to, the following: Subject to compliance with requirements, provide gate valves of one of the following:
 - 2.3.1.1.1 Clow Corp; Valve Div.

- 2.3.1.1.2 Dresser Mfg.; Div. of Dresser Industries.
 - 2.3.1.1.3 Cla-Val Co.
 - 2.3.1.1.4 Kennedy Valve; Div. of ITT Grinnell Valve Co. Inc.
 - 2.3.1.1.5 American AVK Co.
 - 2.3.1.1.6 Waterous Co.
 - 2.3.2 Butterfly Valves: Provide as indicated, butterfly valves, AWWA C504, 150 psi working pressure. Provide iron body, bronze disc, stainless steel stem, and metal-reinforced EPDM seat.
 - 2.3.2.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering butterfly valves which may be incorporated in the work include, but are not limited to, the following: Subject to compliance with requirements, provide butterfly valves of one of the following:
 - 2.3.2.1.1 Demco; Div. of Copper Industries, Inc.
 - 2.3.2.1.2 ITT Grinnell Valve Co. Inc.
 - 2.3.2.1.3 Keystone Valve; Div. of Keystone International Inc.
 - 2.3.2.1.4 Cla-Val Co.
 - 2.3.2.1.5 American AVK Co.
 - 2.3.3 Check Valves: Provide as indicated, swing check valves, AWWA C508, 150 psi working pressure. Provide iron body, cast-iron disc, bolted cap.
 - 2.3.3.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering check valves which may be incorporated in the work include, but are not limited to, the following: Subject to compliance with requirements, provide check valves of one of the following:
 - 2.3.3.1.1 Clow Corp.; Valve Div.
 - 2.3.3.1.2 Dresser Mfg.; Div. of Dresser Industries.
 - 2.3.3.1.3 Fairbanks Co.
 - 2.3.3.1.4 Kennedy Valve; Div. of ITT Grinnell Valve Co. Inc.
 - 2.3.3.1.5 Stockham Valves and Fittings Inc.
 - 2.3.3.1.6 Waterous Co.
 - 2.3.3.1.7 American AVK Co.
- 2.4 FIRE HYDRANTS
- 2.4.1 Fire Hydrants: Wet barrel type complying with AWWA C503-88, UL listed, and local Fire Marshal approved.
 - 2.4.2 Provide frangible section near the ground line designed to break on impact.

2.4.3 Provide one 2-1/2 inch and two 4-inch outlets. Provide cap with chain on each outlet.

2.4.4 Provide flanged, threaded, hub or sleeve type mechanical joint inlet connection designed to suit pipe or tapping sleeves connections.

2.4.5 Acceptable manufacturers or equal:

2.4.5.1 Clow Corp.

2.4.5.2 James Jones

2.4.5.3 Long Beach Iron Works

2.5 WATER METERS

2.5.1 Water Meters: Meters to be provided and installed by the local water agency.

2.5.2 Pipe, fittings, accessories, boxes, and materials complying with local water agency standards.

2.6 ACCESSORIES

2.6.1 Anchorages: Provide anchorages for tees, wyes, crosses, plugs, caps, bends, valves, and hydrants. After installation, apply full coat of asphalt or other acceptable corrosion-retarding material to surfaces of ferrous anchorages.

2.6.1.1 Clamps, Straps, and Washers: Steel, ASTM A 506.

2.6.1.2 Rods: Steel, ASTM A 575.

2.6.1.3 Rod Couplings: Malleable-iron, ASTM A 197.

2.6.1.4 Bolts: Steel, ASTM A 307.

2.6.1.5 Cast-Iron Washers: Gray-iron, ASTM A 126.

2.6.1.6 Thrust Blocks: Concrete, 2,500 psi. Size as shown on Construction Documents.

2.6.1.7 Yard Hydrants: Provide non-freeze yard hydrants, 3/4" inlet, 3/4" hose outlet, bronze casing, cast-iron or cast-aluminum casing guard, key-operated, and tapped drain port in valve housing.

2.6.1.7.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering yard hydrants which may be incorporated in the work include, but are not limited to, the following:

2.6.1.7.2 Manufacturers: Subject to compliance with requirements, provide yard hydrants of one of the following:

2.6.1.7.2.1 Josam Mfg. Co.

2.6.1.7.2.2 Smith (Jay R.) Mfg. Co.

2.6.1.7.2.3 Tyler Pipe.

2.6.1.7.2.4 Zurn Industries, Inc.; Hydromechanics Div.

PART 3 – EXECUTION

3.1 INSPECTION

- 3.1.1 General: Examine areas and conditions under which potable water system's materials and products are to be installed. Do not proceed with work until unsatisfactory conditions have been corrected in manner acceptable to Installer.
- 3.1.2 Surveyor Qualifications
 - 3.1.2.1 Surveyor shall currently be licensed in the State of California as a Professional Land Surveyor.
 - 3.1.2.2 Surveyor shall employ proper field procedures, instrumentation and adequate survey personnel in order to achieve accuracies as required by each section.
 - 3.1.2.3 Cut sheets, if required, shall be provide to the Inspector of Record at the start of the following business day after completion of the work.
- 3.1.3 Domestic Water and Fire:
 - 3.1.3.1 Stakes shall be located with positional accuracies of a minimum of 0.1 feet horizontally and 0.05 feet vertically.
 - 3.1.3.2 One set of construction stakes with lath shall be set. Lath shall indicate offset, cut/fill, and reference point, i.e. "TC", "FL".
 - 3.1.3.3 Stakes shall be set at maximum intervals of 50 feet, grade breaks, angle points, valves, meters, backflow devices, fire hydrants, fire department connections, post indicator valves, and building point of connections. All construction stakes shall be offset to the side of the utility at a distance from centerline designated by contractor and agreed to by surveyor prior to commencement of staking.
 - 3.1.3.4 Surveyor shall provide to the Inspector of Record cut sheets for all staking. The contractor shall not commence work until Inspector of Record has provided copies of said cut sheets.
 - 3.1.3.5 All stakes shall be preserved in place until such time that the Inspector of Record has approved utility installation for backfilling.
 - 3.1.3.6 All pressure water lines shall be verified by the Inspector of Record for minimum depth of cover as designated by the plans and specifications.
 - 3.1.3.7 Should a dispute arise over the position of the utility in question and the stakes provided for said installation are removed, destroyed, or disturbed, the contractor assumes full responsibility for all cost associated with the resolution of the dispute.
- 3.1.4 Beginning of installation means acceptance of existing conditions.
- 3.1.5 The Contractor shall notify Underground Service Alert at least two (2) days prior to starting work and shall coordinate all work with utility company representatives. The existence and locations of existing underground facilities indicated on the plans were obtained from a search of available records. The contractor shall be responsible for the protection of all existing utilities indicated on the plans, and any other which is not of record or indicated on the plans.

- 3.1.6 Prior to commencing the work, the contractor shall POTHOLE THE EXISTING UTILITIES at points of connections and or crossings of the proposed utilities.

3.2 INSTALLATION OF IDENTIFICATION

- 3.2.1 General: During back-filling/top-soiling of potable water systems, install continuous metallic lined underground warning tape, located directly over buried line at 6" to 8" below finished grade. Tape shall be polyethylene with metallic core, 6 inches wide by 4 mils thick, solid blue color with continuously printed caption in black letters "CAUTION – WATER LINE BURIED BELOW."

3.3 INSTALLATION OF PIPE AND PIPE FITTINGS

- 3.3.1 Copper Tube: Install in accordance with CDA "Copper Tube Handbook".
- 3.3.2 Ductile-Iron Pipe: Install in accordance with AWWA C600 "Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances".
- 3.3.3 Polyvinyl Chloride Pipe: Install in accordance with manufacturer's installation instructions.
- 3.3.4 Depth of Cover: Provide minimum cover over 4" diameter and smaller piping of 24" below finished grade and 36" minimum for piping 6" and larger diameter.
- 3.3.5 Water Main Connection: Arrange for tap in water main of size and in location as indicated, by City of Fontana Water Company Forces.
- 3.3.6 Water Service Termination: Terminate potable water piping 5'-0" from building foundation in location and invert as indicated. Provide temporary pipe plug for piping extension into building, by work of Division 15.

3.4 INSTALLATION OF VALVES

- 3.4.1 General: Install valves as indicated with stems pointing up.
- 3.4.2 Provide valve box over underground valves with valve covers set to finished grade and clearly marked to indicate "WATER".

3.5 INSTALLATION OF FIRE HYDRANTS

- 3.5.1 Comply with AWWA M17. Install with gate valve and provision for drainage as indicated.
- 3.5.2 Set hydrants plumb and locate 4" outlet perpendicular to fire lane.
- 3.5.3 Set hydrants to grade with nozzles at least 20 inches above ground.
- 3.5.4 Install with the face of the bottom flange of the barrel 4 to 6 inches above the adjacent ground or paving.
- 3.5.5 Locate control valve 24 inches away from hydrant.
- 3.5.6 Provide drainage pit 36 inches square by 24 inches deep filled with 2 inch washed gravel. Encase elbow of hydrant in gravel to 6 inches above drain opening. Do not connect drain opening to sewer.
- 3.5.7 Paint hydrants in accordance with the Fire Marshal having jurisdiction.
- 3.5.8 Fire hydrants shall be as approved by the Fire Marshal having jurisdiction.

3.6 INSTALLATION - BACKFLOW PREVENTORS

- 3.6.1 Install backflow preventer of type, size and capacity indicated for potable and irrigation point of connections. Include valves and test cocks.
- 3.6.2 Install according to local water agency.
- 3.6.3 Support backflow preventers, valves, and piping on 2,500-psi; concrete piers as indicated.
- 3.6.4 Double detector check for fire service point of connection shall be furnished and installed by local water agency.

3.7 TESTING OF FIRE SERVICE MAINS AND APPURTENANCES

- 3.7.1 Testing and acceptance of fire service mains and their appurtenances shall be in accordance with NFPA 24 2019 Edition.
- 3.7.2 Approval of Underground Piping: The installing contractor shall be responsible for the following:
 - 3.7.2.1 Notifying the authority having jurisdiction and the owner's representative of the time and date testing is to be performed.
 - 3.7.2.2 Performing all required acceptance tests.
 - 3.7.2.3 Completing and signing the contractor's material and test certificate shown in Figure 10.10.1 of NFPA 24.
- 3.7.3 Acceptance Requirements
 - 3.7.3.1 Flushing of Piping
 - 3.7.3.1.1 Underground piping, from the water supply to the system riser, and lead-in connections to the system riser shall be completely flushed before the connection is made to downstream fire protection system piping.
 - 3.7.3.1.2 The flushing operation shall be continued for a sufficient time to ensure thorough cleaning.
 - 3.7.3.1.3 The minimum rate of flow shall not be less than one of the following:
 - 3.7.3.1.3.1 Hydraulically calculated water demand flow rate of the system, including any hose requirements.
 - 3.7.3.1.3.2 Flow necessary to provide a velocity of 10 ft/sec in accordance with Table 3.7.3.1.3.
 - 3.7.3.1.3.3 Maximum flow rate available to the system under fire conditions.

Table 3.7.3.1.3 Flow Required to Produce a Velocity of 10 ft/sec in Pipes

Pipe Size	Flow Rate
(in)	(gpm)
4	390
6	880
8	1,560
10	2,440
12	3,520

3.7.3.2 Hydrostatic Test

3.7.3.2.1 All piping and attached appurtenances subjected to system working pressure shall be hydrostatically tested at 200 psi or 50 psi in excess of the system working pressure, whichever is greater, and shall maintain that pressure at +/-5 psi for 2 hours.

3.7.3.2.2 Pressure loss shall be determined by a drop in gauge pressure or visual leakage.

3.7.3.2.3 The test pressure shall be read from one of the following, located at the lowest elevation of the system or the portion of the system being tested:

3.7.3.2.3.1 A gauge located at one of the hydrant outlets

3.7.3.2.3.2 A gauge located at the lowest point where no hydrants are provided

3.7.3.2.4 Hydrostatic Testing Allowance: Where additional water is added to the system to maintain the test pressures required by 3.7.3.2.1, the amount of water shall be measured and shall not exceed the limits of Table 3.7.3.2.4 which is based on the following equation:

$$L = \frac{SD(P)^{1/2}}{148,000} \quad (3.7.3.2.4)$$

Where:

L = testing allowance (makeup water), in gallons per hour

S = length of pipe tested, in feet

D = nominal diameter of the pipe, in inches

P = average test pressure during the hydrostatic test, in pounds per square inch (gauge)

Table 3.7.3.2.4 Hydrostatic Testing Allowance at 200 psi per 100 Feet of Pipe

Nominal Pipe Diameter (in)	Testing Allowance in Gallons per Hour (gph) per 100 Feet of Pipe
2	0.019
4	0.038
6	0.057
8	0.076
10	0.096
12	0.115
14	0.134
16	0.153
18	0.172
20	0.191
24	0.229

Notes:

- (1) For other length, diameters, and pressures, utilize Equation 3.7.3.2.4 to determine the appropriate testing allowance.
- (2) For test sections that contain various sizes and sections of pipe the testing allowance is the sum of the testing allowances for each size and section.

3.7.3.3 Other Means of Hydrostatic Tests: Where required by the authority having jurisdiction, hydrostatic tests shall be permitted to be completed in accordance with the requirements of AWWA C600, AWWA C602, AWWA C603, and AWWA C900.

3.7.3.4 Operating Test

3.7.3.4.1 Each hydrant shall be fully opened and closed under system water pressure.

3.7.3.4.2 Dry barrel hydrants shall be checked for proper drainage.

3.7.3.4.3 All control valves shall be fully closed and opened under system water pressure to ensure proper operation.

3.7.3.4.4 Where fire pumps are available, the operating tests required by 3.7.3.4 shall be completed with the pumps running.

3.7.3.5 Backflow Prevention Assemblies

3.7.3.5.1 The backflow prevention assembly shall be forward flow tested to ensure proper operation.

3.7.3.5.2 The minimum flow rate required by 3.7.3.5.1 shall be the system demand, including hose stream demand where applicable.

3.7.3.6 The trench shall be backfilled between joints before testing to prevent movement of pipe.

3.7.3.7 Where required for safety measures presented by the hazards of open trenches, the pipe and joints shall be permitted to be backfilled, providing the installing contractor takes the responsibility for locating and correcting leakage.

3.7.3.8 Provision shall be made for the proper disposal of water used for flushing or testing.

3.8 TESTING OF WATER MAINS

3.8.1 Piping Tests: Conduct piping tests before joints are covered, and after thrust blocks have sufficiently hardened. Fill pipeline 24 hours prior to testing, and apply test pressure to stabilize system. Use only potable water.

3.8.2 Hydrostatic Tests: Test at not less than 1-1/2 times working pressure for 2-hrs.

3.8.3 Test fails if leakage exceeds 2-qts per hour per 100 gaskets or joints, irrespective of pipe diameter.

3.8.4 Increase pressure in 50-psi increments and inspect each joint between increments. Hold at test pressure for one hour, decrease to 0 psi. Slowly increase again to test pressure and hold for one more hour.

3.9 ADJUSTING AND CLEANING

3.9.1 Disinfection of Potable Water System: Flush pipe system with clean potable water until no dirty water appears at point of outlet. Fill system with water-chlorine solution containing at least 50 ppm of chlorine. Valve off system and let stand for 24-hrs minimum. Flush with clean potable water until no chlorine remains in water coming from system.

3.9.2 Repeat procedure if contamination is present in bacteriological examination.

3.9.3 Disinfection of Water Mains: Flush and disinfect in accordance with AWWA C601 "Standard for Disinfecting Water Mains".

END OF SECTION

PART 1 – GENERAL

1.1 SECTION INCLUDES

- 1.1.1 Site sanitary drainage piping, fittings, and accessories.
- 1.1.2 Connection of building sanitary drainage system to site sanitary sewers.
- 1.1.3 Connection of site sanitary drainage system to municipal sewers.
- 1.1.4 Manhole access and cleanout access.
- 1.1.5 Extent of sanitary sewage systems work is indicated on drawings and schedules, and by requirements of this section.
- 1.1.6 Refer to Section 312300 for excavation and backfill required for sanitary sewage systems; not work of this section.

1.2 QUALITY ASSURANCE

- 1.2.1 Manufacturer's Qualifications: Firms regularly engaged in manufacture of sanitary sewage system's products of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.
- 1.2.2 Installer's Qualifications: Firm with at least 3 years of successful installation experience on projects with sanitary sewage work similar to that required for project.
- 1.2.3 Codes and Standards:
 - 1.2.3.1 Comply with the applicable portions of the 2019 California Building Code (CCR Title 24, Part 2) Chapter 33.
 - 1.2.3.2 Coordinate work of this Section with Permit provisions of the State of California Water Resources Control Board Order Number 2012-0006-DWQ.
 - 1.2.3.3 The project Storm Water Pollution Prevention Plan.
 - 1.2.3.4 2019 California Plumbing Code (CCR Title 24, Part 5).
 - 1.2.3.5 Cal-OSHA.
 - 1.2.3.6 OSHA.
 - 1.2.3.7 ANSI A21.10
 - 1.2.3.8 AWWA Publications regarding pipe and installation:
 - 1.2.3.8.1 AWWA C 110.
 - 1.2.3.8.2 AWWA C 111.
 - 1.2.3.8.3 AWWA C 115.
 - 1.2.3.8.4 AWWA C 151.
 - 1.2.3.8.5 AWWA C 153.
 - 1.2.3.8.6 AWWA C 214
 - 1.2.3.8.7 AWWA C 503.
 - 1.2.3.8.8 AWWA C 509.
 - 1.2.3.8.9 AWWA C 511.
 - 1.2.3.8.10 AWWA C 600.

- 1.2.3.8.11 AWWA C 651.
 - 1.2.3.8.12 AWWA C 900.
 - 1.2.3.8.13 AWWA C 901.
 - 1.2.3.8.14 UNI - B - 3 with AWWA C 900.
 - 1.2.3.9 American Society for Testing and Material publications;
 - 1.2.3.9.1 ASTM C12 - Practice for Installing Vitrified Clay Pipe Lines.
 - 1.2.3.9.2 ASTM C76 - Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
 - 1.2.3.9.3 ASTM C425 - Compression Joints for Vitrified Clay Pipe and Fittings.
 - 1.2.3.9.4 ASTM C700 - Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated.
 - 1.2.3.9.5 ASTM D2321 - Recommended Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe.
 - 1.2.3.9.6 ASTM D2751 - Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings.
 - 1.2.3.9.7 ASTM D2774 - Recommended Practice for Underground Installation of Thermoplastic Pressure Piping.
 - 1.2.3.9.8 ASTM D3034 - Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
 - 1.2.3.10 Sewer Purveyor Compliance: Comply with requirements of local sewer agency supplying sewer connections to project, obtain required permits and inspections.
 - 1.2.3.11 Plumbing Code Compliance: Comply with applicable portions of National Standard Plumbing Code pertaining to selection and installation of storm sewage system's materials and products.
 - 1.2.3.12 Environmental Compliance: Comply with applicable portions of local Environmental Agency regulations pertaining to storm sewage systems.
- 1.3 SUBMITTALS
- 1.3.1 Product Data: Submit manufacturer's technical product data and installation instructions for sewage system materials and products.
 - 1.3.2 Record Drawings: At project close-out, submit record drawings of installed sanitary sewage piping and products, in accordance with requirements of Division 1.
 - 1.3.3 Maintenance Data: Submit maintenance data and parts lists for sanitary sewage system materials and products. Include this data, product data, shop drawings, and record drawings in maintenance manual.

PART 2 – PRODUCTS

2.1 IDENTIFICATION

- 2.2.1 Underground-Type Plastic Line Markers: Manufacturer's standard permanent, bright-colored, continuous-printed plastic tape, intended for direct-burial service; metallic-lined, not less than 6" wide x 4 mils thick. Provide green tape with black printing reading "CAUTION - SEWER LINE BURIED BELOW".

2.2.1.1 Available Manufacturers: Subject to compliance with requirements, manufacturers offering identification markers which may be incorporated in the work include, but are not limited to, the following:

2.2.1.2 Manufacturer: Subject to compliance with requirements, provide identification markers of one of the following:

2.2.1.2.1 Terra Tape Sentry Line 1350

2.2.1.2.2 Allen Systems, Inc.

2.2.1.2.3 Emed Co., Inc.

2.2.1.2.4 Seton Name Plate Corp.

2.3 PIPES AND PIPE FITTINGS

2.3.1 General: Provide pipes of one of the following materials, of weight/class indicated. Provide pipe fittings and accessories of same material and weight/class as pipes, with joining method as indicated.

2.3.2 Vitrified Clay Pipe: ASTM C 700, bell and spigot ends, standard strength unless otherwise indicated.

2.3.2.1 Fittings: Vitrified clay bell and spigot, same strength as adjoining pipe, compression joints complying with ASTM C 425.

2.3.3 Polyvinyl Chloride (PVC) Sewer Pipe: ASTM D 3033, Type PSP, SDR 35; or ASTM D 3034, Type PSM, SDR 35.

2.3.3.1 Fittings: PVC, ASTM D 3033 OR ASTM D 3034, solvent-cement joints complying with ASTM D 2855 using solvent cement complying with ASTM D 2564; or elastomeric joints complying with ASTM D 3212 using elastomeric seals complying with ASTM F 477.

2.3.4 Polyvinyl Chloride (PVC) DWV Pipe: Schedule 80, ASTM D 2665.

2.3.4.1 Fittings: PVC Schedule 80, ASTM D 2665; solvent-cement joints, ASTM D 2664; or threaded joints.

2.3 SANITARY SEWER MANHOLE

2.3.1 General: Provide pre-cast reinforced concrete sanitary manholes as indicated, and complying with ASTM C 478.

2.3.2 Top: Pre-cast concrete, of concentric cone, eccentric cone, or flat slab top type, as indicated.

2.3.3 Base: Pre-cast concrete, with base riser section and separate base slab, or base riser section with integral floor, as indicated.

2.3.4 Steps: Ductile-iron or aluminum, integrally cast into manhole sidewalls.

2.3.5 Frame and Cover: Ductile-iron, 26" diameter cover, heavy-duty, indented top design, with lettering cast into top reading "SANITARY SEWER".

2.3.6 Pipe Connectors: Resilient, complying with ASTM C 923.

2.4 CLEANOUTS

- 2.4.1 General: Provide as indicated, pipe extension to grade with ferrule and countersunk cleanout plug. Provide round cast-iron access frame over cleanout, with heavy-duty secured scoriated cover with lifting device.

PART 3 – EXECUTION

3.1 EXAMINATION

- 3.1.1 Verify that trench cut is ready to receive work, and excavations, dimensions, and elevations are as indicated on Drawings.
- 3.1.2 Beginning of installation means acceptance of existing conditions.

3.2 PREPARATION

- 3.2.1 Hand trim excavations to required elevations. Correct over excavation with fill material or sand.
- 3.2.2 Remove large stones or other hard matter, which could damage drainage pipe or impede consistent backfilling or compaction.
- 3.2.3 Install bedding as specified in Section 312300.

3.3 INSTALLATION OF IDENTIFICATION

- 3.3.1 General: During back-filling/top-soiling of storm drainage systems, install continuous metallic lined underground warning tape, located directly over buried line at 6" to 8" below finished grade. Tape shall be polyethylene with metallic core, 6 inches wide by 4 mils thick, solid blue color with continuously printed caption in black letters "CAUTION – SEWER LINE BURIED BELOW."

3.4 INSTALLATION OF PIPE AND PIPE FITTINGS

- 3.4.1 General: Install piping in accordance with Section 306, of the Standard Specifications for Public Works Construction. Seal joints water tight.
- 3.4.2 Surveyor Qualifications
 - 3.4.2.1 Surveyor shall currently be licensed in the State of California as a Professional Land Surveyor.
 - 3.4.2.2 Surveyor shall employ proper field procedures, instrumentation and adequate survey personnel in order to achieve accuracies as required by each section.
 - 3.4.2.3 Cut sheets, if required, shall be provide to the Inspector of Record at the start of the following business day after completion of the work.
- 3.4.3 Sanitary Sewer Staking:
 - 3.4.3.1 Stakes shall be located with positional accuracies of a minimum of 0.04 feet horizontally and 0.01 feet vertically.
 - 3.4.3.2 One set of construction stakes with lath shall be set. Lath shall indicate offset, cut/fill, and reference point, i.e. "TC", "FL".

- 3.4.3.3 Stakes shall be provided for sewer lines at a maximum interval of 25 feet, grade breaks, angle points, manholes, cleanouts, clarifiers and building points of connection.
- 3.4.3.4 Construction stakes shall be offset to the side of the utility at a distance from centerline designated by contractor and agreed to by surveyor prior to commencement of staking.
- 3.4.3.5 Surveyor shall provide to the Inspector of Record cut sheets for all staking. The contractor shall not commence work until Inspector of Record has provided copies of said cut sheets.
- 3.4.3.6 All stakes shall be preserved in place until such time that the Inspector of Record has approved utility installation for backfilling.
- 3.4.3.7 All utilities to be installed at slopes less than 0.01 feet per foot shall be certified by the construction surveyor. Written certification shall be provided to the Inspector of Record and Construction Manager.
- 3.4.3.8 Should a dispute arise over the position of the utility in question and the stakes provided for said installation are removed, destroyed, or disturbed, the contractor assumes full responsibility for all cost associated with the resolution of the dispute.
- 3.4.4 Inspect piping before installation to detect apparent defects. Mark defective materials with white paint and promptly remove from site.
- 3.4.5 Lay piping beginning at low point of system, true to grades and alignment indicated, with unbroken continuity of invert.
- 3.4.6 Place bell ends or groove ends of piping facing upstream.
- 3.4.7 Install gaskets in accordance with manufacturer's recommendations for use of lubricants, cements, and other special installation requirements.
- 3.4.8 Plastic Pipe: Install in accordance with manufacturer's installation recommendations, and in accordance with ASTM D 2321.
- 3.4.9 Cleaning Piping: Clear interior of piping of dirt and other superfluous material as work progresses. Maintain swab or drag in line and pull past each joint as it is completed.
 - 3.4.9.1 In large, accessible piping, brushes and brooms may be used for cleaning.
 - 3.4.9.2 Place plugs in ends of uncompleted conduit at end of day or whenever work stops.
 - 3.4.9.3 Flush lines between manholes if required to remove collected debris.
- 3.4.10 Joint Adaptors: Make joints between different types of pipe with standard manufactured adaptors and fittings intended for that purpose.
- 3.4.11 Interior Inspection: Inspect piping to determine whether line displacement or other damage has occurred.
- 3.4.12 Make inspections after lines between manholes, or manhole locations, have been installed and approximately 2' of backfill is in place, and again at completion of project.

3.4.12.1 If inspection indicates poor alignment, debris, displaced pipe, infiltration or other defects, correct such defects, and re-inspect.

3.4.13 Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods for size and type material being closed. Wood plugs are not acceptable.

3.5 SANITARY MANHOLES AND CLEANOUTS

3.5.1 General: Place pre-cast concrete sections as indicated. Where manholes and cleanouts occur in pavements, set tops of frames and covers flush with finish surface. Elsewhere, set tops 2" above finish surface, unless otherwise indicated.

3.5.2 Spacing of manhole and cleanouts shall be a minimum as indicated by the Uniform Plumbing Code.

3.5.3 Form bottom of excavation clean and smooth to correct elevation.

3.5.4 Form and place cast-in-place concrete base pad, with provision for sanitary sewer pipe end sections

3.5.5 Install in accordance with ASTM C 891.

3.5.6 Provide rubber joint gasket complying with ASTM C 443 at joints of sections.

3.5.7 Apply bituminous mastic coating at joints of sections.

3.5.8 Establish elevations and pipe inverted for inlets and outlets as indicated.

3.5.9 Mount lid and frame level in grout, secured to top cone section to elevation indicated.

3.6 TAP CONNECTIONS

3.6.1 Make connections to existing piping and underground structures, so that finished work will conform as nearly as practicable to requirements specified for new work.

3.6.2 Use commercially manufactured wyes for branch connections. Field cutting into piping will not be permitted. Spring wyes into existing line and encase entire wye, plus 6" overlap, with not less than 6" of 3,000-psi 28-day compressive strength concrete.

3.6.3 Branch connections made from side into existing 4" to 21" piping shall have wye sprung into existing line, and entire wye encased with not less than 6" of 3,000 psi 28-day compressive strength concrete.

3.6.4 Take care while making tap connections to prevent concrete or debris from entering existing piping or structure. Remove debris, concrete, or other extraneous material, which may accumulate.

3.6.5 Contractor shall be responsible for all coordination with the local sewer agency connections to be made to public mains.

3.7 BACKFILLING

3.7.1 General: Conduct backfilling operations of open-cut trenches closely following laying, jointing, and bedding of pipe, and after initial inspection and testing are completed.

3.7.2 To minimize local area traffic interruptions, allow no more than 100' between pipe laying and point of complete backfilling.

3.8 FIELD QUALITY CONTROL

- 3.8.1 Testing: Perform pressure testing of completed piping in accordance with the provisions of the project specifications prior to backfilling.
- 3.8.2 Request inspections by project Geotechnical Engineer during all backfill operations.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

The following are minimum requirements and shall govern, except that all local, state and/or federal codes and ordinances shall govern when their requirements are in excess hereof.

- 1.1 SECTION INCLUDES: Description of requirements for materials, fabrications, and installation Site Clearing and Demolition and associated accessory items including, but not necessarily limited to, the following:
 - 1.1.1 Work includes clearing and grubbing of the site, including the removal of debris, vegetation, foreign objects, existing asphaltic, rock outcrops, rocks, removal and or relocation of underground utilities from the site as shown on the documents, and or as indicated on the drawings.
 - 1.1.2 Grading, stripping and stock piling of topsoil.
- 1.2 RELATED WORK:
 - 1.2.1 Section 015723 – Storm Water Pollution Prevention Plan
 - 1.2.2 Section 312200 – Earthwork: Dust suppression and project conditions
 - 1.2.3 Cap and identify utilities where required.
 - 1.2.4 Remove and/or relocate underground utilities as shown or required on the civil, offsite drawings, plumbing, electrical drawings and architectural drawings.
- 1.3 QUALITY ASSURANCE:
 - 1.3.1 Comply with applicable portions of 2019 CBC (CCR Title 24, Part 2), Chapter 33.
 - 1.3.2 Comply with applicable portions of 2019 CFC (CCR Title 24, Part 9), Chapter 14.
 - 1.3.3 Where the requirements of applicable codes and regulations conflict with the requirements of this Specification, comply with the more stringent provisions.
 - 1.3.4 Obtain and pay for any permits, bonds, licenses, etc., required for Site Clearing and Removal Work to include all truck hauling bonds or permits.
 - 1.3.5 All clearing and removal work shall be accomplished in strict accordance with all local and state building codes, requirements, and regulations, including but not limited to noise abatement, dust control, classification of disposal materials, haul route conditions, etc. and coordination with the adjacent developers with their offsite improvements and schedules of operations.
- 1.4 JOB CONDITIONS:

GLENDAL UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

- 1.4.1 An attempt has been made to show all existing structures, utilities, drives, pavements, curbs, walks, etc., in their approximate location on the survey and/or on the drawings. However, others that are not shown may exist and may be found upon visiting the site or during the clearing, demolition and removal work. It will be the responsibility of this Contractor to accurately locate all existing facilities and to determine their extent. If such facilities obstruct the progress of the work and are not indicated to be removed or relocated, they shall be removed or relocated only as directed by the Owner and/or Architect.
- 1.4.1.1 Report any existing site element not shown on the drawings to the Civil Engineer of Record and Architect so that the proper dispensation of the element may be made.
- 1.4.2 The Contractor shall review the plans and provide calculations to determine the extent of the import or export requirements for the job and pay all associated costs to include: Haul route fees or bonds, any plans/documents as required by the local authority for approved haul route and disposal.
- 1.4.3 Natural features, existing structures, existing landscaping, existing utilities, etc., which are indicated to remain on the drawings and specifications shall be protected and shall not be defaced or damaged in any manner. Provide protective barriers, markers, fencing to protect any existing natural or manmade features and the Contractor shall maintain such device(s) for the duration of the project or as directed by the Architect to remove such protective device(s).
- 1.4.4 Restore to their present conditions any pavement in the public right-of-way that is disturbed by the work under this section. All pavement restoration work in public rights-of-way shall be performed to the full satisfaction of the governmental agencies having local jurisdiction. See Sections 321216 and 321600 for all pavement requirements.
- 1.4.5 Conform to the requirements of Sections 312300 and 312316.13.
- 1.5 ENVIRONMENTAL REQUIREMENTS:
- 1.5.1 Noise producing activities shall be held to a minimum. Internal combustion engines and compressors, etc., shall be equipped with mufflers to reduce noise to a minimum. Comply with all noise abatement ordinances.
- 1.5.2 Keep all areas within the clearing and removal area sufficiently dampened to prevent dust from rising due to clearing or removal operations. Comply with all anti-pollutions' ordinances. All dust prevention control and anti-pollution control shall be done on a daily basis and/or as directed by the **ARCHITECT**.
- 1.5.2.1 This Contractor shall see to it that trucks leaving the site shall not do so in such a manner that debris, vegetation, mud, and earth will not be deposited on adjacent street pavements. **Any debris, vegetation, mud, or earth deposited on street pavements shall be promptly removed by this Contractor on a continuous basis and/or as directed by the ARCHITECT**
- 1.5.3 This Contractor shall notify Local or State Environmental Agencies prior to the removal of any underground storage tanks and their related piping.

1.5.3.1 This Contractor shall remove all related items as required by environmental authorities, and shall test surrounding soils as required.

1.5.4 All clearing and removal operations shall be performed in a manner such as to prevent any wash-off of soils from the site into streams and/or storm drainage systems. Appropriate sedimentation ponds, dikes, silt fences, collars, and filter media shall be employed to ensure compliance with these requirements. Where a specific statute governs these procedures, such statute shall be complied with in its entirety. Such soil prevention, wash-off of soil to any existing, new storm drainage system(s), ponds, dikes, to offsite drainage shall be in conformance to Section 015723 -Storm Water Pollution Plan Control.

1.6 DRAINAGE MAINTENANCE:

1.6.1 During the entire course of clearing and removal operations, all existing drainage ways, both into and from the project area shall be rerouted as required and/or maintained in a functional condition and in accordance to Section 015723 and as directed by the ARCHITECT.

1.6.2 At all times during the clearing and removal operations, the exposed areas of subgrade shall be maintained in a condition compatible with positive drainage of the work area. Failure to maintain such drainage shall be considered adequate cause for the District Representative to order temporary suspension of the work.

1.6.3 If it should become necessary to stop work for indefinite periods, take every precaution to prevent damage or deterioration of the work already performed. Provide suitable and functional drainage by installing ditches, filter drains, temporary cut-off lines, etc., and erect temporary protective structures where necessary. All embankments shall be back bladed and suitably sealed to protect against adverse weather conditions.

PART 2 – PRODUCTS:

2.1 PROTECTION:

2.1.1 It shall be the Contractor's full responsibility to furnish and maintain all temporary barricades, warning lights, and other types of protection and prevent accidental injury to the general public and all personnel on the project.

2.1.2 All existing improvements and all existing active utility lines to remain (whether above or below ground) within the new construction area shall be properly and adequately protected from damage during the entire construction period. It shall be the responsibility of the Contractor to restore to their original condition any of these existing items that are damaged or disturbed in any way.

2.1.3 Protect all existing structures, utilities, and landscaping indicated to remain on the drawings.

2.1.3.1 All trees, shrubs, and other items, indicated to remain shall be protected during the entire progress of the work. This includes protection of the root system. The trees shall be fenced if they are located in or near an area being used for material storage or subject to damage by traffic during construction. Low

hanging branches and unsound or unsightly branches on trees or shrubs designated to remain shall be removed. All trimmings shall be done by skilled workmen and in accordance with good tree surgery practices.

- 2.1.4 Any damage done or caused by any prime or sub-Contractor to existing structures, pipe lines, utilities, landscaping, etc., indicated to remain shall be repaired by him and at his expense in a manner acceptable to the Owner of the damaged property. Any prime or sub-Contractor shall report any existing damage prior to the beginning of their work.
- 2.1.5 All temporary shoring, bracing, etc., and maintenance there to required for the completion of clearing and removal work shall be provided by the Contractor whose work requires protection.
 - 2.1.5.1 This Contractor shall work in concert per local and state codes to ensure the provision of adequate bracing, shoring, temporary cross over for pedestrian and vehicular traffic, including guard rails, lamps, warning signs and flags as required by agencies having jurisdiction as directed by the Owner. Remove same when necessity for protection ceases.
 - 2.1.5.2 The Contractor shall work in concert with the adjacent developer(s) to ensure any additional provisions are implemented to ensure safety and coordination of all offsite work.

2.2 MATERIALS:

- 2.2.1 All materials used to backfill excavations, trenches, holes, pits, etc., caused by utility, underground structure or underground storage tank removal shall meet the requirements for fill material and compaction indicated in Sections 312200, 312219, and 321216.

PART 3 – EXECUTION:

3.1 EXAMINATION:

- 3.1.1 Visit the site and offsite areas so that a full understanding of the difficulties and restrictions attending complete clearing of the site and removal of underground tanks and utilities is obtained. Verify the location of all pertinent items.
- 3.1.2 Verify with sewer department, water department, gas company, electric company, etc., that all existing utilities, services, and overhead lines have deactivated and abandoned prior to beginning removal work. Notify affected utility department or company prior to beginning removal work.

3.2 PREPARATION:

- 3.2.1 Cut drainage swales and provide temporary grading to carry storm water away from clearing area. No storm water will be permitted to stand in open excavations.
- 3.2.2 Provide, erect, and maintain temporary barriers and security devices as required. Protect all existing landscaping, structures, utilities, and site elements that are not to be demolished.

- 3.2.3 Notify all affected utility companies and local authorities and agencies prior to beginning the work.
 - 3.2.4 Identify and tag all existing trees and other landscaping designated to remain.
 - 3.2.5 Identify and locate a permanent stockpile area for topsoil. Verify with District Representative and see plans and/or Landscape Architect's plans for fill soil stockpile area. Coordinate with Landscape Contractor.
 - 3.2.6 Identify and locate a waste area for temporary storage of removed materials and a permanent topsoil stockpile area. Stockpile area shall be approved by the ARCHITECT and/or Landscape Architect.
 - 3.2.6.1 No materials may be buried or burned on the site as a means of disposal.
- 3.3 GRUBBING AND CLEARING:
- 3.3.1 From the entire site and area of work, remove all trees, rocks, boulders, and vegetation to ground level where the new building and all site work are to be located, regardless if shown or not shown on the drawings.
 - 3.3.2 Scarify ground to remove debris, boulders, rocks, vegetation, and roots to 12 inches below grade, and remove all deep root systems, stumps, root-balls, and any major root systems.
 - 3.3.3 Remove and legally dispose of debris. When and as directed by the Architect and/or Landscape Architect, stockpile selected stripped soil materials and rocks/boulders for subsequent use in landscaping work.
 - 3.3.4 No less frequently than continuously each day, treat exposed ground areas for dust control. At windy conditions as deemed necessary by the Inspector and Construction Manager, provide dust control to suit the Inspector and ARCHITECTS's satisfaction.
- 3.4 OFFSITE WORK:
- 3.4.1 Clean haul roads on and off site to a distance of three miles from the site or as directed by the Architect, Resident Inspector, ARCHITECTS and/or per local ordinance.
 - 3.4.2 "Clean" herein refers to properly remove dirt clods, flocks, tree branches, and other items which may fall off the hauling equipment or be "tracked" off the site.
 - 3.4.3 Notify all affected utility companies and local authorities and agencies prior to beginning the work.
 - 3.4.4 Identify and tag all existing trees and other landscaping designated to remain.
 - 3.4.5 Identify and locate a permanent stockpile area for topsoil. Verify with District Representative and see plans for fill soil stockpile area. Coordinate with Landscape Contractor.
 - 3.4.5.1 **No materials may be buried or burned on the site as a means of disposal.**

3.5 PERFORMANCE:

- 3.5.1 This Contractor shall be responsible for all clearing, grubbing, removing and disposing of trash and debris and for clearing and stockpiling all topsoil which are within the designated limits of the property, easements and roadway, unless otherwise indicated on the Drawings.
- 3.5.2 Prior to rough grading, storage of construction materials or the installation of any temporary construction facilities, strip areas per plans to be occupied by site improvements.
 - 3.5.2.1 Stockpile soil in previously designated areas or as directed by the District Representative. Sticks, stones, roots, weeds, grass, clods and rubbish shall be removed from the topsoil prior to stockpiling. If excess soil exists, it shall be disposed off-site.
 - 3.5.2.2 Only soil meeting the requirements of Section 329000 – Landscape Grading shall be stockpiled. All non-conforming soil shall be removed from the site.
 - 3.5.2.3 No topsoil may be used as structural fill under any building or paved areas.
- 3.5.3 This Contractor shall be responsible for removal of sidewalks, pavements, curbs, curbs and gutters, foundations, exterior slabs and sidewalks indicated to be removed on plans except for work covered under Landscape scope of work.
- 3.5.4 This Contractor shall be responsible for removal of all underground utilities, underground structures, etc., according to plans.
- 3.5.5 Protect any existing structures, utilities and all appurtenances to remain. Prevent movement or settling. Provide bracing and shoring as required.
- 3.5.6 Cease cleaning and removal operations immediately if any existing structure or utility appears in danger. Notify the District Representative and Civil Engineer of Record. Do not resume operations until directed.
- 3.5.7 All broken construction material, trash, and debris, tree slash, sidewalks, curbs, etc., will be considered “waste” and shall be removed from the site. “Waste” material shall be removed from the site as soon as possible and shall not be allowed to accumulate. Short-term storage of removed material shall be restricted to previously designated “waste” areas or as directed by the District Representative.
 - 3.5.7.1 No burning or burying of “waste” material will be permitted.
- 3.5.8 Continuously dampen all clearing and removal areas to prevent dust from rising during the operation. Provide hoses and/or water trucks as required.

3.6 FIELD QUALITY CONTROL:

- 3.6.1 This Contractor shall retain an independent inspection firm or contact local officials and inspectors at locations where local building codes require special inspections.

3.7 CLEAN UP:

- 3.7.1 Material designated for removal shall become the property of this Contractor, and any salvage value there from will accrue to this Contractor.
- 3.7.2 Remove from the site and make legal disposition of all waste and debris. No waste or debris shall be burned or buried on the site as a means of disposal.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for materials, fabrications and installation for all required excavation, grading, preparation of subgrade for fills and accessory items as shown on drawings and necessary to complete the Earthwork. Work to include but not be limited to the following:

1.1.1 Excavation.

1.1.2 Proper placement of fills, including backfilling and compaction.

1.1.3 The watering, rolling and compacting of fill material in place and the finish grading.

1.1.4 Geotechnical Engineer and Tests.

1.1.5 Grading.

1.1.6 Miscellaneous related work necessary for a complete job.

1.1.7 Special Requirements.

1.2 RELATED SECTIONS:

1.2.1 Section 311000 – Site Clearing and Demolition.

1.2.2 Section 321216 – Asphaltic Concrete Paving.

1.2.3 Section 321600 – Concrete Curbs, Gutters, Walks and Pavements.

1.2.4 Excavation and Backfill for Utility Lines specified under Section 312300 and Mechanical and Electrical Sections, shall be performed as specified in this Section.

1.2.5 For rock base material and sand beneath building floor slabs see architectural and structural drawings.

PART 2 – PROTECTION:

2.1 Protect adjacent property and existing improvements and structures as necessary to prevent undermining, caving of cuts, and miscellaneous damage.

2.2 Provide cribbing, sheathing, and shoring necessary to safely retain the earth banks and protect excavations and adjoining grades from caving and other damage resulting from excavating, together with suitable forms of protection against bodily injury to personnel employed on the work and the general public. The responsibility for the design, installation, and maintenance of required cribbing and shoring shall be entirely that of the Contractor and shall meet the approval of the State Division of Industrial Safety and local

- governing agencies' requirements. All engineering, design, calculations, plans and documents necessary to submit to or to meet the approval of the State Division of Industrial Safety and local governing agencies, all cost to produce the necessary documents shall be at the expense of the Contractor.
- 2.3 Utility lines and structures shown shall be protected and treated as indicated. Where work not shown is encountered, report it to the Architect and/or Civil Engineer before proceeding with excavation. Encase active lines in sleeves where they pass through concrete; remove inactive lines as directed, and plug the remaining ends. The Contractor shall bear the costs for all repairs to damaged or broken utilities and any damages related thereto.
- 2.4 Borrow pits shall not be dug on the site.
- 2.5 It shall be the Contractor's full responsibility to take all measures necessary during grading to protect slope areas, both cut and fill, existing improvements and adjacent properties from storm damage and flood hazard originating on this project until final acceptance by the Owner. It shall be the Contractor's responsibility to maintain completed slopes until all slopes are in satisfactory compliance with the job specifications, all berms have been properly constructed, and all associated drainage devices have met the requirements of the Architect and/or Civil Engineer. It shall also be the Contractor's responsibility to prevent silt run-off from the limits of work and comply to Section 015723.

PART 3 – GEOTECHNICAL ENGINEER, TESTS AND REPORTS:

- 3.1 A Geotechnical Engineer designated by the Owner will be engaged to perform continuous inspection of the placing and compacting of all fills and backfills within the limits of grading of this project. All work shall be done in accordance with these specifications and as recommended and approved by the Geotechnical Engineer. Costs for all such inspection and tests shall be paid by the Owner. The Contractor shall be responsible for notifying the **Architect and Inspector** in advance so that he may notify the Geotechnical Engineer to perform his services as needed.
- 3.2 The Geotechnical Engineer shall also make an investigation of the fill material to establish the ability of the soil to sustain the vertical loads to be imposed on the fill by the proposed structure.
- 3.3 The Geotechnical Engineer shall submit compaction reports to the Architect and the Civil Engineer at the completion of the work, including test results and plot plans indicating the locations from which the tested samples of fill were taken. The Geotechnical Engineer shall keep the Architect and Civil Engineer informed on the progress of the grading work.
- 3.4 The existing soil conditions at this site have been investigated, and a report of findings is on file at the Architect's office & District for review by the Contractors during the bidding period. The Soils Report as prepared by Salem engineering group inc., Job No. 3-220-0584, Dated September 18, 2020 shall be included as part of the Earthwork Operations. In the geotechnical site investigation report as prepared by Salem engineering group inc. all words such as should, may, recommend associated to requirements, conditions, scopes of work mean "shall", "must" or is "required".

PART 4 – MATERIALS:

- 4.1 The Contractor shall import any and all additional fill material required to complete the grading on this project. All earth imported shall be of granular nature with sufficient binder to form a firm, stable, unyielding subgrade. Adobe or clay soils will not be acceptable. All earth imported shall have an expansion index value of not greater than 0-20 (Expansion Index Range), be clean and free from all rubbish and debris and rock larger than 6 inches in maximum dimensions, not have a sulfate content greater than 1,000 parts per million and be subject to the approval of the Geotechnical Engineer and meets the approval of Department of Toxic Substance Control (D.T.S.C.) for no soils contaminates. Imported fill material shall have an electrical resistivity exceeding 3,000 ohm/cm. when saturated with distilled water, measured in accordance with the minimum resistivity procedure of California Test 643 or the soil resistivity box procedure shown in ASTM G57. Imported material to be used in areas to receive planting shall be of such quality as to support plant life.
- 4.2 Fill material within new building and paved areas shall be clean, well-pulverized soil free of vegetation matter, rocks larger than 6 inches in any dimension, and other debris, and shall be subject to approval by the Geotechnical Engineer.
- 4.3 Backfill material adjacent storm drain and utility lines shall be clean sand with a sand equivalent value of at least 30 and shall be placed in a minimum thickness of 6 inches for bedding beneath the pipe and backfilled to 12 inches above top of pipe.
- 4.4 Any and all surplus earth material not needed for the completion of the grading shall be removed from the site by the Contractor and disposed of in a legal manner.

PART 5 – EXECUTION:

5.1 GRADING:

5.1.1 Soil Removal

The subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the soils within the depth of exploration consisted of alluvium deposits underlain by weathered bedrock (Quartz Diorite). The alluvium deposits consisted of loose to very dense silty sand, clayey sand, and sandy silt. The existing pavement consisted of 3 to 5 inches of asphaltic concrete (AC) underlain by 2 to 3 inches of aggregate base (AB). These upper soils shall be removed down to competent native soils in all building areas and areas supporting engineered fill. Based on our subsurface data and laboratory test results, the anticipated depths of removal will be as described below. The removals described for building areas shall extend to a distance of at least 5 feet beyond the building lines/outer edges for the proposed footings or equivalent to the depth of removal, whichever is greater.

Building Location	Required Soil Removal Minimums
2-Story Modular Building	2' Below the Bottom of Footing, or to the depth required to remove undocumented fills whichever is deeper

In hardscape areas, flexible pavement areas and areas to receive fill outside of building areas, the removal depth shall be 8 to 10 inches below existing grade. Removals for the other unspecified areas adjacent the building locations shall extend to 12 inches below existing grade, down to competent native soils or subgrade elevations, whichever is greater.

After the removals are completed as addressed above, the exposed soil shall be observed by the project geotechnical consultant to evaluate if additional removals are needed. No fill soils shall be placed until the geotechnical observation of removal areas is completed.

- 5.1.2 The entire area within the limits of grading as indicated on the Drawings, shall be constructed to the lines, grades, elevations, slopes, and cross sections indicated on the Drawings. When the grading has been completed, the area shall be rolled smooth with a steel tandem roller or equal. Should any low spots develop during the rolling operation, such spots shall be filled and re-rolled smooth. Slopes, and drainage depressions shall present a neat, uniform appearance on completion of the work.

At all building slab areas, the upper 6 inches of slab subgrade soil shall be re-compacted before placing sand or gravel sub-base, if soils were disturbed during footing construction, utility installation or due to weathering and/or as determined by the geotechnical engineer.

- 5.1.3 Should soil of inadequate density and bearing capability be encountered at the elevations indicated on the Drawings, or where new fill is to be placed upon existing loose fill material exposed by excavation, the excavation shall be carried to the depth required to attain soil of bearing quality as determined by the Geotechnical Engineer. The adequacy of all soil bearing value shall be determined by the Geotechnical Engineer.

5.2 DUST CONTROL:

- 5.2.1 During all grading operations, water shall be applied to the surfaces in the working area at frequent intervals and in sufficient quantities to lay the dust and for proper compaction. **No other method will be permitted.**

5.3 CLEANUP:

- 5.3.1 Upon completion of work in this Section, remove rubbish, trash, and debris resulting from operations. Remove disused equipment and implements of service, and leave entire area involved in a neat, clean, and acceptable condition.

5.4 EXCAVATION:

- 5.4.1 Prior to any excavation or filling operation, the entire area within the limits of work containing vegetation shall be excavated to a minimum depth to ensure removal of all significant vegetation. This material shall be disposed of off the site in a legal manner.

- 5.4.2 Excavate to the depths, lines, and grades indicated. Excavate sufficiently over-size to permit installation and removal of concrete forms and all other required work.
 - 5.4.3 Footing pads, if poured neatly, may be excavated to the net pad widths plus 2 inches if approved by the Architect. Approval will not be given until the completed excavation has been inspected.
 - 5.4.4 Should footing excavations exceed required dimensions or should sloughing occur, fill such extra space with concrete at no additional cost to the contract. If unsuitable material is found at the indicated depths, immediately notify the Architect.
 - 5.4.5 Sequencing of the work to ensure that one part of the excavating does not interfere with another part rests with the Contractor.
 - 5.4.6 Notify the Architect and Structural Engineer 48 hours before foundation excavations are ready for inspection.
 - 5.4.7 The bottoms of footings shall be free of loose material, debris, and water before concrete is placed.
 - 5.4.8 Cut banks shall be neatly trimmed to the required finish surface as the cut progresses, or the Contractor shall have the option of leaving the cuts full and finish grading by mechanical equipment which will produce the finish surfaces as shown on the drawings.
 - 5.4.9 Temporary slopes shall conform to the requirements of CAL/OSHA. Surcharge loads shall be setback a distance at least equal to the depth of the cut or trench from the tops of temporary excavations.
- 5.5 FILLING AND SUBGRADE PREPARATION:
- 5.5.1 All areas within new building, concrete pavement, asphalt pavement, curbs, gutters, concrete ramps, stairs, and retaining walls shall be scarified to a minimum depth of 8 inches minimum to 10 inches below existing grade or subgrade (whichever is lower), brought to near optimum moisture content, and compacted to a density of not less than 95 percent of maximum dry density using compaction equipment approved by the Geotechnical Engineer and per ASTM D1557. At all parking lots or parking areas the aggregate subbase material shall be brought to near optimum moisture content and compacted to a density of not less than 95 percent of maximum dry density using compaction equipment approved by the Geotechnical Engineer and per ASTM D1557.
 - 5.5.2 Fill material shall be placed in approximately 6-inch to 8-inches horizontal lifts, unless approved otherwise by the Geotechnical Engineer. All fill material shall be free of rocks larger than 6 inches in maximum dimensions. Each layer shall be brought to near optimum moisture content and, while still moist, shall be compacted by rolling and tamping. The rolling and/or tamping of each layer shall continue until the density thereof meets the requirements set forth herein.

- 5.5.3 Where fills are placed on existing slopes exceeding a slope of five horizontal to one vertical, the slopes shall be benched in accordance with the Geotechnical Engineer's requirements and local governing public agencies' requirements and compacted as herein specified before placing fill material on same so that all fills shall be placed in horizontal layers as specified. Widths of benches shall be as directed by the Geotechnical Engineer.
- 5.5.4 Rock encountered in the excavation on this site may, at the option of the Contractor, be broken up into pieces not larger than 6 inches in maximum dimension and be incorporated in the fill material, unless otherwise approved and spread as directed by the Geotechnical Engineer. Otherwise, all rocks larger than 6 inches in maximum dimension shall be removed from the site. Rocks and stones larger than 1 inch in maximum dimension will not be permitted within the top 12 inches of finished grade in non-paved areas or areas to receive topsoil.
- 5.5.5 Fill banks shall be graded full and compacted beyond the grade of the finish bank. After the banks have been filled, they shall be trimmed to the finish grades and limits shown on the Drawings.
- 5.5.6 Within pavement areas, it is recommended that scarification, moisture conditioning and re-compaction be performed to at least 12 inches below existing grade or finish grade, whichever is deeper. In addition, the upper 12 inches of final pavement subgrade, whether completed at grade, by excavation, or by filling, should be uniformly moisture-conditioned to slightly above the optimum moisture content and compacted to at least 95% relative compaction.
- 5.6 BACKFILLING:
- 5.6.1 Place no backfill until work in excavations has been approved. Remove cave-ins and loose soil to permit inspection.
- 5.6.2 Place backfill in layers which will compact to 6 inches maximum, concurrently on both sides of footings and walls. Thoroughly compact each layer with mechanical tampers, adding water as required to obtain near optimum moisture content, and compact as set forth in paragraph 5.7 herein.
- 5.6.3 **Compaction by flooding is expressly prohibited.**
- 5.7 COMPACTION:
- 5.7.1 All fills shall be compacted to at least 95 percent of maximum density obtainable using the ASTM test procedure D-1557-latest edition. All areas which are scarified shall be recompacted to these same requirements.
- 5.8 GRADING STANDARDS:
- 5.8.1 All aspects of grading including site preparation, grading, and fill placement, keying, trenching, and benching shall be per the current California Building Code, City of Glendale Code or ordinance and or the recommendations as stated in the geotechnical report, whichever is more stringent.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SUMMARY

1.1.1 Provide materials, labor and equipment necessary for the completion of finish grading as indicated on the Drawings and specified herein.

1.1.2 Related Sections:

1.1.2.1 Section 312200 - Earthwork.

1.1.2.2 Section 312300 - Excavation and Backfill for Utilities.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Refer to Section 312200 – Earthwork, for material for fill and planting areas.

PART 3 - EXECUTION

3.1 PREPARATION FOR FINISH GRADING

3.1.1 The entire area within the limits of grading as indicated on the Drawings shall be considered to the lines, grades, elevations, slopes, and cross sections indicated on the Drawings. When the grading has been completed, the areas shall be rolled smooth with a steel tandem roller or equal.

Should low spots develop during the rolling operation, such spots shall be filled and re-rolled smooth. Slopes, banks, and drainage depressions shall present a neat, uniform appearance on completion of the Work.

3.1.2 Fine grade to bring areas to required lines and grades. The subgrade elevation within the building area for slabs on grade (without a base course) shall be within 0.05 inch along a 10-foot straight edge.

3.1.3 Slope finish grades to drain surface water away from buildings, walks, paving, and other structures. Generally, grade with uniform slope between points where elevations are given, or between such points and existing grades. Excavate and grade swales to provide drainage away from and around buildings.

3.1.4 Areas to Receive Paving or Surfacing: Review plans and details for each area. See plans for paving and base course thickness. Review Drawings for sitework details.

- 3.1.5 Areas to Receive Topsoil and/or Planting: Where not otherwise indicated, areas outside of building shall be given uniform slopes between points for which finish grades are shown, or between such points and existing established grade, except that vertical curves or roundings shall be provided at abrupt changes in slope.
- 3.1.6 Rocks or cobbles larger than 1 inch in diameter shall not be placed in the upper 12 inches of planting area fill, and rocks or cobbles larger than 3/4 inch shall not appear on the finish graded surface. Structural fill and asphalt or concrete unless otherwise specified within the soil's reports.
- 3.1.7 Surplus or Imported Material:
- 3.1.7.1 Surplus material not needed for filling shall be removed from the site in a legal manner.
- 3.1.7.2 Provide additional earth material as required. Imported material shall be tested and imported from an approved source at no additional cost to Owner. Approved by the Architect and/or Owner.
- 3.1.7.3 All earth products to the site shall meet or exceed E.P.A. and State of California regulations for clean fill. Proof of compliance is the responsibility of the Contractor.
- 3.1.8 Preparation for Fills:
- 3.1.8.1 Prior to placing fills, the existing surface shall be scarified and recompacted to at least 90 percent dry density per the ASTM D-1557 procedure.
- 3.2 FIELD QUALITY CONTROL
- 3.2.1 Compaction of soils performed on this project shall be in accordance with section 312200 – Earthwork.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SUMMARY

- 1.1.1 Section includes: Excavation and backfill for utilities and storm drains as indicated on the Drawings and specified herein.

1.2 REFERENCE STANDARDS

- 1.2.1 2019 CBC (CCR Title 24, Part 2), Chapter 18A.
- 1.2.2 CAL-OSHA requirements.

1.3 PERFORMANCE REQUIREMENTS

- 1.3.1 Be fully responsible to furnish and maintain temporary barricades, warning lights, and other types of protection and to prevent accidental injury to the general public and personnel employed on the project.
- 1.3.2 Provide adequate cribbing, sheathing, and shoring as necessary to safely retain the earth sides of excavation and trenches from caving and other damage resulting from excavating and trenches from caving and other damage resulting from excavating, together with suitable forms of protection against property damage and bodily injury to personnel employed on the work and the general public. The Contractor shall be responsible for the design, for installation, and maintenance of required cribbing and shoring.
- 1.3.3 Protect new and existing utilities from damage during the course of installation, and repair work so damaged at no additional cost to the Owner.

1.4 PERMITS

- 1.4.1 Obtain permits, fees, or bonds required for the work performed under this section. Owner will pay the cost for permanent construction permits. Bonds and encroachment permits shall be paid by the Contractor.

1.5 TESTING AND INSPECTION

- 1.5.1 Contractor shall be responsible for notifying the Testing Laboratory in advance, so that he/she may be present to perform his services as needed.
- 1.5.2 The Testing Laboratory shall submit compaction reports to the Architect, and shall notify the Architect immediately of test failures.

1.6 QUALITY ASSURANCE

- 1.6.1 Bedding Material:

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

1.6.1.1 Bedding sand shall be Class A, screened fill sand, with a maximum particle size of ¼ inch, and shall be free of expansive material and organic matter. Material shall have a sand equivalent of not less than 30 per ASTM D2419.

1.6.1.2 Bedding crushed rock shall be clean crushed stone free of organic matter and shall conform to the following gradation:

US Standard Sieve Size	Percent Passing by Weight
25mm (1")	100
19mm (3/4")	90-100
12.5mm (1/2")	30-60
9.5mm (3/8")	0-20
4.75mm (No. 4)	0-5
2.36mm (No.8)	---

1.6.1.3 Bedding material for utility lines and storm drains outside the property lines shall be as required by the agency having jurisdiction.

1.6.2 Backfill material for storm drain and utility lines shall be non-expansive granular material, such as clean sand, and shall be placed in a minimum thickness of 6 inches for bedding and backfilled to 12 inches above the top of pipe.

1.6.3 Additional earth material required to complete the work shall be provided by the Contractor at his expense.

1.6.4 All earth products to the site shall meet or exceed United States Environmental Protection Agency (US EPA) and State of California Regulations for clean fill. Proof of compliance is the responsibility of the Contractor.

1.6.5 Imported earth shall be of granular nature with sufficient binder to form a firm, stable, unyielding subgrade. Adobe or clay soils will not be acceptable. Earth imported shall be relatively non-expansive with an expansion index of less than 35, be clean and free from rubbish and debris and rock larger than 3 inches in maximum dimensions, not have sulfate content greater than 1,000 parts per million. Imported fill material shall have an electrical resistivity box procedure shown in ASTM G57. Imported material to be used in areas to receive planting shall be of such quality as to support plant life.

PART 2 – PRODUCTS – NOT USED

PART 3 – EXECUTION

3.1 PREPARATION

3.1.1 Underground Utilities: Carefully lay out the route of each underground utility prior to trenching. Coordinate the work of various trades to avoid conflicts.

3.1.2 Clearances: Maintain required horizontal and vertical clearances from structural footings for utility trenches running parallel to footings, as detailed on Structural Drawings. In the event of conflict, the Architect shall be notified.

3.2 TRENCHING

- 3.2.1 Excavate trenches for utilities to the required lines, trades and elevations indicated on the drawings and as specified. Hand trim changes in direction and bottoms of trenches. Accurately shape and thoroughly compact trench bottom to required grade. Keep trenches clean until installed work has been approved.
- 3.2.2 Excavate trenches to uniform widths to provide a working 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.
 - 3.2.2.1 Clearance: 8 inches on each side of pipe or conduit.
- 3.2.3 Trench Bottoms: Excavate trenches 6 inches deeper than bottom of pipe elevation to allow for bedding course. Hand excavate for bell of pipe.

3.4 BEDDING

- 3.4.1 Place and compact 6-inch bedding course on trench bottoms. Shape bedding course to provide continuous support for bells, joints and barrels of pipes and for joints, fittings, and bodies of conduits.
 - 3.4.1.1 Provide crushed rock bedding for sanitary and storm sewer piping.
 - 3.4.1.2 Provide sand bedding for water and fire line piping.
- 3.4.2 Place and compact initial backfill of crushed rock or sand bedding, free of particles larger than 1 inch, to a height of 12 inches over the utility pipe or conduit. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping or conduit to avoid damage or displacement of utility system. This area shall be mechanically compacted to achieve 90% relative compaction per ASTM D-1557.
- 3.4.3 Utility trenches located within the zone of structural footing influence require special backfill consisting of 2-sack sand/cement slurry. The zone of influence to a distance of 10 feet beyond footings is the zone below a 2(H):1(V) downward plane starting 9 inches above the bottom outer edge of the structural footing.
- 3.4.4 Backfill with approved native or import soils as specified in 312200 Earthwork.
- 3.4.5 Spread, water, and mix backfill to obtain optimum moisture content. Compact by mechanical means in 6-inch lifts to a minimum relative density of 90 percent in accordance with ASTM D-1557.
- 3.4.6 Continue backfilling as required to secure final grade elevations.
- 3.4.7 Backfill existing utilities which may be uncovered during course of construction in the same manner as specified herein for new utilities.
- 3.4.8 Coordinate backfilling with Representative of Owner's Testing Laboratory.

3.5 CLEANUP

3.5.1 Transport unsuitable material to a legal off-site disposal area.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for installation of Trenching as shown on drawings and necessary to complete the Trenching Work. Work to include but not be limited to the following:

1.1.1 Excavate trenches for utilities and services not specified in other sections.

1.1.2 Compacted bedding.

1.1.3 Backfilling and compaction.

1.2 RELATED SECTIONS:

1.2.1 Section 014523 – Tests and Inspection.

1.2.2 Section 015000 – Construction Facilities and Temporary Controls.

1.2.3 Section 312200 – Earthwork.

1.2.4 Section 312300 – Excavating, Backfilling and Compacting for Utilities.

1.2.5 Division 22 – Mechanical Work.

1.2.6 Division 26 – Electrical Work.

1.3 REFERENCES AND STANDARDS:

1.3.1 ASTM C136 – Method for Sieve Analysis of Fine and Course Aggregates.

1.3.2 ASTM 01556 – Test Method for Density of Soil in Place by the Sand – Cone Method.

1.3.3 ASTM 01557 – Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using 10 lb (4.54 kg) Rammer and 18-inch (457 mm) Drop.

1.3.4 ASTM 02922-81 – Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

1.3.5 ASTM 03017-78 – Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

1.3.6 Green Book – Standard Specifications for Public Works Construction, latest edition, as adopted by jurisdictional authority, including amendments.

1.4 PUBLIC AGENCY STANDARDS:

GLENDALE UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

- 1.4.1 Perform all earthwork and related structures and devices indicated as public agency standards in accordance with the standard plans and specifications of that agency.
- 1.4.2 Where earthwork is constructed in public streets or rights of way, construct in accordance with the standard plans and specifications of the authority having jurisdictions and in the presence of a representative of that agency.
- 1.4.3 Secure and pay for all necessary permits for work performed under conditions which exist in 1.4.2 above. The Owner will pay for associated inspection fees.
- 1.4.4 Upon completion of the work, provide the Architect with written certification of acceptance of work by the governing agency having jurisdiction.

PART 2 – PRODUCTS:

2.1 BACKFILL MATERIALS:

- 2.1.1 Type C – Class 100-E-100 per Table 201-1.1.2 (Green Book) slurry mix as approved by Owner and Geotechnical Engineer.
- 2.1.2 Type D – Select Backfill: On Site or imported non-expansive soils complying with Section 312300.

2.2 BEDDING MATERIALS:

- 2.2.1 Type A – Crushed Gravel: Angular, natural stone; free of shale, clay, friable material, sand, debris; graded within the following limits:

Sieve Size	Percent Passing
3/4 inch	95 to 100
No. 4	0 to 10
No. 100	0

- 2.2.2 Type B – Sand: Natural river or bank sand; free of silt, clay, loam, friable or soluble materials, or organic matter; maximum particle size and volume of 1/2 inch and 18 percent respectively, with minimum Sand Equivalent value of 30 per California Test Method 217.
- 2.2.3 Type E – Concrete Encasement: Class 480-C-2000 per Table 201-1.1.2 (Green Book), as approved by Owner and Geotechnical Engineer.

2.3 ACCESSORIES:

- 2.3.1 Detection tape: Provide plastic tape with metallic stripping suitable for locating underground piping and conduits. Provide pre-printed label identifying conduit pipe type, alternating with word “CAUTION”.

2.4 DESIGN CRITERIA:

2.4.1 General:

2.4.1.1 All improvements shall be constructed per the referenced standards, the contract documents, and as specified in this section.

2.4.1.2 Where criteria shown on drawings or specified in this specification exceed that of the referenced standards, the more stringent criteria shall apply

2.4.2 Provide other bedding and backfill materials as described and specified in Section 312300 and Divisions 22 and 26.

PART 3 – EXECUTION:

3.1 INSPECTION, LAYOUT AND PREPARATION:

3.1.1 Prior to installation of the work of this Section, Carefully inspect and verify that installed work of all other trades is complete to the point where this installation may properly commence.

3.1.2 Layout all work, establish grades, locate existing underground utilities, set markers and stakes, setup and maintain barricades and protection facilities; all prior to beginning actual earthwork operations. All efforts to identify and protect existing utilities must be taken by the Contractor. Consult with on-site personnel for knowledge of existing utilities. Review as-built plans available from the Architect or Owner (not a part of the documents). Infer from existing on-site boxes, valves, sprinkler heads, etc. provide utility runs.

3.1.3 Verify that specified items may be installed in accordance with the approved design.

3.1.4 In event of discrepancy, immediately notify Architect. **Do not proceed in discrepant areas until discrepancies have been fully resolved.**

3.1.5 Not all existing utilities are shown in plans or known. The Contractor is to anticipate trenching operations will uncover conditions requiring slower-than-normal procedures and be prepared to trench accordingly.

3.2 DEMOLITION, DISPOSAL AND DISPOSITION OF UNDESIRABLE MAN-MADE FEATURES:

3.2.1 Existing asphaltic paving in areas of new work shall be removed from site or may be broken up into pieces less than 3 inches in maximum dimension and incorporated into sub-grades of paved areas.

3.2.2 All other obstructions such as concrete paving, abandoned utility lines, septic tanks, concrete foundations, and the like shall be removed from site. Excavations resulting from these removal activities should be cleaned of all loose materials, dish shaped, and widened as necessary to permit access for compaction equipment. Areas exposed by any required over-excavation should

be scarified to a depth of 8 inches, moisture-conditioned to near optimum moisture content, and re-compacted to at least 90 percent of the maximum dry density as determined by ANSI/ASTM Test Method D1557.

3.3 EXCAVATION:

- 3.3.1 Excavate subsoil required for underground piping to point of connection.
- 3.3.2 Cut trenches sufficiently wide to enable installation of utilities and allow inspection.
- 3.3.3 Excavation shall not interfere with normal 45 degree bearing splay of foundations.
- 3.3.4 Hand trim excavation for bell and spigot pipe joints. Remove loose matter.
- 3.3.5 Carefully excavate around existing utilities to avoid unnecessary damage. The Contractor shall anticipate and perform hand work on modernization sites to a reasonable extent without additional claims or cost.
- 3.3.6 Remove lumped subsoil, boulders, and rock up to 3 inches.
- 3.3.7 Stockpile excavated material in area designated on site and remove excess material not being used from site.

3.4 BEDDING:

- 3.4.1 Support pipe and conduit during placement and compaction of bedding fill.

3.5 PLACING, SPREADING AND COMPACTING BACKFILL MATERIAL:

- 3.5.1 Selected fill material shall be placed in layers which, when compacted shall not exceed 6 inches in thickness. Each layer shall be spread evenly and thoroughly mixed to insure uniformity. **Do not backfill over porous, wet, frozen or spongy subgrade surfaces.** Employ a placement method that does not disturb or damage foundation walls, perimeter drainage, foundation damp-proofing, waterproofing or protective cover.
- 3.5.2 When moisture content of fill material is below that required to achieve specified density, add water until proper moisture content is achieved. When moisture content is above that required, aerate by blading or other methods until moisture content is satisfactory.
- 3.5.3 After each layer has been placed, mixed and spread evenly, it shall be thoroughly compacted to 90 percent of maximum dry density while at required moisture content. Compact each layer over its entire area until desired density has been obtained.
- 3.5.4 Recomposition of fill in trenches: Where trenches must be excavated in fill, backfill with material excavated. Place in 6-inch layers and compact each layer to provide densities as specified in Article 3.5.3 above. No jetting shall be allowed in any backfill.

- 3.5.5 Control of Compaction: All backfill operations shall be conducted under supervision of District Inspector. Field density test may be made to check compaction of fill material. If densities are not satisfactory, Contractor will be required to change equipment or procedure or both, as required to obtain specified densities. Notify Inspector and Architect at least 24 hours in advance of any operation.
- 3.6 FINAL SUBGRADE PREPARATION:
- 3.6.1 Upper 6 inches of all final subgrades supporting pavement sections that will sustain automotive traffic shall be brought to uniform moisture content and shall be uniformly compacted to not less than 95 percent of ANSI ASTM D1557 maximum dry density, regardless of whether final subgrade elevation is attained by filling, excavation, or is left at existing grade.
- 3.6.2 Upper surface of all other final sub-grades, 90 percent, unless otherwise noted.
- 3.7 ERRORS AND SOFT OR UNSUITABLE FOUNDATIONS:
- 3.7.1 Where Contractor over-excavates through error, resulting excavation shall be recompacted as engineered fill at Contractor's expense. Where additional work is required by reason of soft or unsuitable natural ground or existing engineered fill, cost of additional excavation and filling will be borne by Owner.
- 3.8 SURPLUS MATERIAL:
- 3.8.1 Excavated material not required for grading or backfill is to be removed from site.
- 3.8.2 Filling operation shall be continued as specified above, until fill has been brought to existing slopes and grades.
- 3.9 REPAIRS TO EXISTING MATERIALS
- 3.9.1 Repair existing landscaped areas to as new condition. Replant trees, shrubs or groundcover with existing materials if not damaged or with new materials if required. Replace damaged lawn areas with sod, no seeding will be permitted.
- 3.9.2 Replace demolished pavement with new compatible matching materials. Concrete walks to be removed to nearest expansion joint and entire panel replaced. Asphalt to be cut neatly and replaced with new materials.
- 3.9.3 Any existing materials removed or damaged due to trenching to be returned to new condition.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 WORK INCLUDED:

- 1.1.1 Work includes asphaltic concrete paving. Provide minimum 3 inches of asphalt paving over 6 inches of aggregate base unless noted otherwise on the drawings.

1.2 RELATED WORK:

1.2.1 Related Work Specified Elsewhere:

- 1.2.1.1 Section 311000 - Site Clearing: Removal of existing asphaltic concrete paving.
- 1.2.1.2 Section 312200 - Earthwork: Preparation and compaction of subgrade.

1.3 QUALITY ASSURANCE:

- 1.3.1 Qualifications of Asphalt Concrete Producer: Bulk asphaltic concrete producer regularly engaged in production of hot-mix, hot-laid asphalt concrete.

1.3.2 Regulatory Requirements:

- 1.3.2.1 In addition to complying with the applicable codes and regulations of governmental agencies having jurisdiction, comply with the applicable requirements of CALTRANS Standard Specifications for Public Works Construction.
- 1.3.2.2 Where the provisions of applicable codes, regulations and standards conflict with the requirements of this specifications, comply with the more stringent provisions.

1.3.3 Source Quality Control:

- 1.3.3.1 Tests: Materials for which physical characteristics have been stipulated shall have had such characteristics independently confirmed by laboratory tests employing industry-recognized procedures. Both the laboratory performing the tests and the test methods employed will be subject to the approval of the Architect.

- 1.3.3.2 Certification: Furnish certification, in written form, from the asphaltic concrete producer, confirming the conformance of the following with the requirements of this specification:

- 1.3.3.2.1 Materials proposed for incorporation into the Work.
- 1.3.3.2.2 Asphaltic concrete mix design formulae.

1.4 SUBMITTALS:

1.4.1 Product Data: For proprietary products, submit complete manufacturer's description literature and specifications in accordance with the provisions of Section 013300.

1.4.1.1 Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item where applicable.

1.4.1.2 Manufacturer's Recommendations: Submit the manufacturer's current recommended methods of installation, including relevant limitations, safety and environmental cautions, and application rates.

1.4.2 Test Reports: When and as directed by the Architect and/or Owner, submit certified laboratory test reports confirming physical characteristics of materials used in the performance of the Work of this Section.

1.4.3 Mixes: Submit asphaltic concrete mix design formulae.

1.5 PROJECT CONDITIONS:

1.5.1 Weather Limitations:

1.5.1.1 Apply bituminous prime and tack coats only when the ambient temperature in the shade is above 50 degrees F.

1.5.1.2 Do not apply when the base surface is wet or contains an excess of moisture which would prevent uniform distribution and the required penetration.

1.5.1.3 Construct asphalt concrete surface course only when atmospheric temperature is above 40 degrees F, when the underlying base is dry, and when weather is not rainy.

1.5.2 Grade Control: Establish and maintain the required lines and grades, including crown and cross-slope, for each course during construction operations.

1.5.3 Traffic Control: Maintain vehicular and pedestrian traffic during paving operations, as required for other construction activities.

PART 2 - PRODUCTS

2.1 AGGREGATES: Use materials and gradations that have performed satisfactorily in previous installations.

2.1.1 Base Course Aggregate: Class 2 Aggregate Base mineral aggregate, 3/4 inch maximum size, as specified in CALTRANS Standard Specifications

2.1.1.1 Recycled asphalt paving may be used as base course aggregate, subject to complying with CALTRANS Standard Specifications.

- 2.1.2 Asphalt Aggregate: Type B Aggregate, as specified in CALTRANS Standard Specifications.
 - 2.1.2.1 3/4-inch maximum size for base course.
 - 2.1.2.2 1/2-inch maximum size for surface course.
- 2.2 ASPHALT MATERIALS
 - 2.2.1 Asphalt Cement: Steam Refined, penetration-graded material. PG 64-10 conforming to CALTRANS Standard Specifications.
 - 2.2.2 Prime Coat: Asphalt prime coat conforming to CALTRANS Standard Specifications.
 - 2.2.3 Tack Coat: Asphalt tack coat conforming to CALTRANS Standard Specifications.
 - 2.2.4 Seal Coat: Emulsified asphalt with a minimum 2 percent – 3 percent latex or copolymer added with 2-4 lbs of grade No. 30 silica sand added per gallon and mechanically agitated.
- 2.3 ASPHALT MIXES
 - 2.3.1 Hot-Mix Asphalt: Provide dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction and designed according to procedures in AI's "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types."
 - 2.3.1.1 Comply with CALTRANS Standard Specifications.
 - 2.3.1.2 Provide mixes complying with the composition, grading, and tolerance requirements of ASTM D 3515 for the following nominal, maximum aggregate sizes:
 - 2.3.1.2.1 Surface Course: 1/2 inch maximum.
 - 2.3.1.2.2 Base Course: 3/4 inch maximum
- 2.4 CRACK SEALER
 - 2.4.1 Rubberized joint sealant complying with Federal Standards ASTM D5329 Parking Lot Crack Sealer.
- 2.5 PAVEMENT MARKING PAINT:
 - 2.5.1 Latex, water-base emulsion, ready-mixed, complying with FS TT-P-1952.
 - 2.5.2 Color: As indicated.
- 2.6 ASPHALT-AGGREGATE MIXTURES:
 - 2.6.1 Job-mix Criteria:
 - 2.6.1.1 Provide job-mix formulas for each required asphalt-aggregate mixture.

2.6.1.2 Establish a single percentage of aggregate passing each required sieve size, a single percentage of asphalt cement to be added to aggregate, and a single temperature at which asphalt concrete is to be produced.

2.6.1.3 Comply with the mix requirements of Caltrans Standard Specifications.

2.6.1.4 Maintain material quantities within allowable tolerances of the governing standards.

2.7 CONCRETE HEADERS:

2.7.1 Provide 8-inches wide by 12-inches deep 3000 PSI concrete mow strip with a medium broom finish running perpendicular to the lineal length of the concrete mow strip and provide 3/4" radius to exposed edges. Top of concrete mow strip shall be flush to adjacent hardscape surfaces. At softscape surfaces, landscape surfaces and planter areas the top of the concrete header shall be maximum 1-inch above the softscape/landscape/planter surfaces. Provide 1-inch deep with 1/4" radius tooled joints at a maximum spacing at 10-foot on center.

2.8 WEED KILLER:

2.8.1 Provide a dry, free-flowing, dust-free chemical compound containing not less than 30 percent sodium chlorate, or a chlorate-borate compound. Product shall be non-flammable, not creating a fire hazard when applied in accordance with the manufacturer's recommendations, soluble in water, and capable of being spread dry or in solution.

2.8.2 Acceptable Products:

2.8.2.1 "OV5T" Herbicide, DUOO3048, DuPont, call 1-800-441-7515.

PART 3 - EXECUTION

3.1 PREPARATION:

3.1.1 Aggregate Base Course:

3.1.1.1 Check subgrade for conformity with elevations and section immediately before placing aggregate base material.

3.1.1.2 Place aggregate base material in compacted layers not more than 4 inches thick. Compaction shall be obtained by use of an approved power roller weighing not less than 10 tons.

3.1.1.3 Spread, shape, and compact all aggregate base material deposited on the subgrade during the same day.

3.1.1.4 Compact aggregate base course material to not less than 95 percent of maximum density: ASTM D 1557, Method D.

3.1.1.5 Test density of compacted aggregate base course: ASTM D 2167.

3.1.1.6 Conduct one (1) test for each 2,500 square yards of in-place material, but in no case no less than one daily for each layer.

3.1.1.7 Treat all sub-base with weed killer in accordance with manufacturer's instructions. Take extreme precaution to confine weed poison to area covered with asphaltic concrete, and provide all necessary protection to prevent injury or damage to life or property.

3.1.2 Prime Coat:

3.1.2.1 Uniformly apply at rate of 0.20 to 0.25 gallons per square yard over compacted and cleaned sub-base surface.

3.1.2.2 Apply enough material to penetrate and seal, but not flood the surface.

3.1.2.3 Allow to cure and dry as long as required to attain penetration and evaporation of volatile, and in no case less than 24 hours unless otherwise acceptable to the Architect.

3.1.2.4 Blot excess asphalt with just enough sand to prevent pick-up under traffic. Remove loose sand before paving.

3.1.3 Tack Coat:

3.1.3.1 Dilute material with equal parts of water and apply to contact surfaces of previously constructed asphalt concrete or Portland cement concrete and similar surfaces.

3.1.3.2 Apply at rate of 0.05 to 0.15 gallons per square yard of surface.

3.1.3.3 Apply tack coat by brush to contact surfaces of curbs, gutters, manholes, and other structures projecting into or abutting asphalt concrete pavement.

3.1.3.4 Allow surfaces to dry until material is at condition of tackiness to receive pavement.

3.2 PREPARING THE MIXTURE:

3.2.1 Comply with ASTM D 995 for material storage, control, and mixing, and for plant equipment and operation.

3.2.2 Heating:

3.2.2.1 Heat the asphalt cement at the mixing plant to viscosity at which it can be uniformly distributed throughout mixture.

3.2.2.2 Use lowest possible temperature to suit temperature-viscosity characteristics of asphalt.

3.2.2.3 Do not exceed 350 degrees F.

3.2.3 Aggregate:

3.2.3.1 Deliver dry aggregate to mixer at recommended temperature to suit penetration grade and viscosity characteristics of asphalt cement, ambient temperature, and workability of mixture.

3.2.3.2 Accurately weigh or measure dry aggregates and weigh or meter asphalt cement to comply with job-mix formula requirements.

3.2.4 Joints:

3.2.4.1 Carefully make joints between old and new pavements, or between successive days' work, to ensure a continuous bond between adjoining work.

3.2.4.2 Clean contact surfaces free of sand, dirt, or other objectionable material and apply tack coat.

3.3 COMPACTING THE MIX:

3.3.1 Provide sufficient power rollers to obtain the required pavement density. Minimum 10-ton power roller.

3.3.2 Begin rolling operations as soon after placing when the mixture will bear weight of roller without excessive displacement.

3.3.3 Do not permit heavy equipment, including rollers to stand on finished surface before it has thoroughly cooled or set.

3.3.4 Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.

3.3.5 Breakdown Rolling: Accomplish breakdown or initial rolling immediately following rolling of transverse and longitudinal joints and outside edge.

3.3.6 Second Rolling: Follow breakdown rolling as soon as possible, while mixture is hot and in condition for compaction. Continue second rolling until mixture has been thoroughly compacted.

3.3.7 Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained specified density.

3.3.8 Patching:

3.3.8.1 Remove and replace defective areas.

3.3.8.2 Cut-out and fill with fresh, hot asphalt concrete.

3.3.8.3 Compact by rolling to specified surface density and smoothness.

3.3.8.4 Remove deficient areas for full depth of course.

3.3.8.5 Cut sides perpendicular and parallel to direction of traffic with edges vertical.

3.3.8.6 Apply tack coat to exposed surfaces before placing new asphalt concrete mixture.

3.4 FIELD QUALITY CONTROL:

3.4.1 General: In addition to other specified conditions, comply with following minimum requirements:

3.4.1.1 Test in-place asphalt concrete courses for compliance with requirements for density, thickness and surface smoothness.

3.4.1.2 Provide final surfaces of uniform texture, conforming to required grades and cross-sections.

3.4.2 Thickness: In-place compacted thicknesses shall conform to the dimensions shown on the Drawings. Variation from indicated thicknesses shall not exceed plus or minus 1/2 inch. If thickness is not shown: minimum thickness shall be 3 inches of asphalt paving over 4 inches of granular base at parking areas, vehicle drives and paved playground areas. Provide 4 inches of asphalt paving over 4 inches of granular base at bus drop-off areas and fire lanes. Actual structural sections shall be determined after an "R" value test has been conducted by a qualified geotechnical engineer on the prepared sub-base material and or as indicated in the soils report..

3.4.3 Surface Smoothness:

3.4.3.1 Test finished surface of each asphalt concrete course for smoothness, using a 10-foot straightedge applied parallel to and at right angles to centerline of paved areas.

3.4.3.2 Surfaces will not be acceptable if exceeding the following:

3.4.3.2.1 Base Course: 1/4 inch in 10 feet.

3.4.3.2.2 Surface Course: 3/16 inch in 10 feet.

3.4.4 Asphalt Concrete Intersection to Concrete Control:

3.4.4.1 All asphalt concrete paved areas that butt to or intersect to all concrete, concrete gutters, concrete swales and concrete walkways, the asphalt concrete shall be a minimum 1/4 inch to maximum 1/2 inches above the adjacent concrete surface after applying finish rolling. In no case shall the asphalt concrete paving, after final rolling, at the intersection of any concrete surfaces, shall be below the finish concrete paved surface(s) unless specifically detailed on the drawings.

3.5 FLOOD TEST:

3.5.1 Flood Test: Before applying a seal coat or striping, a water test shall be made in the presence of the Inspector of Record. The flooding shall be done by water tank truck. All depressions, where water ponds to a depth of more than 1/8 inch shall be filled or the slope shall be corrected to provide proper drainage. The edges of the fill shall be feathered and smoothed so that the joint between the fill and the original surface is invisible. All corrected work of the asphalt concrete paving shall be of the same mix design.

3.6 SEAL COAT:

- 3.6.1 After completing the flood test and after receiving approvals from the Owner, all new A.C. pavements (minimum 30 calendar days after Owner approvals) shall receive ASPHALTIC CONCRETE PAVING SEAL COATING PER SPECIFICATION SECTION 321236. Sealer shall contain no clay or other deleterious substances.
- 3.6.2 Place the entire contents of each drum sealer in a plaster or pug mill type mixer thoroughly. Where less than 50 gallons of sealer are used, mixing may be done in a mortar box. During mixing, the sealer may be diluted with water to produce a uniform, free flowing consistency, but in no case shall it be diluted with more than one (1) part of water to four (4) parts of sealer
- 3.6.3 Areas to receive sealer shall be swept clean and before application, lightly sprayed with water, leaving it cool and damp, but without free water.
- 3.6.4 Apply sealer by pouring from a can or a wheeled container in continuous parallel lines and spreading immediately with rubber-faced squeegees or with long-handled hair brooms. The squeegee or broom shall be pulled at an angle from the line of spread to continually roll the material toward the operator and not to overflow or spill over its forward edge away from the operator.
- Each coat of sealer shall be thoroughly dry before the succeeding coat is applied.
- 3.6.5 Make two (2) or more applications using at least 35 gallons of sealer (before dilution) per 1,000 square feet of area.
- 3.6.6 The finished surface seal, when dry and thoroughly set, shall be smooth, tough, waterproof, resilient, of uniform black color and free from coarse textured areas, lap marks, ridges and other surface irregularities. **Should any defects appear in the finished surface, apply as many additional coats of sealer as may be required to produce the specified finished surface at no additional cost.** Protect from traffic during all operations and until the sealer is thoroughly set and cured and does not pick-up under foot or wheeled traffic.

3.7 ADJUSTING AND CLEANING:

- 3.7.1 Cleaning: After completion of paving operations, clean surfaces of excess or spilled asphalt materials or marking paint to the satisfaction of the Architect.

3.8 PROTECTION:

- 3.8.1 After final rolling, do not permit vehicular traffic on asphalt concrete pavement until it has cooled and hardened, and in no case sooner than 6 hours.
- 3.8.2 Provide barricades and warning devices as required to protect pavement and the general public.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

1.1 WORK INCLUDED:

1.1.1 Work includes asphaltic concrete paving seal coating.

1.2 RELATED WORK:

1.2.1 Related Work Specified Elsewhere:

1.2.1.1 Section 321216 – Asphaltic Concrete Paving.

1.3 QUALITY ASSURANCE:

1.3.1 Qualifications of Asphalt Concrete Seal Coat Producer: Bulk asphaltic concrete seal coat producer regularly engaged in production of liquid-mix, asphalt concrete seal coat.

1.3.2 Regulatory Requirements:

1.3.2.1 In addition to complying with the applicable codes and regulations of governmental agencies having jurisdiction, comply with the applicable requirements of CALTRANS Standard Specifications for Public Works Construction.

1.3.2.2 Where the provisions of applicable codes, regulations and standards conflict with the requirements of this specification, comply with the more stringent provisions.

1.3.3 Source Quality Control:

1.3.3.1 Tests: Materials for which physical characteristics have been stipulated shall have had such characteristics independently confirmed by laboratory tests employing industry-recognized procedures. Both the laboratory performing the tests and the test methods employed will be subject to the approval of the Architect.

1.3.3.2 Certification: Furnish certification, in written form, from the asphaltic concrete seal coat producer, confirming the conformance of the following with the requirements of this specification:

1.3.3.2.1 Materials proposed for incorporation into the Work.

1.3.3.2.2 Asphaltic concrete seal coat mix design formulae.

1.4 SUBMITTALS:

- 1.4.1 Product Data: For proprietary products, submit complete manufacturer's description literature and specifications in accordance with the provisions of Section 013300.
 - 1.4.1.1 Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item where applicable.
 - 1.4.1.2 Manufacturer's Recommendations: Submit the manufacturer's current recommended methods of installation, including relevant limitations, safety and environmental cautions, and application rates.
 - 1.4.2 Test Reports: When and as directed by the Architect, submit certified laboratory test reports confirming physical characteristics of materials used in the performance of the Work of this Section.
 - 1.4.3 Mixes: Submit asphaltic concrete seal coat mix design formulae.
- 1.5 PROJECT CONDITIONS:
- 1.5.1 Weather Limitations:
 - 1.5.1.1 Apply seal coats only when the ambient temperature in the shade is minimum 50 degrees F. Do not apply seal coat when temperature is expected to drop below 50 degrees F at any time within a 24-hour period after application.
 - 1.5.1.2 Do not apply when the base surface is wet or contains an excess of moisture which would prevent uniform distribution and the required penetration.
 - 1.5.1.3 At existing or newly placed asphalt concrete surfaces, place seal coating when the material is dry, and when weather is not rainy.
 - 1.5.2 Grade Control: Establish and maintain the required lines and grades, including crown and cross-slope.
 - 1.5.3 Traffic Control: Maintain vehicular and pedestrian traffic during seal coat operations, as required for other construction activities, on-site and off-site operations.
- 1.6 WARRANTY
- 1.6.1 SealMaster warrants that Liquid Road meets the chemical composition and performance requirements. Liability to the buyer or user of this product is limited to the replacement value of the product only.

1.7 MAINTENANCE

1.7.1 Periodic pavement sweeping will ensure optimum product service life.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 PRODUCT NAME: Liquid Road Mineral Asphalt Emulsion Master Seal.

2.2 MANUFACTURER

2.2.1 SealMaster Phone: 800-395-7325 www.sealmaster.net

2.3 PRODUCT DESCRIPTION

2.3.1 Liquid Road is a high performance mineral and fiber reinforced asphalt emulsion blended with polymers and special surfactants for superior adhesion, flexibility, and durability.

Composition: Liquid Road is a high solids polymer-modified, fiber reinforced clay stabilized asphalt emulsion fortified with special surfactants to promote superior adhesion and durability. Liquid Road is job mixed with select aggregate to produce a superior skid-resistant wearing surface.

Sizes: Liquid Road is available in 4,000 gallon bulk tankers, 55-gallon drums, and 5-gallon pails.

Color: Liquid Road dries to a deep, rich black color.

Mixing Procedures:

For optimum results, Liquid Road shall be mixed in accordance with the following mix design (based on 100 gallons for ease of calculation):

Liquid Road.....100 gallons
Sand (20-30 mesh AFS).....400 lbs.

A finer sand may be used for parking lot applications. NOTE: If required, a small amount of water may be added to facilitate application of the mix.

Application: For optimum performance and durability apply two (2) coats of properly mixed Liquid Road.

Application Rate of Mixed Liquid Road: Apply properly mixed Liquid Road (Liquid Road, Sand, Water – if needed) at a rate of 0.17 to 0.20 gallon per square yard (45-55 square feet per gallon) per coat.

Estimating Material Requirements: To estimate gallons of Liquid Road required to cover a specific area, use the following coverage rate:

- One gallon of Liquid Road will cover approximately 55-66 square feet (6 to 7.5 square yards) per coat when properly mixed and applied. Note: Application rates may vary somewhat due to pavement age and porosity. Coverage rates will be increased when a finer sand is used for parking lot applications

2.3.2 Technical Data

2.3.2.1 ASTM Test Methods:

- D-140 Sampling of Bituminous Materials
- D-466 Methods of Testing Film Deposits from Bituminous Emulsions
- B-117 Salt Spray (FOG) Testing
- D-529 Recommended Practice for Accelerated Weathering Test Of Bituminous Materials
- D-2939 Bituminous-Base Emulsions for use as Protective Coatings

Environmental Considerations:

Liquid Road does not contain asbestos. Liquid Road is an environmentally friendly water-based pavement sealer containing less than 150 grams per liter volatile organic content (VOC).

Physical/Chemical Properties:

Liquid Road is a polymer modified, clay stabilized asphalt emulsion fortified with special surfactants.

2.4 INSTALLATION

2.4.1 Surface must be clean and free from all loose material and dirt. Pavement surface repairs must be made with a suitable hot or cold asphalt mix. Cracks shall be filled with SealMaster hot pour or cold applied crack fillers.

2.4.1.1 Areas to receive seal coating shall be swept clean and before application.

Each coat of sealer shall be thoroughly dry before the succeeding coat is applied.

2.4.1.2 The finished surface seal, when dry and thoroughly set, shall be smooth, tough, waterproof, resilient, of uniform black color and free from coarse textured areas, lap marks, ridges and other surface irregularities. **Should any defects appear in the finished surface, apply as many additional coats of sealer as may be required to produce the specified finished surface at no additional cost.** Protect from traffic during all operations and until the sealer is thoroughly set and cured and does not pick-up under foot or wheeled traffic.

- 2.4.2 *Methods:* Liquid Road shall be applied by specialized spray application equipment or self-propelled squeegee/brush equipment. Spray equipment shall be capable of spraying pavement sealer with sand added. Equipment shall have continuous agitation or mixing capabilities to maintain homogeneous consistency of liquid road mixture throughout the application process. Self-propelled squeegee/brush equipment shall have at least two (2) squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of Liquid Road into bituminous pavement. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.
- 2.5 ADJUSTING AND CLEANING:
- 2.5.1 *Cleaning:* After completion of seal coat operations, clean surfaces of excess or spilled seal coat materials to the satisfaction of the Architect.
- 2.6 PROTECTION:
- 2.6.1 After final seal coating, do not permit vehicular traffic on seal coat areas until it has cooled and hardened, and in no case sooner than 12 hours.
- 2.6.2 Provide barricades and warning devices as required to protect pavement and the general public.
- 2.7 RESTRIPING:
- 2.7.1 At existing parking lots, existing asphalt paved areas where existing parking stall striping, letters, words, symbols, disabled symbols and striping, arrows and painted lines, the Contractor shall after the seal coat process is completed shall reestablish and repaint (minimum two (2) coats) to the same existing line widths, colors, symbol design colors and graphics to the satisfaction of the Owner.
- 2.7.2 *Paint:* Provide factory mixed, quick drying and nonbleeding epoxy modified acrylic latex paint, manufactured specifically for asphalt and concrete traffic surfaces in accordance with CARB rules in effect at the time of application. Provide minimum two (2) coats of paint.
- 2.7.2.1 *Line and Arrow Markings:* Match existing paint, Frazee No. 502, Dunn-Edwards W-801-6 or equal.
- 2.7.2.2 *Symbol of Accessibility and Lettering:* Blue traffic paint, Frazee No. 502, Dunn-Edwards W801-2 or equal. Color shall match No. 15090 in Federal Standard 595B as specified in Section 2-1720 of CCR Title 24 Regulations (similar to Royal Blue).

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specification sections which apply to work of this section as if printed herein.

- 1.1 SECTION INCLUDES: Description of requirements for materials, fabrications and installation of Curbs, Gutters and Walks and accessory items as shown on drawings and necessary to complete the Concrete Work. Work to include but not be limited to the following:
 - 1.1.1 Examine all other sections for work related to those sections which are required to be included as work of this Section.
 - 1.1.2 Concrete curbs, gutters, walks and concrete pavements.
- 1.2 RELATED WORK IN OTHER SECTIONS:
 - 1.2.1 Section 321216 – Asphalt Concrete Paving.
 - 1.2.2 Section 033000 – Concrete Work, except as specified herein.
 - 1.2.3 Section 312200 – Earthwork.
- 1.3 SUBMITTALS: Refer to Section 013300 for procedures.
 - 1.3.1 Provide manufacturer's product data for all materials used and printed recommendations for installation.
 - 1.3.2 Submit all shop drawings as requested by Architect for review and approval, to verify conformance with applicable codes and agencies having jurisdiction.
- 1.4 QUALITY ASSURANCE:
 - 1.4.1 Regulatory Requirements: Comply with applicable portions of codes and regulations of governmental agencies having jurisdiction.
 - 1.4.2 Qualifications: Use skilled workers who are thoroughly trained and experienced and who are completely familiar with the specified requirements and methods to perform and complete the scope of work under Contract.
 - 1.4.3 Protection: Provide all necessary barricades or temporary fencing necessary to protect public and finished work from injury or damage until work is complete.

PART 2 – PRODUCTS AND EXECUTION:

- 2.1 MATERIAL AND WORKMANSHIP: Conform to the applicable sections of "Standard Specifications for Public Works Construction", latest Edition, and all errata and addenda thereto except where noted otherwise in this Section.

2.2 WORK PROCEDURES:

- 2.2.1 Pay for all city permits in connection with this work.
- 2.2.2 The local building department will inspect and approve all concrete work within the street right of ways.

2.3 COLOR AS APPROVED BY: Architect.

2.4 FINISH:

- 2.4.1 See Paragraph 3.11.2 for ramps and walk finish.
- 2.4.2 Gutters: Light broom finish with 3-inch wide steel trowel finish at flow lines.
- 2.4.3 Curbs: Steel trowel finish.
- 2.4.4 Stair treads and landings: Medium broom finish.
- 2.4.5 On-Site Drive Aprons: Heavy broom finish.
- 2.4.6 Curbs adjacent to accessible parking stalls shall be painted blue.
- 2.4.7 A 2-inch wide line shall be painted with 70 percent contrast epoxy paint, as selected by Architect, with grits adjacent to the nose of all stair treads and shall extend the entire width of each tread.

2.5 CRACKING:

- 2.5.1 Any portion of concrete pavement which develops cracks shall be removed to the nearest joint and replaced. Replaced portions shall match adjacent concrete in texture color and elevation.

2.6 EXPANSION JOINT FILLER:

- 2.6.1 Premolded Joint Filler: Premolded joint filler shall consist of premolded strips of a durable resilient material, and shall be one of the following:
 - 2.6.1.1 Preformed Expansion Joint Filler (Bituminous) ASTM D 994
 - 2.6.1.2 Nonextruding and Resilient Filler (Bituminous) ASTM D 1751
 - 2.6.1.3 Nonextruding and Resilient Filler (Non-bituminous) ASTM D 1752

2.6 CONCRETE THICKNESS:

- 2.7.1.1 Unless noted otherwise on the drawings all concrete walkways and slabs shall be minimum of 4 inch thickness and placed onto minimum 6 inches of compacted granular aggregate subbase material compacted to at least 95% relative compaction.

At vehicle areas indicating concrete slabs, slabs in front of and within new trash enclosures and all house keeping pads shall be minimum 6 inches thick. All concrete shall be reinforced. See the drawings for reinforcement requirements and or item 3.2.2 below in the section.

PART 3 – EXECUTION:

3.1 PREPARATION:

3.1.1 Base Course: Sub-grade shall be prepared in accordance with Section 312200 Earthwork.

3.2 INSTALLATION:

3.2.1 Formwork:

3.2.1.1 Stake rigidly at 4 feet on centers and secure against displacement. Formwork shall not deviate more than 1/2-inch from required vertical positions and 1 inch from required horizontal positions.

3.2.1.2 Carefully set forms to alignment, grade, and required dimensions. Hold forms rigidly in place by stakes, clamps, spreaders, and braces where required to insure rigidity.

3.2.1.3 Apply form release to form lumber in accordance with manufacturer's recommendations.

3.2.1.4 Place joint filler on vertical surfaces in contact with concrete paving.

3.2.2 REINFORCEMENT: Upon completion of base course and formwork, install reinforcement where shown on the Contract Drawings. If not shown or indicated on the drawings use #3 bars at 18 inches O.C. each way typical.

3.2.2.1 Clean reinforcement to remove loose rust and mill scale, earth, and other materials which reduce or destroy bond with concrete.

3.2.2.2 Position, support, and secure reinforcement against displacement by concrete placement operations.

3.2.2.3 Place reinforcement to obtain the required coverage for concrete protection.

3.2.2.4 All slabs and concrete walkways shall conform to the guidelines and recommendations of the American Concrete Institute for reinforcement of cast-in-place concrete slabs. Care shall be taken to place the reinforcement mid-height in the slab.

3.3 QUALITY ASSURANCE:

3.3.1 All work shall be installed by a Licensed Contractor who shall provide a foreman or supervisor who has experience with and knowledge of concrete processes.

The Contractor shall provide a jobsite surface finish sample (100 square feet or 9.3 square meters minimum) to be approved by the Architect prior to the start of the construction. Said sample shall be the standard for the balance of the work installed, and shall be protected against damage until final approval from the Architect. The cost for the construction and protection of the referee sample shall be borne by the Contractor and shall be part of the Contractor's bid.

3.4 CONCRETE MIX DESIGN:

3.4.1 For new construction, concrete shall have a minimum compressive strength as follows:

3.4.1.1 Concrete curbs, gutters, sidewalks, and driveway aprons: 3000 psi, concrete type 520-C-2500 in accordance with latest "Greenbook" specifications

3.4.1.2 Concrete cross gutters, ribbon or valley gutters, trash enclosure slabs, and any pavement not otherwise specified: 3500 psi, concrete type 560-C-3250 in accordance with latest "Greenbook" specifications

3.4.1.3 Storm drain catch basins and manholes: 3500 psi, concrete type 560-C-3250 in accordance with latest "Greenbook" specifications

3.4.2 Portland cement shall conform to ASTM C150 Type II. Aggregates shall conform to ASTM C33. Mixing water shall be fresh, clean and potable. No admixtures containing calcium chloride shall be permitted.

3.5 OFF-SITE CONCRETE WORK

3.5.1 Concrete driveway aprons, street sidewalks, curbs, gutters, etc., indicated to be constructed outside of property lines shall conform to the standards and specifications of the public agency having jurisdiction and shall be subject to inspection by their representative. Obtain and pay for necessary permits. The Owner will pay for inspection fees.

3.6 CURING FOR NEW CONSTRUCTION:

3.6.1 All slabs shall be cured properly using conventional five (5) day water cures or using membrane-forming curing agents.

3.7 INSTALLATION PROCEDURES:

3.7.1 For new construction, concrete shall be installed in accordance with the standards and specifications of the American Concrete Institute (ACI).

3.7.1.1 Concrete shall be tested in accordance with ASTM F1869-98 and/or ASTM E1970-97.

3.7.1.2 Concrete shall have a pH level between 7-9.

3.7.1.3 Construction joints shall be transferred through the finished surface by tooling them into the finished surface. Construction joints may be filled using a semi-rigid elastomeric material in accordance with manufacturer's recommendations.

3.8 PROTECTION AND MAINTENANCE:

3.8.1 Newly completed surfaces shall be protected.

3.9 APPLICATION:

3.9.1 Concrete:

3.9.1.1 Mixing: Transit mix the concrete in accordance with provisions of ASTM C94.

3.9.1.2 Conveying and Placing: Place concrete in accordance with pertinent recommendations contained in ACI 304 and with the following:

3.9.1.2.1 Deposit concrete continuously in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause formation of seams or places of weakness within the section.

3.9.1.2.2 Deposit and consolidate concrete in a continuous operation within the limits of construction joints until the placing of a panel or section is completed.

3.9.1.2.2.1 Bring surfaces to the correct level with a straight-edge, and then strike off.

3.9.1.2.2.2 Use bullfloats or derbies to smooth the surface, leaving it free from bumps and hollows.

3.9.1.2.3 Do not sprinkle water on the plastic surface. Do not disturb the surfaces prior to start of finishing operations.

3.9.1.2.4 Do not use concrete which has become non-plastic and unworkable, which does not meet required quality control limits, or which has been contaminated by foreign materials.

3.10 CONTROL JOINTS / WEAKENED PLANE JOINTS:

3.10.1 Tops of joints shall be installed flush with the concrete surface. Depth of joint shall be a minimum of 1/4 the thickness of slab. Use control joints/weakened plane joints on curbs, curbs and gutters, ribbon or valley gutters, and cross gutters at maximum intervals of 10 feet on center. Sawed joints may be used in lieu of the above upon Architect's written approval providing they are at least 1-1/2 inch deep.

3.11 FINISHES:

3.11.1 Paved areas between buildings will consist of various different finishes such as medium and heavy broom, steel trowel exposed aggregate and rock salt. See architectural drawings for specific type of finish for these areas including colored concrete.

3.11.2 Walks, Pavements, Ramps: Unless otherwise noted, medium broom finish perpendicular to longitudinal direction of walks, and at exterior ramps heavy broom finish.

- 3.11.2.1 Slopes Less Than 6 percent: Surfaces with a slope of less than 6 percent gradient shall be at least as slip-resistant as that described for medium broom finish, perpendicular to the direction of travel.
- 3.11.2.2 Slopes 6 percent or Greater: Surfaces with a slope of 6 percent gradient or greater shall be slip-resistant, equivalent to a heavy broom finish.
- 3.11.3 Gutters: Light broom finish with 3-inch-wide steel trowel finish at flowlines.
- 3.11.4 Concrete mow strips or headers: Medium broom finish.
- 3.12 CURING:
 - 3.12.1 Comply with California Building Code, Title 24, Section 1905A.11, Part 2.
 - 3.12.1.1 Begin final curing procedures immediately following initial curing and before concrete has dried. Continue final curing for at least seven (7) days in accordance with ACI 301 procedures. Avoid rapid drying at end of final curing period.
 - 3.12.2 Curing Methods: Perform curing of concrete by curing as herein specified.
 - 3.12.2.1 Provide moisture-curing by the following methods:
 - 3.12.2.1.1 Keep concrete surface continuously wet by covering with water.
 - 3.12.2.1.2 Continuous water-fog spray.
 - 3.12.2.1.3 Covering concrete surface with specified absorptive cover, thoroughly saturating cover with water and keeping continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4-inch lap over adjacent absorptive covers.
 - 3.12.2.2 Provide curing and sealing compound to exposed exterior slabs, walks, and curbs, as follows:
 - 3.12.2.2.1 Applied specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours). Apply uniformly in continuous operation by power-spray or roller in accordance with manufacturer's directions. Re-coat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - 3.12.2.2.2 Do not use membrane curing compounds on surfaces which are to be covered with coating material applied directly to concrete, liquid, floor hardener, waterproofing, damp-proofing, membrane roofing, flooring (such as ceramic or quarry tile, glue-down carpet), painting, and other coatings and finish materials, unless otherwise acceptable to Architect.

3.12.2.2.3 Concrete slabs and paving shall be properly cured and protected against damage and defacement of nature during construction operations. If weather is hot or surface has dried out, spray surface with fine mist of water starting not later than 2 hours after final troweling. Surface of finish shall be kept continuously wet for at least 10 days. Wetting is considered emergency work and shall be performed on weekends and holidays, if necessary.

3.12.3 In lieu of water curing, within 24 hours after finishing, the concrete may be cured with a clear liquid curing compound such as "Sealtight No. 1100 Clear" by W.R. Meadows or equal applied in accordance with manufacturer's recommendations.

3.13 FIELD QUALITY CONTROL:

3.13.1 Flood Tests: Concrete gutters and concrete pavement shall be given a flood test in the presence of the Inspector. Concrete work where water ponds and does not run off in a reasonable amount of time, shall be removed to the nearest score or joint line and replaced to provide proper drainage. Use a water hose to flood test concrete areas. If water stands 1/8 inches in height or more, then remove the section of concrete from concrete joint to concrete joint.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

- 1.1 SECTION INCLUDES: Description of requirements for materials, fabrications and installation of concrete parking bumpers and accessory items as shown on drawings and necessary to the Work, as follows:
 - 1.1.1 All applicable requirements of 2019 CBC.
 - 1.1.2 Examine all other sections for work-related to those sections which are required to be included in this section.
 - 1.1.3 Provide parking bumpers.
 - 1.1.4 Anchorage for parking bumpers.
- 1.2 RELATED SECTIONS:
 - 1.2.1 Section 321723 – Pavement Markings.
 - 1.2.2 Section 032000 – Concrete Reinforcement.
 - 1.2.3 Section 033000 – Concrete Work.

PART 2 – PRODUCTS

- 2.1 GENERAL: Where two (2) or more identical articles or pieces of equipment are required, provide products of same manufacturer. If specified models are discontinued, furnish updated model as no additional cost.
- 2.2 MATERIALS:
 - 2.2.1 Parking Bumpers: Pre-cast 3,000 psi steel reinforced concrete of dimensions shown on the drawings and indicated on approved shop drawings. Minimum bumper size shall be 6 inches wide by 5-foot-long by 6 inches high.
 - 2.2.2 Reinforcement: Conform to requirements of Section 032000.
 - 2.2.3 Concrete: Conform to requirements of Section 033000.

PART 3 – EXECUTION

- 3.1 Install bumpers in the indicated locations. All surfaces to be smooth and un-chipped. Secure bumpers with $\frac{3}{4}$ inch diameter anchor pins at each end, driven to 12 inches minimum penetration through the finish surface and into sub-grade. Recess anchor pins and fill holes with cement grout and smoothly trowel to present a neat finished appearance. Secure bumpers on concrete surfaces with a minimum of 160 square inches coverage of mastic per bumper.

END OF SECTION

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

- 1.1 SECTION INCLUDES: Description of requirements for materials and installation of Parking Striping, Signs and accessory items as shown on drawings and necessary to complete Parking Striping Work. Work to include but not be limited to administration and painting, signs:
 - 1.1.1 Examine all other sections for work-related to those sections which are required to be included as work or this Section.
 - 1.1.2 Providing parking stall divider lines.
 - 1.1.3 Provide pavement markings, curb marking, arrows, and lettering.
 - 1.1.4 Provide accessible and unauthorized accessible vehicle signs at accessible parking spaces and where noted.
 - 1.1.5 Provide "DO NOT ENTER", "ACCESSIBLE ROUTE", "NO PARKING TOW AWAY" signs and other sign as noted.
- 1.2 RELATED SECTIONS
 - 1.2.1 Section 321216 – Asphaltic Concrete Pavement (A/C Paving).
 - 1.2.2 Section 321823.43 – Game and Courtlines.
 - 1.2.3 Section 055000 – Miscellaneous Metals.
 - 1.2.4 Section 099100 – Painting except as specified herein.
- 1.3 SUBMITTALS (REFER TO SECTION 013300 FOR PROCEDURES)
 - 1.3.1 Submit detailed shop drawings indicating sizes and layout of lines, markings and locations of signs.
- 1.4 REGULATORY REQUIREMENTS
 - 1.4.1 Comply with the applicable codes and regulations of governmental agencies having jurisdiction, including those having jurisdiction over airborne emissions and industrial waste disposal. Where those requirements conflict with this specification comply with the more stringent provisions.
 - 1.4.2 Comply with all requirements for accessibility in accordance with California Building Code with Title 24 CCR amendments, applicable sections of 2019 CBC Chapter 11B.
 - 1.4.3 Pavement Markings: Painted lines and markings on pavement shall be 3 inches minimum wide in accordance with Section 2.2 Materials for Colors.

GLENDALÉ UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

1.5 DELIVERY, STORAGE, AND HANDLING:

1.5.1 Delivery: Deliver materials to be used in the performance of the work of this Section in the manufacturer's original, unopened containers with the labels in the legible conditions. The Owner reserves the right to inspect the containers prior to their opening, to review the accompanying bills of lading, and to reject materials in opened containers.

1.5.2 Storage: Store all materials off-ground and, as required, under cover. Protect materials from adulteration by infiltration. Conform to the manufacturer's environmental requirements relative to storage and handling of materials.

1.6 PROJECT CONDITIONS: Perform the Work of this Section under environmental conditions no less stringent than those stipulated by the manufacturer s of the materials used. Take all precautions necessary to avoid and mitigate the effects of wind drift in the application of liquid materials. Do not apply marking paint when weather is foggy or rainy, or ambient or pavement temperatures are below 40 degrees F, nor when such conditions are anticipated during eight hours after application.

PART 2 – PRODUCTS

2.1 GENERAL: Provide products of same manufacturer. If specified models discontinued, furnish updated model at no additional cost.

2.2 MATERIALS:

2.2.1 Paint: Provide factory mixed, quick drying and nonbleeding epoxy modified acrylic latex paint, manufactured specifically for asphalt and concrete traffic surfaces in accordance with CARB rules in effect at the time of application. Provide minimum two (2) coats of paint.

2.2.1.1 Line and Arrow Markings: White traffic paint, Frazee No. 502, Dunn-Edwards W-801-6 or equal.

2.2.1.2 Symbol of Accessibility and Lettering: Blue traffic paint, Frazee No. 502, Dunn-Edwards W801-2 or equal. Color shall match No. 15090 in Federal Standard 595B as specified in Section 2-1720 of CCR Title 24 Regulations. Parking spaces for the accessibility shall be marked according to CBC Figures 11B-502.2, 11B-502.3, and 11B-502.3.3. Tactile warning surface shall be in conformance to CBC Section 11B-302 and shall be at the same level with slopes not steeper than 1:48 in any direction. CBC Section 11B-502.4. Access aisles shall be marked by a blue painted borderline around their perimeter. The area within the blue borderlines shall be marked with hatched lines a maximum of 36" on center in a color contrasting with that of the aisle surface, preferably blue or white. Access aisle markings may extend beyond the minimum required length. CBC Section 11B-502.3.3. Access aisles for passenger drop-off and loading zone shall be marked with a painted borderline around their perimeter. The area within the borderlines shall be marked

with hatched lines a maximum of 36" on center in a color contrasting with that of the aisle surface. CBC Section 11B-503.3. Painted lines and markings on pavement shall be 3" wide minimum.

2.2.1.3 No Parking Zone Markings: Yellow traffic paint, Frazee No. 502, Dunn-Edwards W801.3 or equal.

2.2.1.4 No Parking Curb: Red traffic paint, Frazee No. 502, Dunn-Edwards W801-3 or equal.

2.2.1.5 No Parking letters at Fire lanes: Red traffic paint, Frazee No. 502, Dunn-Edwards W801-3 or equal.

2.2.1.6 Fire Lane Painted Lines: Red traffic paint, Frazee No. 502, Dunn-Edwards W801-3 or equal.

2.2.2 Accessible Parking and Other Signs:

2.2.2.1 At Parking Spaces: Minimum 18-gauge steel sheet with reflectorized porcelain white beaded International Symbol of Accessibility on blue background, minimum 70 square inches.

2.2.2.2 At Entries to Parking Facilities: Minimum 18-gauge steel sheet with reflectorized porcelain white beaded text on blue background, not less than 17 inches by 22 inches with minimum 1-inch high lettering. Text to read as follows:

"Unauthorized vehicles Parked in designated accessible spaces not displaying distinguishing placards or license plates issued for persons with disabilities which are found parking in spaces designated for persons with disabilities will be towed away at Owner's expense. Towed vehicles may be reclaimed at City of **GLENDAL**E or by telephoning (area code) – or the City for which the Vehicle will be towed." Obtain telephone number from the district to be placed on the sign.

Verify and add to sign text, towing information and, if any, required references to local codes and laws.

2.2.2.3 Secure post-mounted signs to one-piece, capped galvanized steel pipe (conforming to ASTM A53 or A120, seamless, extra strong) with theft-proof fasteners and set in concrete footings, centered at interior end of parking space with bottom edge of sign a minimum of 80 inches above finished grade.

2.2.2.4 Secure wall-mounted signs to walls with theft-proof fasteners, centered at interior end of parking space with bottom edge of sign a minimum of 36 inches above finished grade.

2.2.2.5 Surface slopes of accessible parking spaces and access aisles shall be the minimum possible and shall not exceed per CBC Section 11B-302 and shall be at the same level with slopes not steeper than 1:48 in any direction. CBC Section 11B-502.4.

2.2.2.6 Loading & unloading access aisle shall be marked by a border painted blue. Within the blue border, hatched lines a maximum of 36" on center shall be painted a color contrasting with the parking surface, preferably blue or white CBC Figures 11B-18A through 11-B-18C and CBC Section 11B-503.3.

2.3 EQUIPMENT: Pressurized, self contained spray machine capable of applying a straight line from 2-inches to 6 inches wide, with consistent coverage of a minimum of 150 square feet per gallon.

PART 3 – EXECUTION

3.1 LINE AND ARROW MARKINGS: Locate markings in accordance with approved shop drawings. Lay out markings using guide lines, templates and forms.

3.2 PREPARATION: Clean surfaces to be painted free from dirt, dust, sand, gravel, oil, and other foreign materials. Allow concrete to cure before painting as recommended by manufacturer of marking paint. Perform striping when the weather conditions permit proper application, and in accordance with manufacturer's direction.

3.3 APPLICATION: Machine paint lines at a rate to cover not more than 100 sq ft. of surface per gallon of paint or as required to completely opaque (equivalent to approximately one gallon for 450 lineal feet of 3-inch-wide strip). Apply minimum two (2) coats of paint.

3.3.1 Striping:

3.3.1.1 Provide uniform straight edges without overspray.

3.3.1.2 Uniform line width of 3 inches, unless otherwise noted on drawings

3.3.1.3 Provide hairpin stripe hatching between handicap parking stalls as Code required.

3.3.2 Accessible Symbol: Install accessible signs and pavement marking at each Accessible parking space. Apply 700 square inch international Accessible symbol of accessibility on pavement surface in accordance with Title 24 Section 2. Paint white symbol on blue background square color No. 15090 Federal Standard 595 B. Provide minimum two (2) coats of paint.

3.4 PROTECTION AND CLEAN-UP: Protect all adjacent work from damage during application procedures. Completely remove overspray and spills as soon as possible before curing and remove excess materials and waste from site.

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 REFERENCES:

Requirements in Addenda, Conditions and Division 1 collectively apply to this work.

1.2 DESCRIPTION:

1.2.1 Principal Work Items are:

1.2.1.1 Painted lines, lettering, and symbols at parking areas.

1.2.1.2 Painted stripes at exterior stairs, to conform to Accessibility Requirements.

1.2.1.3 Painted lines, lettering, symbols at concrete areas.

1.2.2 Related Work Specified Elsewhere:

1.2.2.1 Section 321216 – Asphaltic Concrete Paving

1.2.2.2 Section 321600 – Concrete Curbs, Gutters, Walks and Pavements

1.2.2.3 Section 099100 - Painting

1.3 SUBSTITUTIONS:

Only written approval of Architect will permit substitutions for materials specified.

1.4 QUALITY ASSURANCE:

1.4.1 Product Manufacturer: Company specializing in manufacturing traffic surface paint products with 10 years experience.

1.4.2 Applicator: Company specializing in commercial pavement painting with five (5) years experience.

1.4.3 Submit product data and symbol/letter styles under provisions of Section 013300.

1.4.4 Provide field samples for all lettering, symbols used for coating color, thickness of application, dimensioning, width of stroke and design.

1.5 JOB CONDITIONS:

1.5.1 Environmental Requirements: Paint only in dry weather, on dry clean surfaces, when temperature is above 50 degrees F.

1.5.2 Sequencing, Scheduling: Coordinate with paving and concrete work. Verify that paint type is compatible with asphalt paving surfaces and seal coats as well as concrete surfaces.

- 1.5.3 Protection: Do not apply pavement markings for seven (7) days after application of asphalt surfaces that are seal coat. For concrete surfacing, a minimum seven (7) days prior to application. After application, protect from traffic and pedestrian traffic until thoroughly dry.

1.6 ACCESSIBILITY CODE GUIDELINES:

1.6.1 **Pavement markings:**

- Accessible parking spaces serving a particular building or facility shall be located, and dispersed if serving more than one accessible entrance, on the shortest accessible route to an entrance or to multiple accessible entrances. **CBC Sections 11B-208.3.1**
- Accessible parking spaces in a parking facility not serving a particular building or facility shall be located on the shortest accessible route to an accessible pedestrian entrance of the parking facility. **CBC Sections 11B-208.3.1**
- Minimum number of required accessible parking spaces shall be provided in accordance with **CBC Table 11B-208.2** for each parking facility provided.
- For every six or fraction of six accessible parking spaces, at least one shall be an accessible van parking space. **CBC Section 11B-208.2.4**
- Accessible parking spaces and access aisles shall comply with **CBC Section 11B-502** and shall be dimensioned to the centerline of the marked lines as follows:
 - Parking spaces and access aisles shall be marked according to **CBC Figures 11B-502.2, 11B-502.3, and 11B-502.3.3**. Their surfaces shall comply with **CBC Section 11B-302** and shall be at the same level with slopes not steeper than 1:48 in any direction. **CBC Section 11B-502.4**
 - Parking spaces shall be 9'x18' minimum and van parking spaces shall be 12'x18' minimum with an adjacent access aisle of 5'x18' minimum. Access aisles shall be placed on either side of the parking spaces except be located on the passenger side for van parking spaces. Van parking spaces shall be permitted to be 9'x18' minimum where the access aisle is 8'x18' minimum.
 - Access aisles shall be marked by a blue painted borderline around their perimeter. The area within the blue borderlines shall be marked with hatched lines a maximum of 36" on center in a color contrasting with that of the aisle surface, preferably blue or white. Access aisle markings may extend beyond the minimum required length. **CBC Section 11B-502.3.3**
 - Access aisles (parking spaces as well – similar application) shall not overlap the vehicular way. **CBC Section 11B-502.3.4**
 - A vertical clearance of 8'-2" minimum shall be provided for accessible parking spaces, access aisles, and vehicular routes serving them. **CBC Section 11B-502.5**
- At least one passenger loading zone shall be provided in every continuous 100 linear feet of loading zone space, or fraction thereof, complying with **CBC Sections**
- **11B-209 and 11B-503** as follows:
 - Vehicle pull-up spaces shall be 8'x20' minimum. Access aisles shall be 5'x20' minimum and shall be adjacent and parallel to the vehicular

- pull-up spaces. They shall be at the same level with slopes not steeper than 1:48 in any direction. **CBC Section 11B-503.4**
 - Access aisles for passenger drop-off and loading zone shall be marked with a painted borderline around their perimeter. The area within the borderlines shall be marked with hatched lines a maximum of 36" on center in a color contrasting with that of the aisle surface. **CBC Section 11B-503.3**
 - A vertical clearance of 9'-6" minimum shall be provided for vehicle pull-up spaces, access aisles, and a vehicular route serving them connecting a vehicular entrance and a vehicular exit. **CBC Section 11B-503.5**
- Bus loading zones and bus stops shall comply with **CBC Sections 11B-209 and 11B-810.2** as follows:
 - Boarding and alighting areas shall be of 8' x 5' minimum, with 8' measured perpendicular to the curb or vehicle roadway edge, and with 5' measured parallel to the vehicle roadway. Slopes in 8' direction shall be 1:48 maximum. Slopes in 5' direction shall be the same as that of the roadway, to the maximum extent practicable. **CBC Figure 11B-810.2.2**
 - Bus shelters shall provide a minimum 30" x 48" clear floor or ground space (36" x 48" or 36" x 60" as applicable in an alcove), with slopes not steeper than 1:48 in any direction, entirely within the shelter complying with **CBC Section 11B-305**.
 - Bus shelters shall be connected by an accessible route complying with **CBC Section 11B-402** to a boarding and alighting area complying with **CBC Section 11B-810.2**. **CBC Figure 11B-810.3**

PART 2 – PRODUCTS

2.1 MATERIALS:

2.1.1 Traffic Paint:

2.1.1.1 Type: Water base, roadway traffic lane marking type; colors as selected.

2.1.1.2 Acceptable Manufacturers:

2.1.1.2.1 Dunn-Edwards, Vin-L-Stripe No. W-801, vinyl epoxy as a standard of quality.

2.1.1.2.2 J.E. Bauer latex base Formula No. 1030A9 White, No. 1056A9 Yellow, No. 1865A9 Blue, No. 1118A9, Green, and No. 1854A9.

2.1.1.2.3 Sinclair No. 160 Vinyl Traffic Line Paint, water base.

2.1.1.2.4 Pervo Paint Company.

PART 3 – EXECUTION

3.1 INSPECTION:

Inspection: Surfaces to be striped shall be clean and dry, and surface sealer thoroughly dry.

GLENDAL UNIFIED SCHOOL DISTRICT

GLENOAKS ELEMENTARY SCHOOL
NEW 2-STORY MODULAR BUILDING

MARCH 10, 2021

3.2 PREPARATION:

Layout: Accurately measure and layout work. Use stencils for all work; snap lines for straight work.

3.3 APPLICATION:

3.3.1 General: Apply minimum of two (2) coats, at the rate of 400 SF maximum per gallon per coat.

3.3.2 Painted Lines, Lettering, and Symbols at Parking Areas:

3.3.2.1 Parking Stall Lines: 3-inch-wide, minimum, color white.

3.3.2.2 Disabled Stall, Stripes and Letters: As indicated. Paint and federal color shall comply with Federal No. 15090, Federal Standard 595c, and Checklist No. 02762.

3.3.2.3 Parking spaces for the disabled shall be marked according to CBC Section 11B-502.2, 11B502.3 and 11B-502.3.3. Tactile warning lines shall be in conformance to CBC Section 11B-502.2, 11B502.3 and 11B-502.3.3.

3.3.2.4 Color: White, for all work except blue at Disabled parking stalls, stripped areas and red to indicate No Parking.

3.3.2.5 Traffic Directional Arrows: Paint directional traffic flow arrows in all aisles, lanes, and at parking lot entrances and exits. See plans for dimensions of arrows and additional locations. If not dimensioned follow Cal-Trans Latest Addition "Payment Marking Arrows Standard Plan RSP-A24A.

3.3.2.6 Red Painted Curbs: Paint entire top and face of curb red with the words (4 Inches High) "NO PARKING." Spaced at 10-foot intervals where Red painted curbs are called-out on the Site Plan(s).

END OF SECTION

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 SECTION INCLUDES: Description of requirements for material, fabrications and installation of Chain Link Fencing and accessory items as shown drawings and necessary to complete the Finished Fencing. Work to include but not limited to administration, materials, labor, and to provide completed fence included as noted:

1.1.1 All applicable requirements of Division 00 and Division 01 apply to the work of this Section.

1.1.2 Examine all other sections for work-related to those sections which are required to be included as work of this Section.

1.1.3 Provide interior and exterior chain link fencing, gates, and related hardware accessories as indicated or shown on the drawings or as required for a completed installation.

1.2 RELATED WORK IN OTHER SECTIONS:

1.2.1 Section 321600 – Concrete Curbs, Gutters, Walks and Pavements

1.2.2 Section 322000 – Playground Equipment (for wind screens and padding)

1.2.3 Section 055000 – Miscellaneous Metal other than specified herein.

1.3 SUBMITTALS:

1.3.1 Shop Drawings: Include complete engineered shop drawings and calculations for posts and footing sizes per Section 013300.

1.3.2 Product Data: Submit catalog cuts of materials proposed to be furnished and installed under this Section. List manufacturer's name, catalog number of each item, as applicable and current recommended method of installation.

1.3.3 Submit Samples.

1.3.4 Manufacturer's Certifications of Compliance for chain link fabric posts and rail.

1.4 ACCESSIBILITY CODE GUIDELINES:

1.4.1 **Fences, gates and hardware:**

- Gates that are part of the accessible route shall meet all the requirements of an accessible door in compliance with **CBC Section 11B-404**.
- The lever of lever actuated latches or locks for an accessible gate shall be curved with a return to within ½" of the (face of) gate to prevent catching on the clothing or persons. **California Referenced Standards code. T-24 Part 12, Section 12-10-202, Item (F)**.

- Swing doors and gate surfaces within 10" of the finish floor or ground shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16" of the same plane as the other and be free of sharp or abrasive edges. Cavities created by added kick plates shall be capped. **CBC Section 11B-404.2.10**

PART 2 – PRODUCTS

2.1 MANUFACTURERS:

- 2.1.1 Materials shall be new and products of recognized, reputable manufacturers are acceptable. Like products shall be supplied by a single source.
- 2.1.2 General: Where two (2) or more identical articles or materials are required. If specified materials are discontinued, furnish updated model at no additional cost.

2.2 MATERIALS:

- 2.2.1 Fabric: Provide 2-inch, 9-gauge wire for standard commercial usage. Fabricate weaving by using good commercial quality steel wire with a uniform square mesh. Galvanize after weaving by the hot dip spelter process to give a minimum 1.25 ounces of zinc per square feet of wire surface distributed over the entire fabric. Conform with ASTM A 392, Class I with both selvages knuckled for fabric 60 inches or less high, one edge knuckled and one twisted selvage for 72 inches and higher.
- 2.2.2 Framework: Galvanized steel, ASTM A120 Schedule 40, with not less than 1.8 oz zinc per sq. ft.
- 2.2.3 Hardware and Accessories: Galvanized ASTM A153, with zinc weights per Table I.
- 2.2.4 End, Corner and Pull Posts: Up to 6 feet fabric height, 2.375 inches OD pipe, 3.65 lbs per linear ft. Over 6 feet fabric height, 2.875 inches OD steel pipe, 5.79 lbs per linear ft.
- 2.2.5 Line Posts: Space 10 feet OC maximum, unless otherwise shown, up to 6 feet fabric height, 1.90 inch OD steel pipe, 2.72 lbs per linear ft.; over 6 feet fabric heights, 2.375 inch OD steel pipe, 3.65 lbs per linear ft; over 8 feet fabric height, 2.875 inch OD steel pipe, 5.79 lbs per linear ft.
- 2.2.6 Gate Posts: Furnish posts for supporting single gate leaf, or one leaf of a double gate installation, for nominal gate widths as follows:
 - 2.2.6.1 Up to 6 feet wide 2.875-inch OD pipe, 5.79 lbs per linear ft.
 - 2.2.6.2 Over 6 feet and up to 13 feet wide, 4.0 inches OD pipe, 9.11 lbs per linear ft.
- 2.2.7 Top Rails: 1.66-inch OD pipe, 2.27 lbs per linear ft., manufacturer's longest lengths, with expansion type couplings, approximately 6 inches long, for each

joint. Provide means for attaching top rail securely to each gate, corner, pull and end post.

2.2.8 Tension Wire: 7-gauge, coated coil spring wire, metal and finish to match fabric. Locate at bottom of fabric only.

2.2.9 Accessories: Provide wire ties, post bracing, adjustable truss rods, post tops, stretcher bars and bands, and other items as required for the installation and in conformance with CLFMI Manual.

2.2.10 Gates

2.2.10.1 Fabricate gate perimeter frames of 1.90-inch OD pipe, 2.71 lbs per linear ft., metal and finish to match framework. Furnish horizontal and vertical members to ensure proper gate operation and for attachment of fabric, hardware and accessories. Space so that frame members are not more than 8 feet apart.

2.2.10.2 Install diagonal cross-bracing consisting of 0.375 inches diameter adjustable length truss rods on gates to ensure frame rigidly without sag or twist.

2.2.10.3 Provide solid galvanized metal base plate 10 inches high from the paving on both sides of the gate where panic hardware devices are installed and or where accessible access path of travel is shown on the drawings.

2.2.10.4 Gate Hardware: Furnish the following hardware and accessories for each gate.

2.2.10.4.1 Hinges: Size and material as detailed on the drawings. Provide grease nipples as detailed on the drawings.

2.2.10.4.2 Latch: Forked type or plunger-bar type to permit operation from either side of gate, with padlock eye as integral part of latch. Where panic hardware is required, omit the forked type latch and plunger bar.

2.2.10.4.3 Wheels: Sliding gates are to have wheel assemblies provided for each supporting post. Each assembly is to consist of two rubber wheels 4 inches in diameter and be attached to post so that the bottom horizontal member will roll between the wheels which can be adjusted to maintain plumb gates frames and proper alignment.

2.2.10.4.4 Gates in path of travel must comply with exit door requirements (CBC Section 11B-404 /ADAAG4.13.3). Specify hardware that does not require pinching, grasping or twisting motion to operate and provide solid kick plates 10 inches minimum high 3 inches maximum from the paving on both sides of the gate. Provide 12-inch-high by width of gate 16 ga. By 14-inch-thick plate weld to gate

and centered to the panic bar height. Plate shall be galvanized.

Panic hardware shall be as specified in the Finish Hardware Section 087000. If not specified, use exit device 7155 PVD Torx LC-finish 630 as manufactured by Yale. At pair of gates, provide two (2) exit devices.

Gates in path of travel must comply with door requirements CBC Section 11B-404 / ADAAG 4.13.3.

Hand-activated gate opening hardware, handles, pulls, latches, locks, and other operating devices on accessible gates shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist to operate. CBC Section 11B-309.4.

The bottom 10" of an accessible gate shall have a smooth, uninterrupted surface on each side. The bottom of the gate shall be within 3" of the finish surfaces of the path of travel. The maximum effort to operate the gate shall not exceed 5 lbs (22.2 N). CBC Sections 11B-404.2.9, 11B-309.4.

Provide a sign on or adjacent to gate stating that ***"This gate is to remain locked in the open position during business/school hours or during any public functions."*** The sign shall be mounted at 60 inches above grade on or adjacent to the gate.

- 2.2.10.4.5 At chain link fence/gate locations where specified or indicated/shown/detailed on the site plan, shall receive PreWoven Fence Slats made of heavy-duty HDPE Slats as manufactured by Privacy Link or equal. Telephone number 1-800-574-1076 email address, info@epriacylink.com. Color and style as selected by the Architect from the manufacturer's standard slat colors and styles selections. Chain link fence shall be pre-inserted privacy slats and shall be double wall slats installed vertically at the specified chain link fences locations. Slats shall be installed at all gates fencing locations both Home and Visitor bleachers. The wire mesh shall be 9-gauge color coordinated vinyl coated wire mesh matching the color of the selected standard slat colors. Style of slats is Privacy Master.

PART 3 – EXECUTION

3.1 INSTALLATION – General:

- 3.1.1 Install work of this Section in strict accordance with manufacturer's recommendations, that as specified herein and as approved by Architect.

- 3.1.2 Do not begin installation and erection of exterior fencing before final grading is completed, unless otherwise permitted.
 - 3.1.2.1 For fencing attached to concrete or masonry, do not begin work before these materials have been completed, cured and have attained their design strengths.
 - 3.1.2.2 Verify locations of sleeves for attaching to exterior concrete walks or interior floors. Set vertical posts plumb, accurately positioned and temporarily support. Grout with approved non-shrink, non-metallic grout.
 - 3.1.2.3 Install Pre-Woven Fence Slats made of heavy-duty HDPE Slats in strict accordance to the manufacturer's standard instructions. All Pre-Woven fence slats shall be vertically installed unless noted otherwise on the drawings.
- 3.2 ASSEMBLY:
 - 3.2.1 Framework:
 - 3.2.1.1 Top Rails: Run rail continuously through post caps. Middle and bottom rails only when specified. Provides expansion couplings as recommended by fencing manufacturer. The top rail shall pass through openings provided in the line post top and each length shall be coupled with a sleeve for a distance of 3 inches.
 - 3.2.1.2 Brace Assemblies: Install braces so posts are plumb when diagonal rod is under proper tension. Fences with fabric 6 feet high and over and all fences without top rail, a brace rail shall be provided between each terminal post and the next adjacent line post. Each brace rail shall have attachments for a 5/16 inches truss rod and turnbuckle attachment. Truss rods may be eliminated in any line of fence where there is a continuous center rail.
 - 3.2.2 Fabric:
 - 3.2.2.1 Provide approximately 1 inch between finish grade and bottom selvage. Pull fabric taut and tie to posts, rails, and tension wires. Install fabric on outward side facing side of fence and anchor to framework so that the fabric remains in tension after pulling force is removed. Install stretcher bars by threading through fabric and secured to posts with metal bands spaced 14 inches on centers. Use U-shaped
- 3.3 SETTINGS POSTS IN CONCRETE SLAB:
 - 3.3.1 Drill line posts at least 12 inches deep and at least 18 inches deep for end, pull, gate and corner posts. Drill hole at least 1 inch greater in diameter than the dimension of the post to be placed.
 - 3.3.2 Setting Posts: Remove all loose materials from bottom of holes, and moisten soil prior to placing concrete. Center and align posts in holes placing concrete around posts in a continuous pour, tamping for consolidation. Check each post for vertical and top alignment. Posts that are to be in sleeved holes, concrete

constructions or rock excavations shall be installed using a non-shrink Portland cement grout.

- 3.3.3 Concrete Strength: Allow concrete to attain at least 75 percent of its minimum 28-day strength before rails, tension wires and fabric are installed. Do not, in any case, install such items in less than seven (7) days after placement of concrete. Do not stretch, tension fabric, wire or hang gates until concrete has attained its full design strength.

3.4 SETTING POST AT GRADE

- 3.4.1 Excavating: Drill holes for post footing in firm, undisturbed or compacted soil, to the dimensions and spacings shown. Post hole dimensions shall be follows:

3.4.1.1 Provide 30-inch-deep by 8-inch diameter foundations for line posts and gate post when fabric height is 5 feet or less.

3.4.1.2 Provide 36-inch-deep by 8-inch diameter foundations for line posts and gate post when fabric heights exceed 5 feet.

3.4.1.3 For line post and gate post 10 feet and greater provide 48 inches deep by 14-inch diameter foundations.

3.4.1.4 For line post and gate posts greater than 15 feet provide 60 inches deep by 18 inches diameter foundations.

3.4.1.5 For line post 20 feet to 30 feet, provide 72 inches deep by 30 inches diameter foundations.

3.4.1.6 Where wind screens, fabric, padding is covering half to full height of the chain link fencing increase the footing depth by 12 inches.

3.4.1.7 All footing for line post 15 feet or greater, shall be reinforced with reinforcing bars and stirrups. The Fencing Contractor shall provide a licensed engineer, licensed in the State of California to design the footing and reinforcement for all line post foundation 15 feet in height or greater. Provide calculations meeting minimum Title 24 code requirements to be submitted to the Architect. All footing designs, reinforcement bars, and calculations shall be signed by a licensed Structural Engineer in the State of California. Until the Architect has reviewed the design and engineering for all fence post greater than 15 feet, the Contractor shall not commence with any fabrication and installation.

3.4.1.8 When solid rock is encountered near the surface, drill into rock at least 12 inches for line posts and at least 18 inches for end, pull, gate and corner posts. Drill hole at least 1 inch greater in diameter than the dimension of the post to be placed.

- 3.5 AS A CONDITION OF FINAL ACCEPTANCE OF THE WORK, adjust fabric tension and moving parts and clean field welds of flux and spatter, remove damaged galvanizing and then coat with dry galvanizing, or touch up abraded surfaces of color coating with materials equivalent to those used in applying shop finish.

END OF SECTION

BID SET
10/01/2021

PART 1 - GENERAL

All applicable portions of Division 1, including the drawings and general provisions of the contract, the general and supplementary conditions and Division 1 specifications sections which apply to work of this section as if printed herein.

1.1 WORK INCLUDED:

1.1.1 Work includes storm drain lines and related storm drain structures.

1.2 RELATED WORK:

1.2.1 Related Work Specified Elsewhere:

1.2.1.1 Section 017123 - Field Engineering: Location, elevations and inverts of storm drainage lines and structures.

1.2.1.2 Section 312200 - Earthwork.

1.2.1.3 Section 312300 – Excavating and Backfilling for Utilities

1.2.1.4 Section 15400 - Plumbing Systems: Roof drainage piping within five feet of building lines.

1.3 QUALITY ASSURANCE:

1.3.1 Regulatory Requirements:

1.3.1.1 Comply with applicable codes and regulations of governmental agencies having jurisdiction.

1.3.1.2 Where requirements of applicable codes, regulations and standards conflict with this Specification, comply with the more stringent provisions.

1.3.2 Source Quality Control:

1.3.2.1 Tests: Materials for which physical characteristics have been stipulated shall have had such characteristics independently confirmed by laboratory tests employing industry-recognized procedures. Both the laboratory performing the tests and the test methods employed will be subject to the approval of the Architect.

1.4 REFERENCES:

1.4.1 American Society for Testing and Materials (ASTM):

1.4.1.1 C 412 - Specifications for Extra Strength Clay Pipe.

1.4.1.2 C 478 - Specifications for Precast Reinforced Concrete Manhole Sections.

1.4.1.3 C 139 - Specifications for Concrete Masonry Units for Construction of Catch Basins and Manholes.

1.5 SUBMITTALS:

1.5.1 Product Data: Submit complete manufacturer's description literature and specifications in accordance with the provisions of Section 013300.

1.5.1.1 Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number, and catalog cut for each item where applicable.

1.5.2 Shop Drawings: Submit in accordance with Section 013300 for approval for all frames, grates, manholes and manhole steps, catch basins, inlets, pipe materials and joints.

1.6 DELIVERY, STORAGE, AND HANDLING:

1.6.1 Protection: Use all means necessary to protect the materials of this Section before, during, and after installation.

PART 2 - PRODUCTS

2.1 MATERIALS:

2.1.1 Storm Sewer Pipe:

2.1.1.1 Corrugated PE Pipe and Fittings NPS 10 and smaller: AASHTO M 252M, Type S, with smooth waterway for coupling joints.

2.1.1.1.2 Silttight Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with tube and fittings to form silttight joints.

2.1.1.2 Corrugated PE Pipe and Fittings NPS 12 to NPS 48: AASHTO M 294, Type S, with smooth waterway for coupling joints.

2.1.1.2.2 Silttight Couplings: PE sleeve with ASTM D 1056, Type 2, Class A, Grade 2 gasket material that mates with pipe and fittings to form silttight joints

2.1.1.3 PVC Sewer Pipe and Fittings: NPS 15 and Smaller: ASTM D 3034, SDR 35, for solvent-cemented or gasketed joints.

2.1.1.3.1 Gaskets: ASTM F 477, elastomeric seals.

2.1.1.3 All storm sewer systems to have water tight seals.

2.1.2 Bedding Material For Storm Sewer: In accordance with Section 312300 Excavation and Backfill for Utilities.

2.2 UTILITY STRUCTURES:

2.2.1 New storm utility structures shall be constructed as detailed on the Drawings and be one of the following:

2.2.1.1 Precast reinforced concrete manhole riser sections conforming to ASTM C 478.

- 2.2.1.2 Cast-in-place concrete of 3,000 psi strength. Concrete used for utility structures shall conform to requirements specified in Section 033000.
 - 2.2.2 Mortar for jointing precast-segmental masonry units and joining sewer to new storm manholes shall be Type S and consist of one part Portland cement to one part plaster sand, mixed with the least amount of clean water necessary to provide a workable mortar. Mortar shall meet requirements of ASTM C 387.
 - 2.2.3 Concrete Fill for Benching Manhole Structures: Concrete shall be mixed with the least amount of clean water and shall have a minimum strength of 3,000 psi and conform to ASTM C 387.
 - 2.2.4 Steps for New Storm Sewer Manhole Concrete Structures: Cast iron conforming to ASTM A 48 or hot-dipped galvanized steel bar or as detailed on the drawings. Provide steps on storm manholes where the invert is 2 feet or more from the bottom of the cast iron frame. All manholes shall be manufactured and installed per local or county codes and regulations. All manhole covers to be flush with grade.
 - 2.2.5 Cast Iron Frames, Grates and Covers for Storm Sewer Structures: Gray cast iron castings conforming to ASTM A 48 and be of type and configuration as noted or detailed. All grates and covers shall be painted if located in a concrete walkway. Color as selected by the Architect. Grates maximum openings within a walkway or paved area shall be 1/2 inch wide. Perpendicular to path of travel CBC 11B-302.3.
- 2.3 CATCH BASINS
- 2.3.1 Standard Precast Concrete Catch Basins: ASTM C 478, precast, reinforced concrete, of depth indicated, with provision for sealant joints.
 - 2.3.1.1 Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and having separate base slab or base section with integral floor.
 - 2.3.1.2 Riser Sections: 4-inch minimum thickness, 48-inch diameter, and lengths to provide depth indicated.
 - 2.3.1.3 Top Section: Eccentric-cone type unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
 - 2.3.1.4 Joint Sealant: ASTM C 990, bitumen or butyl rubber.
 - 2.3.1.5 Adjusting Rings: Interlocking rings with level or sloped edge in thickness and shape matching catch basin frame and grate. Include sealant recommended by ring manufacturer.
 - 2.3.1.6 Grade Rings: Include 2 or 3 reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch- diameter frame and grate.
 - 2.3.1.7 Pipe Connectors: ASTM C 923, resilient, of size required, for each pipe connecting to base section.

PART 3 - EXECUTION

3.1 INSPECTION:

- 3.1.1 Prior to Work of this Section, carefully inspect Work of all other trades and verify that such work is complete to the point where this installation may properly commence.

- 3.1.2 Verify that work of this Section may be installed in accordance with all pertinent codes and regulations, the original design, and the referenced standards.
- 3.2 PREPARATION:
 - 3.2.1 Field Measurements: Lay out and stake all storm sewer piping at 25 foot intervals at all structures, ends of pipe, etc., before starting excavation.
 - 3.2.2 Protection: Protect the installed work and materials of all other trades which may be affected by work of this Section.
- 3.3 INSTALLATION:
 - 3.3.1 Excavating and Backfilling for Storm Sewer System: Excavate, trench and backfill in accordance with Section 312300. Trenches under parking areas, sidewalks, etc., shall be entirely backfilled with selected granular material only.
 - 3.3.1.1 Provide and maintain sufficient barricades and warning devices adjacent to excavation to safeguard against injury to workmen and the public at all times.
 - 3.3.1.2 After installation of piping and equipment have been completed, backfill all excavations in accordance with Section 312300.
 - 3.3.1.3 Where excavation is necessary in existing pavement, the Contractor is required to pay all fees and permit costs of opening street or pavement and all costs of filling and repaving in accordance with requirements of and to the satisfaction of the Municipality, Utility, or other Owner of such paving.
 - 3.3.1.4 Removal of subsurface obstructions which are uncovered during excavation for installation of the utility systems specified herein shall be removed by the Contractor at his expense, up to 2 feet below the bottom of the lineal pipe run or invert of catch basins and/or drainage structures.
 - 3.3.2 Bedding:
 - 3.3.2.1 Bedding for storm sewers shall be installed a minimum of 6 inches deep beneath the bottom of pipe to provide a granular cushion between the pipe and the natural soil. Refer to Section 312300 for further information.
 - 3.3.2.2 The pipe bedding shall be placed so that the entire length of the pipe will have full bearing. No blocking of any kind shall be used to adjust the pipe to grade except when used with granular bedding.
 - 3.3.2.3 Bedding backfill shall continue to a minimum of 12 inches on top of pipe, for final trench backfill.
 - 3.3.3 Construction of Underground Utility Structures:
 - 3.3.3.1 All structures shall be constructed so that no water pipe is in contact with or enclosed by any part of a sewer manhole or other similar structures.

3.3.3.2 Precast sections shall be sealed with mastic joint sealer. Prior to joining the sections, all gasket and pipe surfaces to be joined shall be clean and dry. All lifting holes shall be filled with mortar.

3.3.3.3 Inlet and outlet pipes for structures shall extend outside the walls a sufficient distance to allow for connections. Special care shall be taken to see that the openings through which pipes enter structures are completely sealed with mortar. The bottoms of all structures indicated on the Drawings shall be filled with 3,000 psi strength concrete and shaped to provide smooth channels from the lowest inlet pipe entering the structure to the outlet pipe.

3.3.3.4 Cast iron frames shall be accurately set in full 1 inch mortar beds to finish elevation.

3.3.3.5 Plugs and connections: When specified in Drawings, stubs or other open ends which are not to be immediately connected shall be made of an approved material and shall be secured in place.

3.3.3.6 Use commercially manufactured wyes for branch connections.

3.4 FIELD QUALITY CONTROL:

3.4.1 Tests: Upon completion of this portion of the Work, and prior to its acceptance by the Owner, make all required tests and secure all required approvals from agencies having jurisdiction.

3.4.2 Provide the Owner proof that all storm drainage and pipe, devices, flow to the main storm drain piping and no clogging occurs. If clogging occurs, the Contractor shall remove any and all debris, rocks and dirt from the clogged pipe and/or drainage structure at no cost to the Owner.

3.5 ADJUSTING AND CLEANING:

3.5.1 At the completion of the work specified herein and prior to the Owner's final acceptance, all sediment and debris shall be removed from all storm sewers and their structures.

3.5.2 Provide a camera for storm drain pipe exploration where storm drainage devices backed up or will not flow through. All camera(s), devices, film and camera exploration shall be at Contractor's expense.

END OF SECTION