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Bonita Unified School District
114 Allen Avenue
San Dimas, California 92805
(909) 971-8320 ext. 5250

November 4, 2016

BID 16-17:11

ADDENDUM 1

MODULAR CLASSROOM PROJECT AT

ARMA J. SHULL ELEMENTARY SCHOOL
825 North Amelia Avenue, San Dimas, CA91773
A# 03-117429

FOR

BONITA UNIFIED SCHOOL DISTRICT
114 Allen Avenue, San Dimas, CA 92805

This addendum must be signed and returned with the bid as proof that you received it. Please make a copy for your records.

Company Name _____

By _____

Title _____

Date _____

The following changes and/or additions shall be made to the plans and specifications and all other conditions shall remain the same.

ADD PROJECT SPECIFICATIONS:

1. The Project Manual is added to the project construction documents. This will add the specification sections as enumerated in the Project Manual Table of Contents. The Project Manual is attached as a part of this addendum.

PRE-BID RFI's (REQUESTS FOR INFORMATION) WITH RESPONSES:

1. THERE WERE 13 TOTAL RFI"S SUBMITTED PRIOR TO THE CUT-OFF DATE:

A. Regarding obtaining specifications, soil reports and over-excavation requirements: Specifications will be issued in Addendum 1; there is no soils report for the project; there are no specific over-excavation requirements.
B. The tree shown on the site plan to be removed will be removed by the District.
C. In regard to the "optional 2" slurry concrete" noted on sheet S1.0 and S1.4, this option is not required, there will be no slurry under the unit.
D. For the patching of the walls in the restrooms: This product is not tile as noted, but is an epoxy coating over existing terrazzo wall wainscot. For the purpose of patching as required this product is Pli-Deck PD Epoxy. The specification from the modernization that applied this product is contained in the added project manual under "09680 Epoxy Flooring". This is what was used on the walls.
E. The relocatable drawings call for an optional 24x36 underfloor access/vent well. The existence of the drains under the building requires that this access be provided. That said, the grade under the building will require an additional 2" of cut to be done so that the code required 18" clearance from grade to the bottom of the floor joists be maintained. This then will also require the drain grate elevations and inverts to be lowered this additional 2" also.
F. With no soils report for the project how will the grading be done to obtain the 90% compaction required by the grading plans? The Contractor is to utilize industry standards of excavating to the grades given, scarify 12" and re-compact in place. The District will have grab samples taken by a qualified laboratory for soil analysis. This will give the laboratory the proper information to make tests for the level of compaction achieved.
G. The dimensional sizes of the footings was requested. Sheet S1.0, Detail A clearly shows this in combination with sheet S1.4.
H. A bidder requested information on how the center line of the modules was to be supported. Sheet S1.0, detail A calls for 12" wide continuous footing with detail 8/S1.4 referenced. Detail 8/S1.4 shows the continuous footing with a stemwall/pier as depicted in A on S1.0.
I. In the bid walk it was mentioned, as a guess, that the over excavation may be about 3 feet deep, 5 foot beyond perimeter boundary. With further investigation it was found that no over excavation will be required.
J. Is there a soils report. NO.
K. A bidder questioned if the curb adjacent to the sidewalk was to be removed where the sidewalk is being removed. Carefully review the civil drawings and you will find where the curb remains and where it is to be removed.
L. A bidder wanted material specifications, colors and supplies information for wall/floor coverings and partitions. See added specification section 09680 Epoxy Flooring for the material specifications for the walls. Tile shall match the existing tile for the floors (Dal-tile) and partitions shall match the existing partitions for style, quality and color.

M. A subcontractor noted that “Teradon is the low voltage contractor for the project” and requested information on Teradon. This is in error. Teradon is to be contacted for the requirements of the communication system. Teradon has been purchased by “Three-Sixty”. There website contact is: http://threesixty.tech/contanct-us/

Attachments: Project Manual
Pre-Bid RFI’s 1 thru 13

Sincerely,

Craig S. Babb
Project Architect

ZIEMBA + PRIETO ARCHITECTS

PROJECT MANUAL

(1) Relocatable Classroom Building
Project AZA # 160204

at

SHULL ELEMENTARY SCHOOL

825 N. Amelia Avenue, San Dimas, CA 91773

for

BONITA UNIFIED SCHOOL DISTRICT

115 West Allen Avenue
San Dimas, California 91773-1437

November, 2016

Prepared By

ZIEMBA + PRIETO ARCHITECTS, INC.

601 South Glenoaks Boulevard, Suite 400
Burbank, CA 91502
(818) 841-2585
FAX (818) 841-7782

TABLE OF CONTENTS

SECTION 01010

SUMMARY OF WORK

1.1 GENERAL

A. Project Description: The project consists of providing and installing (1) relocatable classroom building manufactured by American Modular Systems, PC # 02 - 113876 to Shull Elementary School, 825 N. Amelia Ave., San Dimas, CA 91773. The project is described in the Contract Documents prepared by Z+P, Ziemba + Prieto Architects, Inc. dated August 2016.

The work consists of, but not limited to: Delivery of modular building components over public streets to final site location, selective demolition, clearing, trimming and grubbing, excavation, grading, site paving, electrical, data, communications, fire alarm utilities at the site final location, building foundations, connection of modular building modules, and chain link fencing with 3' wide gate.
Modify existing accessories in Men & Women toilet rooms in Building 'D' and Boys and Girls Restrooms in Building "E".
Replace ADA parking signage in Parking Lot 'A'.

B. Base Bid: The Project consists of one Base Bid.

C. Basis of Award: The method to determine the lowest bid will be the lowest total of the base bid from a responsible bidder.

D. Tentative Project Schedule: The tentative project schedule is subject to change at the sole discretion of the Owner, and is as follows:

1. Forty Five (45) days from Notice to Proceed by the District.

E. Owner's Use of Site and Premises: Owner reserves the right to occupy and to place and install equipment in completed areas of buildings and site, prior to Substantial Completion, provided that such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.

F. Contractor's Use of Site and Premises: Limit the use of the premises to construction activities, allow for Owner access.

1. Keep driveways and entrances clear at all times. Do not use these areas for parking or storage of materials. Contractor shall schedule deliveries to minimize requirements for storage of materials.
2. Keep all tools and building materials in places where they will not be accessible to unauthorized individuals or to vandals so as to not present a safety or security problem at the campus.
3. Remove all debris, excess materials and demolished items from the site promptly so as not to cause safety or security problems.

G. Work Under Separate Contracts: The Work includes coordination of work being performed by others under separate contracts with Owner. Owner will award separate design and construction contracts concurrent with and after this Contract as determined by the Owner for work listed below and for other work as Owner may determine. Such work under separate contracts may be indicated on the Drawings and in the Specifications as "Not in Contract", "NIC", "Future" or "Under Separate Contract".

H. Documents for Work Under Separate Contracts: Owner will make available, in a timely manner, drawings and specifications (if not included herein) of work under separate contracts for coordination and further description of that work. If available, such information will include drawings, specifications, product data, lists and construction schedules for such work. Information concerning work under separate contracts of directly by Owner will be provided for convenience only and shall not be considered Contract Documents. Such drawings and other data required for the coordination of the work of separate contracts with the Work of the Contract may be included with the Contract Documents. If so, they will be for convenience only and shall not be considered Contract Documents provided by Architect or Architect's consultants.

I. Contractors Staging and Storage Area: The District will designate construction staging. This area is intended to accommodate material storage, staging and preparation activities.

The area must be completely fenced and secured with lockage access gates. Ingress and egress to the staging area shall be regulated for the safety of the students and site occupants. Contractors will not drive above the speed of five miles per hour on college grounds. If the site is occupied by students and staff in and out access may be limited to before and after school. If the staging area provided is not adequate for site based activities, the contractor will make arrangements for additional off-site storage, staging and parking areas as part of the bid pricing.

At the completion of construction, the Contractor will demobilize and remove all fencing, temporary access drives and other temporary facilities.

The bid scope shall include full restoration of this area to its pre-construction condition, including turf repair with sod, plant replacement if needed and irrigation system repairs. Damaged A.C. paving, concrete curbs / paving shall be repaired to match existing paving thickness and base to owner's satisfaction. Re-stripe and slurry contractor's storage and work area to match original existing condition if area is on A.C. paving.

J. Security: The Contractor will be completely responsible for safety and security at the project site. The Contractor will provide complete temporary perimeter 6 Ft. high chain link security fencing at the project.

K. Where small, miscellaneous work is described and no specification section is included, refer to Section 01120, Alteration Procedures, and notes on drawings and details for basic specification information. Otherwise match existing adjacent surface to remain (in material, texture, color and sheen) as approved by Architect.

L. The work also includes all demolition of items described to be removed in the drawings and specifications or needed to install new improvements, even if not indicated. The Contractor shall completely remove items including connections, piping, electrical switches, conduits and wire, mechanical ductwork and other accessories as well as all supports, blocking, furring or other such items associated with being removed. Unless noted otherwise upon the removal of demolished items, the Contractor shall restore all surfaces, elements, walls, floors, ceilings and roofs which are left unfinished or with holed marks, gaps, etc. to match existing adjacent surfaces and including finished coatings, flashing, etc. as applicable. Any items to be demolished shall be removed from the site by the Contractor immediately.

END OF SECTION

SECTION 01015

ADDITIONAL REQUIREMENTS FOR DSA-REVIEWED PROJECTS

PART 1 - GENERAL

1.01 SUMMARY:

The following additional requirements apply to this Project, which is being reviewed by the Division of the State Architect (DSA).

1.02 ADDITIONAL REQUIREMENTS:

A. The Contractor shall maintain full compliance with the requirements specified in Parts 1 thru 5 and Part 9, Title 24, California Code of Regulations (CCR) and DSA Procedure PR 13-01. Unless otherwise indicated or specified, work shall be performed in full conformance with the latest edition of applicable regulatory requirements. All work shall be performed in accordance with the rules and regulations, Title 24, Parts 1-5 and Part 9, California Code of Regulations, and the Office of Regulation Services, Division of the State Architect, and a copy shall be kept on the job at all times during construction. The codes adopted by the City, County, State and Federal agencies shall govern minimum requirements for this Project. The Contractor shall notify the District of any conflicts between the requirements of the Contract Documents and the requirements of this paragraph.

B. In addition to the duties specified in the Contract Documents, the duties of the Contractor shall be in accordance with the requirements specified in CAC, Section 4-343 of Part 1, Title 24, California Code of Regulations (CCR) and DSA Procedure PR 13-01.

C. In addition to the duties specified in the Contract Documents, the duties of the Architect and the Architect's consultants shall be in accordance with the requirements specified in CAC, Section 4-341 of Part 1, Title 24, CCR and DSA Procedure PR 13-01.

D. Neither DSA, nor the decisions and instructions rendered by DSA are subject to arbitration proceedings.

E. Architect shall notify DSA at start of construction in accordance with CAC, Section 4-341 of Part 1, Title 24, CCR and DSA Procedure PR 13-01.

F. All Addenda and Construction Change Documents shall be stamped, signed and approved by the Architect and delegated design professionals when applicable and submitted for DSA approval. Do not begin work under a written order until a Change Order has been submitted to and approved by DSA in accordance with CAC, Section 4-338 of Part 1, Title 24, CCR and DSA Procedure PR 13-01.

G. Do not begin work under a written order until a Construction Change Document has been submitted to and approved by DSA in accordance with CAC, Section 4-338 of Part 1, Title 24, CCR. Substitutions are changes to the Contract Documents and shall be considered Change Orders, and shall be approved by DSA prior to fabrication or use.

H. Contractor shall submit verified reports in accordance with CAC, Sections 4-343(c) of Part 1, Title 24, CCR. Architect shall submit verified reports in accordance with CAC, Sections 4-341(f) of Part 1, Title 24, CCR and DSA Procedure PR 13-01.

I. DSA may supervise construction, reconstruction, or repair in accordance with CAC, Section 4-334 of Part 1, Title 24, CCR.

J. Construction shall be observed by a full-time Project inspector employed by the District, approved by the Architect, Structural Engineer and DSA in accordance with CAC, Section 4-333(b) and 4-342 of Part 1, Title 24, CCR and DSA Procedure PR 13-01.

K. Testing requirements of District's Testing Laboratory shall be in accordance with CAC, Section 4-335 of Part 1, Title 24, CCR.

L. Special inspection of masonry construction, wood framing using timber connections, ready-mixed concrete, welding, and mechanical and electrical work shall be as required by CAC, Section 4-333(d) of Part 1, Title 24, CCR. The costs of special inspection will be paid for by the District.

M. The intent of these Drawings and Specifications is that the work of the alteration, rehabilitation or reconstruction is to be in accordance with Title 24, California Code of Regulations. Should any existing conditions such as deterioration or non-complying construction be discovered which is not covered by the Contract Documents wherein the finished work will not comply with Title 24, CCR, a Construction Change Document, or separate set of plans and specifications, detailing and specifying the required work shall be submitted to and approved by DSA before proceeding with the work.

PART 2 – PRODUCTS Not applicable to this Section.

PART 3 – EXECUTION Not applicable to this Section.

END OF SECTION

SECTION 01048

CONTRACTOR'S REQUESTS FOR INFORMATION

PART 1 - GENERAL

1.01 DESCRIPTION:

All other sections of Division 1 apply to this Section. This Section covers the general requirements for Contractor's Requests for Information and pertains to all portions of the contract documents.

A. Related work specified elsewhere:

1. Project meetings
2. Submittals
3. Substitutions

1.02 DEFINITION:

A. Request for Information: A document submitted by the Contractor requesting clarification of a portion of the contract documents, hereinafter referred to as RFI.

1.03 CONTRACTOR'S REQUESTS FOR INFORMATION:

A. When the Contractor is unable to determine from the contract documents, the exact material, process or system to be installed, the Architect shall be requested to make a clarification of the indeterminate item. Wherever possible, such clarification shall be requested at the next appropriate project meeting, with the response entered into the meeting minutes. When clarification at the meeting is not possible, either because of the urgency of the need or the complexity of the item, Contractor shall prepare and submit an RFI to the Architect.

B. Contractor shall endeavor to keep the number of RFI's to a minimum. In the event that the process becomes unwieldly in the opinion of the Architect because of the number and frequency of RFI's submitted, the Architect may require the Contractor to abandon the process and submit all requests as either submittals, substitutions or requests for change.

C. RFI's shall be submitted on a form provided by the Architect (RFI Form at the end of this section). Forms shall be completely filled in and if prepared by hand, shall be fully legible after copying by xerographic process. Each page of attachments to RFI's shall bare the RFI number in the upper right corner.

D. RFI's from subcontractors or material suppliers shall be submitted through, reviewed by, and signed by the Contractor prior to submittal to the Architect.

E. Contractor shall carefully study the contract documents to assure that the requested information is not available therein. RFI's which request information available in the contract documents will not be answered by the Architect.

F. In all cases where RFI's are issued to request clarification of coordination issues for example, pipe and duct routing, clearances, specific locations of work shown diagrammatically and similar items, the Contractor shall fully lay out a suggested solution using drawings or sketches drawn to scale, and submit same with the RFI. RFI's which fail to include a suggested solution will not be answered.

G. RFI's shall not be used for the following purposes:

1. To request approval of submittals.
2. To request approval of substitutions.
3. To request changes which entail additional cost or credit.
4. To request different methods of performing work than those drawn and specified.

H. In the event the Contractor believes that a clarification by the Architect result in additional cost, Contractor shall not proceed with the work indicated by the RFI until a change order is prepared and approved. Answered RFI's shall not be construed as approval to perform extra work.

I. Unanswered RFI's will be returned with a stamp or notification: Not Reviewed.

J. Contractor shall prepare and maintain a log of RFI's and at any time requested by the Architect, Contractor shall furnish copies of the log showing all outstanding RFI's. Contractor shall note all unanswered RFI's in the log.

K. Contractor shall allow for 7 days review and response time for RFI's.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

Construction Request for Information

RFI #

Project: (1) RELOCATABLE CLASSROOM BUILDINGS
SHULL ELEMENTARY SCHOOL Z+P #160204

From (Company): _____

Contact Name: _____

Phone #: _____ Email or Fax #: _____

Trade: _____

Date Submitted: _____ Response Urgency: _____

Reference: (Please indicate the exact location in the plans or specs)

Sheet #: _____ Spec. #: _____

Dwg/Det. #: _____ Page #: _____

Note #: _____

Reviewed by Inspector prior to submittal: _____

Question:

Proposed Solution:

Cost Impact - **Potential Schedule Impact -**

Response: By: _____ **Date Returned:** _____

Questions must be emailed to: cbabb@ziembaprietoarch.com or faxed to (818) 841-7782.

SECTION 01050

FIELD ENGINEERING

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide field engineering, complete.

A. Work specified in this Section: Layout of the work.

B. Related work specified elsewhere: Record drawings.

1.02 LAYOUT OF THE WORK:

Contractor shall lay out the work from the drawings and shall establish all additional benchmarks, monuments, lines and levels necessary for the construction covered by the contract.

1.03 UTILITIES SURVEY:

Contractor shall verify and confirm the exact locations of utility services where connections or extensions are required by a qualified underground utility location service utilizing ground penetrating radar or equivalent methods. Contractor shall ensure that this information is transferred to a site plan and noted as to the utility, location(s) and depths to be given to the District upon completion of the survey. Where trenches or excavations are required to determine locations, repair surface to match existing undisturbed condition.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01060

REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.01 DESCRIPTION:

This Section covers the general requirements for regulatory requirements pertaining to the work and is supplementary to all other regulatory requirements mentioned or referenced elsewhere in the contract documents.

1.02 REQUIREMENTS OF REGULATORY AGENCIES:

All pertaining statutes, ordinances, laws, rules, codes, regulations, standards and the lawful orders of all public authorities having jurisdiction of the work are hereby incorporated into these contract documents the same as if repeated in full herein and such are intended where any reference is made in either the singular or plural to code or building code unless otherwise specified including, without limitation, those in the list below. Contractor shall make available at the site such copies of the listed documents applicable to the work as the Architect or Owner may request including mentioned portions of the 2013 California Building Code.

A. The list of applicable codes is shown on the drawings.

B. Also comply with other statues, ordinances, laws, regulations, rules, orders and codes specified in other Sections of the Specifications or bearing on the Work.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01091

SOURCES FOR REFERENCED MATERIAL

PART 1 - GENERAL

1.01 DESCRIPTION:

All other sections of Division 1 apply to this Section. This Section covers the general information for obtaining referenced information, including standards, specifications, catalogs and other printed and electronic material pertaining to the work.

1.02 REFERENCE AND STANDARD SPECIFICATIONS:

A. Specifying by reference to a reference and standard specification document or to another portion of the contract documents shall be the same as if the referenced document or portion of the contract documents referred to were exactly repeated at the place where such reference is made. In case of a conflict between the requirements of regulatory agencies and the referenced reference and standard specification documents, Contractor shall conform to the most restrictive requirement if such conformance is legal.

B. Reference or standard specification documents shall be the current issues in effect on the date bids are received, unless otherwise specified or unless codes or statutes make reference to earlier editions. Contractor shall make available at the site such copies of reference or standard specification documents as Architect or District may request.

1.03 WEB SITES:

Because of the frequency of changes, web addresses are not given in the specifications. Contractor may contact specified manufacturers and trade associations by accessing 4specs.com (http://www.4specs.com/) and following the instructions for reaching the appropriate web site.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01092

SPECIFICATION ABBREVIATIONS

PART 1 - GENERAL

1.01 DESCRIPTION:

This Section covers abbreviations for documents mentioned or referenced elsewhere in the contract documents, and language abbreviations used in the text of the Specifications. Abbreviations in drawings and specifications shall be interpreted according to recognized and well-known technical, industry or trade meanings.

1.02 ORGANIZATION NAME ABBREVIATIONS:

These abbreviations include but are not limited to the following:

AA	The Aluminum Association, Inc.
AABC	Associated Air Balance Council
AAIEE	American Institute of Electrical and Electronics Engineers
AAMA	American Architectural Manufacturers Association
AASHTO	American Association of State Highway and Traffic Officials
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AGA	American Gas Association
AGC	Associated General Contractors
AHA	American Hardwood Association
AI	Asphalt Institute
AIA	American Institute of Architects
AIMA	Acoustical and Insulating Materials Association
AISC	American Institute of Steel Construction, Inc.
AISI	American Iron and Steel Institute
AMCA	Air Moving and Conditioning Association, Inc.
ANSI	American National Standards Institute
APA	APA – The Engineered Wood Association
ARI	Air Conditioning and Refrigeration Institute
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASSE	American Society of Sanitary Engineers
ASTM	ASTM International (formerly American Society for Testing and Materials)
ATBCB	Architectural & Transportation Barriers Compliance Board
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association
CBM	Certified Ballast Manufacturers
CCR	California Code of Regulations
CFPA	Certified Forest Products Council
CFR	Code of Federal Regulations
CLFMI	Chain Link Fence Manufacturers Institute

CISPI	Cast-Iron Soil Pipe Institute
CRA	California Redwood Association
CRI	Carpet and Rug Institute
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard, US Department of Commerce
CSFM	California State Fire Marshal
CSI	Construction Specifications Institute
CTI	Cooling Tower Institute
CTIOA	Ceramic Tile Institute of America
DHI	Door and Hardware Institute
DOD	Department of Defense
DSA	Division of the State Architect, Office of Regulation Services
EIA	Electronic Industries Association
EPA	United States Environmental Protection Agency
ETL	Electrical Testing Laboratories
Fed Spec	Federal Specification or Standard
FIA	Factory Insurance Association
FM	Factory Mutual
FS	Federal Specifications
FSC	Forest Stewardship Council
GA	Gypsum Association
GANA	Glass Association of North America
HMMA	Hollow Metal Manufacturers Association
HPVA	Hardwood Plywood & Veneer Association
IAMPO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IGMA	Insulating Glass Manufacturers Association
IPCEA	Insulated Power Cable Engineers Association
ISAT	International Seismic Application Technology
ISO	International Organization for Standardization
MFMA	Maple Flooring Manufacturers Association
MIA	Masonry Institute of America
MLMA	Metal Lath Manufacturers Association
MLSFA	Metal Lath/Steel Framing Association
NAAMM	National Association of Architectural Metal Manufacturers
NBFU	National Board of Fire Underwriters
NBS	National Bureau of Standards
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFC	National Fire Code
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health

NIST	National Institute of Standards and Technology
NLMA	National Lumber Manufacturers Association
NPDES	National Pollutant Discharge Elimination System
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NSWMA	National Sold Wastes Management Association
NUSIG	National Uniform Seismic Installation Guidelines
PCA	Portland Cement Association
PDI	Plumbing and Drainage Institute
PEI	Porcelain Enamel Institute
PS	Product Standard, US Department of Commerce
RIS	Redwood Inspection Service
SAE	Society of Automotive Engineers
SCAQMD	South Coast Air Quality Management District
SDEI	Steel Deck Institute
SDI	Steel Door Institute
SFM	State Fire Marshal
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPR	Simplified Practice Recommendations, U.S. Dept. of Commerce
SSPC	Steel Structures Painting Council
SWI	Steel Window Institute
TCA	Tile Council of America
UBC	Uniform Building Code
UBPPA	Uni-Bell PVC Pipe Association
UFAS	Uniform Federal Accessibility Standards
UL	Underwriters' Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WDMA	Window and Door Manufacturers Association (formerly National Wood Window and Door Association)
WI	Woodwork Institute (formerly Woodwork Institute of California)
WWPA	Western Wood Products Association

1.03 TEXT ABBEVIATIONS:

Text abbreviations include but are not limited to the following:

ac	Alternating current
amp	ampere
BTU	British thermal unit
cfh	Cubic feet per hour
cfm	Cubic feet per minute
cm	Centimeter
Co.	Company
COP	Coefficient of performance
Corp.	Corporation
d	Penny

db.	Decibel
DB	Dry bulb
dc	Direct current
EER	Energy efficiency ratio
F	Degrees Fahrenheit
fpm	Feet per minute
ft	Foot or feet
gph	Gallons per hour
gpm	Gallons per minute
HP	Horsepower
HVAC	Heating, ventilating and air conditioning
Hz	Hertz
Inc.	Incorporated
KHz	Kilohertz
Kip	thousand pounds
Ksf	Thousand pounds per square foot
Ksi	Thousand pounds per square inch
Kv	Kilovolt
KVA	Kilovolt amperes
KW	Kilowatt
KWH	Kilowatt hour
LF	Linear foot
MPH	Miles per hour
lb	Pound
LED	Light emitting diode
MBH	1000 BTUs per hour
MHz	Mega hertz
mil	Thousandth of an inch
mm	Millimeter
mph	Miles per hour
oz.	Ounce
PCF	Pounds per cubic foot
pH	Acidity-alkalinity balance
psf	Pounds per square foot
psi	Pounds per square inch
psig	Pounds per square inch, gage
RF	Radio frequency
rpm	Revolutions per minute
SF	Square foot
SY	Square yard
V	Volt
WB	Wet bulb

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01094

DEFINITIONS

PART 1 - GENERAL

1.01 DESCRIPTION:

This Section covers definitions supplementary to those given in the Conditions of the contract.

1.02 DEFINITIONS:

A. District or Owner: The term “District” or “Owner” refers to BONITA UNIFIED SCHOOL DISTRICT, 115 West Allen Avenue, San Dimas, California 91773, or their authorized representative. The terms are used interchangeably.

B. Architect: The term “Architect” refers to ZIEMBA + PRIETO ARCHITECTS, INC., 601 South Glenoaks Boulevard, Suite 400, Burbank, CA 91502, or their authorized representative.

C. References to Drawings: Words such as “shown”, “indicated”, “detailed”, “scheduled”, “noted”, and words of similar meaning shall mean that reference is made to the information on the drawings unless stated otherwise.

D. Actions of Architect: Such words as “directed”, “designated”, “selected”, and words of similar meaning shall mean the direction, designation, selection, or similar action of the Architect is intended unless stated otherwise.

E. Required: The word “required” and words of similar meaning shall mean “as required to complete the Work” and “required by the Architect”, as is applicable to the context of the place where used, unless stated otherwise.

F. Perform: The word “perform” shall mean that Contractor, at Contractor’s expense, shall perform all the operations necessary to complete the Work or the mentioned portions of the Work, including furnishing and installing materials as are indicated, specified or required to complete such performance.

G. Provide: The word “provide” shall mean that Contractor, at Contractor’s expense, shall furnish and install the Work and mentioned portion of the Work, complete in place and ready for the intended use. These definitions apply the same to future, present and past tenses except “provided” may mean “contingent upon” where such is the context.

H. Equal: Words such as “equal”, “approved equal”, “equivalent”, and terms of similar meaning shall be understood to be followed by the phrase “in opinion of the Architect” unless stated otherwise.

I. Approval: The words “approved”, “approval”, “acceptable”, acceptance” and other words of similar meaning shall mean that approval or acceptance of Architect, or similar meaning, is intended unless stated otherwise.

J. Review: The word “review” and words of similar meaning shall mean the review and observation of the Architect is intended unless stated otherwise.

K. Submit: The words “submit”, “submittal”, “submission”, and other terms of similar meaning shall include the meaning of the phrase “submit to the Architect for approval” unless otherwise stated.

L. Expense: Such phrases as “at Contractor’s expense”, “at no extra cost to District”, “at no additional contract cost”, “with no extra compensation to Contractor”, or phrases of similar meaning shall mean that Contractor shall perform or provide the operation of work without increase in the contract price.

M. Fees and Charges: District reimburses contractor for utility fees charged by jurisdictional agencies. DSA fees are paid by District. Contractor is required to pay for all licenses, permits and similar requirements that he must have in effect in order for him to accomplish his work.

N. Language: Specifications are written in a modified brief style consistent with clarity. Words and phrases requiring an action or performance, such as “perform”, “provide”, “erect”, “install”, “furnish”, “connect”, “test”, “coordinate”, and words and phrases of similar meaning, shall be understood to be preceded by the phrase “The Contractor shall” unless otherwise stated. Requirements indicated and specified apply to all work of the same kind, class and type, even if the word “all” is not stated. The use of the singular number implies the plural, if more than one of an item or unit is required; likewise the use of the plural number implies the singular, if only one of an item or unit is required.

O. Titling and Arrangement: Article, paragraph and subparagraph titles and other identifications of subject matter in the specifications are intended as an aid in locating and recognizing the various requirements in the specifications. Except where the titling forms a part of the text, such as beginning words of a sentence or where the title establishes the subject, the titles are subordinate to and do not define, limit or restrict the specification text. Underlining or capitalizing of any words in the text does not signify or mean that such words convey special or unique meanings having precedence over any other part of the contract documents. Specification text shall govern over titling and shall be understood to be and interpreted as a whole. The listings of various parts of work to be included or not included under various sections of the specifications are for convenience only and do not control the Contractor in dividing the work among the subcontractors or establish the extent of the work to be performed or provided by any subcontractor or trade. Contractor is solely responsible for providing the complete work without respect to where or how the various parts of the work may be indicated or specified. The sequence of articles, paragraphs, subparagraphs and sub-subparagraphs in the specifications text is defined by the sequence 1.01A.1.a.(1)(a).

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01120

ALTERATION PROCEDURES

PART 1 - GENERAL

1.01 DESCRIPTION:

The requirements of all other sections of the specifications apply to this section. This Section covers the general requirements for special project procedures pertaining to the alteration of existing construction and is complementary to similar requirements indicated or specified.

A. Work In This Section: Principal items include:

1. Alterations and repairs to existing facilities as required to complete the work.
2. Relocation and reinstallation of existing construction and finish.
3. Storage and protection of existing items to be reinstalled.

1.02 DESIGN INTENT:

The intent of the drawings and specifications is to construct the school building complex in accordance with Title 24, California Code of Regulations. If any conditions develop which are not covered by the contract documents wherein the finished work would not comply with said Title 24, California Code of Regulations, a Construction Change Directive detailing and specifying the required work shall be submitted to and approved by DSA in writing before proceeding with the work.

1.03 SUBMITTALS:

A. Manufacturer's Data: Submit complete product data, test reports and application instructions for floor leveling materials.

1.04 QUALITY ASSURANCE:

A. Video Documentation: Refer to Division 1. Before starting work of this section, provide one video of existing conditions to be affected by the demolition work. Provide progress videos as the work progresses, at intervals as approved, illustrating substrates, connections, concealed conditions and other conditions which will benefit the District's permanent records.

1.05 JOB CONDITIONS:

A. General: Coordinate work of other sections and with the District to assure the correct sequence, limits, methods and times of performance. Arrange the work to impose minimum of hardship on operation and use of the facilities. Install protection for existing facilities, contents and new work against dust, dirt, weather, damage and vandalism, and maintain and relocate as work progresses.

B. Access: Confine entrance and exit operations to access routes designated by the District.

C. Existing Portable Items: District will remove portable equipment, furniture and supplies from involved existing areas prior to start of work therein. Cover and protect remaining items to remain.

D. Verification of Conditions: Perform a detailed survey of existing site and building conditions pertaining to the work before starting work. Report to Architect discrepancies or conflicts between the drawings and actual conditions in writing for clarification and instructions and do not perform work where such discrepancies or conflicts occur prior to receipt of Architect's instructions.

E. Building Security: Secure building entrances and exists with locking or another approved method in accordance with the District's instructions.

F. Safeguarding of District's Property: Contractor shall assume care, custody and responsibility for safeguarding all of the District's property of every kind, whether fixed or portable, remaining in rooms and spaces vacated and turned over to the Contractor by the District for his exclusive use in performance of the work until the work therein or related thereto is completed and the rooms or spaces are reoccupied by District. Furnish all forms of security and protection necessary to protect the District's property. Regardless of cause, Contractor shall repair, replace or otherwise acceptably make good all of the District's property under the Contractor's care, custody and safeguarding that is damaged, injured, missing, lost or stolen from time each such room or space is turned over to the Contractor for the work until re-occupied by District, at Contractor's expense and as directed by District.

G. Welding: Conform to following requirements where welding is performed in or on existing facilities:

1. Protection During Welding: Conform to Title 8, CCR. Further protect occupants and the public with portable solid vision barricades around locations where welding is performed plus signs warning against looking at welding without proper eye protection, or equivalent.

2. Fire Extinguishers: Maintain a fully charged UL-labeled minimum 4A/60BC fire extinguisher at every location where welding is performed within or on the facilities.

3. Welding Smoke Control: Verify locations of existing smoke detectors. Perform welding operations by methods that produce the minimum feasible smoke and fumes. Furnish portable type smoke collection and ventilating equipment as required to prevent smoke and fume nuisances. Notify District at least 48 hours in advance if temporary deactivation of any smoke detector is required to prevent false alarms from the welding operations. The District's personnel will deactivate detectors only for the time welding is actually in progress.

4. Fire Prevention: Before welding, examine existing construction and backing for all combustible materials and finishes and for conditions where heat conduction in metals may bring adjoining materials to ignition temperature. Use positive fire

prevention measures including temporary removal and reinstallation of combustible materials, installation of temporary shields and/or heat sinks, and other necessary means. When actual field conditions are such that positive fire prevention measures cannot be achieved, notify Architect and to not proceed with the involved work until receipt of Architect's instructions.

H. Protection of Floors: Use care to protect all floor surfaces and coverings from damage. Equip mobile equipment with pneumatic tires.

1.06 EXISTING CONDITIONS:

The intent of the drawings is to show existing site and building conditions with information developed from the original construction documents, field surveys and District's records, and to generally show the amount and types of demolition and removals required to prepare existing areas for new work. Contractor shall make a detailed survey of existing conditions pertaining to the work before commencing demolition. Report discrepancies between drawings and actual conditions to the Architect for instructions and do not perform any removal work where such discrepancies occur prior to receipt of the Architect's instructions.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION

3.01 CUTTING AND PATCHING:

Execute cutting, including excavation, fitting and patching of work required to make the several parts fit properly, to remove and replace defective work, to remove and replace work not conforming to requirements of the contract documents, and to install specified work in existing construction.

A. When directed by Architect, uncover work to provide for Architect's observation of covered work, remove samples of installed materials for testing and remove work to provide for alteration of existing work.

B. Do not damage work by cutting or altering any part of it.

C. Do not cut or alter work of separate contractors without written consent of Architect.

D. If it is necessary to cut work which affects the structural safety of the project, or which affects the work of a separate contractor, submit written notice to Architect requesting consent to proceed with cutting. The request shall include the following items:

1. Description of affected work and necessity for cutting it.

2. Effect on other work and on the structural integrity of project.

3. Description of proposed work, including scope of cutting and patching, trades which will execute the work, products and materials to be used, and refinishing methods and extent.

4. Alternative methods, if any, to accomplish the work without cutting and patching.

5. Cost estimate, if additional cost is anticipated.

6. Notification of interruption of services, if applicable.

E. If conditions of work or schedule indicate a change of materials or methods, submit written commendations to Architect, stating the conditions which affect the change, recommendations for alternative materials or methods. Provide submittals as specified for substitutions for all materials and methods proposed to be changed.

F. Inspect all existing conditions of work, including elements subject to movement or damage during cutting and patching and during excavation and backfilling.

G. Provide shoring, bracing and coverings as required to maintain structural integrity to provide protection of project and surrounding improvements.

H. After uncovering work, inspect conditions affecting installation of new materials and products.

I. Restore work which has been cut or removed, install new products to provide completed work in accordance with the contract documents.

J. Refinish patched, new and existing surfaces to match adjacent, undisturbed construction. Where repainting is necessary, the painting shall be carried to natural breaks or natural terminations, as approved.

K. Repair and patch offsite paving, concrete, landscaping and related work where disturbed by installation of utilities, and where damaged by the work of the contract.

3.02 ALTERATIONS AND REPAIRS:

A. Basic Requirement: Restore and refinish all new and existing construction and improvements that are cut into, altered, damaged, relocated, reinstalled or left unfinished by removals to original condition or to match adjoining work and finishes unless otherwise shown, specified, directed or required. Workmanship and materials shall conform to applicable provisions of other Sections. Provide new fasteners, connectors, adhesives and other accessory materials as required to fully complete approved reinstallations and restorations. Where restorations and refinishing are defective or are otherwise not acceptable to District, remove all the defective or rejected materials and provide new acceptable materials and finish at no extra cost to District.

B. Patching, Repairing and Finishing:

1. Concrete: Dampen cut edges damp for 24 hours, then scrub with a neat Portland cement mortar just before new concrete is placed, epoxy adhesive may be used in lieu of cement mortar. Finish new concrete to match existing. Provide 3,000 psi concrete for repairs and slabs on grade. At cut concrete edges to remain exposed, apply adhesive and restore with minimum 3/4” thick cement mortar finished to match adjoining surfaces.

2. Openings to be Closed: Trim edges square and straight, and dampen and grout scrub or treat with an adhesive as specified above for cut concrete edges. Provide 3,000 psi concrete. Provide reinforcement as required to match existing concrete. Where installation of concrete is impracticable, fill openings with dry-packed non-shrink grout. Finish to match adjoining surfaces.

3. Metal Items: Grind cut edges to remain exposed smooth and rounded.

4. Patching Existing Roofing: Cut back to sound undamaged materials on straight lines and resecure cut edges. Apply new roofing materials in repair areas of same type and finish as existing roofing, connected to existing roofing with waterproof connections. Refer to drawings where metal roofs occur and scope of work.

5. Gypsum Wallboard:

   a. Small Holes, such as those caused by doorknobs or removal of electrical boxes: Repair by patching. Patch shall be mechanically attached to the undamaged gypsum membrane surrounding the patch area, attachment by joint compound alone is not acceptable. Patch shall be cut from the same type and thickness as gypsum board being repaired. Where two layers are patched, either layer of the existing surface shall be patched separately with the face layer patches larger than the base layer so that the joints do not align between layers. Cut the patch slightly larger than the hole, then cut away around the damaged area to make a hole the same size and shape as the patch. Use care not to cut into wiring, plumbing or other utilities concealed in the cavity. Replace damaged insulation where applicable. Install metal runner channel in the cutout, attached with drywall screws at 8” centers, or install clips designed to secure patches. Attach the gypsum board patch to the channel or the clips. Treat with joint compound and tape.

   b. Larger Holes: Remove damaged gypsum board back to the framing and replace with new gypsum board of the same type and thickness. Inspect the framing, and if damaged, repair or replace to match adjacent undamaged framing. Fill the damaged area by attaching new gypsum board to the framing. Ends and edges that are not supported by framing shall be supported by new metal runner track. For multi-layer installations, stagger the joints between layers.

6. Landscaping and Planting: Where trenches are cut through existing planted or landscaped areas, and where new construction damages existing planting and landscaping, repair the surfaces, prepare surfaces for planting and replace planting and landscaping with new materials to match existing. Provide all required soil preparation, soil amendments, fertilizers and plant materials necessary to accomplish this.

7. It is the Contractor’s responsibility to verify the condition of utilities prior to accomplishing the work above and below grade. Exploration and sensing devices are required. Contractor is responsible for all utility coordination (new and existing), depths required and correct inverts for a complete and operative system.

3.03 PREPARATION OF EXISTING WORK:

A. Holes: Drill holes through existing concrete or masonry for new conduit and/or piping and do not jack-hammer.

B. Filling, Patching and Grinding: Where existing surfaces are shown or required to receive new finish materials, and where such surfaces have cracks, holes, depressions, ridges, foreign materials or other conditions which preclude proper installation of the new finish materials, the existing surfaces shall be reconditioned. Holes, cracks and depressions shall be filled with patching compounds of suitable types compatible with new materials. Ridges and “high spots” shall be ground down. Areas of different planes shall be feathered out. Foreign materials shall be removed by use of solvents where approved, or by sandblasting as specified above. Any other reconditioning as may be required shall be performed to enable existing surfaces to receive new finish materials.

END OF SECTION

SECTION 01150

ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.01 DESCRIPTION:

All other sections of Division 1 apply to this Section, and the requirements of this Section apply to all sections where the work involves the protection of the environment. During the progress of the work, the Contractor shall protect the environment, both on-site and off-site, throughout and upon completion of the construction project.

A. Related work specified in other sections:

1. Cleaning.
2. Field engineering.

1.02 MITIGATION OF CONSTRUCTION IMPACTS:

A. Requirements: The Contractor's operations shall comply with all federal, state and local regulations pertaining to water, air, solid waste and noise pollution.

B. Definitions of Contaminants:

1. Sediment: Soil and other debris that has been eroded and transported by storm or well production runoff water.

2. Solid Waste: Rubbish, debris, garbage, vegetation and other discarded solid materials resulting from construction activities.

3. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalies, herbicides, pesticides, organic chemicals and inorganic wastes.

4. Sanitary Wastes:

a. Sewage: That which is considered as domestic sanitary sewage.

b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing and consumption of food.

C. Contractor is to protect existing water system during construction from contamination. Water is to be tested as required for purity during construction. It is the Contractor's responsibility to provide a testing policy for the full duration of the project.

1.03 PROTECTION OF NATURAL RESOURCES:

A. General: It is intended that the natural resources within the project boundaries and outside the limits of permanent work performed under this Contract be preserved in their

existing condition or be restored to an equivalent or improved condition upon completion of the work. The Contractor shall confine the construction activities to areas defined by the public roads, easements and work area limits shown on the drawings.

B. Temporary Construction: Remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the Architect. Level all temporary roads, parking areas and any other areas that have become compacted or shaped. Any unpaved areas where vehicles are operated shall receive a suitable surface treatment or shall be periodically wetted down to prevent construction operations from producing dust damage and nuisance to persons and property, at no additional cost to the District. Keep haul roads clear at all times of any object which creates an unsafe condition. Promptly remove any contaminants or construction materials dropped from construction vehicles. Do not drop mud and debris from construction equipment on public streets. Sweep clean turning areas and pavement entrances as necessary.

C. Land Resources: Do not remove, cut, deface, injure or destroy trees or shrubs outside the work area limits. Do not remove deface, injure or destroy trees within the work area without permission from the Architect. Such improvements shall be removed and replaced, if required, by the Contractor at his own expense.

1. Protection: Protect trees that are located near the limits of the Contractor's work areas which may possibly be defaced, bruised or injured or otherwise damaged by the Contractor's operations. No ropes, cables or guys shall be fastened to or be attached to any existing nearby trees or shrubs for anchorages. No vehicles or equipment shall be parked within the extents of the canopy of any tree.

2. Repair or Restoration: Repair or replace any trees or other landscape feature scarred or damaged by equipment or construction operations as specified below. The repair and/or restoration plan shall be reviewed and approved by the Architect prior to its initiation.

D. Water Resources: Contractor shall investigate and comply with all applicable Federal, state and local regulations concerning the discharge (direct or indirect) of pollutants to the underground and natural waters. All work under this contract shall be performed in such a manner that any adverse environmental impacts are reduced to a level that is acceptable to the District and regulatory agencies.

1. Oily substances: At all times, special measures shall be taken to prevent oily or other hazardous substances from entering the ground, drainage areas or local bodies of water in such quantities as to affect normal use, aesthetics or produce a measurable ecological impact on the area.

2. Mosquito Abatement: Construction activities shall be conducted such that ponding of stagnant water conducive to mosquito breeding habitat will not occur at any time.

E. Dust Control, Air Pollution and Odor Control: Take measures to avoid the creation of dust, air pollution and odors.

1. Unpaved areas where vehicles are operated shall be periodically wetted down or given an equivalent form of treatment to eliminate dust formation.

2. All volatile liquids, including fuels or solvents, shall be stored in closed containers.

3. No open burning of debris, lumber or other scrap will be permitted.

4. Equipment shall be properly maintained or reduce gaseous pollutant emissions.

1.04 NOISE CONTROL:

Perform demolition and construction operations to minimize noise. Perform noise producing work in less sensitive hours of the day or week as directed by the Architect.

A. Repetitive, high level impact noise will be permitted only between the hours of 8:00 AM and 6:00 PM, Monday through Friday. Repetitive impact noise on the property shall not exceed the following limitations:

Sound level (dB)	Duration of impact noise
70	12 minutes per hour
80	3 minutes per hour

B. Provide equipment, sound-deadening devices and take noise abatement measures that are necessary to comply with these requirements.

C. Maximum permissible construction equipment noise levels at 50 feet:

80 dB: Scrapers, stationary pavers, rock drills, pneumatic tools.
75 dB: All other construction equipment.

D. Whenever work is being performed which exceeds 55 dB noise level, measure the sound level every 5 days to determine noise exposure to the construction. Use the A weighing network of a general purpose sound level meter at slow response. Take measurements not less than six feet in front of building faces. Submit records to Architect.

1.05 CONSTRUCTION STORAGE AREAS:

Storage of construction equipment and materials shall be limited to designated work areas. Store and service equipment at the designated areas where oil wastes shall be collected. Oily wastes shall not be allowed to flow on to the ground or to enter surface waters.

1.06 DISPOSAL OPERATIONS:

A. Solid Waste Management: Supply storage containers. Remove daily all debris, such as spent air filters, oil cartridges, cans, bottles, combustibles and litter. Convey contents only to a favorably reviewed sanitary landfill. Care shall be taken to prevent papers from blowing onto adjacent property. Personnel shall be encouraged to use refuse containers.

B. Chemical Waste Management: Supply containers to store spent chemicals used during construction operations. Chemicals shall be disposed of in a favorably reviewed sanitary landfill.

C. Garbage: Garbage shall be stored in covered containers, picked up daily and disposed of a favorably reviewed sanitary landfill.

1.07 PRESERVATION OF MONUMENTS AND EXISTING FEATURES:

All monuments, bench marks or property line stakes disturbed by construction operations shall be promptly re-established by a registered land surveyor or civil engineer.

1.08 SAFETY:

Comply with all rules and regulations of NIOSH, CAL/OSHA and local authorities concerning jobsite safety.

1.09 EXISTING UTLITIES:

The Contractor shall coordinate construction activities with the government agencies, land owners and utility companies, and operations shall be planned to allow access to all property and utility owners.

1.10 PROTECTION OF WORK:

The Contractor shall be responsible for the care of all work until its completion and final acceptance. Replace damaged or lost material and repair damaged parts of the work at no additional contract cost.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION:

This Section covers the general requirements for the project meetings.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION

3.01 PROJECT MEETINGS:

A. Attendees: Unless otherwise specified or required by the District, meetings shall be attended by the District, Architect, Contractor, Contractor's Superintendent and the Inspector of Record. Subcontractors may attend the meetings when involved in matters to be discussed or resolved but only when requested by the District, Architect or Contractor.

B. Meeting Records: The Contractor will record minutes of each meeting and furnish copies within a reasonable time thereafter to the District, Contractor, Inspector of Record, Architect and other attendees. Unless written objection to contents of the meeting minutes is received by Contractor within 3 days after presentation, it shall be understood and agreed that the minutes are a true and complete record of the meeting.

C. Meeting Schedule: Dates, times and locations for various meetings shall be agreed upon and recorded at pre-construction meeting. Thereafter, changes to the meeting schedule shall be agreed between the District and the Contractor, with appropriate written notice to all parties involved.

3.02 PRE-CONSTRUCTION MEETING:

A. General: Before issuance of Notice to Proceed, a pre-construction meeting shall be held at the location, date and time designated by District. In addition to attendees named herein, this meeting shall be attended by representatives of the regulatory agencies having jurisdiction, if required, and such other persons the District may designate.

B. Agenda: The matters to be discussed or resolved and the instructions and information to be furnished to or given by the Contractor at the preconstruction conference include:

1. Schedule of progress meetings.
2. Progress schedule and schedule of values submitted by Contractor.
3. Communication procedures between the parties.
4. Names and titles of all persons authorized by Contractor to represent and execute documents for Contractor, with samples of all authorized signatures.

5. The names, addresses and telephone numbers of all those authorized to act for the Contractor in emergencies.
6. Construction permit requirements, procedures and posting.
7. Public notice of starting Work.
8. Forms and procedures for Contractor's submittals.
9. Change Order forms and procedures.
10. Payment application forms and procedures and revised progress schedule reports to accompany the applications.
11. Contractor's designation of his organization's accident prevention member and his qualifications if other than the Superintendent.
12. Contractor's provisions for barricades, traffic control, utilities, sanitary facilities and other temporary facilities and controls.
13. Consultants and professionals employed by District and their duties.
14. Construction surveyor and initiation of surveying services.
15. Testing Laboratory or Agency and testing procedures.
16. Procedures for payroll and labor cost reporting by the Contractor.
17. Procedures to ensure nondiscrimination in employment.
18. Warranties and guarantees.
19. Long lead item status.
20. Other administrative and general matters as needed.

3.03 CONSTRUCTION PROGRESS MEETINGS:

Progress meetings shall be held according to the agreed schedule. All matters bearing on progress and performance of the Work since preceding progress meeting shall be discussed and resolved including, without limitation, any previously unresolved matters, deficiencies in the work or methods being employed for the work and problems, difficulties or delays which may be encountered.

3.04 PROGRESS MEETINGS:

Conduct progress meetings at the project site at regularly scheduled intervals. Notify the District and Architect of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.

A. Attendees: In addition to representatives of the District and Architect each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by personnel familiar with the project and authorized to conclude matters relating to progress.

B. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the project.

C. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's construction schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities

will be completed within the contract time. Provide a 2 week “look ahead” schedule at each construction progress meeting.

D. Review the present and future needs of each entity present, including such items as interface requirements, time, sequences, deliveries, off-site fabrication problems, access, site utilization, temporary facilities and services, hours of work, hazards and risks, housekeeping, quality and work standards, change orders, documentation of information for payment requests.

E. Reporting: No later than 5 days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary of progress since the previous meeting and report.

F. Schedule Updating: Revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

3.05 SPECIAL MEETINGS:

After notice to other parties, special meetings may be called by the District, Architect or Contractor. Special meetings shall be held where and when designated by the District. Other special meetings, such as the pre-roofing conference, shall be conducted as specified in the various sections of the specifications.

3.06 POST-CONSTRUCTION MEETING:

This meeting shall be held prior to the final inspection of the work to discuss and resolve all unsettled matters. Bonds and insurance to remain in force and the other documents required to be submitted by the Contractor will be reviewed and any deficiencies determined. Schedule and procedures for the final inspection and for final correction of defects and deficiencies shall be agreed.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION:

All other Sections of Division 1 apply to this Section. Provide shop drawings, product data, samples and certificates, complete. Refer also to the General Conditions.

A. Submit for review of Architect shop drawings, product data and samples required by specification sections.

B. Prepare and submit, with construction schedule, a separate schedule listing dates for submission and dates reviewed shop drawings, product data and samples will be needed for each product.

C. Requests for substitutions of materials or processes shall not be submitted as part of the submittal process specified herein. All requests for substitutions shall be separately submitted.

1.02 SHOP DRAWINGS:

A. The requirements of the article on shop drawings in the General Conditions of the contract shall include the following additional requirements.

1. Transmittals: Submittal of shop drawings to the Architect shall be made by the Contractor with a dated transmittal form or letter; (not by sub-contractor or suppliers) at least 15 days before dates reviewed submittals will be needed.

2. Reproducible and Method of Review: With initial submittal of two copies, include a reproducible of the shop drawings. Comments will be noted on the reproducible and returned to the Contractor, who shall revise the original and resubmit in the same manner. When approved, the reproducible will be stamped and returned to the Contractor, who shall make distribution of copies as specified hereinafter. Shop drawings may also be sent electronically for review.

3. Information Copy: For each submittal and resubmittal, deliver one copy of shop drawings and a copy of the letter of transmittal therefore to the District for information, at same time as Architect's copy.

4. Number of Copies: 6 minimum, and not less than the following:

a. Initial Submittal: Reproducible and 3 copies to the Architect, one copy to the District, one copy to the Inspector of Record.

b. Resubmittals: Reproducible of revised original and 3 copies to the Architect; one copy to the District.

c. Final Distribution: Two copies to the Architect, two copies to the District and copies to those concerned.

B. Additional Requirements for Shop Drawings and Schedules:

1. Drawings and schedules shall be identified by serial numbers and descriptive titles indicating their reference to specific portions of Contract drawings and specifications, and shall be dated and signed. A box shall be provided at the lower right corner above the title block, for the Architect's use. Drawings not dated, signed, certified, and/or completed by the Contractor will be returned unchecked.

2. When the Contractor's drawings indicate deviations or changes from the Contract drawings and specifications that may be acceptable, the Contractor shall clearly indicate in his drawings all other changes required to correlate the work, and shall state in writing, his assumption of the costs of all other related changes.

3. Drawings and schedules shall be certified and stamped by the Contractor that they have been checked by him and conform to the Contract requirements.

4. Drawings shall be complete in every respect, and shall contain the following:

   a. Details of fabrication, assembly, erection and connection.

   b. Materials used, including fasteners and attachments.

   c. All required dimensions, including variations between dimensions shown on the Contract drawings and actual conditions.

   d. Complete schedules, as applicable.

   e. All protective coatings and factory finishes, fully described as to materials, number of coats, plated finishes, treatments, and similar information.

5. No changes are to be made to resubmitted drawings and schedules in excess of those corrections noted by the Architect unless the resubmitted drawings are accompanied by a separate written notice from the Contractor precisely setting forth such additional changes and stating his assumption of costs as specified for deviations; and/or such changes as are approved by the Architect.

1.03 PRODUCT DATA:

A. A bound list of products to be used in the work shall be submitted according to the following procedure:

1. Within 5 days after agreement between District and Contractor is executed, submit bound copies, 2 copies to the Architect and 1 copy to the District.

2. The Architect will notify the Contractor in writing of any disapproved items. Within 7 days after receipt of such notice, the Contractor shall submit proposed substations for disapproved items, number of copies, and distribution of the same as initial submittal for each resubmittal until approval is obtained for proposed substitutions. Resubmittals need not be bound, but the transmittal shall identify each disapproved item and the proposed substitute therefore. The Architect will notify the Contractor in writing of approved substitutions.

3. Within 7 days after receipt of notice of approval, the Contractor shall submit corrected bound copies, 2 copies to the Architect, 2 copies to the District, and copies to others concerned.

4. In determination of acceptability, the Architect will consider the ready availability of maintenance and replacement parts and materials, the availability of manufacturer's technical representatives, and such other factors that relate to the maintenance and repair of installed

items without excessive inconvenience to the District, as well as determination of conformance with the Contract Documents.

5. The Contractor shall provide those items included in the approved lists, without deviation, unless subsequently revised by change order procedure.

B. The items shall be submitted in the following manner:

1. Manufacturer's Standard Schematic Drawings:

a. Modify drawings to delete information which is not applicable to project.

b. Supplement standard information to provide additional information applicable to project.

2. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data.

a. Clearly mark each copy to identify pertinent materials, products, or models.

b. Show dimensions and clearances required.

c. Show performance characteristics and capacities.

d. Show wiring diagrams and controls.

3. All items shall be neatly bound in a loose-leaf binder with a proper project identification label and a table of contents.

1.04 SAMPLES:

A. Submittal of samples, where specified or directed, shall be made by the Contractor with a dated transmittal form or letter, and not by subcontractor or suppliers. Samples of manufactured or process materials and equipment will be submitted within 7 days after receipt of approved material list. Samples of field-applied Paint materials and colors shall be submitted not less than 5 days prior to start of field painting work. Unless otherwise specified, samples shall be submitted in triplicate; two to the Architet and one to the District, with copy of letter of transmittal.

1. Label or tag each sample or set of samples identifying the manufacturer's name and address, brand name, catalog number, project title, and intended use.

2. For items required to be of selected and approved colors, patterns, textures or other finish sufficient samples to show the range of shades, tones, values, patterns, texture, or other features corresponding to the instructions, shall be smutted. Submit color samples of field-applied paint materials as specified for painting work.

3. Selection of colors will not be made until all related items requiring selection have been submitted.

1.05 CERTIFICATES:

A. Professional Certification: Where calculations or certification of performance criteria of materials, systems or equipment is required by the contract documents, the Architect and District shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.

B. Certificates Required of Contractor: Where certificates are required attesting to compliance with regulations, compliance with standards or with the specifications, or for other reasons as specified, they shall be provided in 4 copies. Certificates required as part of the shop drawing or substitution approval processes shall be submitted with the shop drawings or request for substitution as applicable. All other certificates shall be submitted no later than the date of final acceptance.

C. All copies of certificates shall bear original signatures of appropriate sub-contractor and material suppliers and the Contractor.

D. Calculations and certifications shall be prepared under the direction of, and signed and sealed by, a professional engineer registered in the State of California, unless otherwise specifically permitted.

PART 2 – PRODUCTS Not applicable to this Section.

PART 3 – EXECUTION Not applicable to this Section.

END OF SECTION

SECTION 01380

CONSTRUCTION ELECTRONIC DIGITAL MEDIA

PART 1 - GENERAL

1.01 DESCRIPTION:

All other sections of Division 1 apply to this Section. Provide construction videos, complete.

1.02 SUBMITTALS:

A. DVD: Submit upon completion of recording as specified hereafter.

1.03 QUALITY ASSURANCE:

A. Video Camera Operator: Shall be a member of the Contractor's staff, such as the superintendent or one of his assistants. Video camera operator shall be able to demonstrate familiarity with the equipment and an understanding of the ongoing construction process, so that videos can be made of all significant operations.

B. Associated Services: Cooperate with the video camera operator's work. Provide reasonable auxiliary services as requested, including access and use of temporary facilities including temporary lighting.

PART 2 – PRODUCTS

2.01 ELECTRONIC DIGITAL MEDIA FILES (DVD and or any other acceptable media):

A. Maintain a video camera / smart phone, etc., on the project at all times.

B. Identification: Label each DVD and the case with the following information:

1. Name of the Project, Architect and Contractor,
2. Date or dates the recording was taken,
3. Name of the person taking the recording,
4. Description: Vantage points, in terms of location, direction (by compass point) and elevation or phase of construction.

PART 3 – EXECUTION

3.01 PRE-CONSTRUCTION VIDEO DIGITAL MEDIA:

Before starting construction, take recording of the site and surrounding properties from different points of view as selected by the Architect. DVD shall contain views in sufficient number to show existing conditions adjacent to the property before starting Work. Take images of existing buildings either on or adjoining the property in sufficient detail to record accurately the physical conditions at the start of construction.

3.02 VIDEO DIGITAL MEDIA:

A. One recording shall be taken each week in sufficient detail to show all major construction operations, and additional recording exposure shall be taken whenever significant construction operations occur. Length of DVD will vary, depending on the complexity and diversity of construction operations, but approximately 30 minutes per week will be required for ongoing construction operations.

B. In addition, DVD records shall be made of all concealed underground utilities, prior to covering. Recording shall be taken of pipes roughed-in walls and above solid ceilings prior to covering. Recording shall be taken of typical concealed construction details in sufficient number to enable the Owner to determine approximate locations and configurations of concealed conditions.

C. During construction, DVD's shall be recorded on a weekly basis and given to the Owner's inspector for verification following completion of the recording session.

END OF SECTION

SECTION 01400

TESTS AND INSPECTIONS

PART 1 - GENERAL

1.01 DESCRIPTION:

This Section covers testing and inspection procedures.

A. Requirements not in this Section:

1. Specific test requirements are specified in each section where they occur.
2. Verification of conditions.
3. Tolerances nomenclature.

1.02 PAYMENT FOR TESTING:

A. District will employ and pay for services of an independent testing laboratory approved by DSA to perform specified inspection and testing, including required continuous inspection. Contractor shall reimburse the District for excessive inspection costs incurred by the District because of the following:

1. Contractor's failure to complete entire work within the contract time stated in Agreement, and any previously authorized extensions thereof.
2. Claims between separate contractors.
3. Covering of work before required inspections or tests are performed.
4. Extra inspections for Contractor's correction of defective work.
5. Overtime costs for acceleration of work for Contractor's convenience.

B. Contractor shall pay cost of the following:

1. Additional tests necessitated if materials fail to meet contract requirements.
2. Tests required by Architect to substantiate proposed substitutions.
3. Tests required to determine code compliance.
4. Costs of concrete mix designs.

1.03 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY:

A. Laboratory is not authorized to:

1. Release, revoke, alter or enlarge on the requirements of the contract documents.
2. Approve or accept portion of the work.
3. Perform any duties of the Contractor.
4. Stop work.

B. Work of the testing laboratory shall in no way limit Contractor's quality control procedures or relieve Contractor of his obligation to perform work in accordance with the contract documents.

1.04 ADDITIONAL TESTING:

A. If the Architect determines that any work requires additional inspection, testing or approval, District will direct the Contractor to order such special inspection, testing or approval.

B. If special inspection, testing or approval reveals a failure of the work to comply with the contract documents, the Contractor shall reimburse the District for the costs, including additional services made necessary by such failure.

C. If special inspection, testing or approval indicates that the work complies with the contract documents, the District will bear the costs.

1.05 GENERAL QUALITY CONTROL REQUIREMENTS:

A. General Test Requirements: Materials to be furnished under the Contract are subject to testing and inspection for compliance with the requirements of drawings and inspections.

B. Testing laboratory: The licensed testing laboratory certified as meeting requirements of ASTM D3666, D3740, E329, E543 and E548, as applicable to work involved and approved by District, referred to hereafter as the testing laboratory. Perform testing under the supervision and control of a California registered professional engineer employed by testing laboratory.

C. Disqualified Material: Material shipped or delivered to the site by Contractor from the source of supply prior to having satisfactorily passed the required testing and inspection, or prior to the receipt of a notice from the Architect that such testing and inspection will not be required, shall not be incorporated in the work.

D. Notification of Field Tests: Architect and District reserve the right to be present at field testing as required by the contract documents. Contractor shall notify the Architect not less than 24 hours in advance of field testing.

E. Disqualified Work: Work in place which fails to conform to test requirements shall be removed and replaced without cost to the District. Where feasible, and subject to the approval of the Architect, disqualified work may be repaired, strengthened or otherwise modified to bring it into conformance with test requirements.

1.06 TEST PROCEDURES:

A. Materials to be furnished under the Contract shall be subject to testing for compliance with the contract documents. Tests will be made in accordance with the applicable standard methods of the ASTM, AASHTO or procedure herein specified.

B. Materials so specified herein, including such others as the Architect may direct, shall be tested. The Contractor shall furnish samples of the materials prepared for tests as required to the testing laboratory providing adequate time for testing before need at the project. The materials represented by samples under tests shall not be incorporated in the work without the approval of the Architect.

C. Test Procedures: Testing laboratory shall perform tests according to ASTM or other methods of test specified for various materials in other sections. If no procedure or test method is specified, testing shall conform to the material specification referenced except as otherwise directed. Testing laboratory shall tag, seal, label, record or otherwise adequately identify materials for testing and no such materials, shall be used or installed in the work until test result reports are submitted and approved, excepting only those materials specified to be placed or installed prior to testing.

D. Test Repeating: Repeat applicable tests at specified intervals, whenever source of supply is changed, or whenever the characteristics of materials change or vary in the opinion of District or Architect.

1.07 COORDINATION AND COOPERATION:

The Contractor shall initiate and coordinate testing and inspections required by the contract documents and public authorities having jurisdiction of the work. Notify the testing laboratory sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but not limited to:

A. Providing access to the work and furnishing incidental labor and facilities necessary for inspections and tests.

B. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.

C. Providing facilities for storage and curing of test samples and delivery of samples to testing laboratories.

D. Providing testing laboratory with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.

E. Security and protection of samples and test equipment at the project site.

D. Furnish copies of mill test reports.

1.08 TEST REPORTS:

A. Reports shall be provided of tests. Such reports shall include tests made, regardless of whether such tests indicate that the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations as required shall also be reported. The reports shall show that the material or materials were sampled and tested in accordance with the requirements of CBC and with the approved specifications. Test reports shall show the specified design strength. They shall also state definitely whether or not the material or materials tested comply with requirements.

B. Furnish and deliver copies of each test report, signed and certified by the testing laboratory professional engineer, as follows:

No. of Copies:

1	District
1	Architect
1	Structural Engineer (structural tests only)
2	Contractor
1	DSA
1	DSA Inspector or Record

C. Promptly notify the Architect of observed irregularities or deficiencies in the work or in products to be used in the work.

D. Each report shall include:

1. Date issued.
2. Project title and number.
3. Testing laboratory name, address and telephone number.
4. Name and signature of laboratory inspector.
5. Date and time of sampling or inspection.
6. Record of temperature and weather conditions.
7. Date of test.
8. Identification of product and specification section.
9. Location of sample or test in the project.
10. Type of inspection or test.
11. Results of tests and compliance with contract documents.
12. Interpretation of test results, when requested.
13. DSA application number.

1.09 VERIFICATION OF TEST REPORTS:

Each testing agency shall submit to DSA a verified report in duplicate covering the tests which are required to be made by that agency during the progress of the project. Such report shall be furnished each time that work on the project is suspended, covering the tests up to that time, and at the completion of the project, covering the tests.

1.10 REPORTING TEST FAILURES:

Immediately upon determination of a test failure, the laboratory will telephone the results of the test to the Architect. On the same day, the laboratory will send written test results to those named on the above distribution list.

1.11 AVAILABILITY OF SAMPLES:

A. Contractor shall make materials available to the laboratory and assist in acquiring these materials as directed by the District's Inspector. The samples shall be taken under the immediate direction and supervision of the testing laboratory or inspector.

B. If work which is required to be tested or inspected is covered up without prior notice or approval, such work may be uncovered at the discretion of the Architect at no additional cost to the District.

C. Unless otherwise specified, the Contractor shall notify the testing laboratory a minimum to 5 working days in advance of required tests and a minimum of 2 working days in advance of required inspections. Extra laboratory expenses resulting from a failure to notify the laboratory will be paid by the District and reimbursed by the Contractor.

D. The Contractor shall give sufficient advance notice to the testing laboratory in the event of cancellation or time extension of a scheduled test or inspection. Charges due to insufficient advance notice of cancellations or time extension will be paid for by the District and reimbursed by the Contractor.

1.12 REMOVAL OF MATERIALS:

Unless otherwise directed, materials not conforming to the requirements of the contract documents shall be promptly removed from the site.

1.13 DISTRICT'S INSPECTOR:

A. The District will furnish inspection of the work at not cost to the Contractor except as otherwise provided herein and except for those inspections required to be furnished and paid for by the Contractor elsewhere in the contract documents. Perform and construct work under inspection of the District's Inspector unless waived in writing by the District in each case or exempted wholly or in part from inspection elsewhere in the contract documents. Any work requiring such inspection that is performed or constructed during the absence of the District's Inspector is considered defective and is subject to rejection. The Contractor shall give written notice to District at least 2 working days in advance of performance of any part of the work requiring special inspection by someone other than District's Inspector and shall state probable duration of the required special inspection.

B. The inspection of any material or equipment at the factory or shop will not constitute an acceptance. The District's Inspector will advise the District to suspend any part or all of the work, by notice to the Contractor confirmed in writing, whenever a question arises as to whether materials or equipment being installed or the methods or workmanship being employed comply with the contract documents until such question is decided upon by District.

C. The District's Inspector is not authorized to accept or reject any work, to modify any contract document requirement, to advise or instruct Contractor or his employees as to prosecution of the work, or to perform any duty or service for the Contractor. Inspection of the work will not relieve the Contractor of the obligation to fulfill requirements of the contract documents.

1.14 INSPECTOR – DISTRICT'S:

A. An inspector employed by the District and approved by DSA in accordance with the requirements of 2013 CBC will be assigned to the work. His duties are specifically defined in 2013 CBC.

B. The work of construction 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.

1.15 INSPECTOR – DISTRICT – FIELD OFFICE:

The Contractor shall provide for the use of the District's Inspector a temporary office to be located as directed by the Inspector and to be maintained until removal is authorized by the District. This office shall be of substantial waterproof construction with adequate natural light and ventilation by means of stock design windows. The door shall have a lock. A table satisfactory for the study of plans and two chairs shall be provided by the Contractor. The Contractor shall provide and pay for adequate electric lights, private local telephone service with a loud exterior bell and separate line for a Contractor-provided FAX machine, and adequate heat and air conditioning for this field office until the completion of the Contract.

1.16 CONTINUOUS INSPECTIONS

A. Inspections: Continuous inspections shall be performed by registered special inspectors (hereinafter referred to as inspector) as required by the contract documents and building code. During course of work under inspection, inspector shall submit detailed reports relative to the progress and condition of work including variances from contract documents and stipulating dates, hours and locations of the inspections.

1.17 REQUIRED TESTS AND INSPECTIONS:

Tests and inspections, as set forth in the 2013 California Building Code (CBC) of the following will be required.

TITLE 24, PART 2 (2013 CBC) VOLUME 2

A. Fill Material

1. Earth Fill Compaction	Refer to Section 02210 and drawings
2. Inspection:	
Compaction	Table 1705.6
Soils	1705A

B. Concrete: Chapter 19A

1. Materials:	
a. Portland Cement	1916A.1
b. Concrete Aggregates	1903A.5 – ACI 318
c. Reinforcing Bars	1916A.2
2. Shotcrete:	1913A

3. Concrete Quality:

a. Proportions of Concrete	1905A.2
b. Strength Tests of Concrete	1905A

4. Concrete Inspection:

a. Job Site	1905A.1
b. Batch Plant	1705A.3.2
c. Waiver of Batch Plant	1705A.3.3
d. Shotcrete	1704A

5. Grounding Rod Tests

PART 2 – PRODUCTS – Not applicable.

PART 3 – EXECUTION – Not applicable.

END OF SECTION

SECTION 01410

QUALITY ASSURANCE/QUALITY CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION:

The requirements of this Section apply to, and are a component part of each section, of the specifications.

1.02 DEFINITIONS:

A. Quality Control: Activities performed by the Contractor to assure compliance with the contract documents.

B. Quality Assurance: Activities performed by the District, the Architect, or persons or firms employed and paid by them to assure compliance with the contract documents.

1.03 SUBMITTALS:

The following shall be submitted in accordance with Section 01300, in sufficient detail to show full compliance with the specification:

A. Certificates: Submit qualifications of Contractor's Quality Control Representative and required special certifications.

B. Contractor's Quality Control Plan: Describe the Contractor's Quality Control (QC) plan and procedures that will be implemented to meet the project quality requirements of the specifications. The system shall address:

1. Management and organization.
2. Identification and data retrieval.
3. Procurement and subcontract.
4. Quality control.
5. Nonconformance control.
6. Drawings and change control.
7. Control of field services.
8. Quality records.
9. Handling and storage.

C. Records: Records shall include all quality control data; factory tests of manufacturer's certifications, quality control coordinating actions, quality training/certifications, concrete pour records and records of inspections and tests.

1.04 QUALITY CONTROL PLAN:

The Contractor shall establish a quality control plan which shall include procedures to assure that the construction, and all components thereof, conform to the contract documents. The

Contractor shall assign competent personnel as Contractor Quality Control Representative (CQCR) to provide the inspection and direction to ensure the implementation of the Contractor's quality control plan.

A. The Contractor's quality system shall encompass management and supervisory actions required to ensure the quality of the completed construction work.

B. The CQCR shall report to the Contractor's management and shall have the necessary authority to discharge contractual responsibilities.

C. Contractor shall be responsible for ensuring that the activities and work of its suppliers and subcontractors meet contractual quality requirements.

D. The Contractor shall be responsible for controlling procurement and subcontracts to ensure that the quality requirements of the project are properly specified. The CQCR shall maintain a site receiving inspection system that ensures procured materials and equipment are inspected and tested. Records of site receiving inspection shall be maintained by the Contractor and made available to the Architect for review. Records shall show the results of inspections and tests, including defects, discrepancies and waivers.

E. Quality Control Records shall be maintained at the site. Maintenance of quality records shall not relieve the Contractor from submitting samples, test data, detail drawings, material certificates, or other information required by each section in the specification. Contractor shall ensure that each record is identified and traceable to specific requirements in the specification and drawings.

F. Nonconformance Control: Control nonconformances discovered by the CQCR, the Contractor, Subcontractors or Owner's quality representatives to prevent their use and to correct deficient operations. Monitor and correct deficient operations.

G. Quality Audits: The Architect may verify the Contractor's implementation of the Quality Control plan at any time during the performance of the work.

H. Contractor Responsibilities: The Contractor shall be responsible for:

1. Maintaining a site receiving inspection system that ensures procured materials and equipment are inspected and tested;

2. Ensuring that any nonconformance identified is documented and controlled;

3. Notifying the Architect of the completion of work or activities identified in the QA/QC Plan as hold or witness points;

4. Maintaining the calibration of measuring and test equipment used for the performance of the work within the required accuracy;

5. Maintaining results of any inspection and tests performed by the Contractor and making them available to the Architect for review;

6. Generating monthly summary report of all quality system activities, including inspections and tests, non-conformances, discrepancies and corrective action taken; and

7. Maintaining quality records.

1.05 QUALITY ASSURANCE:

A. The District will provide testing and inspection as the District may require to assure that the construction, and the Contractor's quality control efforts are sufficient to protect the interests of the District under the contract. In addition, as described in Section 01400, the District will provide for testing laboratory services to perform tests as required by the specifications.

B. Inspections and tests performed by or for the District are for the sole benefit of the District and do not:

1. Relieve the Contractor the responsibility for providing adequate quality control measures;

2. Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

3. Constitute or imply acceptance; or

4. Affect the continuing right of the District after acceptance of the completed work under paragraph I below.

C. The Architect has the right to observe and evaluate the work performed or being performed under the contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Architect performs observation or evaluation on the premises of the Contractor or a subcontractor, Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

1.06 VERIFICATION OF CONDITIONS:

Prior to installing any portion of the work, inspect the work in place to receive the work to be installed and arrange for correction of defects in the existing workmanship, material or conditions that may adversely affect work to be installed. Such inspections shall include test applications of the materials to be installed as required to establish the correct condition of surfaces involved. Installation of materials on work in place constitutes acceptance of such work in place as being in proper condition to receive the materials to be applied and waiver of claim that the work in place is defective as pertains to warranty requirements, excluding unascertainable or concealed conditions. Where the specifications require a material to be installed under the supervision or inspection of the material manufacturer or his representative, the manufacturer or his representative also shall inspect the work in place and issue a letter of approval to Architect.

1.07 TOLERANCES NOMENCLATURE:

A. Tolerance of Numbers: Unless other tolerances are indicated or specified elsewhere, specified numbers such as gauges, weights, temperatures and similar references, but specifically not including dimensions and time, will be acceptable if within formally established, written and recognized commercial tolerances established for the affected trade. In the absence of formally written and recognized commercial tolerances, plus or minus 1 percent will be acceptable. If a specified number cannot be obtained, the number shall be interpreted as the next larger, provided it meets other requirements of the contract documents including sufficient space being available as indicated on the drawings.

B. Tolerances of Specified Words: Unless otherwise specified, the following words shall have the following meanings. Construction executed within these tolerances will be considered acceptable.

1. “Straight”: Allowed deviations from an absolutely straight line of sight shall be plus or minus 1/16” in one foot, plus or minus 1/8” in 10 feet, and plus or minus 1/4” for the entire length of a particular construction. These deviations shall be non-accumulative. Straight lines or planes on drawings shall conform to these tolerances.

2. “Flat”: Allowed deviations from an absolutely flat plane shall be plus or minus 1/1000 inch in one square inch, within plus or minus 1/16 inch in one square foot, within plus or minus 1/8 inch in an area ten feet by ten feet, and within plus or minus 1/4 inch for the entire area of a particular construction item. Flat planes on drawings shall conform to these tolerances.

3. “Level”: Allowed deviation from an absolutely horizontal plane shall be 1/2 degree of angle. Horizontal lines or planes on drawings shall conform to this tolerance.

4. “Plumb”: Allowed deviation from an absolutely vertical plane of plus or minus 1/2 degree of angle. Vertical lines or planes on drawings shall conform to this tolerance.

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION:

Provide temporary facilities and controls, complete.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION

3.01 TEMPORARY UTILITIES:

Except as otherwise specified below, District will furnish electrical power, water and gas from existing outlets designated by the District without charge to Contractor for quantities used for the work. Provide all temporary piping, fittings, wiring and lighting necessary to supply utilities in sufficient quantities at locations required by the work. Contractor shall carefully conserve utilities, and if, in the opinion of the District, the usage is excessive, Contractor may be required to provide separate services from serving utility companies.

A. Electrical Power for in the Building: Characteristics of current furnished by the District is limited to that existing and available; if current of other characteristics or quantity is required by Contractor, the Contractor shall supply the power as necessary at no extra cost to the District. Power for small tools and lighting may be taken from the existing 120-volt 60 Hz 1-phase convenience receptacles provided there is no disturbance to occupants and functions, cables and conductors do not prevent or interfere with closing of fire-labeled doors, and load connected to any single or duplex outlet does not exceed 12 amperes. Total load connected to any circuit shall not exceed 25% of circuit capacity as labeled in panelboard. Contractor shall repair and make good damage to existing electrical facilities caused by his use, as directed and approved, at no extra cost of the District.

B. Water:

1. Construction Water: District will furnish water from such existing outlets as do not interfere with the normal operation of the facilities. In general, obtain water from outlets in janitor, mechanical and similar utility rooms. If used, do not run water hoses down corridors or across doorways in use by occupants. Provide temporary backflow prevention devices as required by Code or directed by the District.

2. Drinking Water: Maintain on the site at all times, adequate supply of drinking water. Provide bottled water, dispenser and disposable cups. Keep the equipment and the area around the equipment clean and dry at all times.

C. Gas: Limit quantity used to the amount that causes no interference to existing gas-fired devices and equipment.

3.02 TEMPORARY HEAT AND VENTILATION:

Provide heat, fuel and services to protect the work against injury from dampness and cold until final acceptance of all work of the Contract.

A. When the new system is used for temporary heat and ventilation, comply with air quality requirements of ASHRAE 62 and the following:

1. Temporary Filters for Air Systems: Provide temporary filters in air conditioning and ventilating systems to prevent dust and fumes from contaminating the new ductwork and equipment. Use commercial viscous-coated throw-away filters, or equal, having efficiency of not less than 60 percent.

2. At completion, inspect the entire system for dirt and debris. Clean equipment, ducts and plenums that are soiled, at not extra cost to District. Replace filters.

B. Operate HVAC system over a weekend as directed, for not less than 48 hours to purge VOC and other contaminants from the building.

3.03 TEMPORARY TELEPHONE SERVICE:

Provide cell phone number for site that is manned during working hours.

3.04 TEMPORARY SANITARY FACILITIES:

Provide and maintain temporary portable chemical toilet facilities and wash sink for duration and operation. Properly proportion number of units for number of workers employed. Provide weather-tight and floored structures, maintained in clean and sanitary condition acceptable to District and Architect.

3.05 TEMPORARY FIRE PROTECTION AND SAFETY REQUIREMENTS:

A. The Contractor shall take necessary precautions to guard against and eliminate fire hazards and to prevent damage to construction work, building materials, equipment, temporary field offices, storage sheds and public and private property. The Contractor shall be responsible for providing, maintaining and enforcing the following conditions and requirements during the entire construction period. Comply with 2010 CFC during all phases of the project.

1. Fire Inspection: The Contractor's Superintendent shall inspect the entire project at least once each week to make certain that the conditions and requirements are being adhered to.

2. Hose: The number of outlets, supply of hose and proper hose size to protect the construction area shall be determined by the local Fire Marshal and provided by the Contractor.

3. Fires: Employees shall not be allowed to start fires with gasoline or kerosene or other highly flammable materials. No open fires shall be allowed.

4. Flammable Building Materials: Only a reasonable working supply of flammable building material shall be located inside of, or on the roof of, any storage facility.

5. Combustible Waste Materials: Oil-soaked rags, papers and other highly combustible materials must be stored in closed metal containers at all times, and shall be removed from the site at the close of each day's work and more often where necessary, and placed in metal containers with tight hinged lids.

6. Gasoline and other flammable or polluting liquids/materials shall not be poured into sewers, manholes or traps, but shall be disposed of, together with flammable or waste material subject to spontaneous combustion, in a safe manner meeting all applicable laws and ordinances. Make appropriate arrangements for storing these materials outside of the building.

7. Provide and maintain fire extinguishers during construction, conveniently located for proper protection, one fire extinguisher for each 5,000 square feet of floor area or less, but not less than four extinguishers. Fire extinguishers shall be ten-pound ABC type. Extinguishers shall meet approval of Underwriters' Laboratory, and shall be inspected at regular intervals and recharged as necessary.

B. All self-propelled construction equipment, except light service trucks, panels, pickups, station wagons, crawler type cranes, power shovels and draglines, whether moving alone or in combination, shall be equipped with a reverse signal alarm (hub-cap type).

C. Conduit trenching and excavation operations with regards to the following:

1. Pursuant to Labor Code 6706, the Contractor shall include in his base bid pay all costs incident to the provision of adequate sheeting, shoring, bracing or equivalent method for the protection of life or limb, which shall conform to applicable Federal and State safety orders.

2. Before beginning any excavation five feet or more in depth, the Contractor shall submit to the Architect a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation. The proposed plan shall comply with the standards established the State of California Construction Safety Orders and Title 24 of the California Code of Regulations. If the detailed plan varies from such shoring system standards, it shall be prepared by a registered Civil or Structural Engineer whose name and registration number shall be indicated on the drawing. If a dispute arises as to whether the plan must be prepared by a registered Civil or Structural Engineer, the Engineer's determination of the matter shall be deemed to have been included in the contract price for the work as specified.

3. Neither the review nor approval of any plan showing the design of shoring, bracing, sloping or other provisions of work protection, shall relieve the Contractor from his obligation to comply with Construction Safety order Standards and Title 24 CCR for the design and construction of such protective work, and the Contractor shall indemnify the District and the Architect from any and all claims, liability, costs, actions and causes of action arising out of or related to the failure of such protective

systems. The Contractor shall defend the District, its officers, employees and agents and the Architect in any litigation or proceeding brought with respect to the failure of such protective systems.

3.06 TEMPORARY ELECTRONIC COMMUNICATIONS:

Contractor shall provide at the site, the following:

A. Digital Camera

1. 1152 x 864 minimum image resolution
2. Built in flash
3. Software to download images to on-site CPU
4. Software to optimize images for speedy e-mail transmission
5. Battery supply sufficient for continuous use of camera

3.07 TEMPORARY SCAFFOLDING, STAIRS AND HOISTS:

Provide and maintain for duration of work, in accordance with CAL-OSHA and applicable laws and ordinances, all required temporary standing scaffolding and temporary stairs, ladders, ramps, runways and hoists for use during construction, unless otherwise specified in contract documents.

3.08 TEMPORARY GUARDS, BARRICADES AND LIGHTS:

A. Provide construction barricades, fences, guards, lights and warning signs necessary and required by law, and take necessary precautions required to avoid injury or damage to any and all persons and property.

B. Construction Site Fencing: Construct fence around construction site at exact location as indicated or directed, of chain link fence fabric not less than 6 feet high. Use 1-3/4” mesh not lighter than 9 gauge galvanized fabric with knuckled selvages. Use round posts, top tension wire and bottom tension wire, and bracing as required for rigidity. Provide steel gates and frames of not less than 1.90” OD, 0.120” minimum wall thickness galvanized tubing. Provide gates as required for access of vehicles and pedestrians. Equip swinging gates with galvanized hinges and latch. Provide change and double padlocks, arranged so that unlocking of either padlock will open the gate. Contractor provide on padlock for his use. District will provide the other padlock. Set posts for support of fences into sleeves or buried direct in ground. Hold posts aligned and plumb.

3.09 PROTECTION OF WORK AND FACILITIES:

A. Protect all adjacent property, roads, streets, curbs, shrubbery, lawns, erosion control materials and planting during construction operations. All damaged material shall be replaced and/or repaired at the expense of the Contractor.

B. Upon completion deliver the entire work to the District in proper, whole and unblemished condition.

1. Parts of work in place that are subject to injury, because of operations being carried on adjacent thereto, shall be covered, boarded up, or substantially enclosed with adequate protection.

C. The Contractor shall be responsible for preventing the overloading of any part of the facilities beyond their safe calculated carrying capacity by the placing of materials and/or equipment, tools, machinery, or any other items thereon.

D. The District may provide such watchman services deemed necessary to protect the District's interest, but any protection so provided by the District shall not relieve the Contractor of the responsibility for the safety and condition of the work and material until the completion and acceptance thereof. The Contractor shall employ such watchman services as he may deem necessary to properly protect and safeguard the work and material.

3.10 DUST CONTROL:

Throughout the entire Contract period, effectively dust-palliate the working area, roads and storage areas constructed under this Contract and involved portions of the site, except during such periods that other contractors may be performing work of separate contracts in these areas. Such application shall consist of intermittent watering and sprinkling of such frequency as will satisfactorily allay the dust during all hours that work is being performed. At no time shall water be allowed to pond or puddle. Ponds and puddles shall be removed immediately and steps taken to remove or dry the mud resulting from the ponds or puddles.

3.11 WATER CONTROL:

Surface or subsurface water or other fluid shall not be permitted to accumulate in excavations or under the structures. Should such conditions develop or be encountered, the water or other fluid shall be controlled and suitably disposed of by means of temporary pumps, piping, drainage lines and ditches, dams or other methods approved by the Architect.

3.12 PROJECT IDENTIFICATION:

Provide and maintain one sign only on the property at location as directed by Architect. Signboard shall contain information and be of size as detailed on the drawings. Small direction signs may be installed if specifically approved by Architect. Signs by subcontractors and material suppliers will not be permitted.

3.13 CONTRACTOR VEHICLES ON CAMPUS:

Contractor's vehicles shall be restricted to access routes established by the District. Parking of Contractor's employees vehicles will be limited to offsite parking areas as arranged by Contractor, not necessarily adjacent to the site.

3.14 REMOVAL OF TEMPORARY CONSTRUCTION:

Remove temporary office facilities, toilets, storage sheds, fences and other construction of temporary nature from site as soon as progress of work permits. Recondition and restore portions of site occupied by same to a condition acceptable to Architect.

END OF SECTION

SECTION 01630

SUBSTITUTIONS

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. This Section covers provisions for, and restrictions on, substitutions of material, equipment and processes.

1.02 SUBSTITUTIONS:

A. Wherever catalog numbers and specific brands or trade names, whether or not followed by the designation “or equal” are used in conjunction with a designated material, product, thing or service mentioned in these specifications, they are used to establish the standards of quality, utility and appearance required.

B. Substitutions which are considered equal in quality, utility, performance and appearance to those specified will be reviewed, subject to the following provisions:

1. All substitutions must be reviewed and accepted by the Architect in writing prior to fabrication and installation.

2. For this purpose, submit to the Architect 10 days prior to the bid due date, a typewritten list containing a description of each proposed substitute item, material or assembly.

3. No substitutions will be allowed within 10 days of the bid date for review.

4. Contractor shall comply with the General Conditions in regard to submittal of substitutions.

5. Append to the list, a complete side-by-side comparison between the specified item and the substitute item; include sufficient data, drawings, samples, long lead status, literature, guarantee, warranty, or other detailed information as will demonstrate to the Architect that the proposed substitute is equal or better in quality, utility, performance and appearance to the material specified.

6. The Architect will accept, in writing, such proposed substitutions as are in the Architect’s opinion, equal in quality, utility, performance and appearance to the items or material specified.

7. Such acceptance shall not relieve the Contractor from complying with the requirements of the drawings and specifications, and the Contractor’s own expense for any changes resulting from the Contractor’s proposed substitutions which affect other parts of the Contractor’s own work or the work of others, time required to review the drawings and details.

8. If such substitutions impact the design of the DSA Approved project, the Contractor shall reimburse the District for the cost of revisions of contract documents, submittals and preparation of documents to DSA by the Architect.

C. Failure of the Contractor to submit proposed substitutions for review and approval in the manner described above, and within the time prescribed, shall be sufficient cause for disapproval by the Architect of any substitutions otherwise proposed.

D. If specified items are listed in the following format or similar format: "First manufacturer and model number, equivalent second manufacturer and model number, or equal" the Contractor wishing to submit any "equivalent named manufacturer" shall so do in accordance with this provision.

E. Wherever catalog numbers and specific bands or trade names not followed by the designation "or equal" are used in conjunction with a designated material, product, assembly, thing or service mentioned in these Specifications, no substitutions will be approved.

F. Contractor shall discuss at the time of bid if the product being supplied is per the plans and specifications or if it is intended to be an or equal substitution.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01650

PRODUCT HANDLING AND PROTECTION

PART 1 - GENERAL

1.01 DESCRIPTION:

This Section covers the requirements for handling and protection of materials and equipment to be incorporated into the work.

A. Transport, deliver, handle and store materials and equipment at the job site in such manner as to prevent damage, including damage which might result from the intrusions of foreign matter or moisture from any source. Comply with:

1. Material and equipment manufacturer's instructions regarding temperature limitations.

2. Other environmental conditions which are required to maintain the original quality of the materials and equipment.

3. Handle materials to prevent damage to products and finishes.

B. Packaging:

1. Maintain packaged materials in manufacturer's original containers with seals unbroken and labels intact until they are incorporated into the work.

2. Packaged material shall bear the name of the manufacturer, the product, including brand name, color, stock number and all other complete identifying information.

C. Remove all damaged or otherwise unsuitable materials and equipment promptly from the job site.

D. Storing:

1. Locate storage piles, stacks or bins so as to avoid being disturbed. Provide barricades as required to protect storage from damage.

2. Store all materials and equipment in accord with manufacturer's instructions, above grade and properly protected from weather and construction activities. Provide space heaters to prevent condensation where required.

E. Protection:

1. Protect all finished surfaces, including jambs and soffits of all openings used as passage-ways through which materials and equipment are handled.

2. Provide protection for all finished flooring surfaces in traffic areas before allowing any materials and equipment to be moved over those finished surfaces.

3. Maintain all finished surfaces clean, unmarred and suitably protected until occupied by District.

4. Consult individual Specification Sections for any additional specific product handling and protection requirements.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

END OF SECTION

SECTION 01700

PROJECT COMPLETION

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Perform duties specified herein for project completion, complete.

1.02 SUBSTANTIAL COMPLETION:

A. When the work is considered substantially complete, submit to Architect a written notice that the work, or designated portion thereof, is substantially complete, and a list of items to be completed or corrected.

B. After receipt of such notice, Architect will make an inspection to determine the status of completion.

C. If Architect determines that the work is not substantially complete, Architect will promptly notify the Contractor in writing, giving the reasons therefore. Contractor shall remedy the deficiencies in the work and send a second written notice of substantial completion to the Architect. Architect will re-inspect the work.

D. When Architect concurs that the work is substantially complete, he will prepare a Certificate of Substantial Completion on AIA Form G704, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by the Architect. Architect will submit the Certificate to District and Contractor for their written acceptance of the responsibilities assigned to them in the Certificate.

1.03 FINAL COMPLETION:

A. When the work is considered complete, submit written certification that:

1. Contract Documents have been reviewed.
2. Work has been inspected for compliance with Contract Documents.
3. Work has been completed in accordance with Contract Documents.
4. Equipment and systems have been tested in the presence of the District's representative and are operational.
5. Work is completed and ready for final inspection.

B. Architect will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.

C. If Architect considers that the work is incomplete or defective, he will promptly notify the Contractor in writing, listing the incomplete or defective work. Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to Architect that the work is complete. Architect will reinspect the work.

D. When the Architect finds that the work is acceptable to the requirements of the Contract Documents, he will request the Contractor to make closeout submittals.

1.04 PROJECT CLOSEOUT:

The following items shall be completed and approved prior to the approval of the final certificate of payment.

A. Warranties and Guarantees: Provide as specified in Section 01740. Unless otherwise provided elsewhere, warranties and guarantees shall commence with the date of final acceptance of the project. Verify date with the Architect, execute the forms and deliver to Architect for transmission to the District.

B. Final cleaning: Perform final cleaning as specified in Section 01710, immediately prior to final inspection.

C. Project Record Documents: Deliver to Architect record documents specified in Section 01720 at time of final inspection.

D. Operations and Maintenance Manuals and Parts: Deliver all documents and parts specified in Section 01730 at time of final inspection.

E. Keys: Unless keys are shipped directly to District from the factory, properly tag and deliver all keys to District at time of final inspection.

F. Water Purity: Deliver reports of water sterilization to Architect at time of final inspection.

G. Air Balance Reports: Deliver to Architect at time of final inspection.

H. Extra Materials: Deliver extra materials specified in the various sections to Owner's storage facility as directed.

I. Instructions: Instruct the District's operating and maintenance personnel in proper operation and maintenance of systems, equipment and similar items which were provided as part of the work. Submit evidence that such instruction has been satisfactorily completed to Architect.

J. Provide all documentation required by DSA and the CBC.

K. Certificate of Insurance for Products and Completed Operations: Furnish to District at time of final inspection.

1.05 REINSPECTION FEES:

Should Architect perform reinspection due to failure of work to comply with the claims of status of completion made by the Contractor:

A. District will compensate Architect for such additional services.

B. District will deduct the amount of such compensation from the final payment to the Contractor.

1.06 FINAL ADJUSTMENT OF ACCOUNTS:

A. Submit a final statement of accounting to Architect.

B. Statement shall reflect all adjustments to the Contract Sum:

1. The original Contract Sum.

2. Additions and deductions resulting from:

a. Previous Change Orders.
b. Allowances.
c. Unit Prices.
d. Deductions for uncorrected work.
e. Deductions for liquidated damages.
f. Deductions for reinspection payments.
g. Other adjustments.

3. Total Contract Sum, as adjusted.

4. Previous payments.

5. Sum remaining due.

C. Architect will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.07 FINAL APPLICATION FOR PAYMENT:

Submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

1.08 INSTRUCTIONS:

Instruct the Owner's operating and maintenance personnel in proper operation and maintenance of systems, equipment and similar items which were provided as part of the work.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION– Not applicable to this Section.

END OF SECTION

SECTION 01710

CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide cleaning, complete.

A. Maintain premises and public properties from accumulations of waste, debris and rubbish caused by operations.

B. At completion of work, remove waste materials rubbish, tools, equipment, machinery and surplus materials, and clean all exposed surfaces; leave project clean and ready for occupancy.

PART 2 – PRODUCTS

2.01 MATERIALS:

A. Use cleaning materials recommended by manufacturer of surface to be cleaned.

B. Use each type of cleaning material on surfaces recommended by manufacturer.

PART 3 – EXECUTION

3.01 DURING CONSTRUCTION:

A. Execute cleaning to ensure that building, grounds and public properties are maintained free from accumulations of waste materials and rubbish.

B. Wet down dry materials and rubbish to prevent blowing dust.

C. Daily during progress of work, clean construction site and utilized public properties, and dispose of waste materials, debris and rubbish.

D. Provide on-site containers for collection of waste materials, debris and rubbish. Provide for frequent emptying or pickup.

E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off District’s property.

F. Vacuum clean interior building areas when ready to receive new carpeting and continue vacuum cleaning on an as-needed basis until building is ready for substantial completion or occupancy.

G. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw materials from heights; rather a closed chute shall be used.

H. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

3.02 FINAL CLEANING:

A. Employ experienced workers, or professional cleaners, for final cleaning. Clean all surfaces which have been replaced, remodeled or altered as part of the work. Clean for their entire extent, or to natural stopping point, as approved.

B. Exterior: Clean surfaces of the construction and site including fixtures, walls, soffits, floors, hardware, roofs, window and opening ledges and sills, horizontal projections, steps and platforms, walkways, rails and similar surfaces, and adjoining private and public property to the extent soiled by the Contractor's operations.

C. Interior: Leave surfaces in vacuum clean condition with all dust, dirt, stains, handmarks, paint spots, droppings and other blemishes and defects completely removed, and conform to following requirements:

1. Resilient Bases: Clean off adhesive smears and wipe clean.

2. Carpet: Vacuum clean free of lint, soil and dust.

3. Bare and Painted Surfaces: Clean of dust, lint, streaks or stains.

4. Tackable Vinyl Wall Covering: Clean all panels per manufacturer's written instructions.

5. Hardware and Metal Surfaces: Clean and polish all exposed surfaces using noncorrosive and nonabrasive materials.

6. Glass: Wash and polish both sides, and leave free of dirt, spots, streaks and labels. Clean and polish mirrors.

7. Ceilings: Clean and free of stains, handmarks and defacing. Replace damaged acoustical tiles.

8. Replace air conditioning filters.

9. Clean ducts, blowers and coils.

10. Lighting fixtures: Replace burnt lamps and clean fixtures and lenses.

11. Surfaces Not Mentioned: Clean according to the intent of this Section and as required for Architect's approval.

D. Contaminated Earth: Final clean up operation includes the removal and disposal of earth that is contaminated or suitable for support of plant life in planting areas, and filling of resulting excavations with suitable soil as directed and approved. Contaminated areas include those used for disposal of waste concrete, mortar, plaster, masonry and

similar materials, areas in which washing out of concrete and plaster mixers or washing of tools and like cleaning operations have been performed, and all areas that have been oiled, paved or chemically treated. Do not dispose of waste oil, solvents, paints, solutions or like penetrating material by depositing or burying on District's property.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

Provide project record documents, complete.

1.01 MAINTENANCE OF DOCUMENTS:

A. Maintain at job site at all times during construction and until final acceptance, one copy of:

1. Contract drawings and specifications.
2. Addenda, bulletins, change orders and construction change directives.
3. Reviewed and approved shop and erection drawings.
4. Samples, manufacturer's product data and installation instructions.
5. Field test reports.
6. Project correspondence and transmittals.
7. Other documents relevant to work.

B. These documents shall be latest current issue and shall bear, as applicable, all approvals and revisions.

C. Store documents securely apart from documents used for construction. Provide files and racks for storage of documents. File documents in accordance with project filing format of CSI Masterformat. Maintain documents in clean, dry legible condition.

D. Do not use record documents for construction purposes. Make documents available at all times for inspection.

1.02 RECORD DRAWINGS:

A. Record drawings are required for all construction. Record drawings shall conform to the following requirements.

1. Maintain, and keep up to date, a complete record set of black line prints which shall be corrected daily to show every change from the original contract drawings. In addition, the prints shall be marked to show the precise horizontal and vertical location of concealed work and equipment, including concealed or embedded piping and conduit. Prints for this purpose shall be obtained from the District at no cost to the Contractor for original issue. This shall not be construed as authorization for the Contractor to make changes in the layout or work without definite instructions in each case.

2. At completion of the work, obtain from the Architect a set of transparent reproducible drawings. Enter the changes on one sheet and submit a print of that sheet to the Architect for review of the quality of the draftsmanship. The required quality is that the record entries shall be equal to that of the original drawings. Following

acceptance of the quality of work, record all changes neatly in ink on the reproducibles. Submit one set of corrected drawings to Architect for review, and following review, make corrections as required, stamp each sheet “Record Drawing”, stamp Contractor’s name, print and sign name of preparer, and date the drawings. Each sheet shall be signed by an authorized representative of the Contractor. Upon completion, deliver the set of drawings to the Architect for transmittal to the District.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION– Not applicable to this Section.

END OF SECTION

SECTION 01740

WARRANTIES AND GUARANTEES

PART 1 - GENERAL

1.01 DESCRIPTION:

This section specifies the general requirements for written warranties and guarantees required by the Contract Documents. Final payment under the contract will not be made until the warranties and guarantees have been submitted in acceptable form.

1.02 WARRANTIES AND GUARANTEES:

A. General: Provide all warranties and manufacturer's guarantees with District named as beneficiary. For equipment and products, or components thereof, bearing a manufacturer's warranty or guarantee that extends for a period of time beyond the Contractor's warranty and guarantee, so state in the warranty or guarantee.

B. Specific Warranty and Guarantee Requirements: Refer to Divisions 2 through 16.

C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties shall not relieve the Contractor of warranty on the work that incorporates the products, nor shall they relieve suppliers, manufacturers and installers required to countersign special warranties with Contractor.

D. Related Damages and Losses: When correcting warranted work that has been found defective, remove and replace other work that has been damaged as a result of such defect or that must be removed and replaced to provide access for correction of warranted work.

E. Reinstatement of Warranty: When work covered by a warranty has been found defective and has been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to be original warranty with an equitable adjustment for depreciation.

F. Replacement Cost: Upon determination that work covered by a warranty has been found to be defective, replace or reconstruct the work to a condition acceptable to District, complying with applicable requirements of the contract documents. Contractor shall be responsible for all costs for replacing or reconstructing defective work regardless of whether District has benefited for use of work through a portion of its anticipated useful service life.

G. District's Recourse: Written warranties made to the owner are in addition to implied warranties, and shall not limit the duties, obligations, rights and remedies otherwise available under law, nor shall warranty periods be interpreted as limitations on time in which the District can enforce such other duties, obligations, rights or remedies.

H. Rejection of Warranties: The District reserves the right to reject warranties and to disallow the use of products with warranties in conflict with contract document requirements.

I. Warranty as Condition of Acceptance: The District reserves the right to refuse to accept work for the project where a special warranty, certification or similar commitment is required until evidence is presented that those required to countersign such commitments are willing to do so.

1.03 PREPARATION OF WARRANTY AND GUARANTEE SUBMITTALS:

A. Number of Copies: 2, unless otherwise specified, or directed.

B. Special Project Warranty and Manufacturer's Guarantee Forms: Forms for Special Project Warranties and for Manufacturer's Guarantees are included at the end of this Section. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor, or the Contractor and subcontractor, supplier or manufacturer. Submit a draft to the Owner through the Architect for approval prior to final execution.

1. Refer to Divisions 1 through 16 for specific content requirements, and particular requirements for submittal of special project warranties.

2. Prepare standard product warranties and product guarantees, excepting manufacturer's standard printed warranties and guarantees, on Contractor's sub-contractor's material supplier's or manufacturer's own letterhead, addressed to District.

3. Warranty and guarantee letters shall be signed by all responsible parties and by Contractor in every case, with modifications only as approved by District to suit the conditions pertaining to the warranty or guarantee.

C. Manufacturer's Guarantee Form: Manufacturer's guarantee forms may be used in lieu of special project forms included at the end of the Section. Manufacturer's guarantee forms shall contain appropriate terms and identification, ready for execution by the required parties.

1. If proposed terms and conditions restrict guarantee coverage or require actions by District beyond those specified, submit draft of guarantee to District through Architect for review and acceptance before performance of the work.

2. In other cases, submit draft of guarantee to District through Architect for approval prior to final execution of guarantee.

D. Signatures: By persons authorized to sign warranties and guarantees, on behalf of entity providing the warranty or guarantee. All signatures shall be notarized.

E. Co-Signature: All warranties, except manufacturer's printed guarantees, shall be co-signed by the Contractor.

1.04 FORM OF WARRANTY SUBMITTALS:

A. At final completion, compile 2 copies of each required warrantee and guarantee properly executed by the Contractor, or by the Contractor and sub-contractor, supplier or manufacturer. Collect and assemble all written warranties and guarantees into binders and deliver binders to Architect for final review and acceptance.

B. Prior to submission, verify that documents are in proper form, contain all required information and are properly signed.

C. Organize the warranty documents into an orderly sequence based on the Table of Contents of the Project Manual.

D. Include Table of Contents for the finder, neatly typed, following order and Section names and numbers of the Project Manual.

E. Bind warranties and guarantees in heavy-duty, commercial quality, 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, with clear front and spine to receive inserts, and sized to receive 8-1/2” by 11” paper.

F. Provide heavy paper dividers with celluloid or plastic covered tabs for each separate warranty. Mark tabs to identify products or installation, and Section number and title.

G. Include on a separate typed sheet, if information is not contained in warranty or guarantee form, a description of the product or installation, and the name, address, telephone number and responsible person for applicable installer, supplier and manufacturer.

H. Identify each binder on front and spine with typed or printed inserts with title “WARRANTIES AND GUARANTEES”, the project title and the name of the Contractor. If more than one volume of warranties and guarantees is produced, identify volume number on binder.

I. When operating and maintenance data manuals are required for warranted construction, include additional copies of each required warranty in each required manual. Coordinate with requirements specified in Section 01730.

1.05 TIME OF WARRANTY AND GUARANTEE SUBMITTALS:

A. Preliminary Submittal: Unless otherwise specified, obtain preliminary copies of warranties and guarantees within 10 days of completion of applicable item or work. Prepare and submit preliminary copies for review as specified herein.

B. Final Submittal: Submit fully executed copies of warranties and guarantees within 10 days of date of substantial completion by not later than 3 days prior to date of application for final payment.

C. Date of Warranties and Guarantees: Unless otherwise directed, the commencement date for warranty and guarantee periods shall be the date of substantial completion.

1. Warranties for work accepted in advance of date of substantial completion: Commencement date will be the date of acceptance of such work.

2. Warranties for work not accepted as of the date of substantial completion: Commencement date will be the date of acceptance of such work.

PART 2 – PRODUCTS – Not applicable to this Section.

PART 3 – EXECUTION – Not applicable to this Section.

WARRANTY/GUARANTEE

FOR _____ WORK

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

Two (2) Relocatable Classroom Buildings at
BONITA HIGH SCHOOL
3102 'D' Street
San Dimas, California 91773

is in accordance with the Contract Documents and that all said Work as installed will fulfill or exceed all of the Warranty and Guarantee requirements. We agree to repair or replace Work installed by us, together with any adjacent Work which is displaced or damaged by so doing, that proves to be defective in workmanship, material or operation with a period of _____( ) year(s) from the date of final acceptance by District or from the Date of Certificate of Substantial Completion, whichever is earlier, ordinary were 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 District, after notification in writing, we, the undersigned, all collectively and separately, hereby authorize the District to have said defective Work repaired and/or replaced and made good, and agree to pay to the District upon demand all moneys that the District may expend in making good said defective Work, including all collection cost and reasonable attorney fees.

_____
(Subcontractor, Subsubcontractor, Manufacturer or Supplier)

By_____

Title_____

State_License_No._____Date_____

_____
(Contractor)

By_____

State_License_No._____Date_____

Local_Representative. For Maintenance, repair or replacement service, contact:

Name:_____

Address_____

Phone Number_____

SECTION 02050

DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY:

A. Work In This Section: Division 1 applies to this Section. Perform demolition and removals as indicated, specified and required:

1. Demolish and remove existing site improvements including walks, paving, fences, walls and foundations to extent indicated.

2. Make all necessary arrangements and remove abandoned on-site utilities including capping and sealing underground services at points of connection indicated or directed.

3. Clean up and disposal of demolition and removal debris to a legal disposal site.

4. Salvage as indicated on drawings and as directed by the District, including delivery to District's storage.

5. Electrical demolition as indicated on drawings.

6. Removal of abandoned utility piping, ducts and conduits.

B. Related Work Specified Elsewhere:

1. Temporary facilities.
2. Clean-up.
3. Earthwork.

1.02 SUBMITTALS:

Prepare and submit a detailed demolition plan of the work procedures proposed for use in the identification, demolition, handling, removal, transportation and salvage or disposal of removed materials. For each item to be salvaged and delivered to the District for future use, indicate proposed sizes, weights, handling, packaging and labeling methods. This requirement does not apply to items to be reinstalled under the contract.

1.03 RECORD DRAWINGS:

Provide record drawings as specified in Division 1. Identify and accurately locate capped utilities and other subsurface structural, electrical or mechanical conditions.

1.04 QUALITY ASSURANCE:

A. Requirements of Regulatory Agencies: Secure and pay for demolition and removal permits required by public agencies having jurisdiction. Give notices and comply with requirements of SCAQMD Rule 1403, Asbestos Emissions from Demolition / Renovations Activities.

B. Demolition Firm Qualifications: Engage an experienced firm that has successfully completed demolition work similar to that indicated for this project.

C. Public Utilities: Give all required notices, pay fees and charges, and arrange for disconnection and removal of abandoned public utilities and meters.

D. Video Documentation: Refer to Division 1. Before starting work of this section, provide one video of existing conditions to be affected by the demolition work. Provide progress videos as the work of demolition progresses, at intervals as approved, illustrating substrates, connections, concealed conditions, and other conditions which will benefit subsequent work.

1.05 DEFINITIONS:

The following terms have the meanings indicated when used in this Section and on related drawings.

A. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged or to remain the District's property.

B. Remove and Salvage: Items indicated to be removed and salvaged remain the District's property. Remove, clean and pack or crate items to protect against damage. Identify contents of containers and deliver to District's designated storage area.

C. Remove and Reinstall: Remove items indicated; clean, service and otherwise prepare them for reuse; store and protect against damage. Reinstall items in locations indicated.

D. Existing to Remain: Protect construction indicated to remain against damage and soiling during demolition. When permitted by the Architect, items may be removed to a suitable, protected storage location during demolition and then cleaned and reinstalled in their original locations.

1.06 MATERIALS OWNERSHIP:

District has first right of ownership. Except for items or materials indicated to be reused, salvaged or otherwise indicated to remain the District's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.

1.07 ENVIRONMENTAL CONDITIONS:

A. Hazardous Materials: Prior to starting work, obtain from the District certification that hazardous materials have been removed under a separate contract. In the event

additional material which is suspected to be friable asbestos or other regulated hazardous material is encountered during the demolition work, the Contractor shall stop work in such areas and notify the District. The material will be inspected and tested, if necessary, by the District. If the material is found to be friable asbestos or other hazardous material, the District will provide for its removal or encapsulation without delay at District's expense. After treatment the District will test and certify that the contamination has been removed or controlled to within legal requirements and Contractor will be notified to proceed with the work in writing.

B. Noise Control: Perform all work in a manner and at times which will keep production of objectionable noise to a minimum amount of noise. Instruct all workers in noise control procedures. Noise that adversely affects adjacent properties will not be tolerated. Such conditions shall be the District's determination.

C. Dust Control: Take appropriate action to check the spread of dust, and to avoid the creation of a nuisance in the surrounding area. Do not use water if it results in hazardous or objectionable conditions, such as flooding or pollution. Comply with all dust regulations imposed by local air pollution agencies. Remove dust and dirt from work area at least daily or more frequently as needed or directed.

1.08 PROJECT SITE AND BUILDING CONDITIONS:

A. The intent of the drawings is to show existing site and building conditions with information developed from the original construction documents, field surveys and District's records, and to generally show the amount and types of demolition and removals required to prepare existing areas for new work. Contractor shall make a detailed survey of existing conditions pertaining to the work before commencing demolition. Report discrepancies between drawings and actual conditions to the Architect for instructions, and do not perform any demolition or removals where such discrepancies occur prior to receipt of the Architect's instructions.

B. Extent: Perform removals to extent required plus such additional removals as are necessary for completion even though not indicated or specified. More or less of the existing construction may be removed is such variation will expedite the work and reduce cost to the District, subject to prior approval in each case.

C. At completion of removal and demolition work, the Contractor shall compare existing conditions with drawings and with new construction to be attached to, aligned with or otherwise influenced by said existing conditions. In all cases where modifications may be required because of differences between existing conditions and assumed conditions shown or not shown on the drawings, the Contractor shall provide detailed information, dimensions, limitations and other documentation to enable the Architect to design the necessary modifications.

1.09 PROTECTION:

A. Existing Work: Protect existing work which is to remain in place, that is to be reused, or which is to remain the property of the District by temporary covers, shoring, bracing and supports. Items which are to remain and which are to be salvaged and which are damaged during performance of the work shall be repaired to original condition or

replaced with new. Do not overload structural elements. Provide new supports or reinforcement for existing construction weakened by demolition or removal work.

B. Weather Protection: Protect building interior and all materials and equipment from the weather at all times. Where removal of existing roofing is necessary to accomplish work have materials and workmen ready to provide adequate and approved temporary covering of exposed areas. Damage at areas to be protected shall be replaced to the satisfaction of the District at the Contractor's expense. Temporary coverings shall be attended, as necessary, to insure effectiveness and to prevent displacement. Protect building interiors from damage by weather and vandalism when windows and doors are removed by use of rigidly constructed, weatherproof barriers.

C. Trees: Protect trees within the project site, which might be damaged during demolition, and which are indicated to be left in place, by a 6-foot high fence. Erect fence a minimum of 5-feet from the trunks at the outer perimeter of branches of individual trees or follow the outer perimeter of branches of clumps of trees. Restore trees scarred or damaged by Contractor equipment or operations to the original condition or replace as determined by the Architect.

D. Fire Protection: Maintain fully charged fire extinguishers and water hoses readily available during all demolition operations. Test electrical conductors for disconnections prior to removing.

E. Precaution Against Movement: Provide shoring and bracing or other supports to prevent movement, settlement or collapse of facilities adjacent to areas of alteration and removal that are to remain.

F. Overloading: Do not overload any part of the structures beyond the safe carrying capacity by placing of materials, equipment, tools, machinery, or any other item thereon.

G. Building Security: Take appropriate measures, as approved, to protect the work from theft and vandalism.

1.10 EXPLOSIVES:

Use of explosives will not be permitted.

1.11 BURNING:

Burning will not be permitted.

PART 2 – PRODUCTS

2.01 FILL:

As specified for fill soils in Division 2.

PART 3 – EXECUTION

3.01 EXAMINATION:

Verify that utilities have been disconnected and capped.

3.02 PREPARATION:

Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks and other adjacent occupied and used facilities. Do not close or obstruct streets, walks or other adjacent occupied or used facilities without permission from the District and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

3.03 UTILITIES:

A. Drain, purge, or otherwise remove, collect and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with demolition operations.

B. Prior to demolition or in the event unrecorded utilities are encountered, notify the District or serving utility companies, as applicable, for work necessary and scheduled to be performed. Coordinate responsibility for limits of utility removals and be responsible for the removal of all utility installations both above and below grade except for those installations the utility companies agree to move. Use care to protect utility lines to remain in service, repair all damage which does occur, and remove those not to remain in service.

C. Interruption of Service: In the event existing utility service requires interruption to accomplish the demolition work, obtain written approval by the District for interruption of service. Request approval not less than 48 hours prior to proposed scheduled interruption. State the exact services involved and the expected duration. Except in an emergency affecting life and limb, do not cause any interruption of utility service without written authorization from the District.

D. Provide for protection of utility lines to remain in service. Repair damage done to these facilities as a result of the work of this Section, to the satisfaction of the District. Locations of existing utilities to remain shall be identified on record drawings, and their physical location shall be indicated by tags or stakes as applicable.

E. Provide approved paths of travel over utility trenches, etc. Use trench plates. School circulation shall be maintained at all times. Provide plates, bridges, protective barriers and guardrails as required to accomplish this.

3.04 WORKMANSHIP:

A. Lowering material: Use hoists and chutes as required to lower removed material. Throwing, dropping or permitting the free fall of material and debris from the roof or from heights which would cause undue noise or nuisance or excessive dust, is prohibited.

B. Protection of work to remain: Establish cut off points between work to be removed and work to remain.

C. Partial demolition and removal: When portions of pavement, slabs, sidewalks, curbs, curb and gutters and cross-gutters are to be removed, cut with a concrete saw to the full depth along all joint lines, unless noted otherwise on drawings, before breaking off the portion to be removed.

3.05 DEMOLITION OF SITE IMPROVEMENTS:

A. Site Improvements: Remove walks and pavement, including herbicide treated base courses and fences, walls, stoops and miscellaneous improvements.

B. Paving and Slabs: Remove, grind, scarify, sawcut concrete and asphaltic concrete paving and slabs including aggregate base as indicated.

C. Underground Utilities: Expose pipe and conduit and cap at property line with permanent waterproof plugs or seals of concrete or metal. Except for items indicated to be abandoned in place, remove on-site abandoned pipe and conduit, cap and seal remaining pipe or conduit ends, and backfill the excavations as specified for new construction.

3.06 REMOVAL OF PORTIONS OF BUILDINGS:

A. Removals: Carefully remove work to be salvaged or reinstalled and store under cover.

B. Carpet, Resilient and Other Soft Flooring: Completely remove flooring, tackless strips, edgings and other accessories, and clean substrates of old cement or adhesive.

C. Adhesives: Removal of carpet and similar materials shall include the complete removal of adhesives.

D. Miscellaneous Items: Remove items not mentioned but required to be removed in such manner as minimizes damage to work to remain.

3.07 SALVAGE AND DISPOSAL:

A. General: Existing items the District intends to retain will be designated by the District prior to start of work. Contractor shall carefully remove, salvage, box or bundle as approved, and deliver such items to storage as directed.

B. Disposal: All removed material other than items to be salvaged or reused shall become Contactor’s property and be removed from the District’s property. Clean up and dispose of debris promptly and continuously as the work progresses, and do not allow to accumulate. Sprinkle water on the surface to prevent dust nuisance. Secure and pay for required hauling permits and pay dumping fees and charges.

END OF SECTION

SECTION 02210

EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide and perform earthwork as required for new slabs, paving, foundations and utility trenches, complete.

A. Work In This Section: Principle items include:

1. Site clearing.
2. Excavation, filling, backfilling and compaction.
3. Imported fill material as required.
4. Subgrade preparation for on-grade concrete.
5. Clean up and disposal.

B. Related Work Not In This Section:

1. Excavating and backfilling for underground utility systems.
2. Landscaping including planting fill and irrigation systems.

1.02 QUALITY ASSURANCE:

A. Requirements of Regulatory Agencies: Refer to Construction Safety Orders, Title 8, CCR, Section 1503 and Article 6; secure and pay for required permits. For off-site excavation, backfill, and compaction, conform to all requirements of public agencies having jurisdiction; obtain and pay for required permits and inspections.

B. Source Quality Control: Obtain approval by the Inspector of imported fill material before material is brought to site, and same approval of excavated material for use in fills or backfills prior to placing. Imported material shall be tested for toxic substances by an independent testing laboratory approved by the District.

C. Foundation Soils: Excavate and compact for foundations to sizes indicated, clean, and leave in condition ready for placement.

1.03 SUBMITTALS:

Provide certification, signed by an authorized representative of an approved testing laboratory, that proposed imported fill material and other earthwork materials to be brought to the site, are free from toxic substances, and are in conformance with applicable state and local regulations.

1.04 JOB CONDITIONS:

A. Protection: Provide and maintain protection to retain earth banks and to protect adjoining grades and structures from caving, sliding, erosion or other damage. Provide

suitable protection against all bodily injury. Construct all bulkheads and shoring to requirements of State and Local codes and regulations. Shore vertical banks or slope banks back as required for stability and safety. Erect temporary barricades located at least 5-feet away from the top of slopes and provide temporary berms as required to prevent slope erosion from water.

PART 2 – PRODUCTS

2.01 MATERIALS:

Provide approved imported material as required if the quantity of approved site and excavated material is insufficient to complete the work.

A. Earthwork Materials: Approved excavated or imported granular soil such as silty sand of the non-expansive type (that undergoes no undesirable volumetric change with changes in the moisture content) and containing not more than 20% by weight of material passing the No. 200 sieve, free from trash, roots, organic material, clay lumps and rocks over 6” size.

B. Gravel Fill Material: From approved source, 90% to 100% passing a 3/4" sieve, 0% to 10% passing a No. 4 sieve and 0% to 3% passing a No. 100 sieve.

PART 3 – EXECUTION

3.01 SITE CLEARING AND PREPARATION:

Before starting grading operations, remove trash and strip all vegetation on the site, including roots.

3.02 EXCAVATION:

Perform excavation to the dimensions and elevations indicated on Drawings, with additional space allowed as required for the installation and stripping of forms, and inspection of the various types of work, except where approval may be given to deposit certain miscellaneous concrete directly against earth banks. Avoid loosening of soils in bottoms or sides of excavations.

A. Adverse Subsurface Conditions: Notify Architect should unsuitable bearing soil or other adverse subsurface conditions be found which are not indicated by the Drawings or Specifications.

3.03 TRENCHING:

Trenching and excavating for underground piping, conduits and related items is performed under other sections. Conform trenching operations to the following requirements:

A. Trenches: Excavate trenches to widths required for proper laying of pipe, with banks as nearly vertical as practicable. Bring bottoms of trenches to the required depths, all accurately graded to provide uniform bearing on undisturbed soil for entire length of

each section of pipe, except where necessary to excavate for pipe bells or for pipe bedding specified in other sections.

B. Methods: Machine excavation method may be used down to rough elevations. Perform fine grading and trimming by hand method.

C. Trench Backfilling: Conform to Paragraph “Compaction” except compact all backfill to at least 90% of maximum dry density where the trenches are located in paved areas or under building or structures. Take precautions in placing and compaction of backfill to avoid damaging pipes, ducts, conduits and structures.

3.04 COMPACTION:

Moisten or aerate all material to specified moisture content, then uniformly compact the fills and backfills in maximum 8” thick loose layers to 90% of the maximum dry density determined by ASTM D1557. Flooding or jetting is not allowed.

3.05 SUBGRADE PREPARATION FOR AC PAVING:

Prepare subgrade for concrete items placed directly on earth by excavating, filling, and grading as required and as specified, and bring to optimum moisture content. Finish the subgrade within 3/8” tolerance when tested along a 10-foot straightedge in any direction at any location. Compact to density specified for fills, and maintain moisture content until concrete is placed.

3.06 DISPOSAL:

Clean up and remove all trash, debris, waste and surplus and rejected earthwork materials from the site to a legal disposal area. Conform to pertaining laws, codes and regulations, obtain and pay for required hauling and dumping permits, and pay all dumping charges. Perform trucking and material handling in a careful manner to prevent spillage and dusting or damage to surfaces and structures. Remove planks used to protect surfaces subject to public traffic at finish of each day’s operations. Maintain public streets and sidewalks in broom clean condition.

3.08 FIELD QUALITY CONTROL:

A. Testing: Testing Laboratory will take test samples and perform materials, moisture content, compaction densities, and other tests to the extent and by the methods directed by Inspector.

END OF SECTION

SECTION 02520

SITE CONCRETE WORK

PART 1 - GENERAL

1.01 DESCRIPTION: Division 1 applies to this Section. Provide off-site exterior concrete work, including curbs, ramps, gutters, walks and pavement, as indicated, specified and required.

A. Related Work Specified Elsewhere:

1. General requirements for concrete.

1.02 SUBMITTALS:

A. Layout Drawings: Provide a layout drawing showing locations of each type of pavement and construction, and dimensioned locations of all expansion and control joints.

B. Product Data: Submit for expansion and control joint material.

C. Site Samples: Prepare following samples at the site, cast in the directed locations and orientations. Prepare as many samples of each type of concrete as are required for approval. Remove samples from the site when no longer needed and removal is approved. Approved samples may be part of permanent construction if meeting all other requirements shown and specified and are so approved.

1. Slab Samples: Prepare minimum 4-foot square samples of each required slab finish including texture. Include a transverse expansion joint, scoring and edging. Where paving adjoins other materials such as pavers, include one edge of sample constructed of the other materials.

1.03 QUALITY ASSURANCE:

A. Conform to Division 3 for requirements not specified in detail herein.

B. Installer's Qualifications: Provide a firm having not less than 2 years experience in constructing site concrete items of types specified herein.

C. Portland cement concrete paving shall have a medium broom finish on all surfaces sloped less than 5% and slip resistant (heavy broom finish) on all surfaces sloped greater than 5 %. CBC Section 11B - 302, U.N.O. on plans.

1.04 ENVIRONMENTAL REQUIREMENTS:

A. Placing During Cold Weather: Do not place concrete when the air temperature is below 35 degrees F. Mixing water shall be heated as necessary to result in the temperature of the in-place concrete being between 50 and 85 degrees F. Covering and other means shall be provided for maintaining the concrete at a temperature of at least 50 degrees F for not less than 72 hours after placing.

B. Placing During Warm Weather: The temperature of the concrete as placed shall not exceed 85 degrees F except where an approved retarder is used. The mixing water and/or aggregates shall be cooled, if necessary, to maintain a satisfactory placing temperature. The placing temperature shall not exceed 95 degrees F at any time.

PART 2 – PRODUCTS

2.01 MATERIALS:

A. Concrete:

1. Portland cement: ASTM C150, Type II, low alkali.

2. Aggregates: ASTM C33, from approved source to insure uniform quality and grading. Deliver so that moisture content variations will not decrease production of reasonably uniform concrete. Do not use aggregates that are reactive with alkalis.

3. Water: Clean, fresh and potable.

4. No onsite “bag” mix is permitted. All concrete shall be Transit Mixed from an approved batch plant.

B. Strength: Minimum ultimate compressive strength of 3,000 psi, pea gravel mix is not allowed. Refer to Division 1 for testing requirements.

C. Reinforcing:

1. Bars: ASTM A615, grade 40.
2. Wire: ASTM A82.
3. Wire mesh: ASTM A 185.

D. Expansion and Control Joints:

1. Expansion joints for slabs: Conform to Green Book, Subsection 201-3, ASTM D 1751, premoulded expansion joint filler, conforming to ASTMD 1751, ½ inch thick, unless otherwise indicated.

2. Control Joints: As detailed.

3. Control Joints: “Zip Strip” as distributed by S.C.A. Construction Supply, Santa Fe Springs, CA, or equal.

E. Curing Compound: Conform to Green Book, Subsection 201-4, white pigmented membrane-forming curing compound conforming to ASTM C 309, Type 2.

F. Polyethylene Film: Clear, 6 mil thick. Provide compatible tape for sealing joints.

PART 3 – EXECUTION

3.01 ON-SITE CONCRETE WORK: Construct all site concrete of 3,000 psi concrete unless otherwise indicated or specified. Provide reinforcing bars as indicated. Form accurately to profiles shown, using wood, metal or plastic forms as approved. Place and handle concrete in a manner that will avoid segregation of ingredients.

3.02 SUBGRADE PREPARATION: Refer to Civil Drawings.

A. General: Conform to Green Book, Subsections 301-1.2 through 301-1.4, inclusive, performed under the supervision of the Soils Engineer.

B. Maintenance of subgrade: The subgrade shall be maintained in a smooth, compacted condition, in conformity with the required section and established grade until the concrete is placed.

3.03 CONCRETE SLABS, PADS, WALKS, CURBS AND OTHER EXTERIOR CONCRETE FLATWORK:

A. Form Setting: Conform to GreenBook, Subsection 303-5.2.1. Concrete surfaces, where left exposed, shall be formed on all sides with plywood with taped joints to give a smooth, uniform straight finish.

B. Reinforcing steel shall be securely tied in place. Do not use bars with kinks or bends not shown on drawings. Reinforcing steel shall be clean, free from rust, oil, scale, or any foreign material. Place all reinforcing as detailed and comply with typical detail for bends, splices, clearance, etc., and with requirements of the Uniform Building Code.

C. Placing Concrete: Conform to GreenBook, Subsection 303-5.3 and Section 03300.

D. Expansion Joints:

1. Concrete Curbs: Provide 3/8” thick expansion joints at beginning and at end of curves, intersections, and 20-foot intervals between, set plumb, square, and to same profile as the curbs. Edge curb tops to 1/2” radius and vertical joints to 1/4” radius.

2. Concrete Walks: As shown on drawings.

E. Control Joints: As shown on drawings.

F. Concrete Ramps: Construct pedestrian and disabled ramps of profile indicated. Excavate below bottoms of ramps to allow for full thickness of concrete throughout. Do not feather the concrete unless specifically indicated. Reinforce as shown on drawings. Provide smooth transitions between ramps and adjoining surfaces. Provide uniform slopes throughout. Provide grooved pavement as detailed.

3.04 SLAB FINISHES:

A. Description of Finishes: Produce finish slab surfaces level or sloped as shown with maximum deviation of 1/8" from a 10-foot straightedge. Keep surface moist with a fine fog spray of water as necessary. Dusting with dry cement or sand during finishing operations is not permitted. Finish all slab edges and joints with an edging tool. Match the approved sample panels. Apply the following finishes as indicated, specified, directed and applicable.

1. Broom Finish: After surface water disappears and floated surfaces are adequately hardened, steel trowel and retrowel concrete to a smooth surface. After concrete has set sufficiently to ring the steel trowel, retrowel to a smooth uniform finish free of trowel marks and blemished. Avoid excessive retroweling that produces burnished areas. Apply approved course texture finish by sliding a wire or stiff bristle broom in one direction along a straightedge guide set at right angles to the direction of traffic. At walking areas, smooth finish 1" wide at edges, expansion joints, and scoring.

B. Locations of Finishes: Concrete paving and concrete finishes along accessible routes of travel to be as listed below:

1. Medium broom finishes: On level sidewalks, pavement, stair treads and landings, curbs, gutters, and other flatwork, unless other finishes are indicated. Score walks in direction and pattern indicated or directed. Provide 3 inch wide trowelled finish at flowlines of gutters.

2. Medium broom finishes: On ramps of slopes less than 5 percent.

3. Course broom finishes: On ramps of slopes 5 percent and greater.

3.04 CURING: Concrete work shall be properly cured and protected against injury and defacement of any 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.

A. In lieu of water curing, within 24 hours after finishing, the concrete which is not to receive special finishes, may be cured with an approved clear liquid curing compound, applied in accordance with the manufacturer's recommendations.

3.05 BACKFILLING: After curing, debris shall be removed and the area adjoining the work shall be backfilled, graded and compacted to conform to the surrounding area in accordance with lines and grades indicated.

3.06 PROTECTION: Completed work shall be protected from damage until accepted. The Contractor shall remove damaged concrete and clean concrete discolored during construction. Work that is damaged shall be removed and reconstructed for the entire length between

regularly scheduled joints at no expense to the owner. Refinishing the damaged portion will not be acceptable. Removed damaged portions shall be disposed of as directed.

3.07 REMOVAL OF FORMS: Do not remove forms until the concrete has attained adequate strength to prevent damage. Take extreme care in stripping to avoid breaking off corners, marking concrete or defacing the finish surface in any way. Minimum stripping time at walls shall be 3 days.

3.09 CLEANING AND PATCHING: After stripping forms, clean all exposed and concrete surfaces and all adjoining work stained by leakage of concrete. Remove all fins, burrs, and projections by grinding. Patch all voids, rock pockets, holes, cracks, etc., by chipping loose concrete and exposing clean sound aggregate. After inspection, dampen prepared recesses for 2 hours minimum and fill with drypack to within 1/4" of surface. Keep drypack damp for 2 days minimum. Apply mortar to final surface and keep patch damp for 5 days minimum. Entire surface of concrete to be sacked with neat cement and water after surface is cleaned and patched.

3.09 FLOOD TEST: All concrete gutters and concrete pavement shall be given a flood test. All 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.

3.10 DEFECTIVE CONCRETE:

A. If concrete tests indicate that the strengths do not meet those specified, or if concrete has excessive pockets, or if reinforcing steel is exposed, or if concrete does not comply with the drawings and specifications, the defective concrete shall be removed and replaced as directed.

B. Concrete paving that shows evidence of cracking prior to final acceptance of the project or during the 60-day period thereafter shall be replaced at no cost to the Owner. Such replacement shall include the entire panel of concrete in which the cracking occurs, to the nearest expansion or control joints, as approved.

END OF SECTION

SECTION 03100

CONCRETE FORMWORK

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide concrete formwork, complete.

A. Work In This Section: Principal items include:

1. Formwork.
2. Setting in forms, anchor bolts, metal inserts, sleeves, and similar items embedded in concrete.

B. Related Work Specified in Other Sections:

1. Screeds for slabs.
2. Furnishing inserts in concrete for work of other sections.

1.02 QUALITY ASSURANCE:

Construct forms conforming to tolerances specified in ACI 301, “Specifications for Structural Concrete for Buildings”, as specified, unless exceeded by requirements of regulatory agencies or otherwise indicated or specified.

PART 2 – PRODUCTS

2.01 MATERIALS:

Furnish materials conforming to following requirements:

A. Form lumber: WCLIB “Construction” grade or better, WWPA No. 1 or better, or equal.

B. Form plywood: PS 1-95, Group I, Exterior Grade B-B Plyform or better, minimum 5-ply and 5/8” thickness, grade marked, not mill oiled. Plywood having medium or high density overlay is acceptable.

C. Foam coating: Resin type coating free of oil, silicone, wax, and non-drying material, not grain-raising.

PART 3 – EXECUTION

3.01 WORKMANSHIP:

A. Rigidly construct forms to prevent mortar leakage, sagging, displacement or bulging between studs. Use clean, sound, approved form material, coated with specified materials only, not oil. Provide backing on plywood joints. Sides of footings shall be

formed, unless permission of the Architect is obtained to place concrete directly against earth. Where this permission is granted, the footing dimension shall be increased 3". Remove formwork prior to backfilling operations.

B. Foundation concrete may be placed directly into neat excavations provided the foundation trench walls are stable as determined by the Architect (Structural Engineer), subject to the approval of DSA in each case. The minimum formwork shown on the drawings is mandatory to insure clean excavations immediately to and during the placing of concrete.

C. Reglets, Rebates and Chases: Form as indicated or required for work of other sections. Verify sizes and locations before forming.

D. Sleeves: Clear space between sleeves shall be 3 times average sleeve or opening dimension, and not less than 6" center to center for small sleeves. Submit proposed location of sleeves in structural members for approval.

E. Embedded Items: Coordinate work with related sections. For slabs on grade, provide 3" minimum above and below conduit. Do not place conduit below bottom layer of reinforcing bars. Verify sizes, locations, and other requirements for anchor bolts, inserts, and like items, and provide or obtain necessary templates corresponding to approved shop drawings. Accurately and securely place in forms to prevent displacement after removing any substances deleterious to bond.

F. Forms shall accurately conform to the lines and dimensions of concrete as indicated on the drawings. They shall be tight and securely braced to prevent any possibilities of movement. Removal of forms and shoring shall conform to latest ACI Codes and government directives.

G. Formwork shall be designed in accordance with ACI 318, parts 1-2-3, ACI 347, ACI SP-4, and ACI 301, and requirements of local authorities.

H. Forms shall be thoroughly cleaned before reusing. Where form release compounds are used to facilitate removal of forms, they shall be types which will not stain or injure concrete, or finish material or cause injury to the bond of the final material to be applied.

I. Wood formwork, including that used in void spaces, pockets and other similar places shall be removed.

J. Tops of slabs shall not vary more than 1/4" from designated elevations.

3.02 PREPARATION FOR CONCRETE PLACING:

A. Debris: Remove foreign matter in forms and rigidly close parts and openings left in formwork. No concrete shall be placed until forms are clean.

B. Wetting: Wet wood forms sufficiently to tighten up cracks. Wet other materials sufficiently to reduce suction and maintain concrete workability.

C. Equipment: Thoroughly clean tools before and after each use.

D. Earth Subgrade: Lightly dampen 24 hours in advance of concrete placing, but not muddied. Reroll where necessary for smoothness and remove loose material.

3.03 REMOVAL OF FORMS:

Conform to CBC 1905A.1.4.

A. Remove forms only after concrete has developed sufficient strength such that it will not be damaged by form removal operations, and after concrete can safely sustain its own weight and superimposed loads, as determined by testing field-cured concrete cylinders, but not sooner than specified in ACI 347.

B. Use care when removing forms that concrete surfaces are not marred or gouged, and corners are true, sharp and unbroken. Do not pry against concrete when removing forms.

C. Cut off nails flush in concealed concrete surfaces. Cut back tie wires and nails in exposed concrete surfaces at least 1-1/2 inches. Remove rod and cone ties and separators or similar devices and pull inward away from finished surfaces.

END OF SECTION

SECTION 03200

CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide reinforcing steel, complete.

A. Work In This Section: Principal items include:

1. Reinforcing bars for cast-in-place concrete.
2. Accessories, including but not limited to, chairs and tie wires.
3. Furnishing and delivery of steel bar reinforcing for concrete.

1.02 QUALITY ASSURANCE:

A. Source Quality Control: Refer to Section 01400 for general testing requirements and to following paragraphs for specific procedures. Testing Laboratory shall perform following conformance testing, shall select test samples of bars, ties, and stirrups from the material at the site or from place of distribution, each sampling including at least two 18" long pieces, and perform the following tests according to ASTM A615.

1. Identified Bars: If samples are obtained from bundles as delivered from the mill, identified as to heat number, accompanied by mill analyses and mill test reports, and properly tagged with Identification Certificate so as to be readily identified, perform one tensile and one bend test of each size of bars. Submit mill reports when samples are selected.

2. Unidentified Bars: When positive identification of reinforcing bars cannot be made and when random samples are obtained, perform tests for each 2.5 tons or fraction thereof, one tensile and one bend test from each size of bars.

1.03 MARKING AND SHIPPING:

Bundle bars, tag with identification, and transport and store so as not to damage any material. Use metal tags indicating size, length and other marking shown on placement drawings. Maintain tags after bundles are broken.

PART 2 – PRODUCTS

2.01 MATERIALS:

A. Reinforcing bars: ASTM A615, Grade 60 or A706, Grade 60, except Grade 40 for No. 3 bars.

B. Tie wire: Annealed copper-bearing steel, 16 gage minimum.

C. Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting and fastening reinforcement in place.

1. Use wire bar type supports complying with CRSI, Chapter 3 unless otherwise shown.

2.02 FABRICATION OF REINFORCING BARS:

Fabricate bars of the indicated sizes and bend and form to required shapes and lengths by methods not injurious to materials. Do not heat reinforcement for bending. Bars with unscheduled kinks or bends are subject to rejection. Use only tested and approved bar materials.

PART 3 – EXECUTION

3.01 WORKMANSHIP:

A. Clean bars extending through construction joints of concrete while encrustations are soft, or sandblast.

B. Additional Reinforcing Bars: Where reinforcement is interrupted by sleeves and openings, provide additional bars as shown or required to maintain total reinforcement.

C. All reinforcing steel shall be thoroughly cleaned of rust, scale or other coating or foreign matter. Bars shall be accurately placed in position and secured in place by means of wire ties. Horizontal and vertical wall bars shall be securely wired together at each point of contract.

D. Reinforcing bars shall be lapped per CBC, at all horizontal and vertical splices, and around all corners and intersections. All reinforcing bars shall dowel through all horizontal and vertical construction joints as indicated on structural drawings, and bars may be wired together at these locations.

E. Provide a minimum of protective concrete coverings of reinforcing bars as follows: 3” on bottom and sides of footings placed directly on the ground; 2” for formed concrete exposed to earth; 1-1/2” for walls above grade.

F. All slab and footing reinforcement shall be supported on precast concrete chairs or spacers of proper thickness to support the reinforcement. Blocks shall be spaced not to exceed 6”-0” o.c.

G. Reinforcement shall be placed so that where temperature bars occur the temperature bars shall not be closer to the top of the slab than 1-1/2”. Remove all tags from reinforcing bars after installation.

3.02 FIELD QUALITY CONTROL:

A. Inspection: Obtain inspection and approval of reinforcing before concrete is placed.

B. Welding Inspection: Whether welding is done in the shop or at the site, perform welding of reinforcing bars under inspection of the Testing Laboratory Welding Inspector who is specially qualified and approved by DSA.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide cast-in-place concrete, complete.

A. Work In This Section: Principal items include:

1. Furnishing, placing, patching, curing and finishing of cast-in-place concrete unless otherwise specified.

2. Placing of embedded anchor bolts and inserts.

3. Vapor retarder under interior floor slabs on grade.

4. Expansion and epoxy anchors.

B. Related Work Not In This Section:

1. Preparation and grading of earth subgrade under concrete.
2. Furnishing, erection and removal of forms.
3. Furnishing and placing reinforcing for cast-in-place concrete.
4. Site concrete work.

1.02 QUALITY ASSURANCE:

A. Concrete Manufacturer: Furnish concrete from licensed commercial ready-mix concrete plant conforming to CBC Chapter 19A and DSA approved. Requirements herein govern when exceeding CBC.

B. Allowable Tolerances: Conform to ACI 117 “Recommended Tolerances for Concrete Construction and Materials”, as applicable, unless exceeded by requirements of regulatory agencies or otherwise indicated or specified.

C. Source Quality Control: Refer to Section 01400 regarding general testing requirements and to the following paragraphs for specific procedures. Concrete materials which, by previous tests or actual service, have shown conformance may be used without testing when so approved by the Architect and DSA Inspector. Testing Laboratory shall perform following conformance testing.

1. Portland Cement: Furnish mill certificates in accordance with CBC 1929A.1, and acceptable to Architect and DSA, showing conformance with requirements specified; otherwise, the Testing Laboratory shall perform one test for each 250 barrels of cement in accordance with ASTM C150.

2. Aggregate: Test the aggregate before and after concrete mix is designed and whenever character of aggregate varies or source of material is changed. Include a sieve analysis. Obtain samples of aggregates at the dry batching or ready-mix concrete plant in accordance with ASTM D75 and perform tests for the properties listed in the following table. Aggregate to be free of any impurities that will cause damage to the concrete.

PHYSICAL PROPERTIES		
Physical Properties, units	**Test Method**	**Minimum Values**
Sieve analysis	ASTM C136	
Organic impurities	ASTM C40	Fine aggregate not darker than reference standard color
Soundness	ASTM C88	Loss after 5 cycles not more than 8 percent of course aggregate, not more than 10 percent of the fine aggregate
Abrasion	ASTM C131	Weight loss not more than 10.5 percent after 100 revolutions, 42 percent after 500 revolutions
Deleterious materials	ASTM C33	
Materials finer than No. 200 sieve	ASTM C117	Not over 1 percent for gravel, 1.5 percent for crushed aggregate
Reactivity potential	ASTM C227, C289, C342	Ratio of silica released to reduction in alkalinity not to exceed 1.0
Sand equivalent	ASTM D2419	California sand equivalent values operating range not below 71 percent

3. Concrete Batch Plant Inspections: Conform to CBC 1704A.3. & 1705A.3.2. Continuous batch plant inspection is required for structural concrete, performed by a specially qualified inspector approved by DSA. As allowed by CBC 1705A.3.3, bonded deputy weighmaster affidavit is acceptable for non-structural concrete and for slabs on grade; the weighmaster shall sign all load tickets and furnish legible copies to Architect, Project Inspector, and DSA.

D. For epoxy dowels and expansion anchors, furnish the services of the epoxy manufacturer's technical representative to be present during installation of epoxy anchors to verify adequacy and quality of methods of installation.

E. Tests: For expansion and epoxy anchors, tests will be performed as specified in Section 01400.

F. Compliance with Regulations: All materials shall comply with the current rules and regulations of the local air quality management district, with the rules regarding volatile organic compounds, and with FDA rules and regulations for dangerous substances in construction products.

1.03 CONCRETE MIX DESIGNS:

Testing Laboratory shall design concrete mixes for concrete using CBC 1905A.2 AND 1905A.3.

A. Strength Requirements: Design mixes for structural concrete for minimum 28-day compressive strengths required by drawings and specifications, 3000 psi minimum. The trial batch strength for each mix shall exceed indicated or specified strength by 750 psi or a lesser amount based on the standard deviations of strength test records according to ACI 318.

B. Design all mixes for workability and durability of concrete. Control the mixes in accordance with CBC 1905A.3, ACI 211.1, Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete, and Chapter 5, ACI 318, Building Code Requirements for Reinforced Concrete.

C. Maximum Aggregate Sizes: Not exceeding 3/4 of minimum clear space between bars and between bars and forms, nor larger than 1/5 of least dimensions between the forms. Design the mixes with 3/4” maximum size, except maximum 1-1/2” size for foundations and maximum 3/8” size at congested reinforcing or thin sections.

D. Pumped Concrete: Design concrete mixes specifically for pump placing with dry loose volume of fine aggregates not more than 47% of total aggregates; limit air entrainment to 5% maximum.

1.04 SUBMITTALS:

A. Product Data: Submit product data on all manufactured materials. Submit recommended mixing and application procedures for fiber reinforcement.

B. For expansion and epoxy anchors, submit product data and certified test reports for each type of epoxy for each application, manufacturer’s recommended application instructions, and if requested, samples of each type material.

1.05 JOB CONDITIONS:

Do not place concrete during rain or adverse weather conditions without measures or prevent damage. Conform to CBC Chapter 19A, and to ACI 305, Recommended Practice for Hot Weather Concreting and ACI 306, Recommended Practice for Cold Weather Concreting, as required except do not use calcium chloride or any type of accelerator.

PART 2 – PRODUCTS

2.01 MATERIALS:

Furnish materials meeting the test requirements of Paragraph “Source Quality Control” above, as applicable, and following requirements:

A. Portland cement: ASTM C150, Type II OR V. Do not change brand without prior approval.

B. Aggregates: Grading of combined aggregate shall conform to CBC, Section 1903A. Aggregates shall conform to ASTM A33, from approved pits, free from vegetable matter and of opaline, feldspar, or siliceous magnesium substances; all washed, clean, hard, fine-grained sound crushed rock or gravel; not over 5% by weight of flat, thin, elongated, friable, or laminated pieces (pieces having major dimension over 5 times average dimension) or more than 2% by weight of shale or cherty material.

C. Admixture: CBC, Section C494, Type A or D; only one brand.

D. Pozzolan: ASTM C618, Class F or C Fly Ash, 100 pounds maximum per cubic yard, containing 1 percent or less carbon. Fly ash shall not be used in excess of 15 percent by weight of total cement quantity.

E. Water: From potable domestic source.

F. Joint filler: ASTM D1751 and D1752, as specified.

G. Curing Materials:

1. Liquid curing compound: ASTM C309, fugitive dye dissipating type, complying with Rule 1113 of the South Coast Air Quality Management District and Federal Air Quality Regulation 40 CFR 52.254.

2. Curing sheet: ASTM C171, non-staining white types.

3. Evaporation retardant and finishing air: Master Builders “Confilm”, or equal.

H. Plastic Vapor Retarder: ASTM E 1745, Class B. Include manufacturer’s recommended adhesive or pressure-sensitive tape.

1. Fortifiber Corporation; Moistop Ultra.
2. Raven Industries Inc.; Vapor Block 10.
3. Stego Industries, LLC; Stego Wrap, 15 mils.

I. Non-shrink grout:

1. For concealed areas: Master Builders “Embeco 885”, or equal, non-gas-forming and free of oxidizing catalysts and inorganic accelerators, used as dry or damp pack, or mixed to a 20-second flow (CRC-C611), without segregation or bleeding at any

temperature between 45 degrees F and 100 degrees F. Working time 30 minutes or more. Minimum 28 day compressive strength shall be 5,000 psi.

2. For exposed areas: Master Builders “Masterflow 928”, with some characteristics as specified for concealed areas.

J. Drypack: Field mixture of 1 part Portland cement to 2 parts fine aggregate mixed to a damp consistency such that a ball molded in the hands will stick together and hold its shape. At Contractor’s option, the specified admixture may be added for increased workability at lower water/cement ratio. In lieu of field mixing, Contractor may use factory mixed drypack material, such as Master Builders “SetGrout”. Minimum 28 day compressive strength shall e 7,000 psi.

K. Epoxy Injection Anchors: “Epcon Ceramic 6” system manufactured by ITW Ramset/Red Head, Wood Dale, IL. Anchors shall consist of rods, washers and nuts. Rods shall be encased in ceramic nozzle, set with dual component injector tool, which sets the anchor, disintegrates the nozzle, mixes and injects the epoxy into the hole.

L. Epoxy: Appropriate for the intended application as recommended by manufacturer, and as indicated on approved submittals, selected from the following:

1. Sikadur by Sika Chemical Corporation.
2. Euco Epoxy, by Euclid Chemical Company.
3. Anchor-it System by Adhesives Technology Corporation.

2.02 CONCRETE MIXING:

Furnish ready-mixed concrete from an approved commercial offsite plant. Conform to UBC Std. 19-3, except materials, testing, and mix designs as specified herein. Use transit mixer trucks equipped with automatic devices for recording number of revolutions of drum. Comply with CBC 1905A.8 and 1905A.9.

A. Admixtures: All approved admixtures shall be introduced into the concrete at the batch plant. Field additions are not acceptable.

B. Slump: Adjust quantity of water so concrete at point and time of placing does not exceed the following slumps when tested according to ASTM C143. Use the minimum water necessary for workability required by part of structure being cast.

Part of Structure	Maximum Slump Inches	Maximum Water-Cement Ratio
Footings, foundation walls, and mass concrete, not reinforced	3½”	0.6

Slabs on grade, reinforced and non-reinforced	3½"	0.45
All other concrete	4	0.5

PART 3 – EXECUTION

3.01 PREPARATION FOR CONCRETE PLACING:

Remove all free water from forms before concrete is deposited. Remove hardened concrete, debris, and foreign materials from forms and from surfaces of mixing and conveying equipment.

A. Wetting: Wet wood forms sufficiently to tighten up cracks. Wet other materials sufficiently to reduce suction and maintain concrete workability.

B. Earth Subgrade: Lightly dampen 24 hours before placing concrete but do not muddy. Re-roll where necessary for smoothness and remove loose material.

C. Setting Miscellaneous Materials: Place and secure anchors and bolts, pipe sleeves, conduits and other such items in position before concrete placement. Plumb anchor bolts and check location and elevation. Temporarily fill voids in sleeves with readily removable material to prevent the entry of concrete.

3.02 CONCRETE PLACING:

A. Conveying and Placing: Comply with Title 24 1905A.9 and 1905A.10. Do not place concrete until reinforcing steel and forms have been approved by the DSA Inspector. Do not allow concrete to free fall from release points at mixer, hopper, tremie, or other conveying equipment in excess of 5-feet for concealed concrete or over 3-feet for exposed concrete. Deposit concrete so that surface is kept level throughout, with minimum being allowed to flow from one portion of forms to another. Place concrete in horizontal layers not more than 18" thick within 60 minutes after water is first added to the batch. Place all concrete by methods that prevent segregation of materials.

1. Where new concrete is placed against or on old or existing concrete, apply bonding agent to surface of old concrete prior to placement of new concrete.

B. Compacting: Compact each layer of the concrete as placed with mechanical vibrators or equivalent equipment. Transmit vibration directly to concrete and in no case through the forms unless approved. Accomplish thorough compaction. Supplement by rodding or spacing by hand adjacent to forms. Compact concrete into corners and angles of forms and around reinforcement and embedded fixtures. Recompact deep sections with congestion due to reinforcing steel as required.

C. Operation of Vibrators: Do not horizontally transport concrete in forms with vibrators nor allow vibrators to contact forms or reinforcing. Push vibrators vertically into the preceding layers that are still plastic and slowly withdraw, producing maximum obtainable density in concrete without creating voids or segregation. In no case disturb concrete that has partially set. Vibrate at intervals not exceeding two-thirds the effective

visible vibration diameter of the submerged vibrator. Avoid excessive vibration that causes segregation.

3.03 CURING FORMED CONCRETE:

Keep forms containing concrete in a wet condition until removed. Keep concrete continuously moist for not less than 7 days after placement, using approved curing methods. Do no use any curing materials or methods that could interfere with the correct application or bonding of subsequent materials; verify exact requirements with applicators of work of other sections. Comply with Sec. 1905A.11.

3.04 PATCHING AND FINISHING FORMED CONCRETE:

Remove ties and spreaders, cut back below finished surface. Fill rock pockets, holes and similar items with mortar and non-shrink grout materials. Chip away defective areas and patch. Match surrounding concrete surfaces in color and texture.

3.05 NON-SHRINK GROUTING:

Install as indicated or required. Where grouting is part of the work of other sections, it shall conform to the following requirements, as applicable.

A. Mixing: Mix the approved non-shrink grout material with sufficient water per manufacturers recommendations.

B. Application: Surfaces to receive the non-shrink grout shall be clean, and shall be moistened thoroughly immediately before placing the mortar. Before grouting, surfaces to be in contact shall be roughened and cleaned thoroughly, all loose particles shall be removed and the surface flushed thoroughly with neat cement grout immediately before the grouting mortar is placed. Place fluid grout from one side only and puddle, chain, or pump for complete filling of voids; do not remove the dames or forms until grout attains initial set. Finish exposed surfaces smooth, and cure as recommended by grout manufacturer.

3.06 EXPANSION AND EPOXY ANCHORS:

A. Drill hole 1/4" larger than anchor diameter, scrub with a wire brush and blow clean of dust with compressed air.

B. Anchors shall be clean and free from rust, laitance, grease.

C. Fill holes with quantity of epoxy recommended by manufacturer. Apply epoxy from the back of the hole to the front. Insert the anchor into the hole in a manner to assure that the epoxy completely surrounds the anchor for the full depth of embedment.

3.07 FIELD QUALITY CONTROL:

A. Supervision: Perform Work of this Section under supervision of a capable concrete superintendent.

B. Continuous Inspection: Construct structural concrete under continuous inspection of Inspector. Obtain inspection and approval of forms and reinforcing by DSA Inspector as required before placing structural concrete.

C. Testing/Evaluation of Concrete: Conform to CBC 1704A.4 and 1905A. Testing Laboratory shall perform following tests. Samples for testing shall be obtained in accordance with ASTM C172, and shall be taken from as close to point of placement as possible.

1. Compressive Strength Tests: Cast one set of three or more cylinders from each day's placing and each 50 cubic yards, or fraction thereof, or not less than once for each 2,000 square feet of surface area for slabs and walls, of each strength of structural concrete. Date cylinders, assign record number, and tag showing the location from which sample was taken. Also record slump test result of sample. Do not make more than two series of tests from any one location or batch of concrete.

2. Test Cylinders: Samples will be made in accordance with ASTM C172. Cast cylinders according to ASTM C31; 24 hours later, store cylinders under moist curing conditions at about 70 degrees F. Test according to ASTM C39 at 7 and 28 day ages. The remaining cylinder shall be kept in reserve in case tests are unsatisfactory.

3. Control Test Cylinders: Cast a set of two or more cylinders for each day's placing of concrete for slabs supported on shoring. Place test cylinders on slabs represented by cylinders and cure the same as slabs. Test cylinders to determine proper times for removal of shores and reshoring. A strength test shall be the average of the compressive strengths of 2 cylinders made from the same sample of concrete and tested at 28 days.

D. Core Tests: Comply with CBC 1930.A. If tests show that compressive strength of any concrete falls below required minimum at 28 day age, additional curing and testing of concrete which unsatisfactory test reports represent may be directed. Testing Laboratory shall take and test drilled cores as directed. Contractor shall refill core holes with drypack concrete of the same compressive strength required for cored concrete. If core tests results are unsatisfactory, Contractor shall furnish required labor, equipment, and weights, and the Testing Laboratory shall conduct load testing on involved parts of building or structure as directed. Contractor shall bear additional curing and test costs, including Testing Laboratory costs, for concrete not meeting required compressive strength at 28 day age even if testing demonstrates that concrete has eventually attained required minimum compressive strength, and all costs for required corrections or removals and replacements as directed and required for approved construction.

END OF SECTION

SECTION 07920

SEALANTS AND CAULKING

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. This Section covers the caulking of openings and joints indicated, specified and required to make the buildings weatherproof and watertight, covers caulking requirements for the entire work, and pertains to all sections requiring caulking, unless specified otherwise. Provide sealants of types specified herein, at locations as specified, indicated on drawings and on approved submittals, and at all locations necessary to provide fully watertight construction. Provide sealants at the following locations as applicable:

A. Exterior Sealants:

1. Joints and recesses formed where frames and subsills of windows, panning, door frames, louvers and vents adjoin plaster and metal surfaces. Use sealant at both exterior and interior surfaces of exterior wall penetrations.

2. Voids where items pass through exterior walls.

3. Metal-to-metal joints where sealant is indicated or specified.

B. Floor Joint Sealants:

1. Seats of metal thresholds for exterior doors.

1.02 SUBMITTALS:

A. Samples and Data: Submit the following:

1. Samples of cured sealants showing full range of designated colors; obtain color instructions prior to submittal.

2. Technical data by manufacturers of proposed materials.

3. Material manufacturers' printed preparation and application instructions; when approved, furnish copies to others whose work requires caulking and sealants.

B. Site Samples: After approval of above samples and data, at site prepare a sample installation of each type of joint in exterior surfaces to be caulked in accordance with this section. Prepare as many samples of each type and size as are required for approval at the locations and of sizes designated. Arrange for sealant manufacturer's technical representative to be present and to assist in correct installation of site samples. Installed caulking and sealants shall conform to the approved site samples.

C. Test Reports: Submit manufacturer's adhesion compatibility test reports according to ASTM C794 for each type material and each substrate.

D. Certification: Provide certification that caulking and sealants installation complies with requirements of Title 24, CCR, Section 5317 for air infiltration limitations.

1.03 PRODUCT HANDLING:

Deliver all caulking and sealant materials to the site in sealed factory-labeled containers, labels bearing statement of conformance to standards specified for each material. Store materials in accordance with manufacturer's instructions and do not use materials for which the shelf life has expired.

1.04 WARRANTY:

Furnish a written warranty against all defects in caulking and sealant materials for 5 years and defects in workmanship for 2 years, covering the following specific conditions, without limitation:

A. Water leakage through sealed joints.

B. Adhesive or cohesive failure of sealant.

C. Staining of adjacent surfaces caused by migration of sealant or primer.

D. Sealant hardened beyond Shore A hardness indicated in approved submittals.

E. Chalking or visible color changes of cured sealants.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

Dow Corning Corp.
P.O. Box 994
Midland, MI 48686
(800) 248-2481

GE Silicones
260 Hudson River Road
Waterford, NY 12188
(800) 255-8886

Pecora Corporation
165 Wambold Road
Harleysville, PA 19438
(800) 523-6688

Sika Corporation
201 Polito Avenue

Lyndhurst, NJ 07071
(800) 933-7452

Sonneborn
889 Valley Park Drive
Shakopee, MN 55379
(800) 433-9517

Tremco Inc.
3735 Green Road
Beachwood, OH 44122
(800) 562-2728

USG Corporation
125 South Franklin St., P.O. Box 806278
Chicago, IL 60680
(800) 874-4968

WW Henry Co.
2500 Columbia Avenue
Lancaster, PA 17604
(800) 232-4832

2.02 MATERIALS:

Furnish sealants meeting following in-service requirements: Normal curing schedules are acceptable; Non-staining, color fastness (resistance to color change), and durability when subjected to intense actinic (ultraviolet) radiation are required. Furnish only formaldehyde free products. Furnish the products of only one manufacturer unless otherwise approved, sealant colors as selected to match the adjoining surfaces.

A. Sealants: Types as listed below, no substitutions unless specifically approved in writing for each application:

1. For joints in vertical and sloping metal surfaces, including surrounds of windows and doors: Conform to ASTM C920, silicone based, single component, non-sag, one of the following:

   GE Silicones SCS 2000 Series
   Dow Corning 795
   Tremco Spectrum 2

2. For joints in vertical surfaces: Conform to ASTM C920, Type S, Grade NS, Class 25, Use NT, silicone based, one of the following:

   GE Silicones Silpruf
   Dow Corning 790
   Tremco Spectrum 1 or Spectrum 3

3. For joints in horizontal surfaces, including floor slabs and paving, subjected to foot traffic, ASTM C 920, Grade P, Type S, Use T, one of the following:

   Sonneborn SL 2
   Vulkem 245
   Tremco THC 900/901

4. For joints in galvanized steel: single component nonsag urethane sealant, ASTM C 920, Type S, Grade NS, Class 25, one of the following:

   Vulkem 116; Mameco International
   Sikaflex – 1a; Sika Corporation
   NP 1; Sonneborn Building Products Div., ChemRex Inc.

B. Primers: As recommended by sealant manufacturer for each condition of application.

C. Joint Backing: Closed cell polyolefin, neoprene, polypropylene or polyethylene, conforming to ASTM C 1330, Type B or ASTM D 5249, Type 3, permanently elastic, mildew resistant, nonmigratory, non outgassing, nonstaining and compatible with joint substrates and sealants. Joint backing shall be “SofRod” manufactured by Nomaco, Inc., 501 NMC Drive, Zebulon, NC 27597 (800) 345-7279, Dow “Ethafoam” or Sonneborn “Sonofoarm”, types recommended by sealant manufacturer for each type substrate and sealant.

D. Bond breaker: Polypethylene tape recommended by sealant manufacturer.

PART 3 – EXECUTION

3.01 INSPECTION:

Inspect all surfaces and joints to be caulked and sealed. Report in writing those conditions that prevent correct preparation, priming and caulking installation.

3.02 PROTECTION:

Protect all adjoining surfaces and apply temporary masking tape on both sides of joints where surface staining may occur. Protect joints until sealant is cured.

3.03 JOINT PREPARATION:

A. Rake and thoroughly clean joints of foreign materials before applying sealant. Remove coatings from metal surfaces following sealant manufacturer’s written instruction, before installing metal where possible, using solvent recommended by manufacturer of metal item.

B. Clean porous surfaces by bead or water blasting as required to provide a clean, sound base surface or sealant adhesion. Remove loose particles present or resulting from blast cleaning by blowing out joints with oil-free compressed air. Wash alkaline seepage from fresh concrete.

C. Clean non-porous surfaces either mechanically or chemically. Clean with solvent and wipe dry immediately. Do not allow solvent film to accumulate on surfaces.

D. Conform to instructions from sealant manufacturer where sealants are required to be applied over painted, lacquered or waterproofed surfaces, or surfaces which have been treated with water-repellent or other coatings.

3.04 INSTALLATION:

A. Comply with sealant manufacturer's written instructions, as approved for mixing, preparatory work, priming, application life and procedures, and protection of sealant work.

B. Prime joints before insertion of sealant back-up or joint filler material.

C. Roll backing material into joint to avoid lengthwise stretching. Do not twist, braid or puncture.

D. Sealant shall be bonded to the 2 opposite sides of joint only. Apply bond-breaker between sealant and back of joints where space for back-up material does not exist

E. Joint spaces and surfaces shall be thoroughly dry before installation of sealant materials. Do not install sealant material during or after rain or fog.

F. Provide maximum 3/8" sealant depth unless otherwise shown. Minimum joint width shall be 1/8" for metal to metal joints and maximum 3/4" width elsewhere unless otherwise shown. Apply sealant under sufficient pressure to fill voids. Finish exposed joints smooth and flush with adjoining surface unless recessed joints as shown. Remove temporary masking as soon as joint is completed.

G. Install sealant in manner to provide uniform, continuous ribbons without gaps or air pockets, and with complete wetting of the joint surfaces equally on opposite sides. Fill joints to slightly concave surface just below adjacent surfaces.

H. Tool surfaces to form smooth, uniform surfaces with slightly concave surfaces. Finish joints straight, uniform and neat. Perform tooling before sealant films over.

I. Where horizontal joints occur between horizontal and vertical surfaces, fill joints to form a slight cove to prevent trapping moisture and dirt.

J. Take precautions to prevent leakage or other malfunction at locations where different types of sealants meet.

K. Do not allow sealants or other compounds to overflow, spill or migrate into voids of adjacent construction.

3.05 CURING:

Cure sealants in accordance with sealant manufacturer's printed instructions to obtain high early bond strength, internal cohesive strength and durability.

3.06 CLEANING:

Clean material from surfaces not to receive sealant and restore the finish as required. If surfaces adjoining joints are stained and cleaning is not acceptable, remove the affected work and provide new work as directed and approved, at no additional contract cost.

END OF SECTION

For use on Shull Portable C.R.
Project - Restroom Wall Patching.

SECTION 09678

EPOXY FLOORING

PART 1 - GENERAL

1.01 DESCRIPTION: Division 1 applies to this Section. Provide epoxy flooring and 6 inch high integral base, complete.

1.02 QUALITY ASSURANCE: Provide flooring systems conforming to AQMD rules and Building Code, and that bear a UL Class B or better label or listing. Employ the flooring manufacturer or its authorized applicator to perform preparation and install flooring systems.

1.03 SUBMITTALS:

A. Product Data: Submit flooring manufacturer's technical materials, systems, preparation, application data, and specifications, and copies of Code approval for each system proposed for use. Prepare specifications specifically for the conditions shown on the drawings.

B. Samples: Submit samples of flooring system in selected colors, showing texture and colors for approval. After selection, submit 12" square Samples of each system prepared on rigid board.

C. Service History: Submit a typed list of at least five installations, with owner's names and addresses, on which the materials and systems proposed for use have been in satisfactory service for at least three years

D. Applicator's Qualifications: Submit evidence that either manufacturer will install floorings or that applicator is licensed and approved by manufacturer.

E. Certificate: At completion, inspect floorings and deliver a certificate that installed materials and workmanship conform to Specifications.

F. Commissioning: Provide ample site staff training sessions to learn proper care and maintenance of flooring including post occupancy reviews prior to expiration of warranty.

G. Extra Stock: Provide touch-up material in color as selected.

1.04 PRODUCT DELIVERY: Deliver flooring materials in unopened factory labeled containers with seals unbroken, labels intact and bearing date of manufacture and brand name.

1.05 PRE-FLOOR COVERING INSTALLATION MEETING: Prior to installation of the epoxy flooring, conduct an on-site meeting to review conditions of application. Verify that subfloor is ready for floor covering installation and verify use of correct products, and review installation requirements.

1.06 JOB CONDITIONS:

A. Maintain temperature in areas to receive epoxy coatings at not less than 50 degrees F. or more than 95 degrees F.

B. Coordination: Coordinate with related work and verify new portions of concrete surfaces are correctly finished. Provide testing of subfloor, and if required, remedial work as specified hereafter.

C. Protection: Install temporary protection to prevent staining or marring of surfaces not to receive materials. Keep all traffic off completed flooring until fully cured and set.

1.07 WARRANTY: Provide an unconditional 2-year installation warranty against defects in materials or workmanship covering the performance of the systems for the full warranty period and accept responsibility for any ruptures in flooring caused by movement of the substrate resulting in cracks up to 3/32" in width. Defects covered under the warranty shall include, without limitation, loosening, softening, abrasion, blistering, loss of either adhesion or cohesion, coating delamination, damage by fuel or lubricants, and penetration of water. Provide site review with designated District representative prior to expiration of warranty as condition to end warranty period.

PART 2 - PRODUCTS

2.01 EPOXY FLOORING MATERIALS:

A. Pli-Dek Epoxy Systems, District Standard, no substitutions, manufactured by Pli-Dek Systems, Inc., P.O. Box 1537, Fallbrook CA 92068 (800) 364-0287. Minimum coefficient of friction of installed flooring shall be 0.6 (wet).

1. Material shall be Pli-Deck PD Epoxy, 100 percent solids, epoxy floor coatings. Primer shall be PD Epoxy Primer.

2. Color shall be as selected from District stock colors.

3. Provide 6" integral base.

PART 3 - EXECUTION:

3.01 PREPARATION OF CONCRETE SUBFLOORS:

A. Contractor shall conduct calcium chloride tests on new and existing floors to receive epoxy flooring.

B. Provide 3 tests are required for the first 1,000 square feet and one additional test for every 1,000 square feet thereafter to ensure concrete moisture emissions do not exceed 5.0 lbs per 1,000 square feet within a 24-hour period for areas to receive linoleum.

C. Perform the test in accordance with ASTM F 1869, which covers the quantitative determination of the rate of moisture vapor emitted from the subfloor.

D. Verify in writing to the Owner, a minimum of 30 days prior to scheduled resilient flooring installation, the following substrate conditions:

1. Moisture: Initial emission rate, as tested with a calcium chloride test kit, per ASTM F1869 requirements. Indicate locations of test areas.

Alkalinity: pH level.
Contingency for High Moisture Readings:

2. If the Contractor's test results indicate that the slab moisture and/or alkalinity readings are in excess of flooring manufacturer's requirements, the Owner's representative will initiate independent testing to confirm results.

3. If the independent test results do not substantiate the Contractor's findings, then the Contractor will be directed to proceed with the floor covering installation and the retesting cost will be deducted from funds due to the contractor.

4. If the independent test results confirm the Contractor's findings, then the Allowance established in the Bid Form for the installation of the vapor retarders as specified in section 07250 shall be utilized.

E. Leveling: Check subfloors for level, and make floor slabs true to level and plane within a tolerance of 1/8" in 10-feet. Test floor areas both ways with a 10-foot straightedge and repair high and low areas exceeding allowable tolerance. Remove high areas by power sanding, stone rubbing or grinding, chipping off and filling with leveling compound, or equivalent method. Fill low areas with leveling compound. Repair and level the surfaces having abrupt changes in plane, such as trowel marks or ridges, whether or not within the allowable tolerance. Again clean areas where repairs are performed.

F. Cleaning: After levelling, if required, clean substrates of all deleterious substances and foreign matter. Fill cracks or depressions with latex leveling compound of the type recommended by flooring manufacturer for the specific job conditions.

3.02 APPLICATION

A. Prime the surface at rate of 300-350 square feet per gallon. Apply primer with nap roller, and allow to cure 24 hours.

B. Premix each component of finish materials separately, then mix components together until thoroughly dispersed. Immediately after mixing, apply the material at the rate of 150-200 square feet per gallon using notched trowel to maintain thickness and roller to eliminate entrapped air. Broadcast colored acrylic chips into surface prior to curing. After completion, allow to cure 24 hours.

C. Level surface to eliminate projecting chips, and clean to remove all dust and dirt.

D. Apply 2 coats of clear epoxy over the surface at the rate of 200-250 square feet per gallon. Allow to cure 24 hours between coats.

E. Extend each coat up walls 6 inches to form integral base.

3.03 COMPLETION: Remove protective coverings. Clean materials from surfaces not to be coated and restore the finish as required. If the surfaces adjoining coatings are stained and cleaning is not acceptable, remove all affected Work and provide new conforming work as directed, at no additional contract cost.

END OF SECTION

SECTION 09900

PAINTING

PART 1 - GENERAL

1.01 DESCRIPTION:

Division 1 applies to this Section. Provide and perform painting, complete.

A. Work In This Section: Principal items include:

1. Preparation of surfaces.
2. Painting of new and existing exterior surfaces, except as otherwise specified.

B. Related Work Not In This Section:

1. Painting specified as work of other sections.
2. Caulking and sealants.

C. Surfaces Not To Be Painted:

1. Non-ferrous metal work (other than zinc-coated surfaces) and plated metal, unless particular items are specified to be painted.
2. Exterior concrete walls and surfaces.
3. Non-metallic walking surfaces unless specifically shown or specified to be painted.
4. Factory finished surfaces.
5. Galvanized fencing.
6. Surfaces indicated not to be painted.
7. Surfaces specified to be finish painted under other sections.

D. Extent of Painting: All existing normally painted surfaces, whether painted or not as existing, shall be painted or repainted. All new surfaces, normally painted, shall be painted. All surfaces, specifically indicated on drawings, shall be painted.

1.02 COMPLIANCE WITH REGULATIONS:

All materials shall comply with the current rules and regulations of the local air quality management district, with the rules regarding volatile organic compounds, and with FDA rules and regulations for dangerous materials in paint.

1.03 SUBMITTALS:

A. List of Paint Materials: Prior to submittal of samples, submit a complete list of proposed paint materials, identifying each material by manufacturer's name, product name and number, including primers, thinners and coloring agents, together with manufacturers' catalog data fully describing each material as to contents, recommended usage, and preparation and application methods. Identify surfaces to receive various paint materials. Do not deviate from approved list.

B. Color Samples: Prior to preparing samples, obtain color and gloss selections and instructions. Using materials from approved list, prepare and submit 8-1/2" by 11" samples of each complete opaque paint finish.

C. Job Samples: Apply minimum 100 square foot samples on site, on actual surfaces to be finished with each material, color and gloss in locations as directed. Prime and intermediate coats shall extend one foot beyond finish coat on each sample in at least 2 directions. Obtain approval of each sample prior to proceeding with the work. Leave the samples in place with removable tags until completion of the work. All work shall match approved samples.

D. Certificates: Submit certificate showing that all products meet the requirements of paragraph "Compliance with Regulations" above.

1.04 JOB CONDITIONS:

A. Protection: Protect all painting while in progress and cover and protect adjoining surfaces and property of others from damage. Exercise care to prevent paint from contacting surfaces not to be painted. During painting of exterior work, cover windows, doors, concrete and other surfaces not to be painted.

B. Examination of Surfaces: Examine surfaces to be painted or finished under this Section and verify satisfactory condition. Unsatisfactory conditions shall be corrected before application of the first coat of paint.

C. Weather Conditions: Apply paint to clean, dry, prepared surfaces. Do not apply exterior paint during rainy, damp, foggy or excessively hot and/or windy weather. Arrange for temporary heat and ventilation for interior painting.

D. Precaution: Place oily rags and waste in self-closing metal containers, removed from site at the end of each day. Do not let rags and waste accumulate.

1.05 EXTRA STOCK:

A. Provide a one gallon container of each paint color and surface texture to District at acceptance.

B. Label each container with color, texture and original application locations, in addition to the manufacturer's label.

PART 2 – PRODUCTS

2.01 MATERIALS:

Use the paint products of only one paint manufacturer unless otherwise specified or approved. In any case, primers, intermediate and finish coats in each painting system must all be the products of the same manufacturer, including thinners and coloring agents, except for materials furnished with shop prime coat by other trades. To the maximum extent feasible, factory mix

paint materials to correct color, gloss and consistency for application. Vista Paint Company is a District standard. No substitutions.

A. Specific paint and minimum number of coats shall be as indicated on Table I through IV at the end of this section.

B. Special finishes specified hereinafter shall be products of one of the named manufacturers in each case.

C. Liquid Paint Preparation Materials:

1. Liquid surface preparation: ESP Easy Surface Preparation, manufactured by The Flood Company, P.O. Box 2535, Hudson, OH 44236 (800) 321-3444.

2. Liquid sander: PASO Liquid Sander, manufactured by Charles Paint Research, Inc., 2401 East 85th Street, Kansas City, MO 64132 (816) 523-7466.

PART 3 – EXECUTION

3.01 WORKMANSHIP:

Apply painting materials in accordance with manufacturer's instructions by brush or roller; spray painting is not allowed without specific approval in each case. Apply each coat at the proper consistency, free of brush or roller marks, sags, runs or other evidence of poor workmanship. Do not lap paint on glass, hardware or other surfaces not to be painted; apply masking as required. Sand between enamel coats.

A. Interior paint materials are zero VOC products. Contractor shall not add solvents, thinners, diluents or other materials to the paint.

3.02 PREPARATION:

A. Prepare surfaces according to recommendations of the paint manufacturer and as approved.

3.03 SURFACE PREPARATION, EXISTING EXTERIOR SURFACES:

A. Metal surfaces shall be washed with an approved cleaner to remove all grease, dirt and foreign material, then rinsed with clean water to remove all residue.

B. Remove checked, cracked, blistered, scaled, loose and alligatored paint on all wood and metal surfaces

C. After surfaces have been prepared as specified above, checked and cracked portions of wood work shall be smoothed with an approved exterior spackling compound and sanded smooth.

D. Wood: Remove dust, grit and foreign material from wood surfaces. Sand surfaces and dust clean. Spot coat knots, pitch streaks and sappy sections with pigmented stain

sealer. Fill nail holes, cracks and other defects after priming and spot prime repairs when fully cured.

3.04 COATS:

The number of paint coats specified to be applied are minimum. Apply additional coats if required to obtain complete hiding and approved results. Ensure acceptable paint finishes of uniform color, free from cloudy or mottled areas and evident thinness on arrises. "Spot" or undercoat surfaces as necessary to produce such results. Tint each coat a slightly different shade of finish color to permit identification. Conform to the approved Samples. Obtain approval of each coat before applying next coat; otherwise, apply an additional coat over entire surface involved at no additional contract cost.

3.05 COLORS:

The numbers given in the following schedule indicate the types of paints required for each surface, identified by their number in white. The actual paint to be applied on each surface shall be the same material in the color or colors as selected, and as approved on submitted samples. Allow for the use of several colors and for doors, frames, dadoes, trim and other items to be finished in different colors.

3.06 DEGREE OF GLOSS:

Degrees of gloss shown on drawings and herein specified are approximate only. The exact degree of glass required for each surface will be determined. Materials shall meet the following requirements for degree of gloss, when tested according to ASTM D523, using Garner Laboratory 60 degree glass meter after 14 days.

NOMENCLATURE	**PERCENTAGE OF GLOSS**
Suede or eggshell	25 – 55
Satin or semi-gloss	55 – 70
Gloss or high gloss	More than 70

3.07 MISCELLANEOUS PAINTING:

A. Miscellaneous: For any items not specifically indicated or specified that require a paint finish, apply 3 coats of paint as directed.

3.08 CLEANING AND TOUCH-UP WORK:

Make a detailed inspection of paint finishes after all painting is completed, remove spatterings of paint from the adjoining surfaces, and make good all damage that my be caused by cleaning operations. Carefully touch-up all abraded, stained or otherwise disfigured painting, as approved, and leave entire painting in first-class condition.

TABLE I
Exterior Substrates

A. T-111 Siding—100% Acrylic Semi Gloss
First Coat Prime: Vista 4200 Terminator II Primer
Second Coat Finish: Vista 8400 Carefree Semi Gloss
Third Coat Finish: Vista 8400 Carefree Semi Gloss

B. Ferrous Metal Doors/Frames/Flashing—Alkyd Emulsion Semi Gloss
First Coat Prime: Vista 9600 Protec Primer
Second Coat Finish: Vista 9800 Protec Semi Gloss
Third Coat Finish: Vista 9800 Protec Semi Gloss

C. Galvanized Metal Doors/Frames/Flashing—Alkyd Emulsion Semi Gloss
First Coat Prime: Vista 4800 Metal Primer
Second Coat Finish: Vista 9800 Protec Semi Gloss
Third Coat Finish: Vista 9800 Protec Semi Gloss

SECTION 10400

IDENTIFICATION DEVICES

PART 1 - GENERAL

1.01 SUMMARY

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Interior and exterior tactile identification signs requiring braille and raised characters.
2. Interior and exterior visual (non-tactile) signs that direct and inform about permanent spaces and services and accessible elements and features of the building or site.

1.02 REFERENCES

A. Regulatory Requirements:

1. ADA Design Guidelines, 2010
2. CA Building Code, Title 24 Chapter 11B

B. Standards:

1. ANSI A117.1, Standard for Accessible and Usable Buildings and Facilities.
2. ASTM D4802 Standard Specification for Poly (Methyl Methacrylate) Acrylic Plastic Sheet.
3. ASTM B209 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
4. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

1.03 SUBMITTALS

A. Product Data: Submit material descriptions, finishes and color charts for each type of sign.

B. Shop Drawings: Submit Shop Drawings indicating sign style, lettering, overall dimensions and quantities for each designated sign type. Shop drawing for door identification signs shall show diagram of typical installation location. Architect shall submit general drawings and specifications for each sign type. Architect shall indicate location of each sign type, including those with Symbols of Accessibility and tactile exit signs, on plans and/or door schedules.

C. Material Samples: Submit three samples illustrating full size sample sign, of type, style and color specified. No more than two sign types shall be required at no additional charge, one tactile, one visual.

D. Manufacturer’s installation instructions.

1.04 QUALITY ASSURANCE

A. Pre-Installation Conference: Notify OAR when signs are ready for installation. Arrange for conference at site. Do not proceed with installation until Architect's approval of specific locations and methods of attachment has been obtained.

B. Provide signs from one manufacturer, unless otherwise approved. Electrical and non-electrical signs can be provided and installed by different manufacturers and installation companies.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site and protect from damage. Store until immediately prior to installation.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Products of following manufacturers form basis for design and quality intended.

1. H. Toji and Company, Long Beach, CA.
2. ADA Sign Products, Long Beach, CA.
3. AccuBraille, San Francisco, CA

2.02 FABRICATION

A. Material: Non-glare (matte), UV stable, suitable for interior and exterior use.

1. Substrate Panel: 1/8 inch minimum thick, clear acrylic plastic.

    a) Corners shall be radius.

    b) Edges shall be square and eased.

    c) Sign color, size and style shall match the existing school signs.

2. Characters and Symbols:

    a) All raised characters and graphics including braille shall be formed into sign face by high pressure thermoforming using a negative mold.

    b) All raised characters and graphics including braille shall be integral to sign face. No applied, glued, welded tactile elements are acceptable. Raised characters and graphics shall have beveled, eased or rounded edges. No sharp, square edges are acceptable, All non-tactile text and graphics shall be applied to the second surface, and background color shall be applied to the second surface and protected with vinyl film.

    c) Pictograms and other symbols including the International Symbol of Accessibility, which are included on signs with raised characters and braille, or other signs, are not required to be raised.

3. Fasteners:

[a) Stainless steel tamper-proof screws and plastic anchors.]

[a) Approved concealed fastening systems.]

b) Signs mounted on fire-rated doors shall be secured with adhesive.

c) Adhesives and sealants shall comply with the limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA method 24).

B. Exterior Non-Tactile Sign Materials for Accessibility Signs:

1. Sign: 0.080 inch aluminum with rounded corners at least 1/8 inch radius and eased edges. White figure on a blue background; non-glare, high contrast signs. The blue shall be equal to color number 15090 in Federal Standard 595B.

2. Post: 2 by 2 inch galvanized steel tubing, weighing minimum of 4.31 pounds per foot and conforming to ASTM A500, Grade B, 3/16 inch thick wall thickness.

3. Parking signs for accessible parking locations shall have reflective symbols and text.

2.03 DESIGN AND INSTALLATION:

A. Finish and Contrast:

1. Characters, symbols and their backgrounds shall have a non-glare finish.

2. Characters and symbols shall contrast with their backgrounds, either light on dark background or dark on light background. Contrast shall be a minimum of 70 percent, using LRV measurements. Suggested LRV for lighter color shall be no less than 45.

B. Character Proportions:

1. Characters shall be selected from fonts where the width of the uppercase letter “O” is 60 percent minimum and 110 percent maximum of the height of the uppercase letter “I”.

2. Characters on signs requiring raised characters and braille shall be 1/12 inch minimum above their background.

C. Character Height:

1. Character height measured vertically from the baseline of the character shall be 5/8 inch minimum and 2 inches maximum based on the height of the uppercase letter “I’.

D. Character Style:

1. Lettering Style for visual (non-tactile) signs: Non-decorative non-script fonts. Oblique or italic fonts shall not be used. Non-decorative serif and sans serif fonts are allowed. Use upper and lower case characters, except for headings, emphasis, or regulatory signs that require all uppercase.

2. For required raised characters, use only uppercase non-decorative sans serif fonts. Oblique or italic fonts shall not be used.

E. Character and Line Spacing:

1. Visual (non-tactile) characters. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 3 percent maximum of characters height. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 160 percent maximum of the character height.

2. Required tactile characters. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing shall be 1/8 inch minimum and 4 times the raised character stroke maximum. Where characters have other cross sections, spacing shall be 1/16 inch minimum and 4 times the raised character stroke maximum at the base, and 1/8 inch minimum, and 4 times the raised character stroke maximum at the top of the cross sections. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 160 percent maximum of the character height.

F. Placement of Sign Elements:

1. Separate all tactile elements by a minimum of 3/8 inch space. Frames that project above the sign surface shall be located a minimum of 3/8 inch away from all raised characters and braille.

G. Braille:

1. Where required. Required uppercase characters shall be accompanied by Contracted (Grade 2)Braille, located no less than no less than 3/8 inch and no more than 1/2 inch below the corresponding raised characters. Capitalization shall be allowed only as per 11.B.703.3.1. Braille dots shall be domed or rounded in shape.

2. Braille dot and cell specifications. Braille dots and cells shall be sized and spaced as per the chart 11.B.703.3.1.

3. Placement. Braille shall be flush left or centered. When tactile text is multi-lined, all braille shall be placed together below all lines of tactile text.

H. Pictorial Symbol Room Identification Signs (pictograms):

1. Pictorial symbols that are used to identify a room or space shall be accompanied by corresponding verbal identification placed directly below the pictogram. The identification text shall follow the standards for tactile (raised) characters and braille in Section 11.B.703. Additional pictorial symbols, such as those located on overhead signs, shall not be required to have raised character and braille descriptions placed directly below them. Other pictorial symbols, such as the International Symbol of Accessibility, are not required to be accompanied by text or raised characters and braille.

2. The outside dimension of the pictogram field shall be a minimum of 6 inches in height.

I. Mounting Locations and Height:

1. Identification signs for rooms and spaces shall be installed on the wall adjacent to the door they identify on the entrance side, preferably on the latch side of the door. Tactile exit signs are installed on the exit side, preferably on the latch side.

2. Where there is no wall space on the latch side, including at double leaf doors, signs shall be placed on the nearest adjacent wall, preferably on the right.

Double doors with one inactive leaf, may have the sign mounted directly on the inactive leaf. Any flat surface adjacent to the door may be used as the mounting wall, as long as the reader may approach the sign without obstruction.

3. Tactile (Raised Character and Braille) signs shall be centered within an 18 inch square clear space located adjacent to the door that the sign identifies, so that the person reading the sign shall not encounter obstacles or stand within the swing of a door opened to a 45 degree angle.

4. Mounting height shall be determined so that the baseline of the highest line of raised characters is no more than 60 inches above the finish floor or ground, and the baseline of the lowest line of braille is no less than 48 inches above the finish floor or ground.

J. Pictorial Symbols, General:

1. Pictorial symbols that are not located on room identification signs, or are not one of the four required Symbols of Accessibility, shall comply with the requirements for high dark to light or light to dark contrast, and non-glare surfaces. Pictorial symbols used on directional and informational signs should be sized according to the viewing distance and height on the wall.

K. Symbols of Accessibility

1. General: Symbols of Accessibility shall comply with the requirements for high dark to light or light to dark contrast, and non-glare surfaces. Symbols of Accessibility should be sized according to the viewing distance and height on the wall.

2. International Symbol of Accessibility (wheelchair pictogram). Use this Symbol when specifications for a specific accessible element or feature of the building or site require it, such as for accessible entrances, accessible paths of travel when they are obscure, or diverge from the regular pedestrian path, restrooms and elevators when not all are accessible.

3. International Symbol of Hearing Loss or Deafness (ear pictogram). Use this Symbol exactly as shown, since it is recognized internationally by persons who are deaf or hard of hearing. The Symbol is used to inform that an Assistive Listening System is available. Preferably, locate the sign with the Symbol and the words “Assistive Listening System Available,” followed by more specific information if possible, at a ticket window, in the lobby or foyer of the assembly area, at an information desk, or at a main entrance to the space. Do not mount it inside the area, since it may not be easily located.

4. Symbol for TTY or Text Telephone. (keyboard pictogram). Use this sign to identify or direct to a TTY, or to inform that a portable TTY is available. If located at a telephone bank, mount the sign high enough so it can be seen over the heads of phone users.

5. Symbol for Volume Controlled Telephone. (telephone handset). All public telephones must now have this type of equipment, and the phones usually have the required Symbol directly on the phone, so a separate sign is no longer necessary. If a separate sign is required, it should be mounted high enough so it can be seen over the heads of phone users.

END OF SECTION

PRE-BID CLARIFICATION FORM (For Contractor's Use)

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	10/28/2016		
FROM:	R.JENSEN CO CHRIS ALMANZA (951) 479-5471	EMAIL:	rjcalmanza@aol.com
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Can I please get the specs for this project?

Can I please get a soils report for this project?

I am looking for the excavation requirements for the new concrete foundations
Thank you

RESPONSE TO CLARIFICATION:

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) (02)

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	10/31/2016		
FROM:	R. JENSEN CO INC CHRIS ALMANZA 951 479-5471	EMAIL:	rjcalmanza@aol.com
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	C1.0 NOTE 2

REQUESTED CLARIFICATION:

PLEASE COMFIRM THAT THE EXISTING LARGE TREE
AND ROOTS WILL BE REMOVED BY THE DISTRICT
AS STATED AT THE PRE-BID MEETING ON 10/28/2016.
THANK YOU

RESPONSE TO CLARIFICATION:

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) 03

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	10/31/2016		
FROM:	R. JENSEN CO INC CHRIS ALMANZA 951 479-5471	EMAIL:	rjcalmanza@aol.com
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	S1.0 S4.4

REQUESTED CLARIFICATION:

PLANSHEET S1.0 AND S1,4 SAYS OPTIONAL 2" CONCRETE SLURRY BY SITE CONTRACTOR.

IS THIS "OPTIONAL" 2" SLURRY REQUIRED?

RESPONSE TO CLARIFICATION:

NO.
Craig S. Babb
Project Architect
Z+P Architects, Inc.
10/31/16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI-04

PROJECT NAME:	NEW RELOCATABLE CLASSROOM BUILDING		
BID NUMBER:	16-17:11		
TO:	Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	10/31/16		
FROM:	John Kruze SSCMI	EMAIL:	jkruze@sscmi.com
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	A5.2

REQUESTED CLARIFICATION:

Keynote #14 indicates the wainscot to be Ceramic tile. Field inspection revealed it to be some type of epoxy finish. Please provide specification for the necessary material we will need to repair damaged wainscot.

RESPONSE TO CLARIFICATION:

The existing walls are terrazo coated with an epoxy decorative finish. This was done in the last modernization to this school. The specification for Epoxy Flooring for the modernization project is attached hereto. This specification applied to the walls as well for the modernization project. The product is "Pli-Deck" PD Epoxy as provided by Pli-Dek Epoxy Systems, Fallbrook, CA 92068. The last known telephone contact number was (800) 364-0287.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

For use on Shull Portable C.R.
Project - Restroom Wall Patching.

SECTION 09678

EPOXY FLOORING

PART 1 - GENERAL

1.01 DESCRIPTION: Division 1 applies to this Section. Provide epoxy flooring and 6 inch high integral base, complete.

1.02 QUALITY ASSURANCE: Provide flooring systems conforming to AQMD rules and Building Code, and that bear a UL Class B or better label or listing. Employ the flooring manufacturer or its authorized applicator to perform preparation and install flooring systems.

1.03 SUBMITTALS:

A. Product Data: Submit flooring manufacturer's technical materials, systems, preparation, application data, and specifications, and copies of Code approval for each system proposed for use. Prepare specifications specifically for the conditions shown on the drawings.

B. Samples: Submit samples of flooring system in selected colors, showing texture and colors for approval. After selection, submit 12" square Samples of each system prepared on rigid board.

C. Service History: Submit a typed list of at least five installations, with owner's names and addresses, on which the materials and systems proposed for use have been in satisfactory service for at least three years

D. Applicator's Qualifications: Submit evidence that either manufacturer will install floorings or that applicator is licensed and approved by manufacturer.

E. Certificate: At completion, inspect floorings and deliver a certificate that installed materials and workmanship conform to Specifications.

F. Commissioning: Provide ample site staff training sessions to learn proper care and maintenance of flooring including post occupancy reviews prior to expiration of warranty.

G. Extra Stock: Provide touch-up material in color as selected.

1.04 PRODUCT DELIVERY: Deliver flooring materials in unopened factory labeled containers with seals unbroken, labels intact and bearing date of manufacture and brand name.

1.05 PRE-FLOOR COVERING INSTALLATION MEETING: Prior to installation of the epoxy flooring, conduct an on-site meeting to review conditions of application. Verify that subfloor is ready for floor covering installation and verify use of correct products, and review installation requirements.

1.06 JOB CONDITIONS:

A. Maintain temperature in areas to receive epoxy coatings at not less than 50 degrees F. or more than 95 degrees F.

B. Coordination: Coordinate with related work and verify new portions of concrete surfaces are correctly finished. Provide testing of subfloor, and if required, remedial work as specified hereafter.

C. Protection: Install temporary protection to prevent staining or marring of surfaces not to receive materials. Keep all traffic off completed flooring until fully cured and set.

1.07 WARRANTY: Provide an unconditional 2-year installation warranty against defects in materials or workmanship covering the performance of the systems for the full warranty period and accept responsibility for any ruptures in flooring caused by movement of the substrate resulting in cracks up to 3/32" in width. Defects covered under the warranty shall include, without limitation, loosening, softening, abrasion, blistering, loss of either adhesion or cohesion, coating delamination, damage by fuel or lubricants, and penetration of water. Provide site review with designated District representative prior to expiration of warranty as condition to end warranty period.

PART 2 - PRODUCTS

2.01 EPOXY FLOORING MATERIALS:

A. Pli-Dek Epoxy Systems, District Standard, no substitutions, manufactured by Pli-Dek Systems, Inc., P.O. Box 1537, Fallbrook CA 92068 (800) 364-0287. Minimum coefficient of friction of installed flooring shall be 0.6 (wet).

1. Material shall be Pli-Deck PD Epoxy, 100 percent solids, epoxy floor coatings. Primer shall be PD Epoxy Primer.

2. Color shall be as selected from District stock colors.

3. Provide 6" integral base.

PART 3 - EXECUTION:

3.01 PREPARATION OF CONCRETE SUBFLOORS:

A. Contractor shall conduct calcium chloride tests on new and existing floors to receive epoxy flooring.

B. Provide 3 tests are required for the first 1,000 square feet and one additional test for every 1,000 square feet thereafter to ensure concrete moisture emissions do not exceed 5.0 lbs per 1,000 square feet within a 24-hour period for areas to receive linoleum.

C. Perform the test in accordance with ASTM F 1869, which covers the quantitative determination of the rate of moisture vapor emitted from the subfloor.

D. Verify in writing to the Owner, a minimum of 30 days prior to scheduled resilient flooring installation, the following substrate conditions:

1. Moisture: Initial emission rate, as tested with a calcium chloride test kit, per ASTM F1869 requirements. Indicate locations of test areas.

Alkalinity: pH level.
Contingency for High Moisture Readings:

2. If the Contractor's test results indicate that the slab moisture and/or alkalinity readings are in excess of flooring manufacturer's requirements, the Owner's representative will initiate independent testing to confirm results.

3. If the independent test results do not substantiate the Contractor's findings, then the Contractor will be directed to proceed with the floor covering installation and the retesting cost will be deducted from funds due to the contractor.

4. If the independent test results confirm the Contractor's findings, then the Allowance established in the Bid Form for the installation of the vapor retarders as specified in section 07250 shall be utilized.

E. Leveling: Check subfloors for level, and make floor slabs true to level and plane within a tolerance of 1/8" in 10-feet. Test floor areas both ways with a 10-foot straightedge and repair high and low areas exceeding allowable tolerance. Remove high areas by power sanding, stone rubbing or grinding, chipping off and filling with leveling compound, or equivalent method. Fill low areas with leveling compound. Repair and level the surfaces having abrupt changes in plane, such as trowel marks or ridges, whether or not within the allowable tolerance. Again clean areas where repairs are performed.

F. Cleaning: After levelling, if required, clean substrates of all deleterious substances and foreign matter. Fill cracks or depressions with latex leveling compound of the type recommended by flooring manufacturer for the specific job conditions.

3.02 APPLICATION

A. Prime the surface at rate of 300-350 square feet per gallon. Apply primer with nap roller, and allow to cure 24 hours.

B. Premix each component of finish materials separately, then mix components together until thoroughly dispersed. Immediately after mixing, apply the material at the rate of 150-200 square feet per gallon using notched trowel to maintain thickness and roller to eliminate entrapped air. Broadcast colored acrylic chips into surface prior to curing. After completion, allow to cure 24 hours.

C. Level surface to eliminate projecting chips, and clean to remove all dust and dirt.

D. Apply 2 coats of clear epoxy over the surface at the rate of 200-250 square feet per gallon. Allow to cure 24 hours between coats.

E. Extend each coat up walls 6 inches to form integral base.

3.03 COMPLETION: Remove protective coverings. Clean materials from surfaces not to be coated and restore the finish as required. If the surfaces adjoining coatings are stained and cleaning is not acceptable, remove all affected Work and provide new conforming work as directed, at no additional contract cost.

END OF SECTION

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI-05

PROJECT NAME:	NEW RELOCATABLE CLASSROOM BUILDING		
BID NUMBER:	16-17:11		
TO:	Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	10/31/16		
FROM:	John Kruze SSCMI	EMAIL:	jkruze@sscmi.com
DOCUMENT/DIVISION NUMBER:		DRAWING NUMBER:	AMS - S1.0

REQUESTED CLARIFICATION:

Do you want us to construct the Optional 24"x 36" Foundation Access/Vent well.

RESPONSE TO CLARIFICATION:

Yes. With the crawl space area drains this access will be required. This will also require an additional 2" of excavation under the entire building to achieve the 18" minimum clearance from finish grade to the bottom of the floor joists.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI-06

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	11/1/16		
FROM:	MOBILE MODULAR CONSTRUCTION, INC	EMAIL:	coloniamicaus@yahoo.com
DOCUMENT/DIVISION NUMBER:	C2.2	DRAWING NUMBER:	SECTION A-A

REQUESTED CLARIFICATION:

Because there is no Soil Report for this project, please clarify how deep do we need to cut the soil within the project limits to get the 90% compaction. 12" minimum?

RESPONSE TO CLARIFICATION:

The District will be required to have soil samples taken by a Laboratory so that the compaction gradients may be developed. Thus during grading a true 90% compaction can be tested and judged. Contractor shall implement standard grading procedures and when at finished grade he shall scarify 12" and then recompact to the specified density.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI -07

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Anna Hamilton, D.O.P. Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	November 1, 2016		
FROM:	Bud R. Glover Principles Contracting, Inc. 1760 Marlbourogh Ave. Riverside CaA 92507	EMAIL:	Bud@principlescontracting.com RFC-PCI-001
DOCUMENT/DIVISION NUMBER:	Grading Plan Section A-A	DRAWING NUMBER:	C2.2

REQUESTED CLARIFICATION:

1) Please clarify dimensional size of Footings?

RESPONSE TO CLARIFICATION:

See Sheet S1.0, Detail A. this is clearly visible on the documents.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI-08

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Anna Hamilton, D.O.P. Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	November 1, 2016		
FROM:	Bud R. Glover Principles Contracting, Inc. 1760 Marlbourogh Ave. Riverside CaA 92507	EMAIL:	Bud@principlescontracting.com RFC-PCI-002
DOCUMENT/DIVISION NUMBER:	Grading Plans Section A-A	DRAWING NUMBER:	C2.2

REQUESTED CLARIFICATION:

1) Please clarify support system for Center Modular Line of Modular Building from ground to chassis?
e.g. Pears and pads on native soil or concrete footings?

RESPONSE TO CLARIFICATION:

You need to study the modular building plans more. Sheet S1.0 "A" shows 1'-0" continuous footing with detail 8/S1.4 referenced. Detail 8/S1.4 shows the continuous footing and the stemwall/pier as depicted in A on S1.0.
Please, no more like this one, you need to review the plans in their entirety and show that you know how to coordinate a set of modular drawings for construction.
Craig S. Babb
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI-09

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Anna Hamilton, D.O.P. Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	November 1, 2016		
FROM:	Bud R. Glover Principles Contracting, Inc. 1760 Marlbourogh Ave. Riverside CaA 92507	EMAIL:	Bud@principlescontracting.com RFC-PCI-003
DOCUMENT/DIVISION NUMBER:	Grading Plan Section A-A	DRAWING NUMBER:	C2.2

REQUESTED CLARIFICATION:

1) Please clarify the dimensional Depth and Width of Over Excavation?
e.g. Depth 3' X 5' Past Foot Print of Modular building.

RESPONSE TO CLARIFICATION:

After review of the documents and other information, there is no "over-excavation" required.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI 10

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Anna Hamilton, D.O.P. Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	November 1, 2016		
FROM:	Bud R. Glover Principles Contracting, Inc. 1760 Marlbourogh Ave. Riverside CaA 92507	EMAIL:	Bud@principlescontracting.com RFC-PCI-004
DOCUMENT/DIVISION NUMBER:	Grading Plan Section A-A	DRAWING NUMBER:	C2.2

REQUESTED CLARIFICATION:

1) Will Soils Report be provide?

RESPONSE TO CLARIFICATION:

No.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI 11

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Anna Hamilton, D.O.P. Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	November 1, 2016		
FROM:	Bud R. Glover Principles Contracting, Inc. 1760 Marlbourogh Ave. Riverside CaA 92507	EMAIL:	Bud@principlescontracting.com RFC-PCI-005
DOCUMENT/DIVISION NUMBER:	Drawings Site Plan Note: 15	DRAWING NUMBER:	AS1.1

REQUESTED CLARIFICATION:

1) Please confirm that only the Sidewalk is to be remove and not the curb adjacent to the Asphalt Parking Lot?

RESPONSE TO CLARIFICATION:

Please review the set of drawings carefully and completely before submitting any more RFI's for this project. If you will carefully look at the civil drawings you will see they have called out what is removed and what is not.

Craig S. Babb,
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

PRE-BID CLARIFICATION FORM (For Contractor's Use) PB RFI-12

PROJECT NAME:	**NEW RELOCATABLE CLASSROOM BUILDING**		
BID NUMBER:	16-17:11		
TO:	Anna Hamilton, D.O.P. Robert Harrison Facilities Director	EMAIL:	harrison@bonita.k12.ca.us cc: hamilton@bonita.k12.ca.us

DATE:	November 1, 2016		
FROM:	Bud R. Glover Principles Contracting, Inc. 1760 Marlbourogh Ave. Riverside CaA 92507	EMAIL:	Bud@principlescontracting.com RFC-PCI-006
DOCUMENT/DIVISION NUMBER:	Enlarge Rest-room Floor Plan General Notes #2	DRAWING NUMBER:	AS6.2

REQUESTED CLARIFICATION:

1) Please provide material Specifications, Colors and supplies information.
e.g. Wall/Floor Coverings, Partitions?

RESPONSE TO CLARIFICATION:

Specifications will be issued in Addendum.

Craig S. Babb
Project Architect, Z+P Architects
11-01-16

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Craig Babb

From: Craig Babb
Sent: Wednesday, November 02, 2016 2:04 PM
To: Anna G. Hamilton (hamilton@bonita.k12.ca.us)
Cc: Rob Harrison; Jorge Prieto
Subject: FW: Bonita Unified School District - Shull Elementary

Anna,

Our electrical engineer found the information for "Teradon". See below.

Craig S. Babb
Project Architect
Ziemba + Prieto Architects

From: Irwan Yowanto [mailto:iyowanto@yowantoeng.com]
Sent: Wednesday, November 02, 2016 2:02 PM
To: Craig Babb <cbabb@ziembaprietoarch.com>
Subject: RE: Bonita Unified School District - Shull Elementary

Craig,

Teradon was bought by other company and now is three-sixty and below is contact number from the website

http://threesixty.tech/contact-us/

Irwan Yowanto, P.E., LC, RCDD
Yowanto Engineering, Inc.
2705 N. Towne Avenue #C
Pomona, CA 91767
C: (626) 252-5150

From: Craig Babb [mailto:cbabb@ziembaprietoarch.com]
Sent: Wednesday, November 2, 2016 1:12 PM
To: Irwan Yowanto <iyowanto@yowantoeng.com>
Subject: FW: Bonita Unified School District - Shull Elementary
Importance: High

Irwan,

See the email below. I looked online and could not specifically find a "Teradon" rep in this area or any information on "Teradon" for communications. You call this out on sheet E2.1, Note 2.

Please respond ASAP as we need to issue an addendum tomorrow.