

April 23, 2019

## **ADDENDUM #2**

**Pre-Bid Revision for Contractors Incorporation into:**

Emma Wilson ES – Summer 2019

**Chico Unified School District**

DSA File No: 4-12

DSA Application Number: 02-117226

Prepared By

DLR Group

**Addendum No. 2 to Bidding Documents for the  
Emma Wilson ES – Summer 2019 Project  
Date: April 23, 2019**

**NOTICE TO BIDDERS:** The following revision is being made to the Bidding Documents for the Emma Wilson Elementary School (“Bidding Documents”). In case of a conflict between the Bidding Documents and this Addendum, this Addendum shall govern.

**Item#: Description:**

- 1) **Final date for contractor questions: April 24<sup>th</sup>, 2019**
- 2) **See Attached Addendum #2 – RFI log**
- 3) **See Attached DSA Approved Increment 2 Drawings and Project Manual**  
**Drawings and project manual supersedes previous Parts 5 and 6.**
- 4) **Addendum #1 – RFI log revision made by narrative below:**
  - A. RFI #01 response changed to: “Yes, the proposed RTS/radio control would be acceptable.”
- 5) **Drawing revision made by narrative below:**
  - A. T/1CP2.1: Edited top of tile and bottom of tile condition to include edge metal stripping within the tile.
  - B. 46/1A10.5: Added detail “D. BOTTOM OF TILE CONDITION” to show metal edge stripping finish.
  - C. 1A12.2: Added wood door product information. Manufacturer: Oregon Door, Series: Architectural Series, Style: Birch Natural, Color: Sierra 20

Emma Wilson Elementary School

**Pre-Bid ADDENDUM #2**

April 23, 2019

Page 1 of 2

**D. 1A12.2 – Added PE3 - Paint**

- i. Spec Section – 099113
- ii. Code – PE3
- iii. Material – Paint
- iv. Manufacturer – Dunn Edwards
- v. Color – Oasis DET546
- vi. Location – Solar Canopy Colum
- vii. Sheen – Semi-gloss

**E. 1A12.2 – Added PE4 - Paint**

- i. Spec Section – 099113
- ii. Code – PE4
- iii. Material – Paint
- iv. Manufacturer – Dunn Edwards
- v. Color – By the Bayou DE5782
- vi. Location – Solar Canopy Colum
- vii. Sheen – Semi-gloss

**F. 1AS1.0: Add scope to paint tops of existing concrete bench (2’x7’x4”) at 21 locations, see ASK01. Color to be determined by Owner.**

**G. 1AS1.0: Add scope to paint existing metal enclosure around gas meters (1’x3’x1’-6”) at 4 locations, see ASK02. Color to be determined by Owner.**

**6) Drawing Revisions made through sketches**

- A. Add detail 7/1A5.1 – Existing Solar Canopy – West Elevation, see ASK03
- B. Add detail 8/1A5.1 – Existing Solar Canopy – South Elevation, see ASK04

**7) Specification revision made by narrative below:**

- A. Section 083473.16 “Wood Sound Control Door Assemblies” add subparagraph 2.2 A. as follows:

A. Manufacturers: Subject to compliance with requirements, acceptable manufacturers include but are not limited to the following:

- 1. Ambico Ltd.
- 2. Overly Door Company.

- B. Section 093013 “Ceramic Tiling” delete subparagraphs 2.6 A.1.a. through 2.6 A.1.c and replace with the following:

a. Schluter Systems L.P.; Schluter-JOLLY with anodized aluminum finish

End of ADDENDUM #2



## Addendum No. 2 RFI Log

Addendum No. 1 Question Correction		
RFI #:	Question	Response
01	The controls for the motorized roller shades in the new Emma Wilson Kindergarten bldg call for low voltage controls. I would recommend going with RTS/radio control switches. In the long run they are simpler and less expensive. Would that be an option for this project?	<del>Provide motorized per manufacturer and to maintain manufacturer's warranty.</del> Yes, the proposed RTA/radio control would be acceptable

Addendum No. 2 RFI Questions		
RFI #:	Question	Response
01	Specification Section 081416 - Flush Wood Doors indicated 2.4.A.2 - Species: As indicated on Sheet A12.1 Finish Legend. There is no species indicated on plan sheet 1A12.1 or 1A12.2 (Room Finish Schedule	Species is Birch.
02	Specification Section 083473.16 - Wood Sound Control Door Assemblies, please provide a manufacturer	Subject to compliance with requirements, acceptable manufacturers include but are not limited to: Ambico Ltd., Overly Door Company.
03	T/1CP2.1 shows bullnose tile as finished edge of wainscot, however 46/1A10.5 shows metal edge finish atop of tile condition. Please clarify.	Metal edge finish per detail 46/1A10.5.
04	Regarding metal stripping and sealant on T/1CP2.1. Please clarify metal stripping at epoxy cove is not within tile (09 30 00) scope due to installation of metal stripping behind epoxy cove	Metal stripping should be within the tile.
05		
06		
07		
08		
09		
10		

PAINT TOPS OF EXISITING  
BENCH (2'X7'X4") AT 21  
LOCATIONS. PAINT ALL  
EXPOSED SIDES. PAINT TO BE  
DETERMINED BY THE OWNER



DO NOT PAINT LEGS.

SKETCH FOR CLARIFICATION ONLY

Attachment No. ASK01  
to ADDENDUM 2  
Dated: 4/23/2019



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75-18118-00  
04.10.2019

**PHOTO OF EXISTING BENCH  
EMMA WILSON ELEMENTARY SCHOOL**



PAINT EXISITING METAL  
ENCLOSURE (1'x3'x1'-6") AT 4  
LOCATIONS. PAINT ALL  
EXPOSED SIDES. PAINT TO BE  
DETERMINED BY OWNER

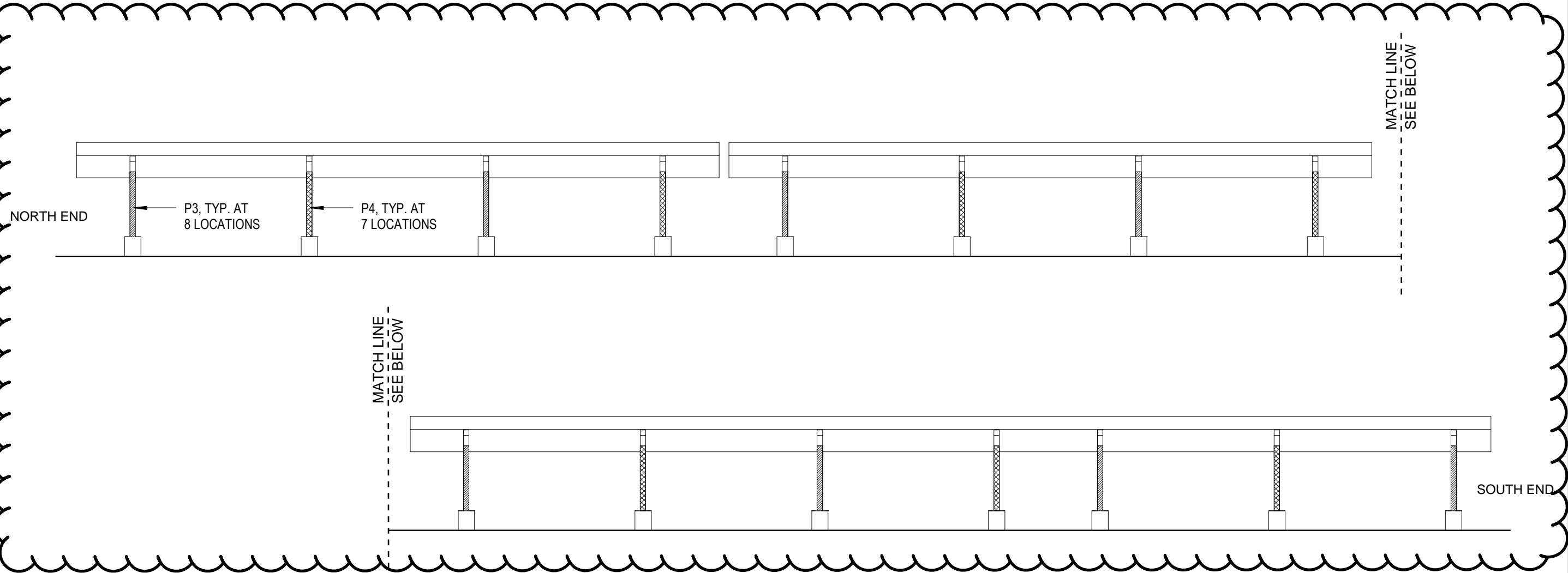


SKETCH FOR CLARIFICATION ONLY

Attachment No. ASK02  
to ADDENDUM 2  
Dated: 4/23/2019

4/19/2019 1:31:39 PM

2



**MATERIAL LEGEND SYMBOLS**



PERFORATED METAL PANEL



PE3, SEE 1A12.2



PE4, SEE 1A12.2

2

7

1A5.1

**EXISTING SOLAR CANOPY - WEST ELEVATION**

SCALE: N.T.S

Attachment No. ASK03  
to ADDENDUM 2  
Dated: 4/23/2019

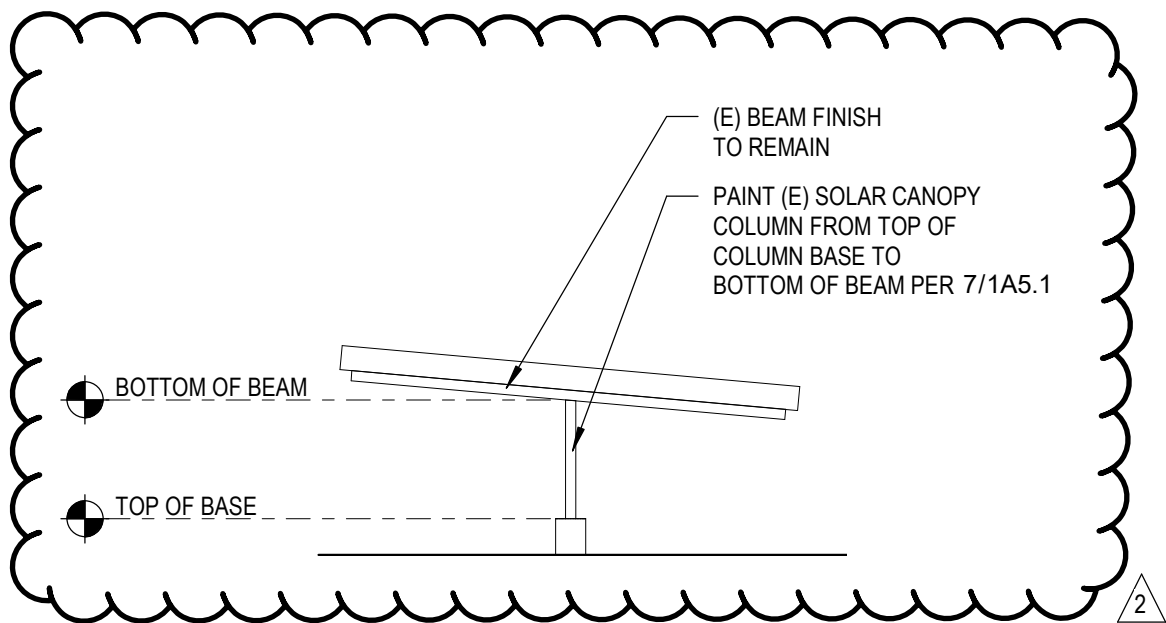
**BUILDING ELEVATIONS**  
**EMMA WILSON ELEMENTARY SCHOOL**

**1A5.1**

75-18118-00  
04.10.2019

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8  
1A5.1

## EXIST. SOLAR CANOPY - SOUTH ELEVATION

SCALE: 1/16" = 1'-0"

Attachment No. ASK04  
to ADDENDUM 2  
Dated: 4/23/2019



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**1A5.1**

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**BUILDING ELEVATIONS**

**EMMA WILSON ELEMENTARY SCHOOL**



# EMMA WILSON ELEMENTARY SCHOOL

## CHICO UNIFIED SCHOOL DISTRICT

1530 W. 8TH AVE.  
CHICO, CA 95926

## 100% CONSTRUCTION DOCUMENTS

04.10.2019

DLR GROUP PROJECT NUMBER: 75-18118-00

INCREMENT 2



### VICINITY MAP



### PROJECT INFORMATION

#### SCOPE OF WORK

- EMMA WILSON ELEMENTARY SCHOOL INCLUDES AS FOLLOWS:
- INCREMENT 1:
- NEW 5,786 SF, 1-STORY KINDERGARTEN BUILDING. INCLUDES THREE KINDERGARTEN ROOMS, ONE NEW COLLABORATION ROOM, EXTENSION OF SECURITY SYSTEM, AND ENTRY DOOR ACCESS CONTROL AND WIFI.
  - RENOVATION AND RELOCATION OF EXISTING 1-STORY PORTABLE BUILDING. NEW WORK TO INCLUDE NEW WOOD FOUNDATION, RAMP, INTERIOR FINISH UPGRADE, AND FIRE ALARM UPGRADES.
  - SITE IMPROVEMENTS: GRADING AND DRAINAGE, HARDSCAPE, LANDSCAPE, IRRIGATION, AND PLANTING, AND MISCELLANEOUS SITE IMPROVEMENTS AS IDENTIFIED.
  - PORTION OF EXISTING KINDERGARTEN CLASSROOM BUILDING OVERHANG FIRE RATING.
  - REPLACEMENT OF EXISTING CLOCKS/ BELLS/ INTERCOM SYSTEM FOR THE ENTIRE SCHOOL, BOTH EXISTING AND NEW SPACES.
  - NEW EXTERIOR SPEAKERS.
- INCREMENT 2:
- NEW 1,280 SF TOTAL, TWO OUTDOOR COVERED CANOPY SHADE STRUCTURE 640 SF EACH, 1-STORY BUILDING, PC STRUCTURE BASED ON PC #F 02-116823, OWNER FURNISHED CONTRACTOR INSTALLED.

#### APPLICABLE CODES AND REGULATIONS

- TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS  
REFERENCE CODE SECTION FOR NFPA STANDARDS - 2016 CBC CSFM, CHAPTER 35,  
SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS
- TITLE 24 CCR, PART 1  
2016 CALIFORNIA BUILDING CODE (2015 IBC WITH 2016 CALIFORNIA AMENDMENTS)
- TITLE 24 CCR, PART 2  
2016 CALIFORNIA ELECTRICAL CODE (2017 NEC OF THE NFPA WITH 2016 CALIFORNIA AMENDMENTS)
- TITLE 24 CCR, PART 3  
2016 CALIFORNIA MECHANICAL CODE (2015 UMC/IA/PMO WITH 2016 CALIFORNIA AMENDMENTS)
- TITLE 24 CCR, PART 4  
2016 CALIFORNIA PLUMBING CODE (2015 UPC/IA/PMO WITH 2016 CALIFORNIA AMENDMENTS)
- TITLE 24 CCR, PART 5  
2016 CALIFORNIA ENERGY CODE
- TITLE 24 CCR, PART 6  
2016 CALIFORNIA FIRE CODE (2015 IFC WITH 2016 CALIFORNIA AMENDMENTS)
- TITLE 24 CCR, PART 7  
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN CODE)
- TITLE 24 CCR, PART 8  
2016 CALIFORNIA AMERICANS WITH DISABILITIES ACT
- TITLE 24 CCR, PART 9  
2016 CALIFORNIA FIRE CODE
- TITLE 24 CCR, PART 11  
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE
- TITLE 24 CCR, PART 12  
2016 CALIFORNIA REFERENCED STANDARDS, SEE CBC CHAPTER 35 AND CFC CHAPTER 80

#### REGULATORY AGENCIES

DGS/DIVISION OF STATE ARCHITECT (DSA)  
CITY OF CHICO FIRE DEPARTMENT

#### DEFERRED SUBMITTALS

NO DEFERRED SUBMITTALS

#### ADDITIONAL INFORMATION

### PROJECT TEAM

#### OWNER

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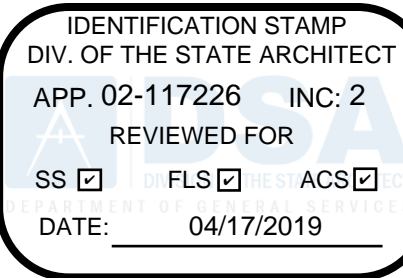
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100% CONSTRUCTION  
DOCUMENTS  
04.10.2019  
INCREMENT 2

COVER SHEET  
EMMA WILSON ELEMENTARY SCHOOL  
1530 W. 8TH AVE.  
CHICO, CA 95926

260.0  
75-18118-00  
Revisions



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ABBREVIATIONS

#	NUMBER	CIP	CAST IRON PIPE	DS	DISTILLED WATER	FP	FIREPROOFING	IC	INTERCOM	MH	MANHOLE	PNL	PANEL	SFCMU	SPLIT-FACE CONCRETE MASONRY UNIT	UL	UNDERWRITERS LABORATORIES
&	AND	CIRC	CIRCULATING	DS	DOWNSPOUT	FPD	FIRE PUMP DISCHARGE	ID	INSIDE DIAMETER	MH	MOP HOLDER	POC	POINT OF CONNECTION	SFU	STRUCTURAL FACING UNIT	UNEX	UNEXCAVATED
@	AT	CJ	CONTROL JOINT	DSN	DOWNSPOUT NOZZLE	FFM	FEET PER MINUTE	IE	INVERT ELEVATION	MN	MINIMUM	POC	PORCELAIN	SHL	SINGLE	UNFN	UNFINISHED
1a	THAT IS	CJA	CONTROL JOINT ABOVE	DSP	DRY STANDPIPE	FR	FIRE RESISTANT	IES	ILLUMINATING ENGINEERING SOCIETY	MISC	MISCELLANEOUS	PPM	PARTS PER MILLION	SH	SHOWER	UNO	UNLESS NOTED OTHERWISE
		CKT	CIRCUIT	DTL	DETAIL	FR	FIRE RESISTIVE	IF	INSIDE FACE	MLD	MOLDING	PAR	PARALLEL	SHM	SECURITY HOLLOW METAL	UR	UNDERGROUND RESIDENTIAL DISTRIBUTION
		CKT BK	CIRCUIT BREAKER	DTR	DUCT THRU ROOF	FRP	FIBERGLASS REINFORCED PANEL	IG	ISOLATED GROUND	MLO	MAIN LUGS ONLY	PREFAB	PREFABRICATED	SHT	SHEET	US	UTILITY SHELF
A	COMPRESSED AIR	CL	CIRCUIT LINE	DWS(G)	DRAWING(S)	FS	FLOOR SINK	IH	INTAKE HOOD	MLWK	MILLWORK	PROJ	PROJECT(OR) (ION)	SHW	SOFT HOT WATER	UTL	UTILITY
AC	AIR CONDITIONING(ER)	CLG	CEILING	DWL(S)	DOWEL(S)	FS	FLOW SWITCH	IJS	ISOLATION JOINT	MS	MASONRY OPENING	PRV	PRESSURE REGULATING VALVE	SIM	SIMILAR	UTL	UNIT VENTILATOR
ADP	AIR ALARM PANEL	CLOS	CLOSED	DWR	DRAWER	FSD	FIRE SEPARATION DISTANCE	IJC	IN JOIST SPACE	MP	MEDIUM PRESSURE GAS	PS	PIPE SUPPORT	SL	SHORT LEG	V	VACUUM
AB	ANCHOR BOLT	CLR	CLEAR	DWS	DOUBLE EXTRA STRONG	FT	FLOODING SHOWER SEAT	IN	INCH	MPR	MEDIUM PRESSURE STEAM RETURN	PSF	POUNDS PER SQUARE FOOT	SNT	SEALANT	V	VACUUM
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	CM	CEILING MOUNTED			FT	FEET	INC	INCLUDING	MPS	MEDIUM PRESSURE STEAM SUPPLY	SM	SHEET METAL	SM	SHEET METAL	V	VACUUM
AC	ACOUSTICAL CEILING	CMP	CORRUGATED METAL PIPE			FT	FIN TUBE	INSUL	INSULATION	MRS	MIRROR WITH SHELF	PSV	PRESSURE SAFETY (RELIEF) VALVE	SM	SPRINKLER MAIN	V	VOLT
AC	ALTERNATING CURRENT	CMU	CONCRETE MASONRY UNIT			FT	FLOW TRANSMITTER	INT	INTERIOR	MTD	MOUNTED	PT	PLASTER TRAP	SND	SANITARY NAPKIN DISPOSAL	VA	VALVE
ACC	AIR COOLD CONDENSER	CO	CLEAN OUT	EA	EXHAUST AIR	FTG	FOOTING	IP	IRON PIPE	MTG	MOUNTING	RT	ROOF TRAP	SND	SANITARY NAPKIN VENDOR	VAC	VACUUM
ACCU	AIR COOLED CONDENSING UNIT	CO	CONDUIT ONLY	EAT	ENTERING AIR TEMPERATURE	FUT	FUTURE	IW	INDIRECT WASTE	MTL	METAL	SP	STATIC PRESSURE	SS	STAINLESS STEEL	VAV	VARIABLE AIR VOLUME
ACM	ALUMINUM COMPOSITE MATERIAL	CO2	CARBON DIOXIDE	EB	EMERGENCY BOLT	FVC	FIRE VALVE CABINET			MTW	MEDIUM TEMP HOT WATER RETURN	PTD	POTENTIAL TRANSFORMER	SP	STATIC PRESSURE	VB	VAPOR BARRIER
ACST	ACOUSTIC	COL	COLUMN	EC	ELECTRIC CONTRACTOR	FWC	FABRIC WALL COVERING	JAN	JANITOR	MTWS	MEDIUM TEMP HOT WATER SUPPLY	PTDR	COMBINATION TOWEL DISPENSER/RECEPTACLE	SP	STATIC PRESSURE (H2O)	VB	VINYL BASE
AD	ACCESS DOOR	COM	COMMON	EDH	ELECTRIC DUCT HEATER			JB	JUNCTION BOX	MUL	MULLION	PTN	PARTITION	SND	SANITARY NAPKIN DISPOSAL	V	VENT
AD	AREA DRAIN	COMB	COMBINATION	EE	EACH END	G	GRILLE	JCT	JUNCTION	MW	MEDICAL WAPOR	PTR	POTENTIAL TRANSFORMER	SS	STAINLESS STEEL	V	VOLT
ADJ	ADDITION OR ADDITIONAL	COMM	COMMUNICATIONS	EER	ENERGY EFFICIENCY RATIO	GA	GAUGE	JST	JOIST	MW	MERCURY VAPOR	PVT	POINT OF VERTICAL INTERSECTION	SS	STAINLESS STEEL	V	VOLT
ADJ	ADJUSTABLE	COMP	COMPOSITE	EEW	EMERGENCY EYE WASH	GAL	GALLON	JT	JOINT	N	NITROGEN	PWL	POINT OF VERTICAL INTERSECTION	SS	STAINLESS STEEL	V	VOLT
ADJT	ADJACENT	COMP	COMPRESSOR UNIT	EEWS	EMERGENCY EYE WASH SHOWER	GALV	GALVANIZED	KCJ	KEYED CONSTRUCTION JOINT	N	NITROGEN	PWR	POINT OF VERTICAL INTERSECTION	SS	STAINLESS STEEL	V	VOLT
ADMIN	ADMINISTRATION	COMPR	COMPRESSIBLE	EEF	EACH FACE	GALV	GALVANIZED	KCP	KEENE'S CEMENT PLASTER	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AF	AIR FILTER	CONC	CONCRETE	EFF	EFFICIENCY	GC	GENERAL CONTRACTOR	KD	KNOCKDOWN	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AH	AUTHORITY HAVING JURISDICTION	CONF	CONFERENCE	EH	ELECTRICAL HEATER	GC	GRADE	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AHU	AIR HANDLING UNIT	CONFIG	CONFIGURATION	EH	ELECTRICAL HEATER	GC	GRADE	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AI	AREA INLET	CONJ(S)	CONNECTION(S)	EHS	EXTERIOR INSULATION AND FINISH SYSTEM	GC	GRADE	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ALT	ALTERNATE	CONST	CONSTRUCTION	EL	ELEVATION	GC	GRADE	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ALUM	ALUMINUM	CONT	CONTINUOUS	EL	ELEVATION	GC	GRADE	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AMP	AMPERE	CONTR(OR)	CONTRACT(OR)	ELAS	ELASTOMERIC	GC	GRADE	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AMP	AMPERE	CONV	CONVECTOR	ELEC	ELECTRIC(AL)	GFA	GROSS FLOOR AREA	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ANCH	ANCHOR	CORR	CORRIDOR	ELEV	ELEVATOR	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ANCH	ACCESS PANEL	CSP	CONDENSER PUMP	EMD	ESTIMATED MAXIMUM DEMAND	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
APC	ACOUSTIC PANEL CEILING	CPS	CYCLES PER SECOND	EMER	EMERGENCY	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
APPROX	APPROXIMATE	CPT	CARPET	EMT	ELECTRICAL METALLIC TUBING	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AR	ACID RESISTING	CR	CORROSION RESISTANT	EMV	EMERGENCY MIXING VALVE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ARCH	ARCHITECTURAL	ENCL	ENCLOSURE	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ARCH	ARCHITECTURAL	CS	COMBINATION SEWER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ASB	ASBESTOS	CS	CONDENSER WATER SUPPLY	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
ASPH	ASPHALT	CS	COUNTERSINK	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AUTO	AUTOMATIC	CSK	COUNTER SUNK	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AV	AIR VENT	CSMU	CALCIUM SILICATE MASONRY UNIT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AVG	AVERAGE	CSP	CONDENSER PUMP	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AW	AIR WASTE	CSTJ	CONSTRUCTION JOINT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AWG	AMERICAN WIRE GAUGE	CSWK	CERAMIC TILE	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
AWP	ACOUSTIC WALL PANEL	CT	Cooling Tower	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
B to B	BACK TO BACK	CT	Cooling Tower	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BBO	BOLLER BLOW OFF	CTR	CENTER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BC	BALANCING COCK	CU	CONDENSING UNIT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BCMU	BURNISHED CONCRETE MASONRY UNIT	CU	CONDENSING UNIT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BD	BOARD	CU	COPPER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BDD	BACK DRAFT DAMPER	CU	CUBIC	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BET	BETWEEN	CJH	CABINET UNIT HEATER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BF	BOLLER FEED	CV	CONDOM VENDOR	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BFP	BACKFLOW PREVENTER	CW	COLD WATER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BFR	BELOW FLOOR	CWS	CHILLED WATER RETURN	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BFV	BUTTERFLY VALVE	CWR	CHILLED WATER SUPPLY	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BHP	BREAK HORSEPOWER	CY	CUBIC YARD	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BKR	BREAKER	CYL	CYLINDER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BL	BUILDING LINE	F	FAHRENHEIT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BLDG	BUILDING	D	DATA	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BLK	BLOCK	D	DEPTH	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BLKG	BLOCKING	FA	FIRE ALARM	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BLHD	BULKHEAD	FA	FIRE ALARM	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BM	BENCH-MARK	4	PSNY (AS NAIL 10g)	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BMS)	BEAMS)	DB	DECEMBER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BOD	BOTTOM OF DUCT	DB	DRY BULB	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BOF	BOTTOM OF FOOTING	DBA	DEFORMED BAR ANCHOR	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BOT	BOTTOM	DBL	DOUBLE	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BRDG	BRIDGING	DC	DIRECT CURRENT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BRG	BEARING	DDC	DIRECT DIGITAL CONTROL	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BRKT	BRACKET	DE	DEIONIZED WATER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BSMT	BASEMENT	DEG	DEGREE	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BT	BATHTUB	DEPR	DEPRESSION(IONED)	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BTU	BRITISH THERMAL UNIT	DEPT	DEPARTMENT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BTUH	BRITISH THERMAL UNIT PER HOUR	DET	DETENTION	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BUR	BUILT UP ROOFING	DF	DRINKING FOUNTAIN	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
BV	BALL VALVE	DPR	DIESEL FUEL RETURN	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
C	CONDENSER WATER	DPS	DIESEL FUEL SUPPLY	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
C	CONDUIT	DFV	DIESEL FUEL VENT	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CA	COMBUSTION AIR	DG	DOOR GRILLE	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CAB	CABINET	DH	DUCT HEATER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CANT	CANTILEVER	DI	DISTILLED WATER	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CAP	CAPACITY	DI	DISTILLED IRON	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CAS	CASING	DI	DISTILLED IRON	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CBD	CHALKBOARD	DI	DISTILLED IRON	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CCTV	CLOSED CIRCUIT TELEVISION	DI	DISTILLED IRON	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CD	CONDENSATE DRAIN	DI	DISTILLED IRON	ENR	ENTRANCE	GFI	GROUND FAULT CIRCUIT INTERRUPTER	KH	KITCHEN HOOD	N/A	NOT APPLICABLE	Q	QUARTER	SS	STAINLESS STEEL	V	VOLT
CE																	

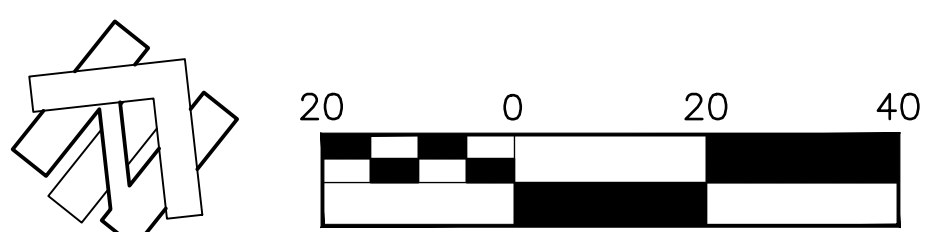


LEGEND NOTES

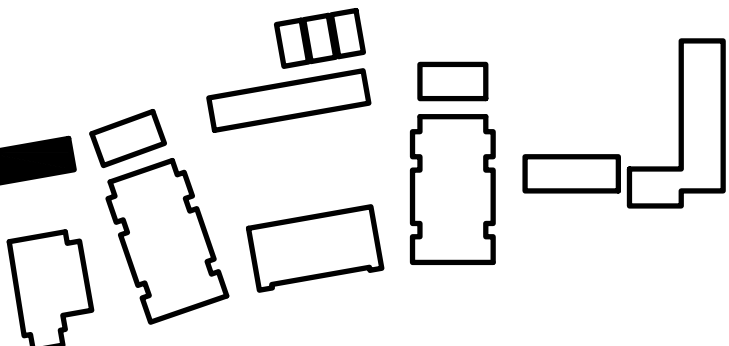
- 3' DOOR
- EXISTING SANITARY SEWER MANHOLE
- EXISTING SANITARY SEWER CLEAN OUT
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM DRAIN INLET
- EXISTING AREA DRAIN
- EXISTING WATER VALVE
- EXISTING HOSE BIB
- EXISTING UTILITY VALVE COVER
- EXISTING FIRE HYDRANT
- EXISTING UTILITY VAULT/BOX AS NOTED
- EXISTING UTILITY POLE
- EXISTING STREET LIGHT
- EXISTING SIGN
- EXISTING GUY ANCHOR
- EXISTING TREE
- EXISTING STEEL FENCE WITH CONCRETE COLUMNS
- EXISTING CHAIN LINK FENCE
- EXISTING BUILDING
- EXISTING CONCRETE
- EXISTING FIRE LANE
- EXISTING EDGE OF PAVEMENT
- EXISTING TOP OF BANK
- EXISTING TOE OF BANK
- EXISTING GRADE BREAK
- EXISTING MAJOR CONTOUR AT 5' INTERVALS
- EXISTING MINOR CONTOUR AT 1' INTERVALS
- EXISTING FENCE PER LANDSCAPE PLANS (X/L/X)
- PROPOSED TREE PER LANDSCAPE PLANS
- PROPOSED DECOMPOSED GRANITE PER LANDSCAPE PLANS
- PROPOSED ENGINEERED WOOD PER LANDSCAPE PLANS
- PROPOSED MULCH AREA PER LANDSCAPE PLANS
- PROPOSED ASPHALT CONCRETE (C/C7.00)
- PROPOSED LANDSCAPE PER LANDSCAPE PLANS
- PROPOSED CONCRETE SIDEWALK (8/C7.00)
- PROPOSED COLORED CONCRETE PER LANDSCAPE PLANS
- PROPOSED BUILDING
- PROPOSED BUILDING OVERHANG
- PROPOSED THICKENED CONCRETE EDGE PER LANDSCAPE PLANS (4/L1.2)
- PROPOSED STORM DRAIN INLET (D/C7.00)
- PROPOSED YARD DRAIN (G/C7.00)
- PROPOSED HOSE BIB PER LANDSCAPE PLANS (11/L3.3)

ABBREVIATIONS

AGGREGATE BASE	AB	MINIMUM	MIN
ASPHALT CONCRETE	AC	NOT TO SCALE	N.T.S.
BACK OF WALK	BOW	ORIGINAL GROUND	OG
DRAIN INLET	DI	RADIUS	R
ELECTRIC	E	RIGHT-OF-WAY	ROW
ELEVATION	ELEV	STORM DRAIN	SD
EDGE OF PAVEMENT	EP	SANITARY SEWER	SS
EXISTING	EX	SANITARY SEWER MAINTENANCE HOLE	SSMH
FINISH FLOOR	FF	STANDARD	STD
FINISH GRADE	FG	SIDEWALK	SW
FEET	FT	TOP BACK OF CURB	TBC
GAS	G	TOE OF SLOPE	TOE
GRADE BREAK	GB	TOP OF SLOPE	TOP
LINEAR FEET	LF	TYPICAL	TYP
MAXIMUM	MAX	WATER	W



KEY PLAN





100% CONSTRUCTION  
DOCUMENTS  
04.10.2019  
INCREMENT 2

# UNDERGROUND PLAN EMMA WILSON ELEMENTARY SCHOOL

 **DLR Group**  
Architecture Engineering Planning Interiors

	3" DOOR
	EXISTING SANITARY SEWER MANHOLE
	EXISTING SANITARY SEWER CLEAN OUT
	EXISTING STORM DRAIN MANHOLE
	EXISTING STORM DRAIN INLET
	EXISTING AREA DRAIN
	EXISTING WATER VALVE
	EXISTING HOSE BIB
	EXISTING UTILITY VALVE COVER
	EXISTING FIRE HYDRANT
	EXISTING UTILITY VAULT/BOX AS NOTED
	EXISTING UTILITY POLE
	EXISTING STREET LIGHT
	EXISTING SIGN
	EXISTING GUY ANCHOR
	EXISTING TREE
	EXISTING STEEL FENCE WITH CONCRETE COLUMNS
	EXISTING CHAIN LINK FENCE
	EXISTING BUILDING
	EXISTING CONCRETE
	EXISTING EDGE OF PAVEMENT
	EXISTING UNDERGROUND SANITARY SEWER
	EXISTING UNDERGROUND STORM DRAIN
	EXISTING UNDERGROUND WATER LINE
	EXISTING UNDERGROUND GAS LINE
	EXISTING UNDERGROUND TELECOMMUNICATION LINE
	EXISTING OVERHEAD UTILITY
	EXISTING JOINT TRENCH LINE (INTERCOM, ELECTRIC, COMMUNICATION)
	EXISTING TOP OF BANK
	EXISTING TOE OF BANK
	PROPOSED TREE PER LANDSCAPE PLANS
	PROPOSED DECOMPOSED GRANITE PER LANDSCAPE PLANS
	PROPOSED ENGINEERED WOOD PER LANDSCAPE PLANS
	PROPOSED MULCH AREA PER LANDSCAPE PLANS
	PROPOSED ASPHALT CONCRETE (C/C7.00)
	PROPOSED LANDSCAPE PER LANDSCAPE PLANS
	PROPOSED CONCRETE SIDEWALK (B/C7.00)
	PROPOSED BUILDING
	PROPOSED BUILDING OVERHANG
	PROPOSED UNDERGROUND GAS LINE (F/C7.00)
	PROPOSED UNDERGROUND WATER LINE (F/C7.00)
	APPROXIMATE UNDERGROUND ELECTRIC LINE (SEE ELECTRICAL PLANS)
	PROPOSED SAWCUT LINE
	PROPOSED SANITARY SEWER LINE (F/C7.00)
	PROPOSED STORM DRAIN LINE (F/C7.00)
	PROPOSED STORM DRAIN LINE WITH INFILTRATION TRENCH (E/C7.00)
	PROPOSED STORM DRAIN INLET (D/C7.00)

NOTES:

1. FOR JOINT TRENCHES SEPARATE LINES BY 12" MIN. HORIZONTAL OR VERTICAL. WHEN CROSSING LINES SEPARATE BY 12" MINIMUM.
2. SEWER & STORM WATER ARE NOT TO BE RUN IN JOINT TRENCHES. MAINTAIN MINIMUM SEPARATION TO OTHER UTILITIES (TYPICAL)
3. BEDDING AND INITIAL BACKFILL TO BE PER UTILITY COMPANY REQUIREMENTS. SEWER & WATER SHALL BE SAND. STORM SHALL BE CLASS 2 BASE ROCK OR EQUIVALENT.

1. ALL WORK IN THE PUBLIC RIGHT OF WAY SHALL BE DONE IN ACCORDANCE WITH THE CITY OF CHICO IMPROVEMENT STANDARDS AND SPECIFICATIONS, AND APPLICABLE PORTIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS. APPROVAL OF THE DIRECTOR OF PUBLIC WORKS OF PUBLIC WORKS OR AUTHORIZED REPRESENTATIVES IS REQUIRED. THE CONTRACTOR SHALL HAVE SIGNED PLANS IN HIS POSSESSION PRIOR TO COMMENCEMENT OF WORK.
2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND/OR AGENCIES TO OBTAIN APPROVAL OF ANY DISPLACEMENT OF PUBLIC UTILITIES. IF ANY UTILITIES ARE NOT SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT UNDERGROUND FACILITIES OR OTHER BURIED OBJECTS WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 AT LEAST 3 DAYS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL REQUEST CONSTRUCTION STAKES FOR ANY PARTICULAR PHASE OF WORK AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. CONTROL FOR STAKES REQUIRED TO PLACE A FORM OF GRADING OR OTHER TYPE OF IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. NORTHSTAR ASSUMES NO RESPONSIBILITY FOR ANY WORK CONSTRUCTED IF STAKED BY OTHERS.
5. PRIOR TO ANY CORRECTIVE ACTION BY THE CONTRACTOR WHICH IS NECESSARY DUE TO STAKING ERRORS, THE CONTRACTOR SHALL ENGINEER FOR RE-STAKING AND VERIFICATION OF PREVIOUS STAKING. THE ENGINEER ASSUMES NO LIABILITY FOR THE COST INCURRED WORK.
6. CONTRACTOR TO BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
7. ALL PERMITS NECESSARY FOR THIS JOB ARE TO BE ACQUIRED BY THE CONTRACTOR.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL ESTIMATES AND QUANTITIES.
9. SHOULD CONSTRUCTION ACTIVITIES EXPOSE BURIED ARTIFACTS OR OTHER EVIDENCE OF EARLY HISTORIC OCCUPATION, A QUALIFIED ANTHROPOLOGIST SHALL BE CONTACTED IMMEDIATELY. ALL CONSTRUCTION ACTIVITIES SHALL BE HALTED UNTIL HIS RECOMMENDATIONS ARE IMPLEMENTED.
10. PADS ARE TO BE COMPACTED TO 90% RELATIVE COMPACTION UNLESS OTHERWISE STATED IN SOILS REPORT.
11. EXISTING FACILITIES IN CONFLICT WITH IMPROVEMENTS ARE TO BE RELOCATED OR ADJUSTED TO GRADE AT THE DEVELOPER'S EXPENSE.
12. ANY PRIVATE FACILITIES AND UTILITIES IN CONFLICT WILL BE RELOCATED AT THE DEVELOPER'S EXPENSE.
13. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED THAT DIRECT TRAFFIC FLOW TO OFF-PEAK HOURS AS MUCH AS POSSIBLE AND TO AVOID CONFLICT WITH TRAFFIC PEAKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.



LEGEND NOTES

100% CONSTRUCTION  
DOCUMENTS  
04.10.2019  
INCREMENT 2

BUILDING SEPARATIONS  
EMMA WILSON ELEMENTARY SCHOOL  
1530 W. 8TH AVE.  
CHICO, CA 95926

2CP0.1  
75-18118-00  
Revisions

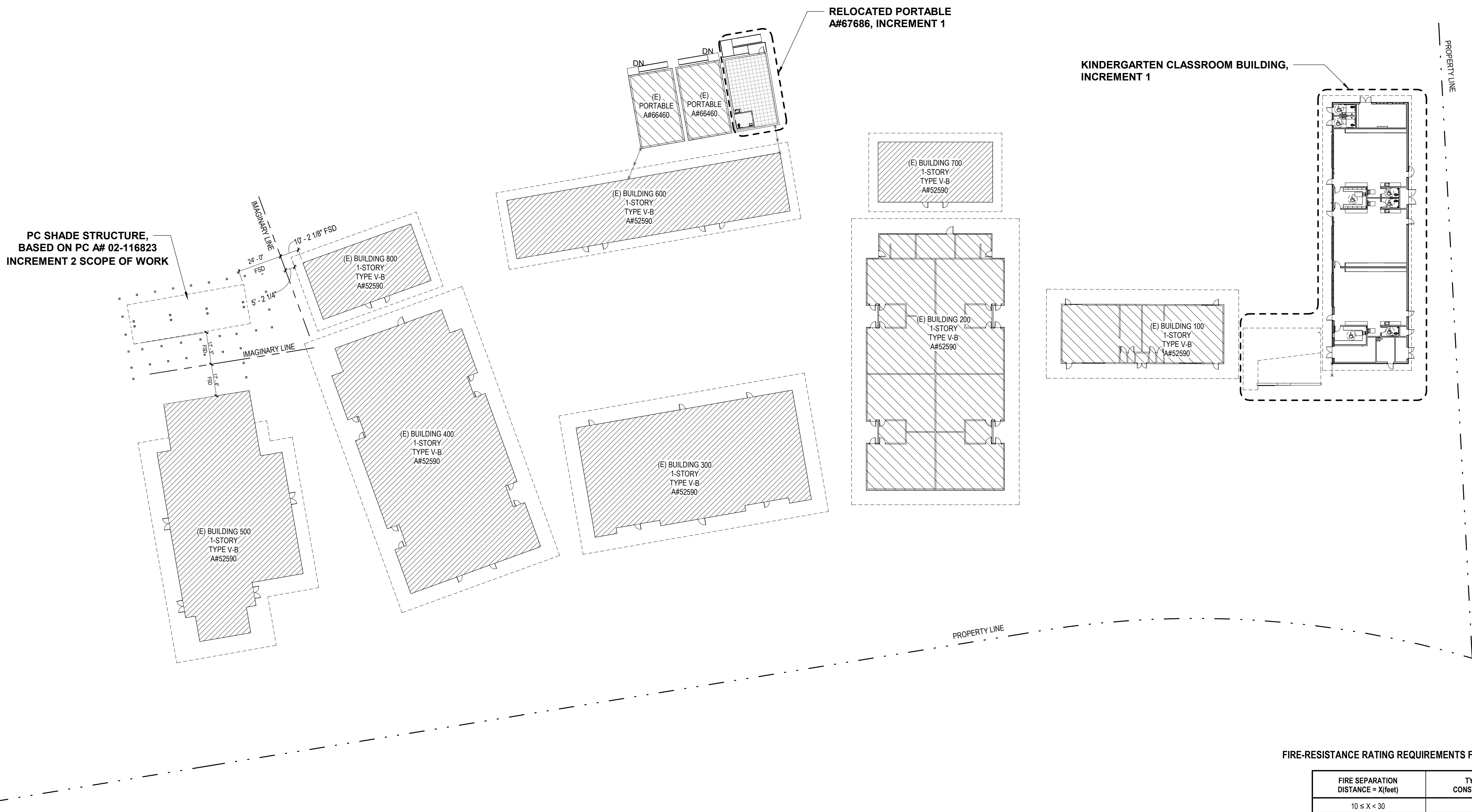
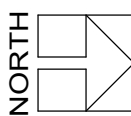


TABLE 602  
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE

FIRE SEPARATION DISTANCE = X(feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP A,B,E,F-2, R <sup>1</sup> , S-2, U <sup>1</sup>
10 ≤ X < 30	V-B	0

CBC TABLE 602

SCALE: 1/4" = 1'-0"



BUILDING SEPARATION DIAGRAM

SCALE: 1/32" = 1'-0"



EMMA WILSON ELEMENTARY SCHOOL - LUNCH SHELTER REGULATORY COMPLIANCE

SECTION 302 USE AND OCCUPANCY CLASSIFICATION  
ASSEMBLY GROUP A-2 LUNCH CANOPY

SECTION 602 CONSTRUCTION CLASSIFICATION  
TYPE V-B - NONSPRINKLERED

SECTION 503 GENERAL BUILDING HEIGHT AND AREA LIMITATIONS  
V-B / GROUP A-2 REFER TO SCHEDULE

SECTION 504.2 AUTOMATIC SPRINKLER SYSTEM INCREASE (BUILDING HEIGHT) - NOT USED

SECTION 506 - BUILDING AREA - REFER TO SCHEDULE

SECTION 506.2 ALLOWABLE AREA DETERMINATION - REFER TO SCHEDULE

SECTION 506.2.1 SINGLE-OCCUPANCY, ONE STORY BUILDINGS. - THE ALLOWABLE AREA OF A SINGLE-OCCUPANCY BUILDING WITH NO MORE THAN ONE STORY ABOVE GRADE PLANE SHALL BE DETERMINED IN ACCORDANCE WITH EQUATION S-1:

$$A_a = A_s + (NS \times I_s)$$

SECTION 506.3 FRONTAGE INCREASE - NOT USED

SECTION 506.3.2 MINIMUM FRONTAGE DISTANCE - NOT USED

SECTION 506.3 AUTOMATIC SPRINKLER SYSTEM INCREASE (BUILDING AREA) - NOT USED

TABLE 601 FIRE-RESISTIVE RATING REQUIREMENTS FOR BUILDING ELEMENTS (HOURS) FOR TYPE V-B CONSTRUCTION

PRIMARY STRUCTURAL FRAME	0 HR
BEARING WALLS - EXTERIOR	0 HR
BEARING WALLS - INTERIOR	0 HR
NONBEARING WALLS AND PARTITIONS - EXTERIOR	PER TABLE 602
NONBEARING WALLS AND PARTITIONS - INTERIOR	0 HR
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0 HR
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0 HR

TABLE 602 FIRE -RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE FOR OCCUPANCY GROUPS A-2, B, E, AND TYPE V-B CONSTRUCTION

X<5	1 HR
5<=X<10	1 HR
10<=X<30	0 HR
X>=30	0 HR

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

NOT USED

GROUP A-2: FIRE AREA = 1,280 SF, OCCUPANT LOAD = 86

SECTION 906 PORTABLE FIRE EXTINGUISHERS

906.1 WHERE REQUIRED, PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS.  
EXCEPTION 1. IN GROUP A-2, B, E, AND S OCCUPANCIES

TABLE 906.3.1 FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS FOR ORDINARY (MODERATE) HAZARD OCCUPANCY  
MINIMUM RATED SINGLE EXTINGUISHER 2A-10B-C, MAXIMUM FLOOR AREA PER UNIT OF A 1,500 SF, MAXIMUM FLOOR AREA FOR EXTINGUISHERS 1,280 SF, MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER 75 FEET (90 FEET FOR B).

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

907.2.1 GROUP A. GROUP A OCCUPANCIES NOT SEPARATED FROM ONE ANOTHER IN ACCORDANCE WITH SECTION 707.3.9 SHALL BE CONSIDERED AS A SINGLE OCCUPANCY FOR THE PURPOSES OF APPLYING THIS SECTION.

SECTION 1004 OCCUPANT LOAD

PROJECT OCCUPANT LOAD PER FLOOR - REFER TO TABLE ON DRAWING

SECTION 1005 MEANS OF EGRESS SIZING. THE TOTAL WIDTH OF MEANS OF EGRESS IN INCHES SHALL NOT BE LESS THAN THE TOTAL OCCUPANT LOAD SERVED THE MEANS OF EGRESS MULTIPLIED BY 0.3 INCHES (0.2 INCHES WITH AUTOMATIC SPRINKLER SYSTEM AND AN EMERGENCY VOICEALARM COMMUNICATION SYSTEM) PER OCCUPANT FOR STAIRWAYS AND BY 0.2 INCHES (0.15 INCHES WITH AUTOMATIC SPRINKLER SYSTEM AND AN EMERGENCY VOICEALARM COMMUNICATION SYSTEM) PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

SECTION 1007 ACCESSIBLE MEANS OF EGRESS

1007.2 CONTINUITY AND COMPONENTS. EACH REQUIRED ACCESSIBLE MEANS OF EGRESS SHALL BE CONTINUOUS TO A PUBLIC WAY AND SHALL CONSIST OF ONE OR MORE THE FOLLOWING COMPONENTS:  
1. ACCESSIBLE ROUTES COMPLYING WITH CHAPTER 11B, SECTIONS 11B-206 AND 11B-402, AS APPLICABLE

SECTION 1015 EXIT AND EXIT ACCESS DOORWAYS

TABLE 1015.1 SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY

A, B. MAXIMUM OCCUPANT LOAD IS 49

TABLE 1021.1 MINIMUM NUMBER OF EXITS FOR OCCUPANT LOAD

OCCUPANT LOAD (PERSONS PER STORY)	MINIMUM NUMBER OF EXITS (PER STORY)
1-500	2

SECTION 1016 EXIT ACCESS TRAVEL DISTANCE

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE

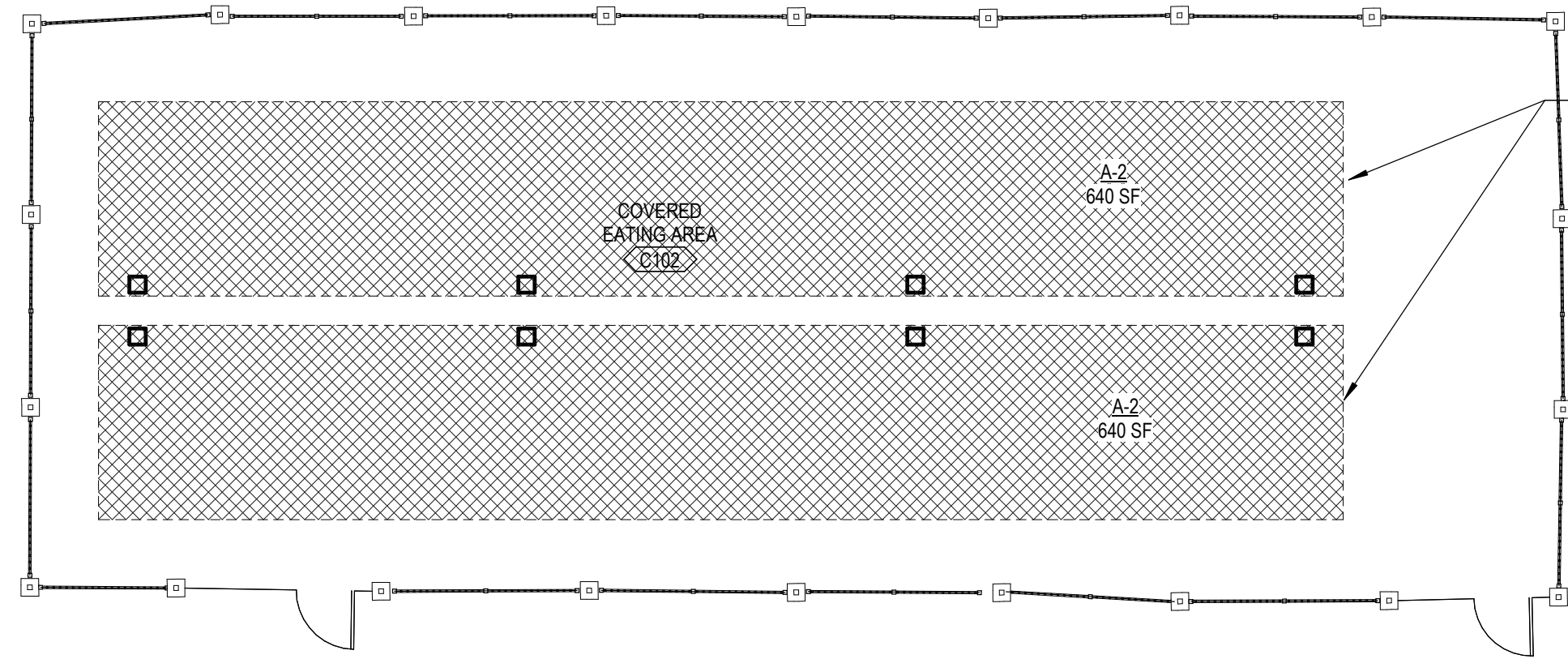
OCCUPANCY	WITHOUT SPRINKLERS	WITH SPRINKLERS
A	200 FEET	250 FEET
B	200 FEET	300 FEET
E	200 FEET	250 FEET

Allowable Area Analysis (Allowable Building Area) - Lunch Shelter

Area Group	Accessory Use	Fully Sprinklered	Area Description	Area (SF)	Construction Type	Stories	A <sub>a</sub> = { A <sub>s</sub> + [ A <sub>t</sub> × I <sub>f</sub> ] + [ A <sub>t</sub> × I <sub>s</sub> ] }			Allowable Area (A <sub>a</sub> )	Comments
							Tabular Area (A <sub>t</sub> )	Frontage Increase (I <sub>f</sub> )	Sprinkler Increase (I <sub>s</sub> )		
A-2		No	A-2	640 SF	V-B	1	9,500	0	0	9,500 SF	NONSEPARATED OCCUPANCY
A-2		No	A-2	640 SF	V-B	1	9,500	0	0	9,500 SF	NONSEPARATED OCCUPANCY

OCCUPANCY

A-2



OUTLINE OF PC STRUCTURE  
ABOVE, BASED ON PC AF 02-116823

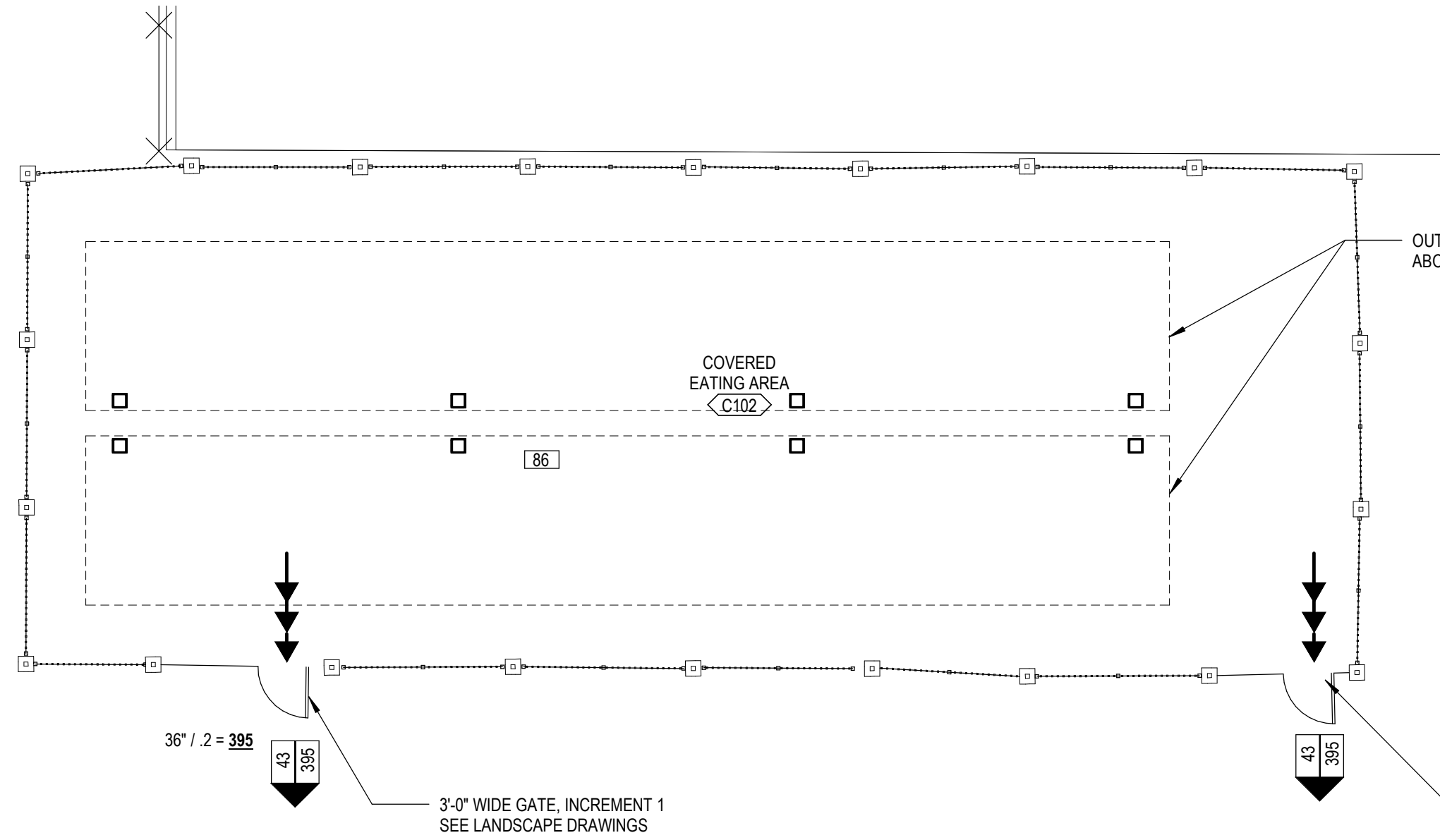


CODE ANALYSIS - ALLOWABLE AREA LUNCH SHELTER

SCALE: 1/8" = 1'-0"

OCCUPANT LOAD TABLE - LUNCH SHELTER

#	Room Name	Occupancy	Space Function	Occupant Load Factor	Net/Gross/Fixed Area	Area (SF)	Occupant Load	Required Exits
C102	COVERED EATING AREA	A2	Cafeteria	15	N	1280	86	2



OUTLINE OF PC STRUCTURE  
ABOVE, BASED ON PC AF 02-116823

3'-0" WIDE GATE, INCREMENT 1  
SEE LANDSCAPE DRAWINGS



CODE ANALYSIS - MEANS OF EGRESS - LUNCH SHELTER

SCALE: 1/8" = 1'-0"

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP. 02-117226 INC. 2  
REVIEWED FOR  
SS ☐ FLS ☐ ACS ☐  
DATE: 04/17/2019

SYMBOL LEGEND

- → → → → EGRESS PATH
- #### OCCUPANCY LOAD (OCCUPANCY LOAD IS NOT INCLUDED IN ROOM)
- #### ACCESSORY USE AREA LOADS BEYOND THIS ROOM
- 0 0 COMBINED OCCUPANT LOAD AT A GIVEN DOOR OR STAIR. TOTAL CAPACITY OF DOOR OR STAIR. (THE CAPACITY OF DOORS ARE DETERMINED AS FOLLOWS: CLEAR OPENING WIDTH IN INCHES DIVIDED BY 0.2 THE CAPACITY OF STAIRS ARE DETERMINED AS FOLLOWS: WIDTH IN INCHES DIVIDED BY 0.3)
- 0 0 COMBINED OCCUPANT LOAD AT A GIVEN EXIT DOOR. TOTAL EXIT CAPACITY OF DOOR (SUM OF THESE EQUALS TOTAL OCCUPANT LOAD) (THE CAPACITY OF DOORS ARE DETERMINED AS FOLLOWS: CLEAR OPENING WIDTH IN INCHES DIVIDED BY 0.2)
- PD XX MIN - PANIC DEVICE
- FD XX MIN - DOOR FIRE RATING
- XX MIN - DOOR FIRE RATING
- EXIT SIGN
- ACCESSIBLE CLEAR SPACE (60"x90", TYP.)
- FEC - FIRE EXTINGUISHER CABINET FOR MOUNTING DETAILS

WALL SEPARATION LEGEND

WALL HOURLY FIRE RATING  
2 = 2 HOUR FB

WALL FIRE RATING TYPE  
C = CORRIDOR  
EW = EXTERIOR WALL  
FB = FIRE BARRIER  
FP = FIRE PARTITION  
FSB = FIRE/SMOKE BARRIER  
FW = FIRE WALL  
HX = HORIZONTAL EXIT  
SB = SMOKE BARRIER  
VS = VERTICAL SHAFT  
VX = VERTICAL EXIT  
XP = EXIT PASSAGEWAY

100% CONSTRUCTION DOCUMENTS

04.10.2019 INCREMENT 2

CODE PLAN  
EMMA WILSON ELEMENTARY SCHOOL

1530 W. 8TH AVE.  
CHICO, CA 95926

2CP1.1

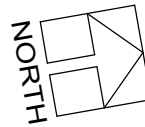
75-18118-00  
Revisions



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## OVERALL SITE PLAN

SCALE: 1" = 30'-0"

PARKING COUNT:  
4 - (E) VAN ACCESSIBLE STALL  
75 - STANDARD PARKING STALLS

(E) ACCESSIBLE PARKING  
PER A#02-113818

(E) PARKING LOT  
ENTRANCE SIGN AND TOW  
AWAY SIGN, A# 52590

SOLAR PANELS  
(E) STRUCTURES  
A# 114419

INCREMENT 2 SCOPE OF WORK  
PC SHADE STRUCTURE,  
1-STORY,  
NONSPRINKLERED  
BASED ON PC A# 02-116823  
OWNER FURNISHED  
CONTRACTOR INSTALLED

(E) BUILDING 800  
1-STORY CLASSROOMS  
NONSPRINKLERED  
A# 52590  
A# 110098

(E) BUILDING 400  
1-STORY CLASSROOMS  
NONSPRINKLERED  
A# 52590

(E) BUILDING 300  
1-STORY ADMINISTRATION & LIBRARY  
NONSPRINKLERED  
A# 52590

BARRIER REMOVAL 2014  
A# 113818

(E) BUILDING 600  
1-STORY CLASSROOMS  
NONSPRINKLERED  
A# 52590

(E) 1-STORY PORTABLE  
CLASSROOMS  
NONSPRINKLERED

(E) P3  
A# 66460

(E) P2  
A# 66460

(E) P1  
A# 67686

(E) BUILDING 700  
1-STORY CLASSROOMS  
NONSPRINKLERED  
A# 52590

(E) BUILDING 200  
1-STORY CLASSROOMS  
NONSPRINKLERED  
A# 52590

BUILDING 100  
1-STORY CLASSROOMS  
NONSPRINKLERED  
A# 52590

KINDERGARTEN  
BUILDING  
1-STORY  
NONSPRINKLERED

1 - (E) VAN ACCESSIBLE STALL  
7 - STANDARD PARKING STALLS

PARKING  
A# 52590

### LEGEND

- EXISTING BUILDING
- EXISTING FIRE LANE
- FIRE LANE, INCREMENT 1
- KEYNOTE
- PROPERTY LINE
- CHAINLINK FENCE
- ACCESSIBLE PATH OF TRAVEL

### DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:

THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT WITH THE CBC (1) HAVE BEEN IDENTIFIED AND (2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCOMPLYING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCOMPLYING BEYOND A REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT (FORM DSA 146)

### ACCESSIBLE PATH OF TRAVEL:

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLANS IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAXIMUM AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP. 02-117226 INC. 2  
REVIEWED FOR  
SS ☒ FLS ☒ ACS ☒  
DATE: 04/17/2019

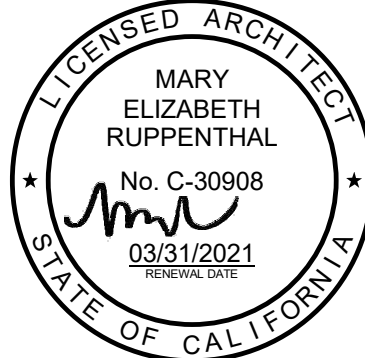
## LEGEND NOTES

- 03 (E) FIRE LANE
- 05 (E) 21'-0" FIRE ACCESS GATE
- 06 (E) FIRE DEPARTMENT CONNECTION
- 07 (E) DETECTOR CHECK VALVE
- 08 (E) DRIVEWAY
- 09A KNOX BOX, INCREMENT 1
- 10A FIRE LANE, INCREMENT 1
- 11 (E) APPARATUS AREA
- 14 (E) PAVED ASPHALT PLAY AREA
- 15 (E) BUS DROP OFF
- 16 (E) PORTABLE
- 17 (E) PARENT DROP OFF AREA
- 18A RELOCATED PORTABLE, INCREMENT 1
- 33 (E) GATE
- 38A GATE, INCREMENT 1

## OVER ARCHITECTURAL SITE PLAN EMMA WILSON ELEMENTARY SCHOOL

1530 W. 8TH AVE.  
CHICO, CA 95926

2AS1.0  
75-18118-00  
Revised



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DOCUMENTS

04.10.2019

INCREMENT 2



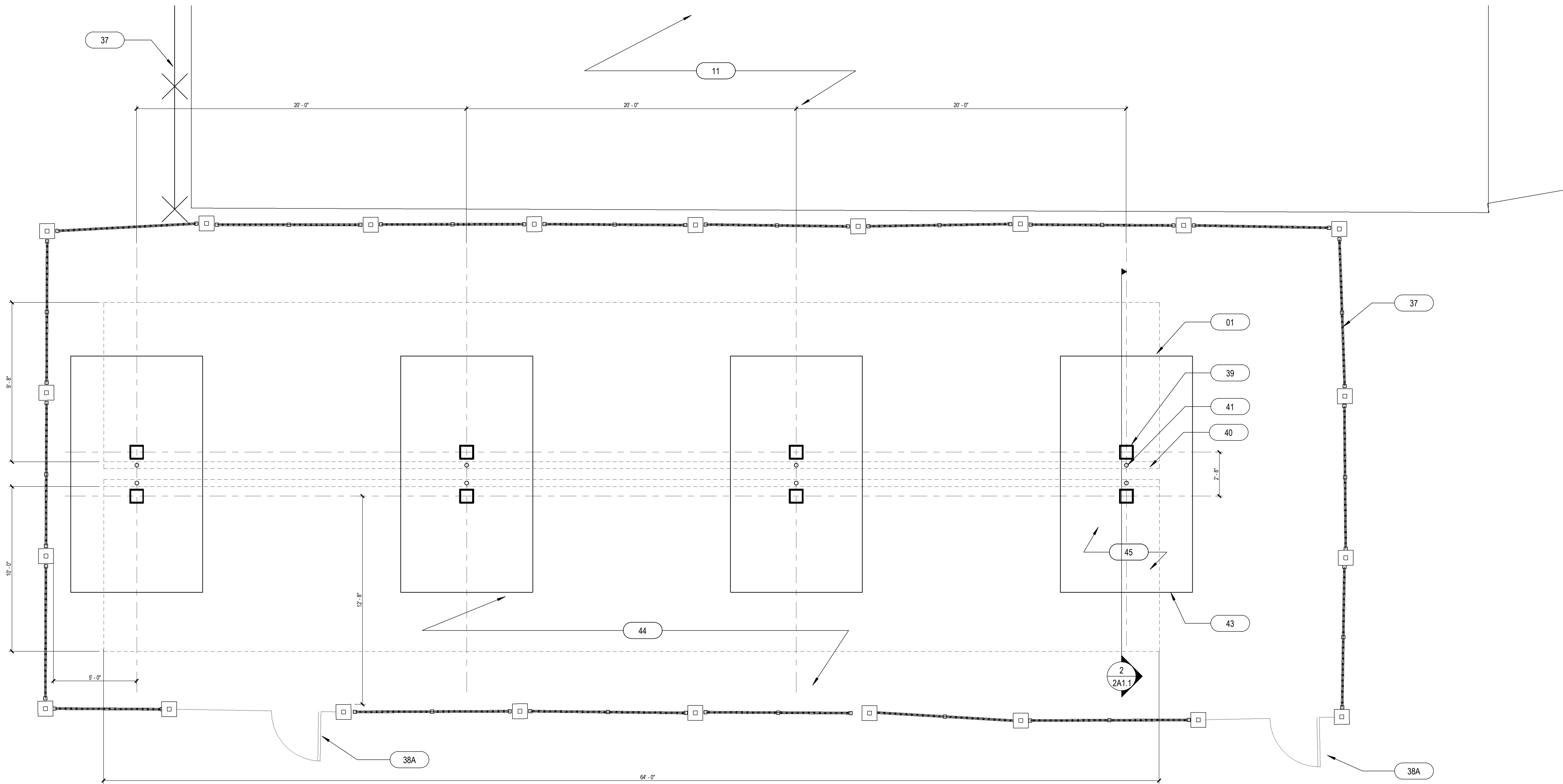
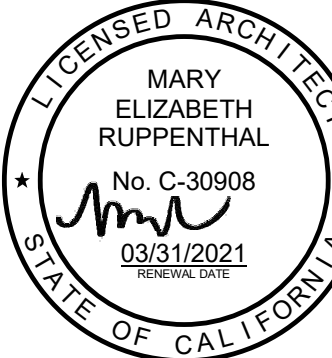
LEGEND NOTES

- 01 DASHED LINE OF ROOF ABOVE  
11 (E) APPARATUS AREA  
37 (E) FENCING  
38A GATE, INCREMENT 1  
39 PC SHADE STRUCTURE COLUMN  
40 PC SHADE STRUCTURE GUTTER  
41 PC SHADE STRUCTURE DOWNSPOUT  
43 1/2" JOINT SEALANT W/ COMPRESSIBLE FILLER  
44 (E) CONCRETE WALK  
45 CONCRETE WALK

100% CONSTRUCTION  
DOCUMENTS  
04.10.2019  
INCREMENT 2

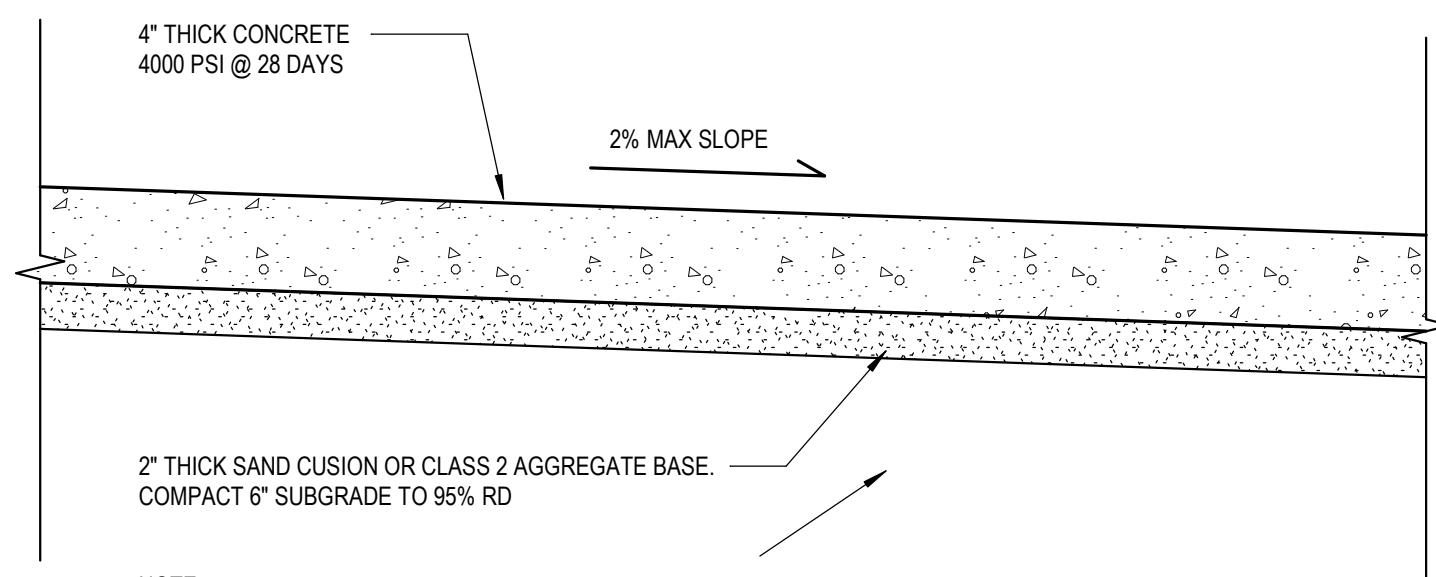
FLOOR PLAN & SECTION  
EMMA WILSON ELEMENTARY SCHOOL  
1530 W. 8TH AVE.  
CHICO, CA 95926

2A1.1  
75-18118-00  
Revisions



1 PC SHADE STRUCTURE FLOOR PLAN

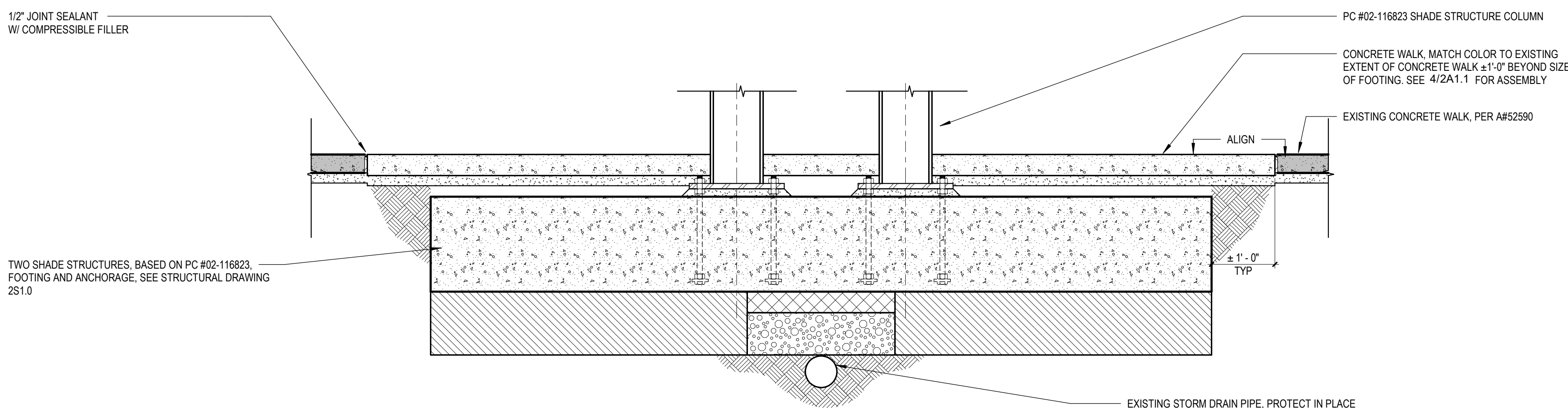
2A1.1 SCALE: 1/4" = 1'-0"



- NOTE:  
1. INSTALL SCORE AND EXPANSION JOINTS PER PLANS. SPACE SCORE JOINTS NO FURTHER THAN SIDEWALK WIDTH. EXPANSION JOINTS EVERY 40' MAX SPACING.  
2. LONGITUDINAL SLOPE NOT TO EXCEED 5% (EXCEPT ON PED RAMPS), TRANSVERSE SLOPE NOT TO EXCEED 2%.

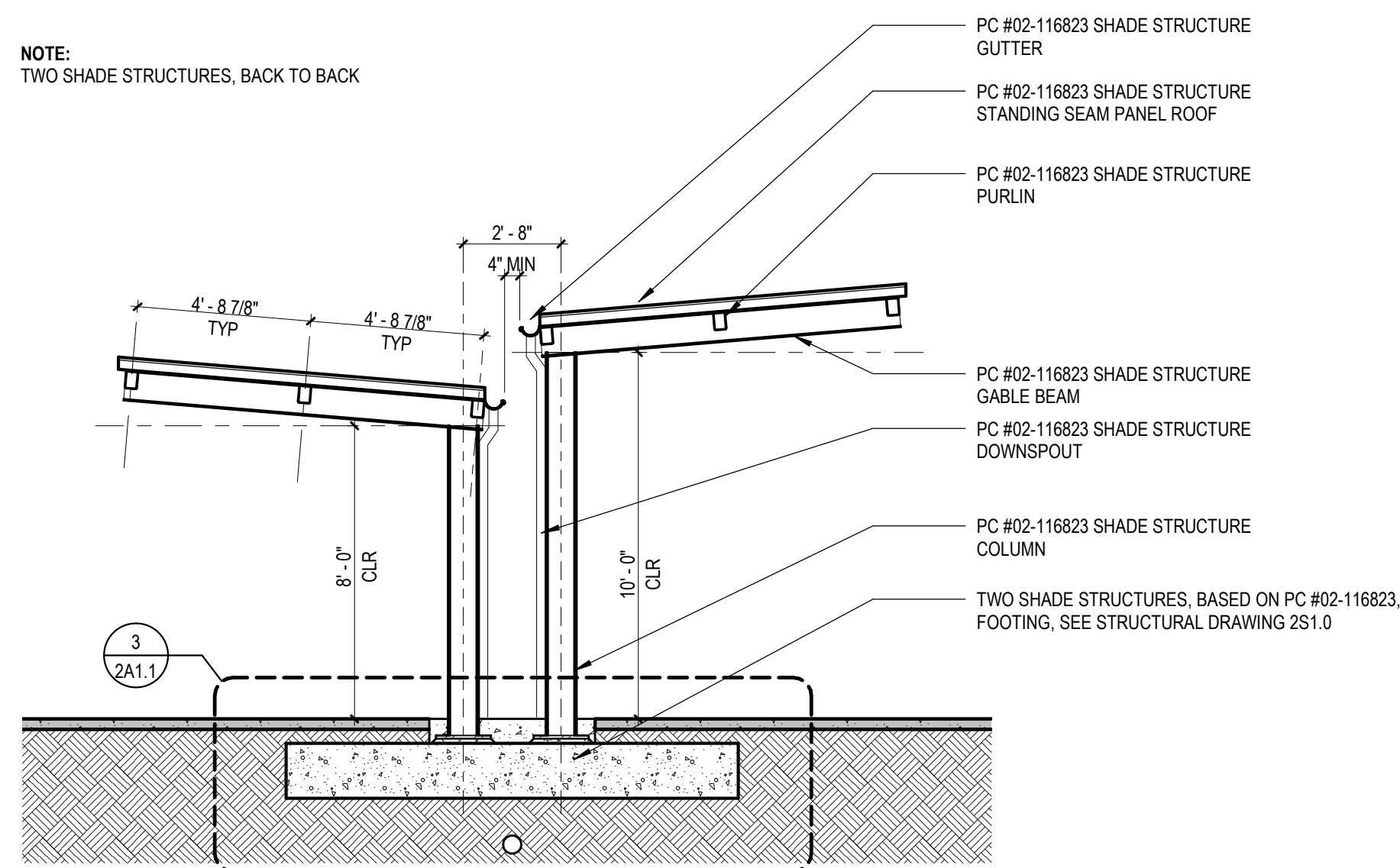
4 TYPICAL NON-TRAFFIC RATED SIDEWALKS

2A1.1 SCALE: 1 1/2" = 1'-0"



3 PC SHADE STRUCTURE FOUNDATION

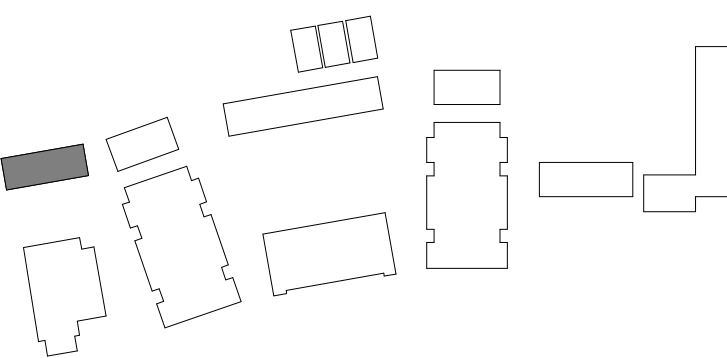
2A1.1 SCALE: 3/4" = 1'-0"



2 PC SHADE STRUCTURE SECTION

2A1.1 SCALE: 1/4" = 1'-0"

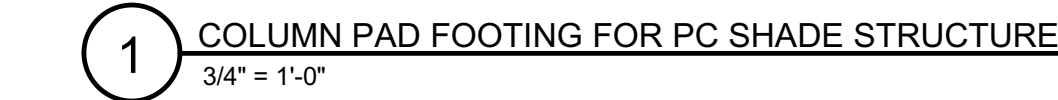
KEY PLAN







1/4" = 1'-0"



**ZFA STRUCTURAL ENGINEERS**  
7801 folsom boulevard | suite 204      zfa.com  
sacramento ca 95826      916.924.7024  
zfa job no. 18341      copyright © 2018



DESIGN VALUES:

DESCRIPTION	DESIGN VALUES <sup>1</sup>
DEAD AND LIVE LOADS	
ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME) <sup>2</sup>	LOAD SCENARIO= {1,2} DL= {3.5, 2.0}
ALLOWABLE SOIL PRESSURE <sup>3,5</sup>	
SPREAD PAD	
VERTICAL BEARING: DL + Lr + SEISMIC (CONCRETE FOOTING)	1500 PSF
LATERAL COHESION: DL + Lr + SEISMIC (CONCRETE FOOTING)	130 PSF
DRILLED PIER	
SKIN FRICTION (DOWN):DL + Lr + SEISMIC(CONCRETE FOOTING)PER 1810A.5.3.3.1.4	167 PSF
SKIN FRICTION (UPLIFT):DL + Lr + SEISMIC (CONCRETE FOOTING)PER 1810A.5.3.3.1.5	125 PSF
LATERAL BEARING: DL + Lr + SEISMIC (CONCRETE FOOTING) PER 1810A.3.3.2	100 PSF/FT
ROOF SNOW LOAD	
GROUND SNOW LOAD, Pg	10 PSF
RISK CATEGORY	[ ] II [X] III
ROOF SNOW LOAD: [ ] FLAT, Pf OR [ ] LOW SLOPE, Pm OR [X] SLOPED, Ps	11 PSF
SNOW ROOF SLOPE FACTOR, Cs	1.0
SNOW EXPOSURE FACTOR, Ce	1.2
SNOW LOAD IMPORTANCE, Is	[ ] 1.0 [X] 1.1
THERMAL FACTOR, Ct	[ ] 1.0 [X] 1.2
DRIFTED SNOW, Pd	0 PSF
DISTANCE FROM ADJACENT STRUCTURE, Pg = 0 PSF	4 IN
DISTANCE FROM ADJACENT STRUCTURE, Pg > 0 PSF	20 FT
FLOOD DESIGN	
FLOOD HAZARD AREA- NOT PERMITTED IN FLOOD HAZARD ZONE	[X] NO [ ] YES
WIND DESIGN <sup>4</sup>	
BASIC WIND SPEED (3 SECOND GUST), V <sub>ult</sub>	115 MPH
EXPOSURE CATEGORY	[X] C [ ] D
TOPOGRAPHIC FACTOR, K <sub>zt</sub> (1 MINIMUM)	1
INTERNAL PRESSURE COEFFICIENT, G <sub>cp</sub> (IF APPLICABLE)	0.0
CLEAR WIND FLOW	[ ] NO [X] YES
OBSTRUCTED WIND FLOW	[ ] NO [X] YES
SEISMIC DESIGN <sup>6</sup>	
LATERAL FORCE-RESISTING SYSTEM	STEEL ORDINARY CANTILEVER COLUMN SYSTEM
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PRECEDURE
SEISMIC DESIGN CATEGORY (SDC)	E
SEISMIC IMPORTANCE FACTOR, I <sub>e</sub>	[ ] 1.0 [X] 1.25
DESIGN BASE SHEAR, V	Cs x W
SEISMIC RESPONSE COEFFICIENT, C <sub>s</sub>	LOAD SCENARIO = {1,2} C <sub>s</sub> = {1.13, 1.65}
RESPONSE MODIFICATION FACTOR, R	1.25
SITE CLASS	[ ] D [X] E
REDUNDANCY FACTOR, p	1.3
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, S <sub>s</sub> - USED TO DETERMINE C <sub>s</sub>	LOAD SCENARIO = {1,2} S <sub>s</sub> = {1.875, 2.750}
SHORT-PERIOD SITE COEFFICIENT, F <sub>a</sub>	0.9
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, S <sub>ds</sub> - USED TO DETERMINE C <sub>s</sub>	LOAD SCENARIO = {1,2} S <sub>ds</sub> (MAX) = {1.125, 1.650}
MAPPED SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, S <sub>1</sub>	1.07
LONG-PERIOR SITE COEFFICIENT, F <sub>v</sub>	2.4
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, S <sub>d1</sub>	1.712
HORIZONTAL OR VERTICAL IRREGULARITIES TYPE(S)	NONE
1. IF SITE-SPECIFIC DESIGN CRITERIA ARE OUTSIDE THE LIMITS OF THESE PC DRAWINGS, CONTACT POLIGON ENGINEERING TO SEE IF AN ENGINEERING LETTER, SUPPLEMENTAL DRAWINGS, AND/OR CALCULATIONS COULD BE SUBMITTED FOR A SITE-SPECIFIC SOLUTION. ANY SITE-SPECIFIC DEVIATION FROM THIS PC MAY NOT BE SUBMITTED TO DSA AS AN OVER-THE-COUNTER	
2. STRUCTURE IS NOT DESIGNED TO SUPPORT SOLAR PANELS. STRUCTURE IS NOT DESIGNED TO SUPPORT SPRINKLER SYSTEMS IN LOAD SCENARIO 2 REGIONS.	
3. GEOTECHNICAL REPORTS ARE NOT REQUIRED UNLESS THE AREA COVERED UNDER THE ROOF EXCEEDS 4000 SQ FT	
4.STRUCTURAL SEPARATION: CWC10= 2.75 IN CWC15= 3.00 IN	
5. WHEN PLACING MULTIPLE CANOPIES WITH PIER FOOTINGS ADJACENT TO ONE ANOTHER, THE DESIGN MAY REQUIRE AN ANALYSIS OF GROUP EFFECTS ON THE FOUNDATIONS. THE MINIMUM CLEARANCE BETWEEN CENTER OF PIERS IS EIGHT TIMES PIER DIAMETER WITHOUT AN ACCOMPANYING ENGINEERING LETTER.	
ARCHITECTURAL REQUIREMENTS:	
DESCRIPTION	DESIGN VALUES
TYPE OF CONSTRUCTION	II B
NUMBER OF STORIES	1
FIRE SPRINKLER SYSTEM	NOT BY POLIGON

INSTRUCTIONS FOR ARCHITECTS PLANNING TO SUBMIT THESE PRE-CHECKED DRAWINGS TO DSA:

STEP 1 PROJECT INFORMATION

PROJECT NAME	EMMA WILSON ELEMENTARY SCHOOL		
SCHOOL DISTRICT	CHICO UNIFIED SCHOOL DISTRICT		
USE AND OCCUPANCY CLASSIFICATION	CAFETERIA / A2 (PROPOSED OCCUPANCY: A3)		
OCCUPANT LOAD FACTOR	15	SQ. FT / PERSON	(15 SQ.FT PER PERSON MAX; 5 SQ.FT PER PERSON MIN)
TOTAL ROOF AREA	1280 SF TOTAL , 2 STRUCTURES 640 SF EACH	(MAX ALLOWABLE AREA: 9500 SQ FT)	
NUMBER OF OCCUPANTS	86		

STEP 2 DESIGN OPTIONS

ROOF DECK	[ ] MULTI-RIB (MR) [X] STANDING SEAM (SS)	DEFAULT, WEIGHT 1.2 PSF WEIGHT 1.8 PSF
GUTTERS	[ ] NO [X] YES	DEFAULT SEE CWC 7.0 FOR DETAILS
ELECTRICAL ACCESS	[ ] NO [X] YES	DEFAULT SEE CWC 7.1 FOR DETAILS
CLEAR HEIGHT	[X] 8' [X] 10' OTHER	TWO STRUCTURES: ONE @ 8'-0" ONE @ 10'-0" DEFAULT 10' MAX

STEP 3 SEISMIC ACCELERATION

0 6 1 7 (g)

STEP 4 SEISMIC REGIONS

0.000 < S <sub>s</sub> <= 1.875	[X] WHITE	3.5 PSF MAX DEAD LOAD
1.875 < S <sub>s</sub> <=2.750	[ ] GREEN	2.0 PSF MAX DEAD LOAD

STEP 5 TOTAL ROOF DEAD LOAD

ROOF DECK	1.8 PSF	SEE STEP 2 'ROOF DECK' FOR WEIGHTS
COLLATERAL	0 PSF	LIGHTING , FIRE SUPPRESSION, ETC.
TOTAL	1.8 PSF	ADD 'ROOF DECK' AND 'COLLATERAL'

STEP 6 LOAD SCENARIO

WHITE	TOTAL ROOF DEAD LOAD <= 3.5 PSF	[X] LOAD SCENARIO 1
GREEN	TOTAL ROOF DEAD LOAD < 2.0 PSF	[ ] LOAD SCENARIO 2

STEP 7 PC STRUCTURE

ROOF WIDTH <= 10	[X] CWC 10
10 < ROOF WIDTH <= 15	[ ] CWC 15

STEP 8 STRUCTURE SIZE

CWC 10	CWC 15
ROOF WIDTH	
[X] 10'	DEFAULT [ ] 15'
[ ] OTHER	6' MIN; 9' MAX [ ] OTHER 11' MIN; 14' MAX
ROOF LENGTH	
[ ] 44'	2 BAYS [ ] 34'
[X] 64'	3 BAYS [ ] 49'
[ ] 84'	4 BAYS [ ] 64'
[ ] OTHER	

STEP 9 FOUNDATION TYPE

FOUNDATION TYPE	CWC 10 PER STRUCT PLANS, SEE 251.0	CWC 15
[ ] SPREAD PAD	[ ] DRILLED PIER	[ ] SPREAD PAD [ ] DRILLED PEIR

STEP 10 FOUNDATION SUMMARY

CWC 10 PER STRUCT PLANS, SEE 251.0	CWC 15
[ ] LOAD SCENARIO 1 SPREAD PAD	[ ] LOAD SCENARIO 1 DRILLED PIER
[ ] LOAD SCENARIO 2 SPREAD PAD	[ ] LOAD SCENARIO 2 DRILLED PIER

STEP 11 SHEET INDEX

BASE FRAME	CWC 10 SHEET INDEX				CWC 15 SHEET INDEX			
ROOF DECK	MR	SS	MR	SS	MR	SS	MR	SS
FOUNDATION TYPE	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER	SPREAD PAD	DRILLED PIER
SELECT ONE	[ ]	[ ]	[X]	[ ]	[ ]	[ ]	[ ]	[ ]
ORDER FORM	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0	CWC 1.0
NOTES AND SPECIAL INSPECTIONS	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1	CWC 1.1
FOUNDATION PLAN	CWC 2.0	CWC 2.1	CWC 2.0	CWC 2.1	CWC 2.2	CWC 2.3	CWC 2.2	CWC 2.3
FRAMING PLAN	CWC 3.0	CWC 3.0	CWC 3.0	CWC 3.0	CWC 3.1	CWC 3.1	CWC 3.1	CWC 3.1
FRAME CONNECTION DETAILS	CWC 4.0	CWC 4.0	CWC 4.0	CWC 4.0	CWC 4.1	CWC 4.1	CWC 4.1	CWC 4.1
ARCHITECTURAL VIEWS	CWC 5.0	CWC 5.0	CWC 5.0	CWC 5.0	CWC 5.1	CWC 5.1	CWC 5.1	CWC 5.1
ROOF CONNECTION DETAILS	CWC 6.0	CWC 6.0	CWC 6.1	CWC 6.1	CWC 6.0	CWC 6.0	CWC 6.1	CWC 6.1
MISC DESIGN OPTIONS	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0	CWC 7.0
ELECTRICAL CUTOUTS	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1	CWC 7.1

STEPS 12 MULTIPLE STRUCTURES

ROOF WIDTH X LENGTH	QTY
10' x 64'	2 (TWO)

SPECIFICATIONS

PART 1 - GENERAL

1.1 STRUCTURE DESCRIPTION

A. STRUCTURE(S) BASED ON THE FOLLOWING PC DESIGN(S):  
1. WALKWAY COVER (CWC)

1.2 DESIGN REQUIREMENTS

A. MEET THE FOLLOWING CRITERIA SHOWN ON THE PC DRAWINGS APPROVED FOR THIS PROJECT.  
1. DESIGN CRITERIA  
2. MEMBERS SIZES  
3. HIDDEN BOLTED CONNECTIONS BETWEEN STRUCTURAL MEMBERS  
4. COLUMN ANCHORAGE SHALL INCLUDE FOUR (4) BOLTS IN COMPLIANCE WITH OSHA 1926.755(A)(1).  
5. NO FIELD WELDING PERMITTED  
6. NO FIELD PAINTING PERMITTED  
7. ROOF DIMENSIONS AND SLOPES  
8. EXPOSED STEEL ROOF FASTENERS (IF APPLICABLE) POWDER COATED BY MANUFACTURER  
9. ROOF DECK SPANS FROM PEAK TO EAVE AND PERMITS PROPER DRAINAGE WITHOUT DEBRIS BUILD-UP.

1.3 SUBMITTALS

A. DRAWINGS AND CALCULATIONS SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE APPROPRIATE STATE.  
B. ONLY MANUFACTURERS THAT SUBMIT DRAWINGS AND CALCULATIONS PRIOR TO BID SHALL BE CONSIDERED.  
C. MANUFACTURER MUST BE ABLE TO SUBMIT APPROPRIATE LABORATORY TESTS FOR THE FOLLOWING:  
1. FRAME FINISH REQUIREMENTS LISTED IN PART 2 OF THIS SPECIFICATION.  
2. CERTIFIED MILL CERTS FOR STRUCTURAL STEEL (DESCRIBING THE CHEMICAL AND PHYSICAL PROPERTIES).  
3. CERTIFIED MILL CERTS FOR STRUCTURAL BOLTS.

1.4 TECHNICAL SUPPORT

A. MANUFACTURER MUST HAVE IN-HOUSE ENGINEERING DEPARTMENT AND A PROFESSIONAL ENGINEER LICENSED IN THE APPROPRIATE STATE TO ANSWER TECHNICAL QUESTIONS.

1.5 QUALITY ASSURANCE

A. GENERAL  
1. FABRICATION PROCEDURES SHALL COMPLY WITH APPLICABLE CODES AND LOCAL REGULATIONS.  
2. REQUIRED STRUCTURAL TESTS AND SPECIAL INSPECTIONS INCLUDED ON THE PROJECT DSA-103 FORM.  
B. MANUFACTURER QUALIFICATIONS  
1. MINIMUM (10) YEARS ENGINEERING AND FABRICATING PRE-ENGINEERED STRUCTURES  
2. MANUFACTURER OWNED AND OPERATED POWDER COAT PAINT FINISH SYSTEM  
3. ALL AWS CERTIFIED WELDERS  
4. FULL-TIME PROFESSIONAL ENGINEER ON STAFF LICENSED IN THE APPROPRIATE STATE  
5. FULL-TIME AWS CERTIFIED WELDING INSPECTOR ON STAFF  
6. FULL-TIME QUALITY ASSURANCE MANAGER ON STAFF  
7. FULL-TIME LEAD AP ON STAFF  
C. MANUFACTURER CERTIFICATIONS  
1. PCI 4000 CERTIFICATION THROUGH POWDER COATING INSTITUTE (PCI)

1.6 MANUFACTURER WARRANTY

A. STRUCTURE MUST HAVE (10) YEAR LIMITED WARRANTY ON STEEL FRAME MEMBERS.  
B. STRUCTURE MUST HAVE (10) YEAR LIMITED WARRANTY ON PAINT SYSTEM.  
C. PASS THROUGH WARRANTY OF ROOFING MANUFACTURER SHALL BE PROVIDED UPON REQUEST.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. ACCEPTABLE MANUFACTURERS  
1. POLYGON, A DIVISION OF PORTER CORP.  
A. 4240 N 136TH AVE., HOLLAND, MI 49424; 616-399-1963; WWW.POLYGON.COM  
I. FOR POLYGON STRUCTURES IN NORTHERN CALIFORNIA, THE LOCAL REPRESENTATIVE IS ALL ABOUT PLAY (WWW.PLAYGROUNDPROS.COM). EMAIL AAP@PLAYGROUNDPROS.COM OR CALL 916-923-2180  
II. FOR POLYGON STRUCTURES IN SOUTHERN CALIFORNIA, THE LOCAL REPRESENTATIVE IS MIRACLE PLAYGROUND SALES (WWW.MIRACLEPLAYGROUNDSALES.COM) EMAIL SALES@MIRACLEPLAYGROUND.COM OR CALL 951-695-4515  
B. SUBSTITUTION LIMITATIONS  
1. THE ENGINEERING FOR THIS STRUCTURE IS ONLY APPLICABLE IF POLYGON SUPPLIES THE MATERIAL.  
2. IF THE CONTRACTOR ELECTS TO SUBSTITUTE A DIFFERENT STRUCTURE, THEY ARE RESPONSIBLE TO OBTAIN THE NECESSARY DSA APPROVAL WITH:  
A. NO COST TO THE DISTRICT OR ARCHITECT  
B. NO CHANGE TO THE CONSTRUCTION SCHEDULE  
3. SUBSTITUTIONS MUST BE APPROVED A MINIMUM OF (10) DAYS BEFORE BID.  
4. ALL APPROVED MANUFACTURERS SHALL BE NOTIFIED IN WRITING BEFORE THE BID DATE.  
5. SUBSTITUTE MANUFACTURERS SHALL NOT BE ALLOWED TO BID WITHOUT WRITTEN NOTIFICATION.  
6. SUBSTITUTE MANUFACTURERS MUST MEET "MANUFACTURER QUALIFICATIONS" LISTED IN PART 1 OF THIS SPECIFICATION.  
7. SUBSTITUTE MANUFACTURERS MUST PROVIDE PROOF OF "MANUFACTURER CERTIFICATIONS" ABOVE.  
8. SUBSTITUTE MANUFACTURERS MUST PROVIDE PAINT FINISH DESCRIBED IN "FRAME FINISH" BELOW.

2.2 FRAME

A. MATERIALS  
1. ANCHOR BOLTS: SEE DRAWINGS FOR REQUIREMENTS. ANCHOR BOLTS NOT PROVIDED BY MANUFACTURER.  
2. STRUCTURAL STEEL: SEE DRAWINGS FOR REQUIREMENTS.  
3. STRUCTURAL BOLTS: SEE DRAWINGS FOR REQUIREMENTS.  
B. FINISH  
1. FRAME FINISH: POLI-5000 POWDER COAT. NO FIELD PAINTING PERMITTED.  
A. COMPONENTS SHALL BE CLEANED, PRE-TREATED, AND FINISHED AT A FACILITY OWNED AND DIRECTLY SUPERVISED BY THE MANUFACTURER.  
B. COMPONENTS SHALL BE SHOT BLASTED TO SSPC-SP10 NEAR-WHITE BLAST CLEANING. SSPC-SP2 HAND TOOL CLEANING WILL NOT BE AN ACCEPTABLE ALTERNATIVE.  
C. COMPONENTS SHALL BE PRETREATED IN A (3) STAGE IRON PHOSPHATE OR EQUAL WASHER.  
D. COMPONENTS SHALL RECEIVE EPOXY PRIMER COAT FOR SUPERIOR CORROSION PROTECTION.  
E. COMPONENTS SHALL RECEIVE TOP COAT OF SUPER DURABLE TGIC POWDER COAT.  
F. FINISH SHALL NOT HAVE ANY VOC EMISSIONS.  
G. MANUFACTURER SHALL BE ABLE TO PRODUCE DOCUMENTATION STATING SAMPLE PRODUCTION COMPONENTS HAVE BEEN TESTED TO MEET THE FOLLOWING:  
I. SALT SPRAY RESISTANCE PER ASTM B 117/ ASTM D 1654 TO 10,000 HOURS WITH NO CREEP FROM SCRIBE LINE AND RATING OF 10.  
II. HUMIDITY RESISTANCE PER ASTM D2247-02 TO 5,000 HOURS WITH NO LOSS OF ADHESION OR BUBBLING.  
III. COLOR/UV RESISTANCE PER ASTM G154-04 TO 2,000 HOURS EXPOSURE. ALTERNATE CYCLES WITH RESULTS OF NO CHALKING, 75% COLOR RETENTION, COLOR VARIATION MAXIMUM 3.0 E VARIATION CIE FORMULA (BEFORE AND AFTER 2,000 HOURS EXPOSURE).  
2. FRAME COLOR: DETERMINED BY DISTRICT.

2.3 ROOF

A. MATERIALS  
1. ROOF MATERIAL: SEE DRAWINGS FOR REQUIREMENTS.  
2. ROOF HARDWARE: SEE DRAWINGS FOR REQUIREMENTS.  
B. FINISH  
1. ROOF FINISH: KYNAR 500 HIGH-PERFORMANCE RESIN-BASED PAINT.  
2. ROOF COLOR: DETERMINED BY OWNER.

2.4 MISCELLANEOUS

A. MATERIALS  
1. CONCRETE MATERIAL: SEE DRAWINGS FOR REQUIREMENTS. CONCRETE NOT PROVIDED BY MANUFACTURER.

PART 3 - EXECUTION

3.1 STORAGE AND HANDLING

A. PROTECT MATERIAL AFTER DELIVERY FROM WEATHER, SUNLIGHT, AND DAMAGE.  
B. ELEVATE MATERIAL TO ALLOW CIRCULATION AND REDUCE MOLD, FUNGI DECAY, AND INSECT INFESTATION.  
C. HANDLE MATERIAL WITH PROTECTIVE STRAPS OR PADDED FORKLIFT. HANDLING MATERIAL WITH CHAIN OR CABLE WILL NOT BE ACCEPTED AND MAY VOID MANUFACTURER'S WARRANTY.  
D. TO PREVENT MOISTURE DAMAGE TO ANY WOOD MATERIAL (IF APPLICABLE), KEEP WOOD PACKAGED BEFORE INSTALLATION AND COVER IMMEDIATELY WITH ANY SECONDARY ROOF MATERIAL.

3.2 ERECTION

A. INSTALL COMPONENTS ACCORDING TO MANUFACTURER'S INSTALLATION DRAWINGS AND THESE SPECIFICATIONS.  
B. ANCHOR BOLT AND COLUMN LAYOUT IS CRITICAL.  
C. COMPLY WITH SPECIFIC BOLTING INSTALLATION REQUIREMENTS PROVIDED ON DRAWINGS REQUIRING THE CONTRACTOR TO COORDINATE THIS PHASE OF CONSTRUCTION WITH THE SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD PRIOR TO THE ERECTION OF THE FRAME.  
D. NO FIELD SLOTTING OR OPENING OF HOLES WILL BE ALLOWED. TOLERANCES ON STEEL STRUCTURAL MEMBERS ARE SET ACCORDING TO AISC CONSTRUCTION PRACTICES, FOLLOWED DURING FABRICATION, AND CANNOT BE INCREASED.  
E. AFTER INSTALLATION, RESTORE DAMAGED SURFACES TO THE ORIGINAL CONDITION USING TOUCH-UP PAINT PROVIDED BY MANUFACTURER. IF THE ARCHITECT DOES NOT ACCEPT THAT, REPLACE DAMAGED MATERIAL AT NO COST TO THE DISTRICT.  
F. COORDINATE AS REQUIRED WITH OTHER DISCIPLINES (ELECTRICAL, PLUMBING, ETC.)  
G. COMPLY WITH ALL APPLICABLE OSHA REQUIREMENTS

3.3 REPAIR

A. DO NOT ATTEMPT ANY FIELD CHANGES TO THE STRUCTURE WITHOUT FIRST CONTACTING THE MANUFACTURER.

3.4 QUALITY CONTROL

A. TESTS AND INSPECTIONS DURING ERECTION ARE NOT REQUIRED BY THE MANUFACTURER, BUT MAY BE REQUIRED BY OTHERS.  
B. THE PROJECT INSPECTOR, AND ENTIRE CONSTRUCTION OVERSIGHT PROCESS, SHALL COMPLY WITH DSA PR 13-01. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP. 02-117226 INC. 2  
REVIEWED FOR  
SS [ ] FLS [ ] ACS [ ]  
DATE: 04/17/2019

02/08/2019



STATE APPROVALS - SITE

STATE APPROVALS - PC

PRE-CHECK (PC) DOCUMENT  
CODE: 2016 CBC  
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

ORDER FORM

CWC1.0

WALKWAY COVER - CWC



GENERAL:

- GENERAL NOTES AND TYPICAL DETAILS SHALL APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE THEY MAY CONFLICT WITH DETAILS AND NOTES ON OTHER SHEETS. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER FOR THIS PROJECT.
- WORK SHALL CONFORM TO THE REQUIREMENTS, AS AMENDED TO DATE, OF THE LATEST ADOPTED EDITION OF THE CBC, C.A.C. TITLE 24, AND ALL OTHER LOCAL, STATE AND FEDERAL REGULATIONS.
- OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR THIS PROJECT PRIOR TO PROCEEDING WITH ANY WORK INVOLVED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE STRUCTURAL ENGINEER FOR THIS PROJECT AND BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
- THESE CONSTRUCTION DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, INCLUDING, BUT NOT LIMITED TO, BRACING, TEMPORARY SUPPORTS, AND SHORING. OBSERVATION VISITS TO THE SITE BY FIELD REPRESENTATIVES OF THE ARCHITECT/ENGINEER SHALL NOT INCLUDE INSPECTIONS OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES. ANY SUPPORT SERVICES PERFORMED BY THE ARCHITECT/ENGINEER DURING THE CONSTRUCTION SHALL BE DISTINGUISHED FROM CONSTRUCTION AND DETAILED INSPECTION SERVICES WHICH ARE FURNISHED BY OTHERS. THESE SUPPORT SERVICES PERFORMED BY THE ARCHITECT/ENGINEER, WHETHER OF MATERIAL OR WORK, ARE FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DOCUMENTS, BUT DO NOT GUARANTEE CONSTRUCTION.
- ASTM DESIGNATIONS AND ALL STANDARDS REFER TO THE LATEST AMENDMENTS.
- CONFORM TO APPLICABLE CAL/OSHA CONSTRUCTION SAFETY REGULATIONS FOR ALL WORK PERFORMED DURING CONSTRUCTION. JOB SITE SAFETY IS STRICTLY THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THE ARCHITECT/ENGINEER OR OWNER.
- THE ENGINEER AND THEIR CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, HANDLING, REMOVAL OR DISPOSAL OF HAZARDOUS MATERIALS AT THE PROJECT SITE, INCLUDING BUT NOT LIMITED, TO ASBESTOS, ASBESTOS PRODUCTS, POLYCHLORINATED BIPHENYL (PCB) OR OTHER TOXIC SUBSTANCES.
- SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, OR IF A CHANGE IN THE SCOPE OF WORK IS PROPOSED, A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED CHANGE(S) SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
- THE SCHOOL DISTRICTS INSPECTOR OF RECORD SHALL INSPECT AND APPROVE THE ERECTED FRAME PRIOR TO ROOF INSTALLATION.
- SEE REQUIREMENTS FOR LOCATION IN ANY FIRE HAZARD SEVERITY ZONE FOR WILDLAND URBAN INTERFACE AREAS (WUI) AS SPECIFIED IN THE APPLICABLE VERSION OF THE CALIFORNIA BUILDING CODE. PROVIDE PROTECTION AND DETAILS OF ALL AREAS COMPLYING WITH THE WUI REQUIREMENTS.
- LOCATING THIS STRUCTURE CLOSER THAN 20 FEET TO OTHER STRUCTURES MAY AFFECT THE ALLOWABLE AREA FOR THE EXISTING CONSTRUCTION PER THE APPLICABLE VERSION OF THE CALIFORNIA BUILDING CODE.
- VIEWS AND DETAILS ARE NOT DRAWN TO SCALE (UNLESS NOTED OTHERWISE), DO NOT SCALE THESE DRAWINGS.
- OTHER SITE SPECIFIC ITEMS MAY BE REQUIRED.
- WHEN A SITE-SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

STRUCTURAL AND MISCELLANEOUS STEEL:

- ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360-10 AND 303-10 REFERENCED BY THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE.
- PIPE SECTIONS SHALL CONFORM TO ASTM A53, Fy = 35 ksi, GRADE B OR A501 UNLESS NOTED OTHERWISE.
- STRUCTURAL TUBING (HSS SHAPES) SHALL CONFORM TO ASTM A500, GRADE B (OR HIGHER), Fy = 46 KSI, Fu = 58 ksi.
- IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESSES CAN BE INCREASED BEYOND WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
- ALL CHANNELS, ANGLES, PLATES AND MISC. STEEL SHALL CONFORM TO ASTM A36, Fy = 36 KSI, Fu = 58 KSI.
- ALL COLD FORM STEEL SHALL CONFORM TO ASTM A563, CS = TYPE B, Fy = 50 KSI, Fu = 60 KSI.
- STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2203A.1.
- ROOF DECK SHALL HAVE KYNAR 5000 METAL COATING.
- ROOF DECK SHALL CONFORM TO ASTM A792, Fy = 50 KSI, Fu = 60 KSI.
- MR ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.31" (FLAT-TO-FLAT) AND INTEGRAL WASHER DIMENSION OF 0.58" (OUTSIDE DIAMETER).
- SS ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.437" (OUTSIDE DIAMETER).

WELDING:

- ALL WELDING SHALL COMPLY WITH AWS D1.1 SPECIFICATIONS AND SHALL BE DONE BY AWS QUALIFIED WELDERS CERTIFIED FOR THE TYPE OF WELDING TO BE PERFORMED.
- ALL WELDING SHALL BE DONE BY GAS METAL ARC PROCESS WITH E70XX ELECTRODES, FLUX CORE ARC WELD SHALL CONFORM TO CHARPY NOTCH TOUGHNESS RATING OF 20 ft-lb @ 10° F).
- ALL WELDING SHALL BE DONE IN THE SHOP WITH REQUIRED INSPECTION, PRE-APPROVED BY DSA, TO ENSURE PROPER MATERIAL ID AND WELDING.
- WELD FILLER METAL MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION OF COMPLIANCE WITH CODE AND SPECIFICATIONS.

BOLTING:

- ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM F3125 (A325 TYPE 3) HIGH STRENGTH BOLTS (UNO) AND SHALL BE HOT DIPPED GALVANIZED PER F2329.
- HIGH STRENGTH BOLTS SHALL BE SAMPLED AND TESTED IN COMPLIANCE WITH CBC 2213A.1.
- BEFORE ERECTING THE FRAME, VERIFY ALL BOLTS AND NUTS ARE CLEAN OF DEBRIS AND BURRS - INCLUDING THE HARDWARE ALREADY FASTENED INSIDE THE MEMBERS. CHASING SOME OF THE BOLTS AND NUTS MAY BE REQUIRED.
- ANCHOR BOLTS (HEAVY HEX HEAD, ASTM F1554, GRADE 36) SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329. ANCHOR BOLTS MAY BE HEADED OR THREADED WITH A NUT THAT IS PREVENTED FROM ROTATING.
- HIGH STRENGTH NUTS SHALL CONFORM TO ASTM A563 AND SHALL BE GALVANIZED PER F2329.
- HIGH STRENGTH WASHERS SHALL CONFORM TO ASTM F436 AND SHALL BE GALVANIZED PER F2329.
- THE BOLTING INSTALLATION REQUIREMENTS OUTLINED BELOW ARE CRITICAL TO THE STRUCTURE'S DESIGN AND PERFORMANCE. THE INSTALLER IS REQUIRED TO COORDINATE THIS PHASE OF CONSTRUCTION WITH THE SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD PRIOR TO THE ERECTION OF THE FRAME. ALL BOLTS SHALL BE INSTALLED AND INSPECTED UNDER THE APPLICABLE VERSION OF AISC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS", CBC 1705A.2.1; AISC 341-10 J7; AISC 360-10 N5.6.
  - PRETENSIONED JOINTS (IDENTIFIED ON THE FRAME CONNECTION DETAILS WITH A "PJ" REQUIRED") MUST BE INSTALLED AND INSPECTED TO MEET ONE OF FOLLOWING REQUIREMENTS:
    - TURN-OF-NUT PRETENSIONING
    - CALIBRATED WRENCH PRETENSIONING
    - DIRECT-TENSION-INDICATOR PRETENSIONING (CONTRACTOR RESPONSIBLE FOR PURCHASE OF REQUIRED WASHERS)
  - ALL OTHER JOINTS MUST BE INSTALLED AND INSPECTED TO MEET THE REQUIREMENTS OF SNUG-TIGHTENED JOINTS. NOTE TO INSTALLER AND INSPECTOR(S): THE SNUG-TIGHT CONDITION EXISTS, IN PART, WHEN ALL THE BOLTS IN THE JOINT HAVE BEEN TIGHTENED SUFFICIENTLY TO PREVENT THE REMOVAL OF THE NUTS WITHOUT THE USE OF A WRENCH.

THE CONTRACTOR, SPECIAL BOLTING INSPECTOR AND THE INSPECTOR OF RECORD MUST ALL AGREE ON WHICH APPROACH WILL BE USED TO PRETENSION THE BOLTS. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THE APPROACH AGREED TO BY ALL PARTIES LISTED ABOVE.

FOUNDATIONS:

- ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER 2016 CBC TABLE 1806A.2.
- FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D1557. FLOODING NOT PERMITTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, ETC. NECESSARY TO SUPPORT CUT AND/OR FILL BANKS DURING EXCAVATION, AND FORMING AND PLACEMENT OF CONCRETE.
- STRUCTURES SHALL BE SETBACK FROM ADJACENT SLOPES TO PROVIDE FIRM MATERIAL FOR EMBEDMENT AND FOR PROTECTION FROM SLOPE DRAINAGE, EROSION, AND SHALLOW FAILURES.
  - BOTTOM OF ASCENDING SLOPE: THE SMALLER OF HALF THE HEIGHT OF THE SLOPE AND 15 FT MEASURED FROM THE FACE OF THE STRUCTURE TO THE TOE OF THE SLOPE
  - TOP OF DESCENDING SLOPE: THE SMALLER OF A THIRD OF THE HEIGHT OF THE SLOPE AND 40 FT MEASURED FROM THE FACE OF THE FOOTING TO THE TOP OF THE SLOPEALTERNATE SETBACKS ARE PERMITTED, SUBJECT FOR APPROVAL. A GEOTECHNICAL INVESTIGATION MAY BE REQUIRED.
- STRUCTURES PLACED ON LIQUIFIABLE SOILS OR SITE CLASS F MAY NOT BE SUBMITTED FOR AN OVER THE COUNTER.

CONCRETE:

- MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)

STRENGTH Fc (28 DAYS)	W/C RATIO (NON-AIR ENTRAINED)	W/C RATIO (AIR ENTRAINED)	AIR ENTRAINMENT	SUMP (± 1")	UNIT WEIGHT (NORMAL WEIGHT)
5000 PSI	0.45	0.4	6%		150 PCF
- CHANGES TO THE MIX DESIGN MUST BE APPROVED BY THE ENGINEER OF RECORD AND DSA.
- AGGREGATES SHALL CONFORM TO ASTM C33, MAX AGGREGATE SIZE = 1".
- CEMENT SHALL CONFORM TO ASTM C150 (TYPE I) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- CONCRETE SHALL BE MAINTAINED IN MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT. ALTERNATE METHODS WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.
- CONCRETE SHALL NOT FREE FALL MORE THAN FIVE FEET.
- CONCRETE SHALL BE PROPORTIONED PER ACI 318-14 26.4.
- CONCRETE SHALL BE TESTED PER CBC 1905A.1.3, 1910A.1, 1705A.3, AND ACI 318-14 24.13.

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A615, (DEFORMATIONS SHALL BE IN ACCORDANCE WITH ASTM A305) AS FOLLOWS:
  - GR 60; (#4 BARS AND LARGER)
  - GR 40; (#3 BARS)
- DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL CONFORM THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES."
- MIN. COVER FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS:
  - CAST AGAINST EARTH..... 3"
  - CAST AGAINST FORM BELOW GRADE..... 2"
  - FORMED SLABS (#11 BAR & SMALLER)..... 3/4"
  - SLABS ON GRADE (FROM TOP OF SLAB)..... 1"
  - COLUMNS AND BEAMS (MAIN BARS)..... 1 1/2"
  - FALLS EXPOSED TO WEATHER (#6-#18 BARS)..... 2"
  - NOT EXPOSED TO WEATHER (#5 & SMALLER)..... 1 1/2"
  - NOT EXPOSED TO WEATHER (#11 & SMALLER)..... 3/4"
- BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
- FOR #6 BARS AND SMALLER, REINFORCING SHALL BE LAP SPICED 45 BAR DIA MINIMUM IN CONCRETE. FOR #7 BARS AND LARGER, REINFORCING SHALL BE LAP SPICED 55 BAR DIAMETERS MINIMUM IN CONCRETE. ALL LAP SPICES MUST COMPLY WITH ACI 318-14.
- PRIOR TO PLACING OF CONCRETE, REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE WELL SECURED IN POSITION.
- WELDING OF REINFORCING IS NOT ALLOWED
- REINFORCING STEEL SHALL BE SAMPLED AND TESTED PER CBC 1910A.2.

POWDER COATED AND EPOXY PRIMED FINISH:


- ENTIRE POWDER COATING PROCESS COMPLETED IN SAME FACILITY AS STEEL FABRICATION.
- ALL CARBON STEEL MEMBERS (COLUMNS, BEAMS, PLATES, ETC.) PAINTED WITH PRIME COAT PER THE "AISC CODE OF STANDARD PRACTICE" AND THE "AISC SPECIFICATION SECTION M3" (UNLESS NOTED OTHERWISE).
- PARTS PRETREATED IN A 3 STAGE IRON PHOSPHATE WASHER (OR EQUIV).
- EPOXY PRIMER POWDER COAT APPLIED TO PARTS FOR SUPERIOR CORROSION PROTECTION.
- TOP POWDER COAT OF SUPER DURABLE TGIC (COLOR SELECTED FROM MANUFACTURER'S STANDARD OPTIONS OR CUSTOM COLOR).
- SAMPLE PRODUCTION PARTS TESTED TO MEET THE FOLLOWING CRITERIA:
  - SALT SPRAY RESISTANCE PER ASTM B 117/ ASTM D 1654
    - 10000 HOURS WITH NO CREEP FROM SCRIBE LINE AND RATING OF 10
  - HUMIDITY RESISTANCE PER ASTM D2247-02
    - 5000 HOURS WITH NO LOSS OF ADHESION OR BLISTERING
  - COLOR/UV RESISTANCE PER ASTM G154-04
    - 2000 HOURS EXPOSURE ALTERNATE CYCLES WITH NO CHALKING, 75% COLOR RETENTION, AND COLOR VARIATION MAXIMUM 3.0 Δ E VARIATION Δ E FORMULA (BEFORE AND AFTER 2000 HOURS EXPOSURE

CONSTRUCTION NOTES

- A DSA-CERTIFIED CLASS 2 INSPECTOR IS REQUIRED FOR THIS PROJECT.
  - CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24 CCR.
  - A "DSA-CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE OWNER (E.G. DISTRICT, ETC.) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
  - A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE OWNER (E.G. DISTRICT, ETC.) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT.
- NOTICE OF DISCLAIMER FOR STRUCTURAL ENGINEER RESPONSIBILITY**
- FOR THE SITE-SPECIFIC PROJECT, NEITHER POLYGON OR GHD ARE THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE.
  - FOR THE SITE-SPECIFIC PROJECT, GHD AND POLYGON'S RESPONSIBILITY IS LIMITED TO THE PREPARATION OF THE PLANS AND SPECIFICATIONS FOR THE STRUCTURES OF THIS PC ONLY.
  - STRUCTURAL OBSERVATION OF CONSTRUCTION IS SPECIFICALLY EXCLUDED FROM GHD AND POLYGON'S RESPONSIBILITY FOR THE SITE-SPECIFIC PROJECT.
  - ALL CONSTRUCTION ACTIVITIES RELATED TO STRUCTURAL ENGINEERING SHALL BE DELEGATED TO A QUALIFIED ENGINEER BY THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE. THESE ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO, APPROVAL OF INSPECTOR QUALIFICATIONS, STRUCTURAL OBSERVATIONS OF CONSTRUCTION, REVIEW OF INSPECTIONS REPORTS, AND SIGNING OFF ON THE VERIFIED REPORT FOR COMPLETED WORK.
  - POLYGON WILL BE RESPONSIBLE FOR RESPONDING TO QUESTIONS PERTAINING TO THE PLANS AND SPECIFICATIONS FOR THE STRUCTURES OF THIS PC WHICH ARISE DURING PLAN REVIEW AND CONSTRUCTION.

SPECIAL INSPECTION NOTES:

- THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE SELECTED BY THE SCHOOL DISTRICT AND APPROVED BY DSA AND THE ARCHITECT OF RECORD.
- COSTS OF THE PROJECT INSPECTOR AND THE TESTING AGENCY SHALL BE BORN BY THE SCHOOL DISTRICT.
- THE PROJECT INSPECTOR, AND ENTIRE CONSTRUCTION OVERSIGHT PROCESS, SHALL COMPLY WITH DSA PR 13-01.
- ON APPROVED PC DRAWINGS, THE STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS (FORM DSA-103) BELOW IS ONLY AN EXAMPLE. ON APPROVED PC DRAWINGS, THE EXAMPLE FORM DSA-103 MUST BE CROSSED OUT BEFORE THE PC DRAWINGS CAN BE APPROVED AS PART OF A SITE-SPECIFIC (OR STOCKPILE) PROJECT SO THEY WILL NOT CONFLICT WITH THE OFFICIAL FORM DSA-103 FOR THE PROJECT.
- A SITE CLASS 2 INSPECTOR OF RECORD IS REQUIRED.

	<b>DSA-103</b>	Issued 12/20/2016	INCREMENT #	DSA File No.:
	<b>List of Required Structural Tests &amp; Special Inspections - 2016 CBC</b>		Application No.:	
Date Submitted:			Revised:	
			Revised:	

School Name	EXAMPLE - REMOVE ON SITE SPECIFIC PROJECTS	District	EXAMPLE - REMOVE ON SITE SPECIFIC PROJECTS
<b>IMPORTANT:</b> This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A. <b>NOTE:</b> This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.			
Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.			

REQUIRED	TEST OR SPECIAL INSPECTION	TYPE	PERFORMED BY	CODE REFERENCE AND NOTES
-	<b>SOILS</b>			
-	<b>1. GENERAL:</b> Table 1705A.6			
X	a. Verify that: <ul style="list-style-type: none"><li>site has been prepared properly prior to placement of controlled fill and/or excavations for foundations.</li><li>foundation excavations are extended to proper depth and have reached proper material, and</li><li>materials below footings are adequate to achieve the design bearing capacity.</li></ul>	Periodic	GE*	*By geotechnical engineer or approved representative. (See Appendix for exemptions.)
-	<b>4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):</b> Table 1705A.8			
X	a. Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	*By geotechnical engineer or approved representative. (See Appendix for exemptions.)
X	c. Confirm pier locations, diameters, plumbness, bell diameters (if applicable), lengths, and embedment into bedrock (if applicable). Record concrete or grout volumes.	Continuous	GE*	*By geotechnical engineer or approved representative. (See Appendix for exemptions.)
X	e. Concrete piers.			Provide tests and inspections per Table 1705A.8.
-	<b>CONCRETE</b> Table 1705A.3, ACI 318-14			
-	<b>7. CAST IN PLACE CONCRETE</b>			
<b>Material Verification and Testing:</b>				
X	a. Verify use of required design mix.	Periodic		Table 1705A.3, ACI 318-14 (1909.2.3). *To be performed by qualified batch-plant inspector or approved technician.
X	b. Identify, sample, and test reinforcing steel.	Test		Table 1705A.3, ACI 318-14 Section 26.6.1.2. DSA IR 17-10
X	c. During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test		Table 1705A.3, ACI 318-14 Sections 26.5.6 & 26.12
X	d. Test concrete (f'c).	Test		Table 1705A.3, ACI 318-14 Section 26.12.
<b>Inspection:</b>				
+	<b>MASONRY</b>			Table 1705A.3, ACI 318-14 Section 26.6.1.2. DSA IR 17-10
-	<b>STEEL, ALUMINUM</b>			Table 1705A.3, ACI 318-14 Section 26.6.1.2. DSA IR 17-10
-	<b>17. STRUCTURAL STEEL, COLD-FORMED</b>			Table 1705A.3, ACI 318-14 Section 26.6.1.2. DSA IR 17-10
<b>Material Verification:</b>				
X	a. Verify identification of all materials and: <ul style="list-style-type: none"><li>Mill certificates indicate material properties that comply with requirements.</li><li>Material sizes, types and grades comply with requirements.</li></ul>	Test	LOR	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	b. Test unidentified materials.	Test	LOR	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	c. Examine seam welds of HSS shapes.	Test	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
<b>Inspection:</b>				
X	a. Verify and document steel fabrication per DSA approved documents.	Periodic	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
-	<b>18. HIGH STRENGTH BOLTS AND WASHERS:</b>			Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	a. Verify identification markings and markings per AWS D1.1, RCSC 2009 Section 2.1. DSA IR 17-9	Periodic	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	b. Test high-strength bolts, nuts and washers.	Test	LOR	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
<b>Inspection of High-Strength Bolts, Nuts and Washers:</b>				
X	a. Slip-critical connections.	Test	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
-	<b>19. WELDING</b>			Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
<b>Material Verification:</b>				
X	a. Verify weld filler metal, electrodes, and consumables per AWS D1.1, RCSC 2009 Section 2.1. DSA IR 17-3.	Periodic	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	b. Verify weld filler material markings and markings per AWS D1.1, RCSC 2009 Section 2.1. DSA IR 17-3.	Periodic	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	c. Verify WPS, welder qualifications, and equipment.	Periodic	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
-	<b>19.1 SHOP WELDING:</b>			Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	a. Inspect groove welds, multiple fillet welds, single pass fillet welds > 5/16", plug and groove welds.	Continuous	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
X	b. Inspect single-pass fillet welds > 5/16", floor and roof deck welds.	Periodic	SI	Table 1705A.2.1 Item 2a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S200-11 Section A4. *By special inspector or qualified technician when performed off-site.
+	<b>WOOD</b>			
+	<b>OTHER</b>			

<b>List of required verified reports(s):</b>	
1	Soils testing and inspection: Geotechnical Verified Report - Form DSA-293
2	All Structural Testing: Laboratory Verified Report - Form DSA-291
3	Shop Welding Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292
4	HS Bolt Installation Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292

KEY TO Columns	
1	Type -
Continuous	- Indicates that a continuous special inspection is required
Periodic	- Indicates that a periodic special inspection is required
Test	- Indicates that a test is required
2	Performed By -
GE	- Indicates that the special inspection is to be performed by a registered geotechnical engineer or his or her authorized representative
LOR	- Indicates that the test or inspection is to be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See section 4-335, 2013 CCR Title 24, Part 1.
SI	- Indicates that the special inspection is to be performed by a special inspector
<b>COMPILE</b>	

Name of Architect or Engineer in general responsible charge	
Name of Structural Engineer (When structural design has been delegated)	
Signature of Architect or Structural Engineer	
DATE	

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AC	N/A
F/L	N/A
SS	
DATE	

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SS	FLS
DATE:	04/17/2019

02/08/2019

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STATE APPROVALS - PC

STATE APPROVALS - PC

PRE-CHECK (PC) DOCUMENT

NOTES AND SPECIAL INSPECTIONS

CWC1.1

WALKWAY COVER - CWC



FOUNDATION PLAN NOTES:

1. TOP OF ALL FOUNDATIONS MUST BE CONSTRUCTED AT ONE COMMON ELEVATION (COORDINATE V SITE PLANS - NOT BY POLYGON)
2. ALL FOUNDATIONS MUST BE CENTERED UNDER COLUMNS (UNO).
3. SEE SHEET CWC1.1 FOR CONCRETE REQUIREMENTS.
4. PRIOR TO FORMING AND CASTING FOUNDATIONS, REVIEW FOUNDATION PLAN FOR REQUIRED ORIENTATION.
5. FOUNDATION MATERIAL AND INSTALLATION NOT BY POLYGON.
6. VIBRATE CONCRETE FULL DEPTH OF FOUNDATION.

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4083 PLAZA GOLDEN RAC  
SUITE 111  
CAMPBELL, CA 95886  
301.777.0610  
GHD

poligon  
PORTER  
THE POLYMER GROUP

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STATE APPROVALS - PC

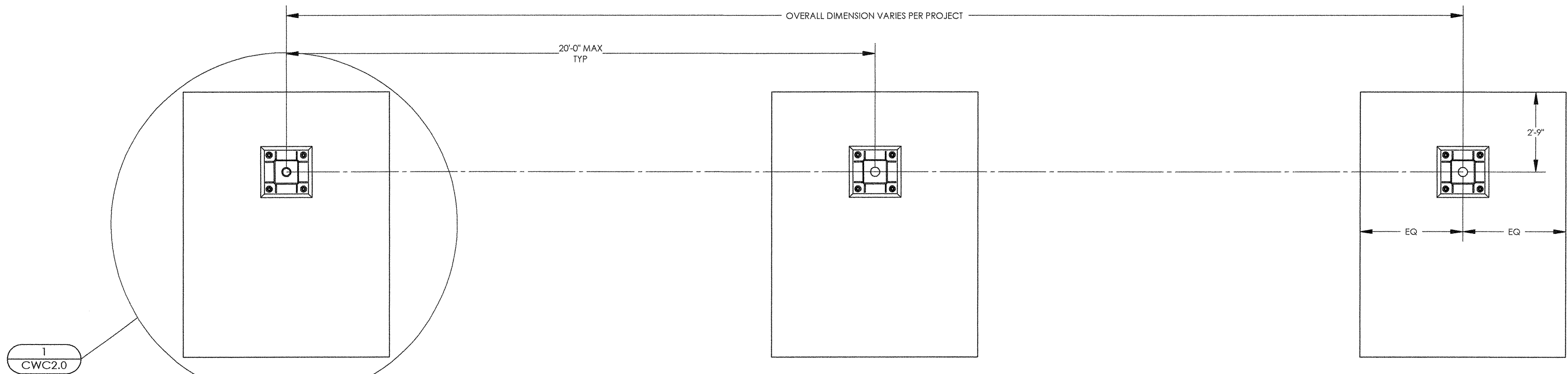
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DOCUMENT  
CODE: 2016 CBC  
A SEPARATE PROJECT  
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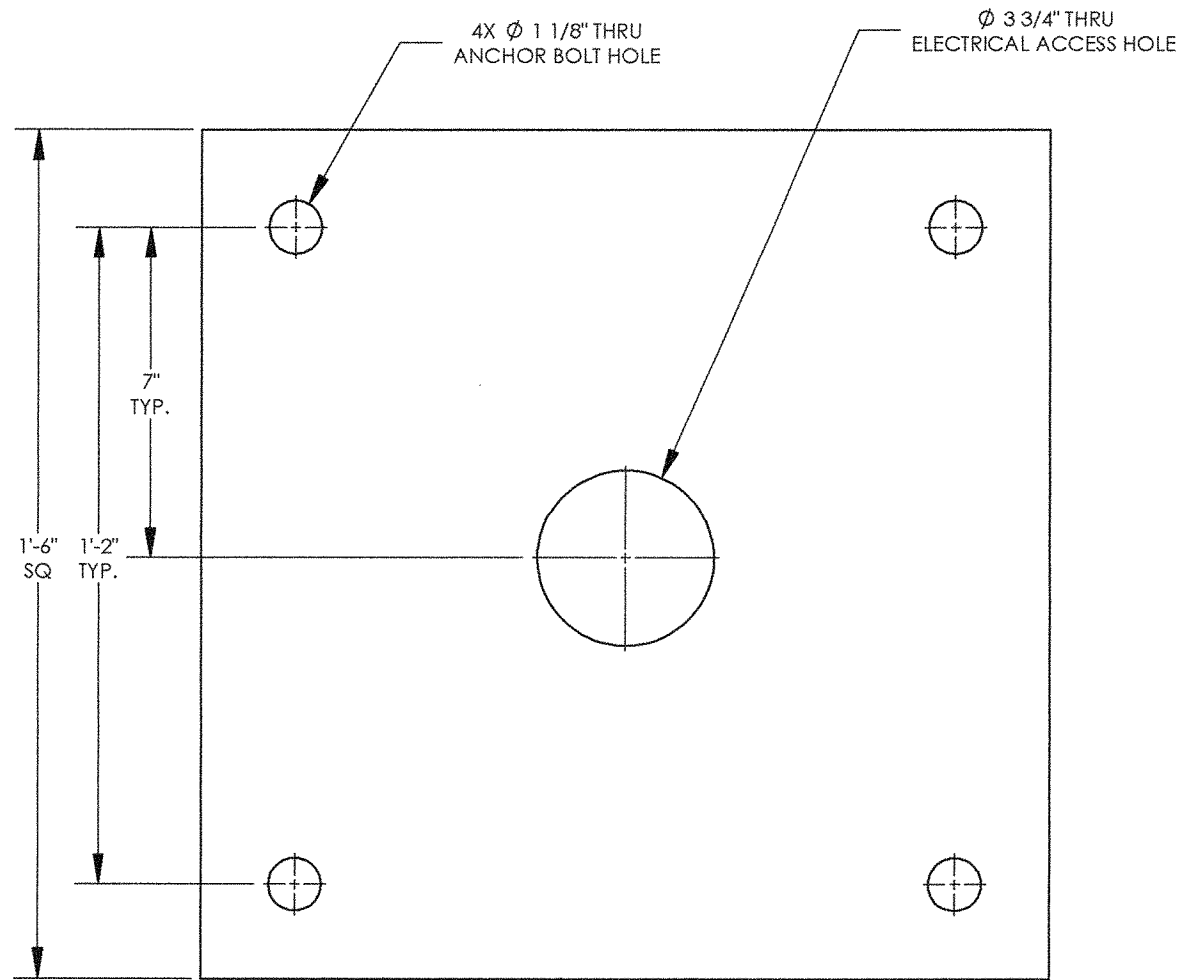
FOUNDATION PLAN  
SPREAD PAD

WALKWAY COVER - CWC 10

CWC2.0



FOUNDATION PLAN (SPREAD PAD)  
SCALE: 3/8" = 1'-0"



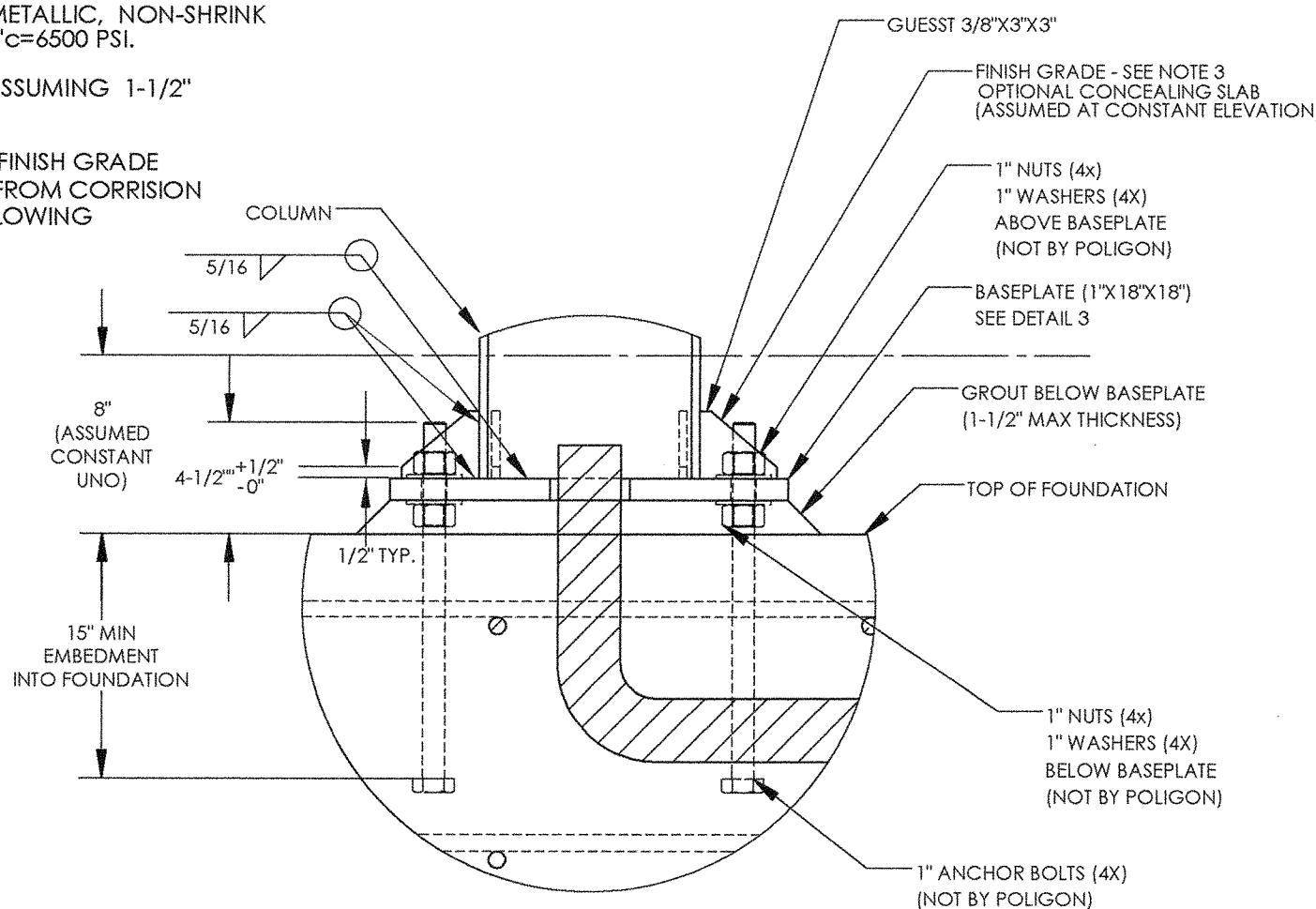
DETAIL 3  
SCALE: 3" = 1'-0"

COLUMN BASEPLATE

3

NOTES:

1. GROUT SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH MINIMUM F<sub>c</sub>=6500 PSI.
2. COLUMNS FABRICATED ASSUMING 1-1/2" GROUT PAD.
3. COLUMN BASES BELOW FINISH GRADE SHOULD BE PROTECTED FROM CORROSION. SELECT ONE OF THE FOLLOWING OPTIONS BELOW

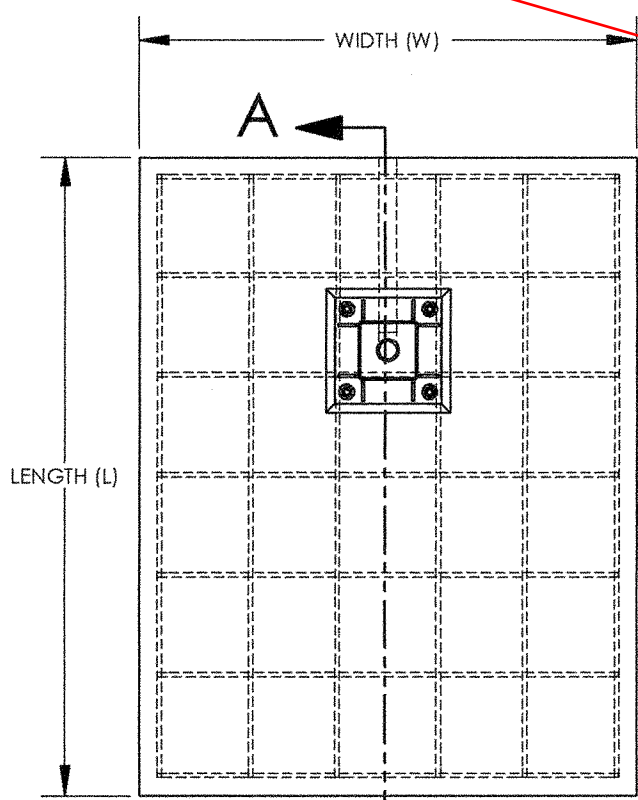


DETAIL 2  
SCALE: 1-1/2" = 1'-0"

COLUMN BASE PROTECTION  
SURFACE MOUNTED COLUMN INSTALLATION  
[ ] NO BELOW GRADE PROTECTION REQUIRED  
BELOW GRADE COLUMN INSTALLATION  
[ ] CONCRETE SLAB - 3" MIN ANCHOR BOLT COVER  
[ ] MASTIC COATING - 1/4" THICK MIN COATING ON ALL STEEL SURFACES BELOW GRADE

COLUMN BASEPLATE AND ANCHOR BOLTS

2



DETAIL 1  
SCALE: 3/8" = 1'-0"

FOUNDATION REQUIREMENTS VARY PER PROJECT  
SEE SHEET CWC1.0 FOR REQUIRED LOAD SCENARIO AND FOUNDATION TYPE (STEP 8 OF 'INSTRUCTIONS')  
ONLY REFERENCE COPY OF PC DRAWINGS SUBMITTED FOR THIS PROJECT

LOAD SCENARIO	WIDTH (W)	LENGTH (L)	THICKNESS (T)	HORIZONTAL REINFORCING <sup>1</sup>	
				QTY	SIZE
1	7'-0"	10'-0"	1'-6"	8	#6
2	8'-6"	11'-0"	1'-6"	8	#6

<sup>1</sup> EQUALLY SPACED EACH WAY, TOP AND BOTTOM

SPREAD PAD FOUNDATION, SEE 2S1.0 DESIGN OF FOUNDATIONS AND ANCHOR BOLTS

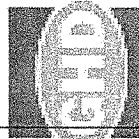
1



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400 P. AZZ GOLDENROD CIRCLE  
SUITE 10  
CAMERON PARK, CA 95980  
(916) 777-5610



**poligon**  
**PORTER**  
ARCHITECTS

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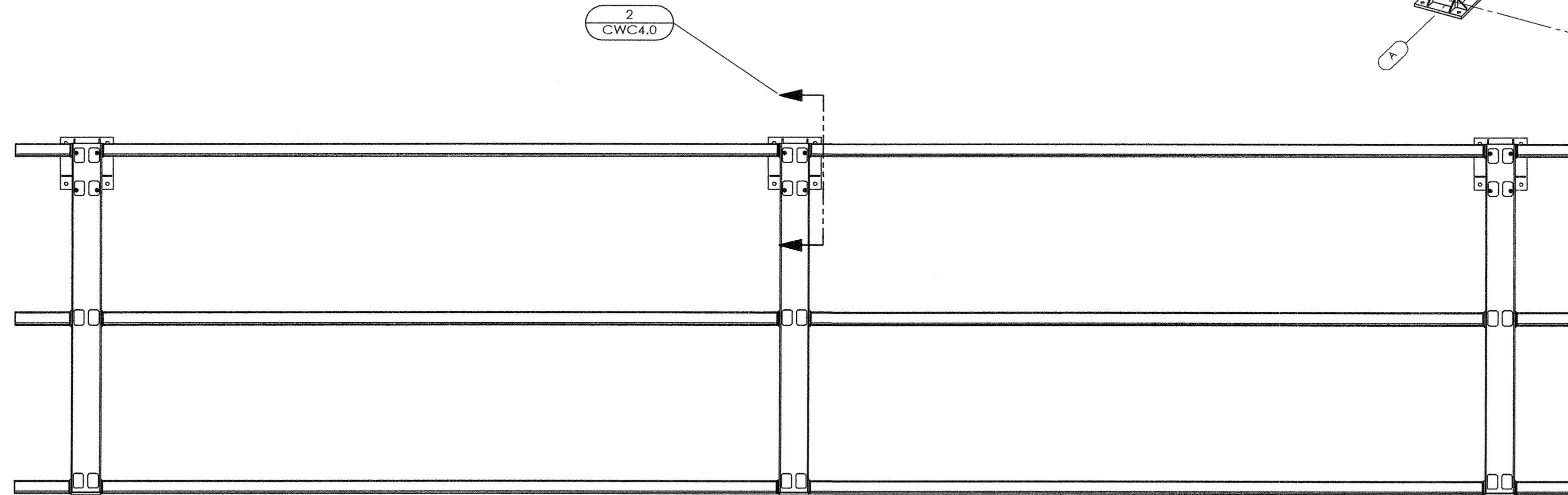
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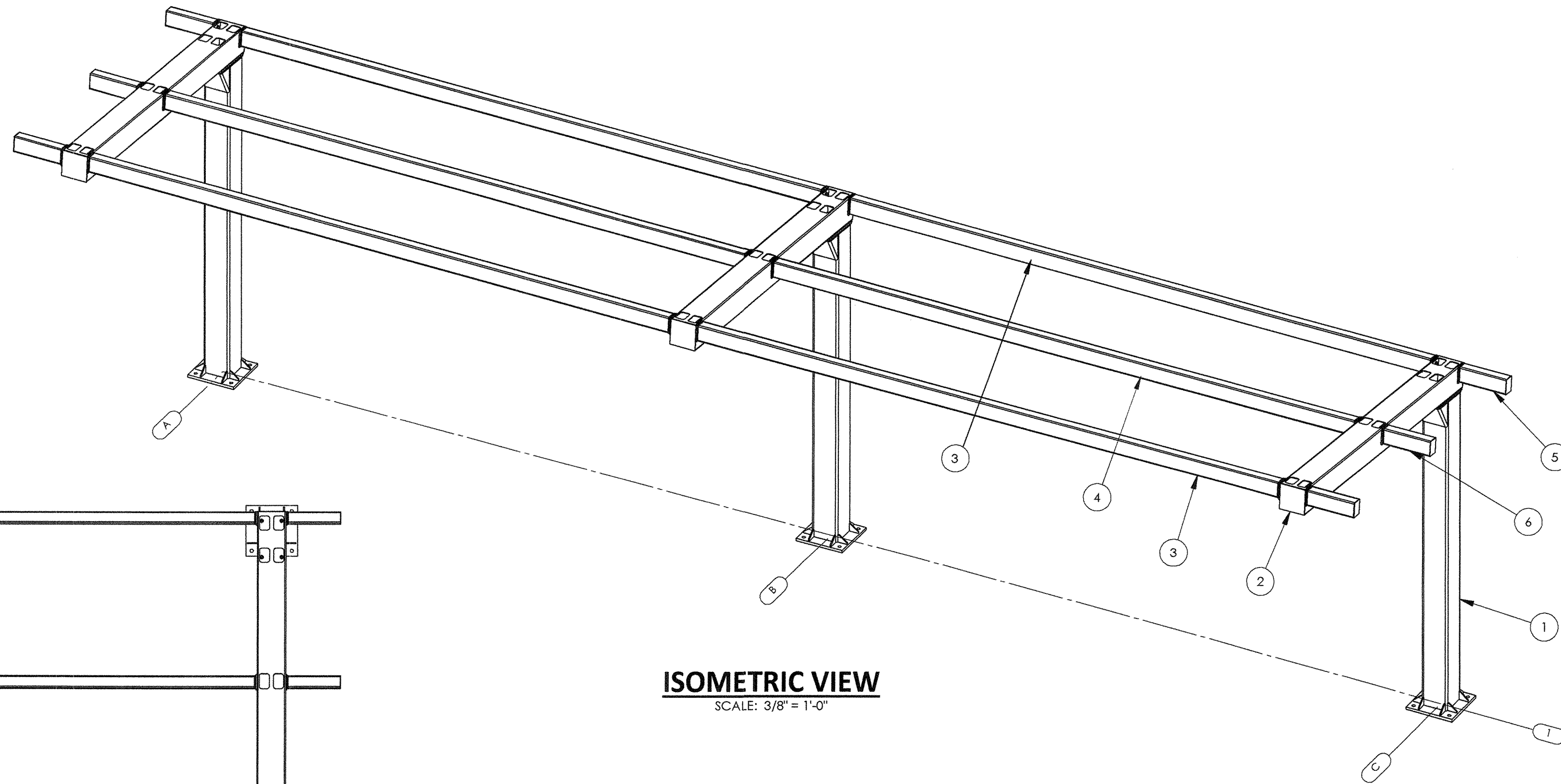
FRAMING PLAN

WLAKWAY COVER - CWC 10

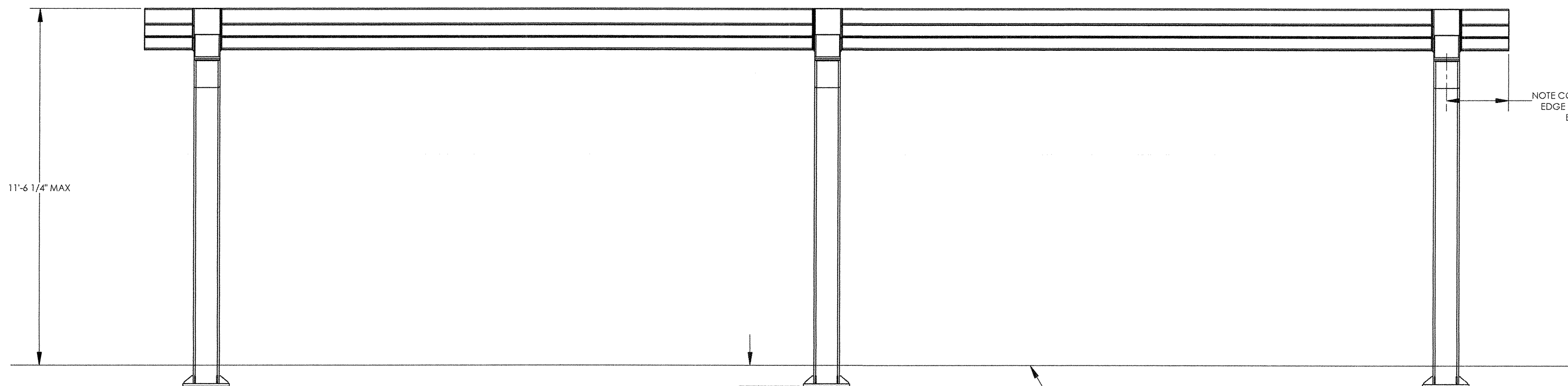
**CWC3.0**



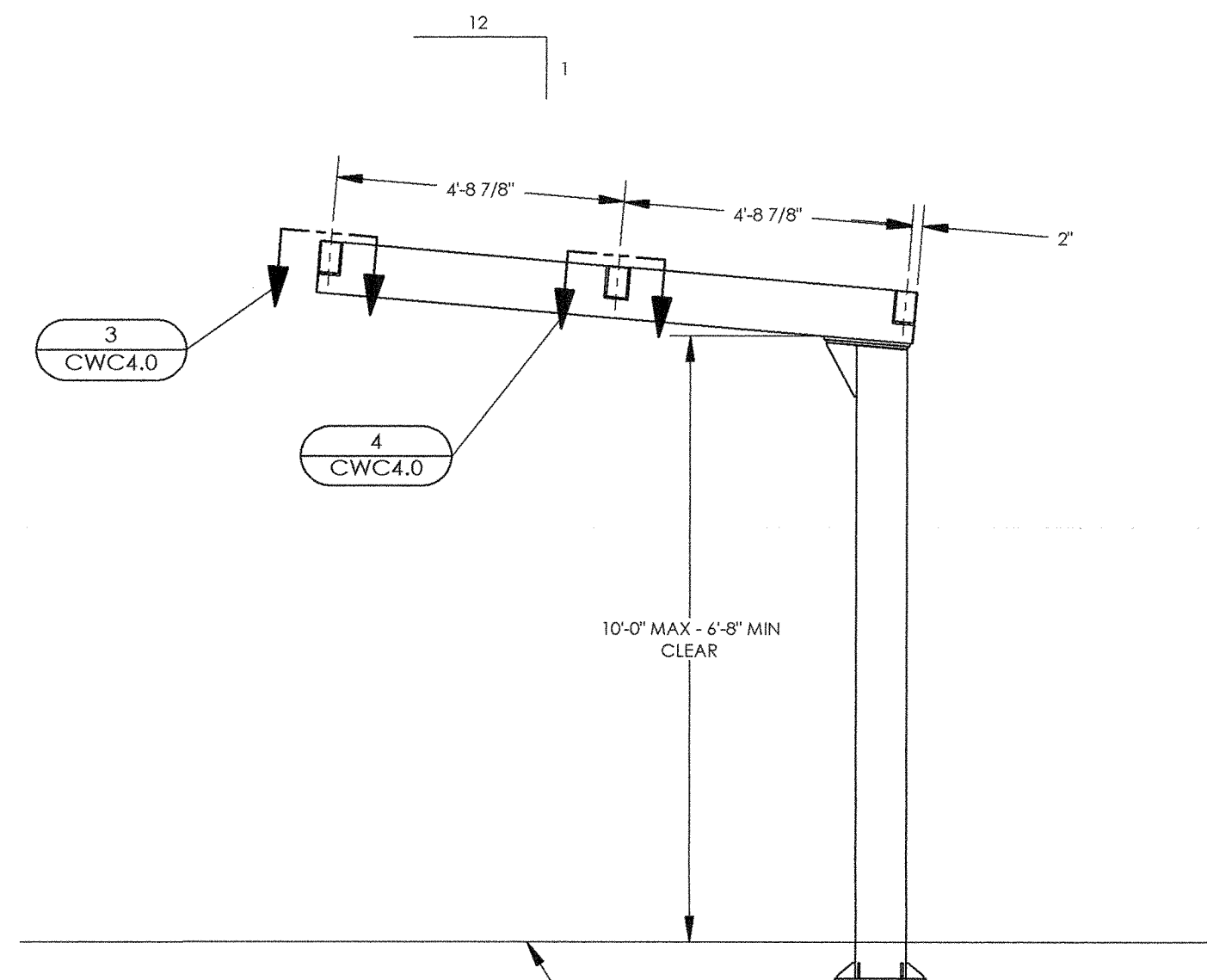
**PLAN VIEW**  
SCALE: 3/8" = 1'-0"



**ISOMETRIC VIEW**  
SCALE: 3/8" = 1'-0"



**FRONT ELEVATION**  
SCALE: 3/8" = 1'-0"



**SIDE ELEVATION**  
SCALE: 3/8" = 1'-0"

6	2	1M1179954	PURLIN TAIL ASM	HSS6X4X3/16	21.39
5	4	1M1179951	EBEAM TAIL ASM	HSS6X4X3/16	21.39
4	2	1M1179947	PURLIN ASM	HSS6X4X3/16	231.20
3	4	1M1179943	EBEAM ASM	HSS6X4X3/16	231.20
2	3	1M1179937	GABLE BEAM_1 ASM	HSS10X10X3/16	287.49
1	3	1M1179931	COL_1 ASM	HSS10X10X3/8	633.39
ITEM	QTY.	PART NO.	DESCRIPTION	MATERIAL	WEIGHT



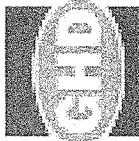




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02/08/2019

AND P. JAZZ GOLDEN RING  
COLUMBIA, MO, 65202  
503.677.5615



**poligon**  
PORTER  
ARCHITECTS, P.C.

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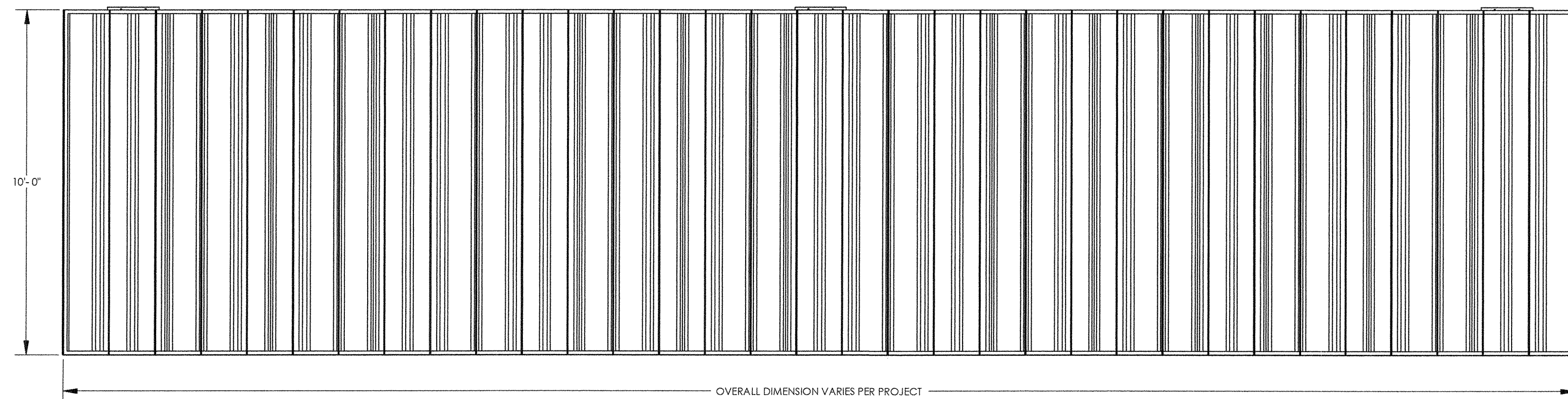
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A SEPARATE PROJECT  
APPLICATION FOR  
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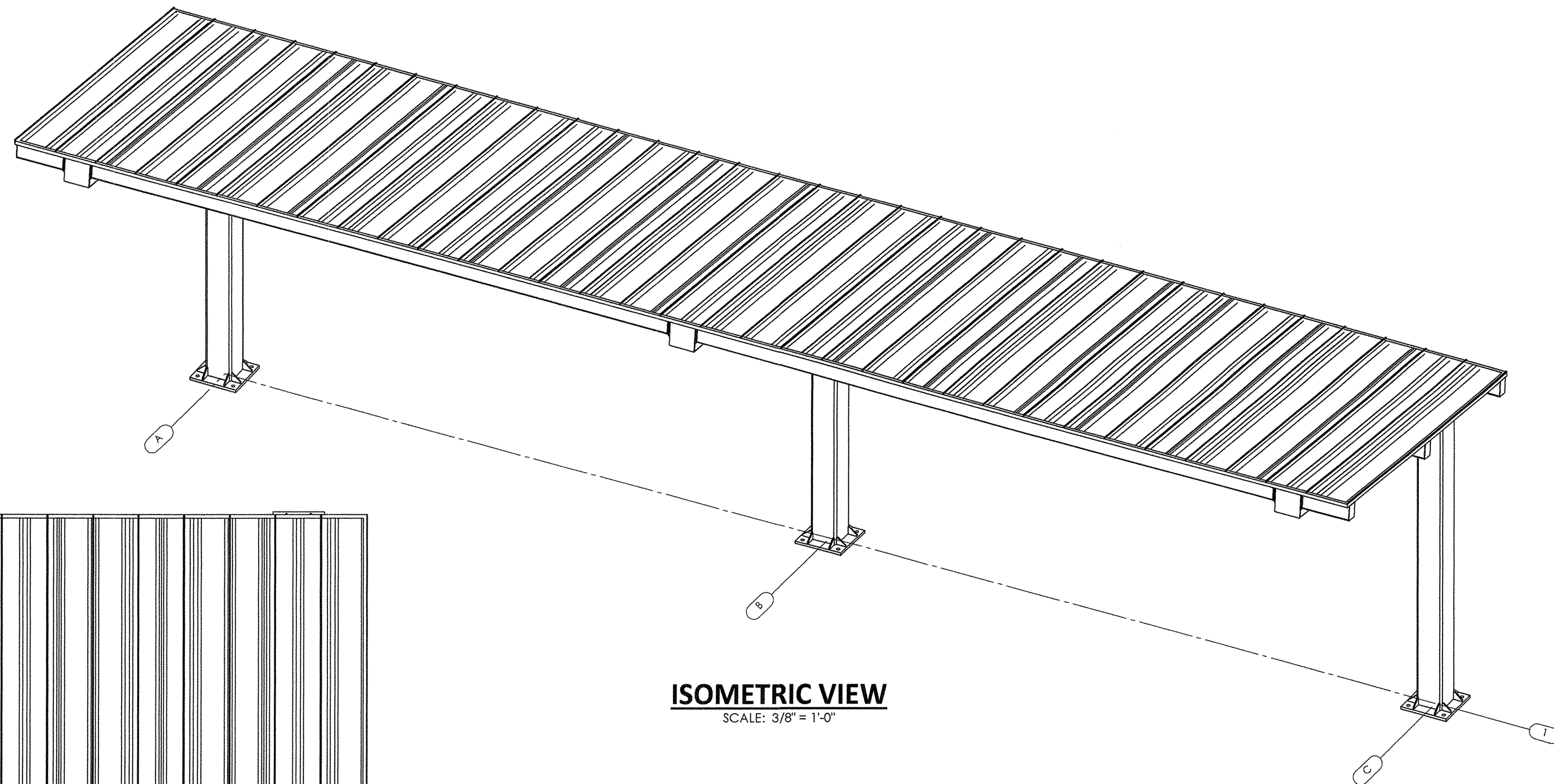
ARCHITECTURAL  
VIEWS

WALKWAY COVER - CWC 10

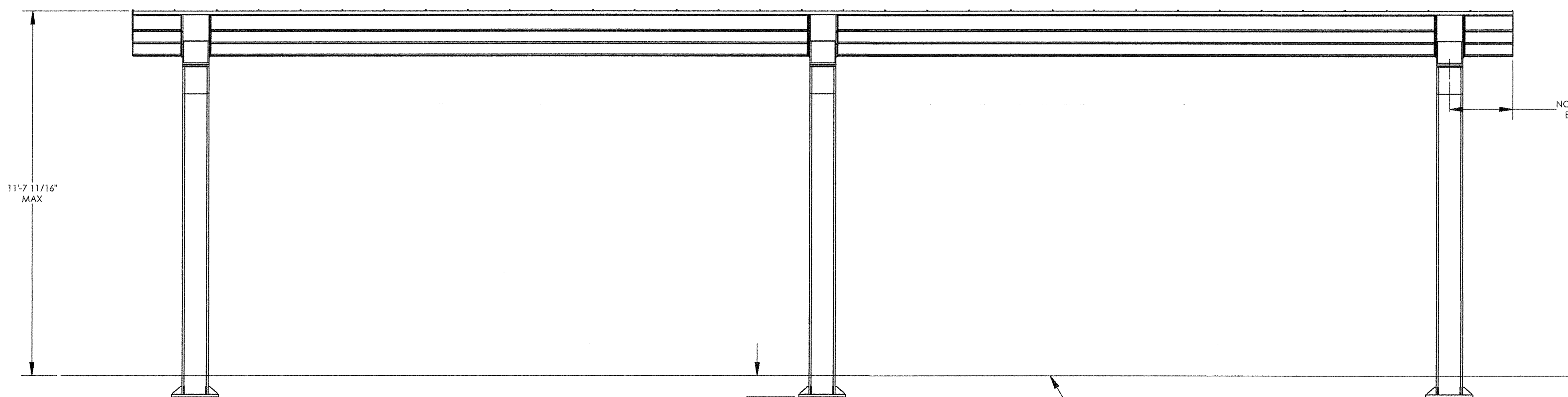
**CWC5.0**



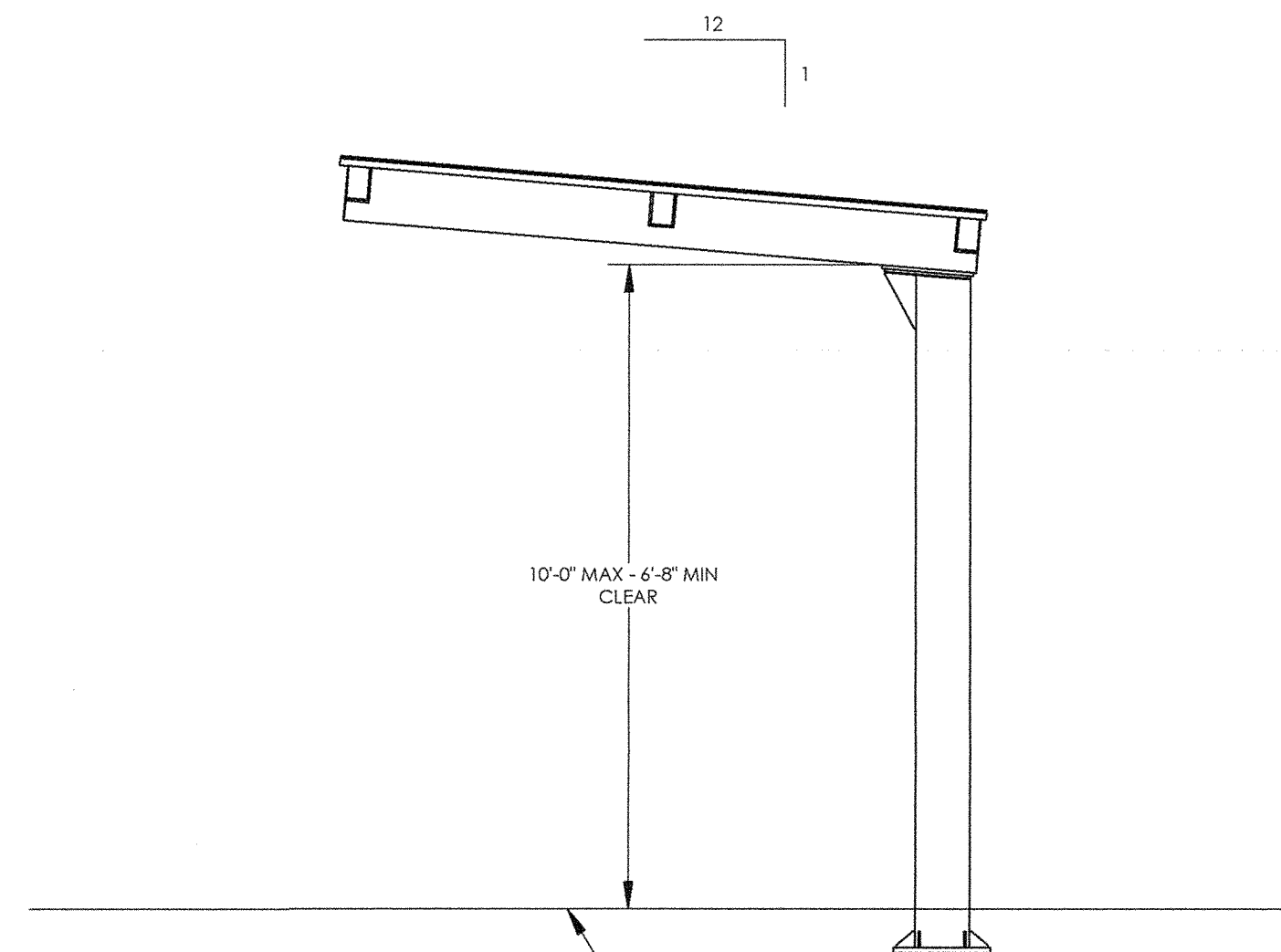
**PLAN VIEW**  
SCALE: 3/8" = 1'-0"



**ISOMETRIC VIEW**  
SCALE: 3/8" = 1'-0"



**FRONT ELEVATION**  
SCALE: 3/8" = 1'-0"



**SIDE ELEVATION**  
SCALE: 3/8" = 1'-0"

2'-0"  
NOTE COLUMN CENTERLINE TO  
EDGE OF TAIL SEE CWC 5.0  
EDGE OF ROOF

SEE DETAIL 2  
SHEET CWC2.0/CWC2.1

FINISH GRADE  
(ASSUMED AT CONSTANT  
ELEVATION UNLESS  
OTHERWISE NOTED)

FINISH GRADE  
(ASSUMED AT CONSTANT  
ELEVATION UNLESS  
OTHERWISE NOTED)



STANDING SEAM INSTALLATION NOTES:

THE DETAILS SHOWN ARE SUGGESTIONS OR GUIDELINES ON HOW TO ERECT THE SYSTEMS. THE INFORMATION SHOWN IS ACCURATE, BUT IT IS NOT INTENDED TO COVER ALL INSTANT BUILDING REQUIREMENTS, DESIGNS OR CODES. THE DETAIL MAY REQUIRE CHANGES OR REVISIONS DUE TO FIELD CONDITIONS.

IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO ENSURE THAT THE DETAILS MEET PARTICULAR BUILDING REQUIREMENTS AND TO ASSURE ADEQUATE WATER TIGHTNESS.

THE ERECTOR SHOULD THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH ALL ERECTION INSTRUCTIONS BEFORE STARTING WORK.

THE PANELS SHOULD BE INSTALLED PLUMB, STRAIGHT, AND ACCURATELY TO THE ADJACENT WORK.

FLASHING AND TRIM SHALL BE INSTALLED TRUE, AND IN PROPER ALIGNMENT, WITH ANY EXPOSED FASTENERS EQUALLY SPACED FOR THE BEST APPEARANCE.

SEALANT SHALL BE FIELD APPLIED ON DRY, CLEAN SURFACES. SOME FIELD CUTTING AND FITTING OF PANELS AND FLASHING IS TO BE EXPECTED BY THE ERECTOR AND MINOR FIELD CORRECTIONS ARE A PART OF NORMAL ERECTION WORK.

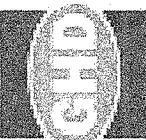
WORKMANSHIP SHALL BE OF THE BEST INDUSTRY STANDARDS AND INSTALLATION SHALL BE PERFORMED BY EXPERIENCED METAL CRAFTSMEN.

METAL SHAVINGS FROM DRILLING OR INSTALLATION OF ROOF FASTENERS MUST BE CAREFULLY REMOVED FROM THE ROOF BY BRUSHING OR SWEEPING AT THE END OF EACH DAY DURING INSTALLATION. SHAVINGS LEFT ON THE ROOF WILL QUICKLY RUST AND STAIN THE ROOF FINISH.

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4802 PLAZA GOLDENROD DETAIL  
SUITE 111  
CAMERON PARK, CA 95822  
530.677.5616



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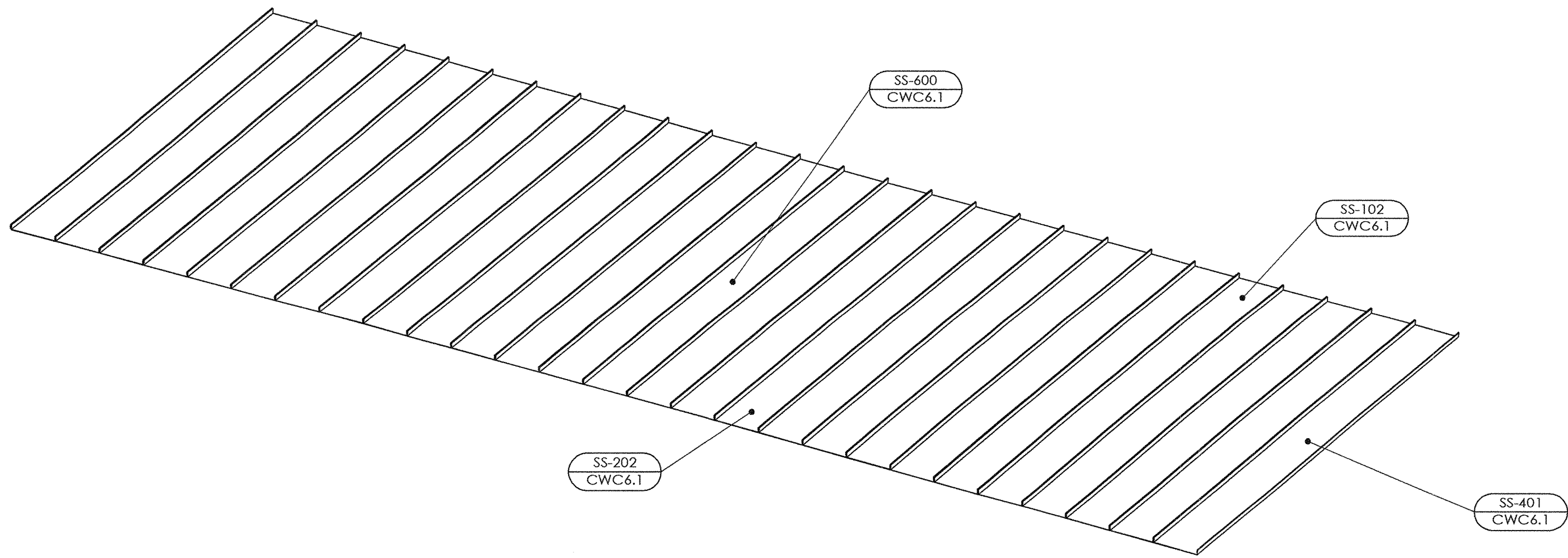
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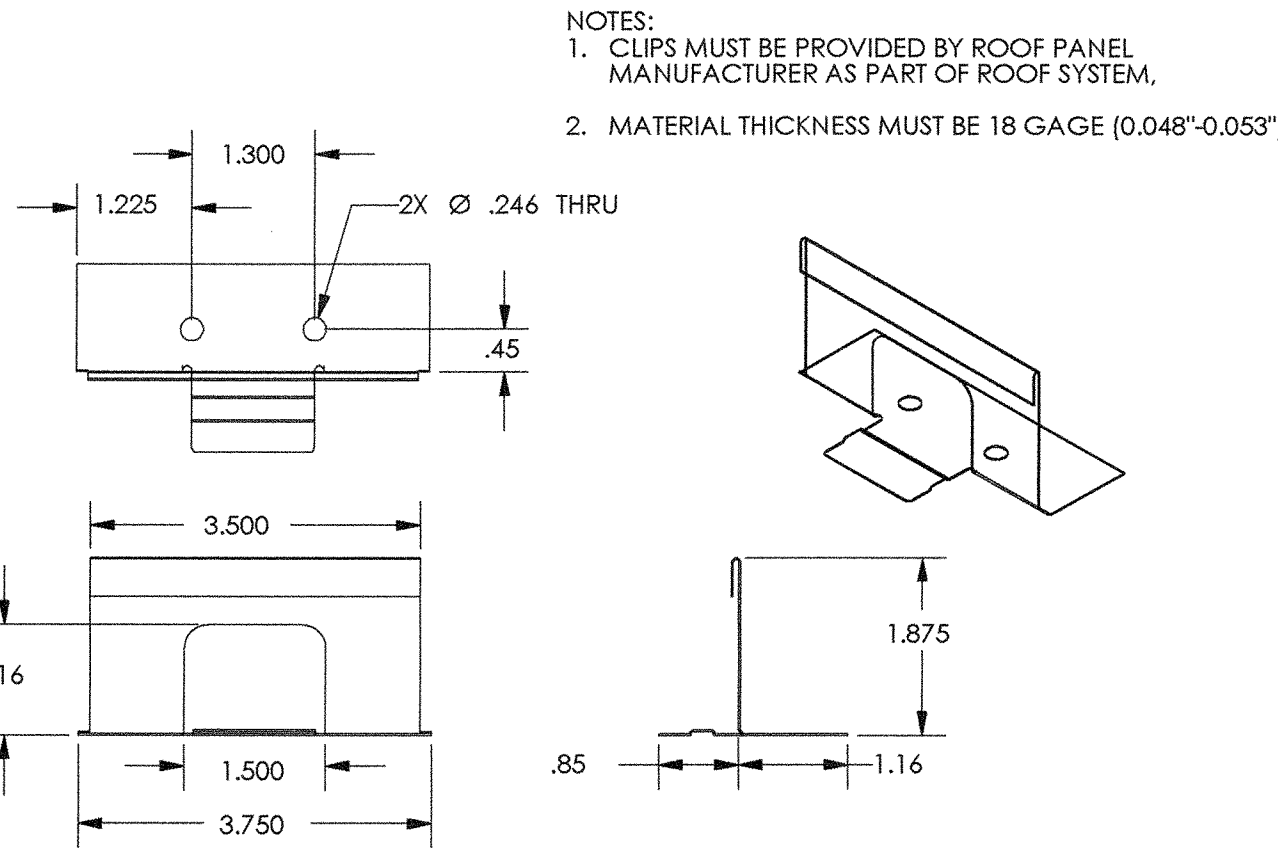
ROOF  
CONNECTION  
DETAILS

WALKWAY COVER - CWC

CWC6.1

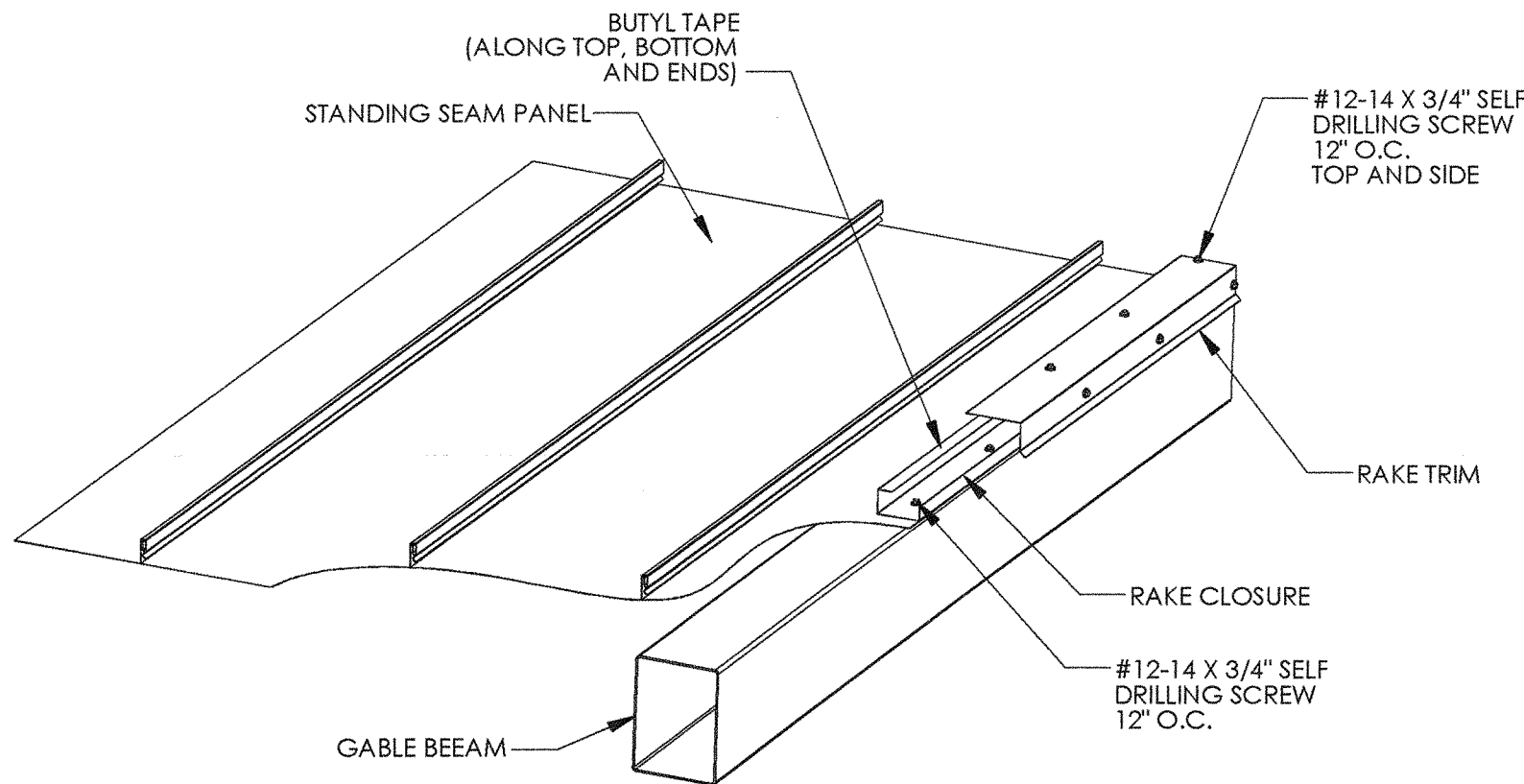


ISOMETRIC VIEW  
SCALE: 3/16" = 1'-0"



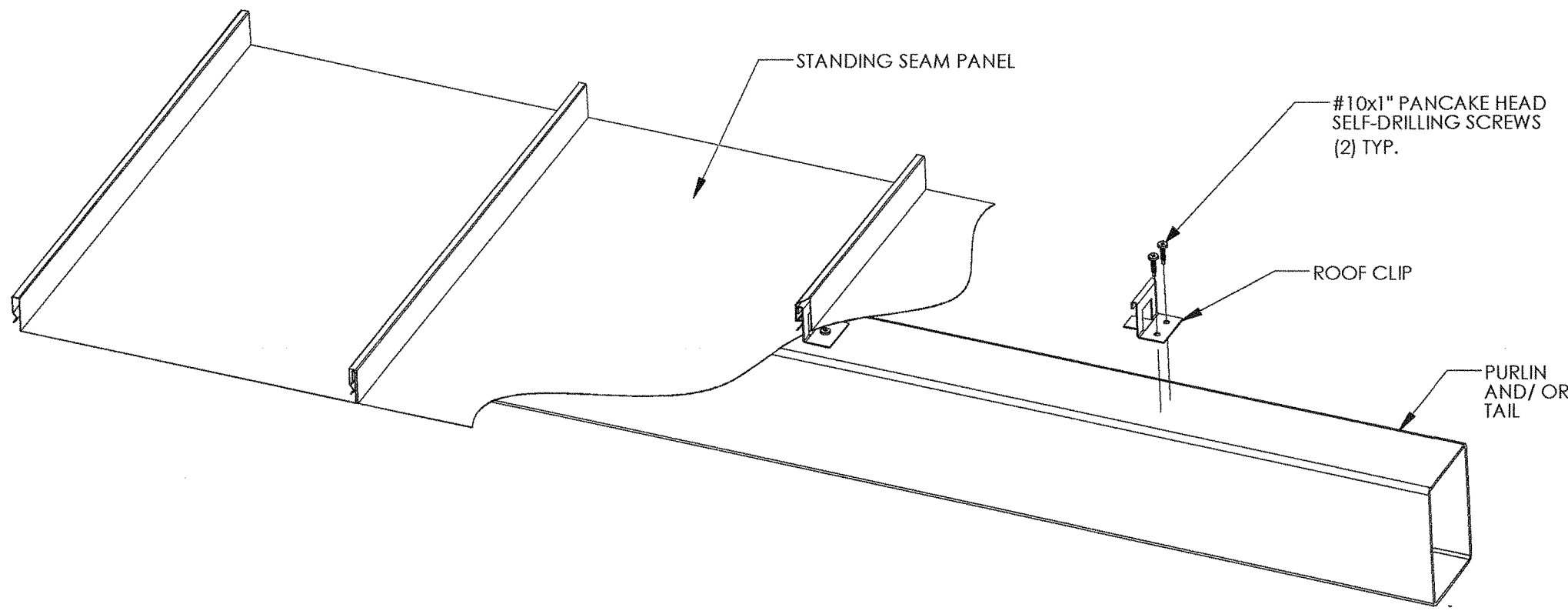
CLIP DETAIL

SS-CLP



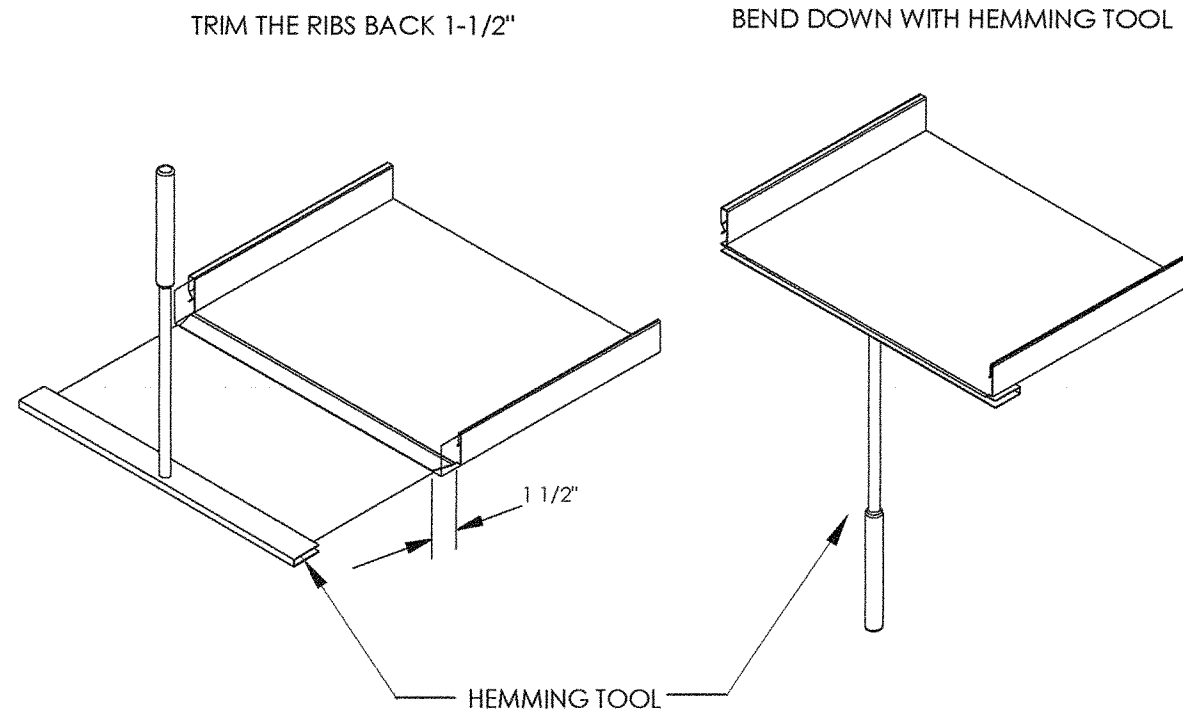
DETAIL AT RAKE

SS-401



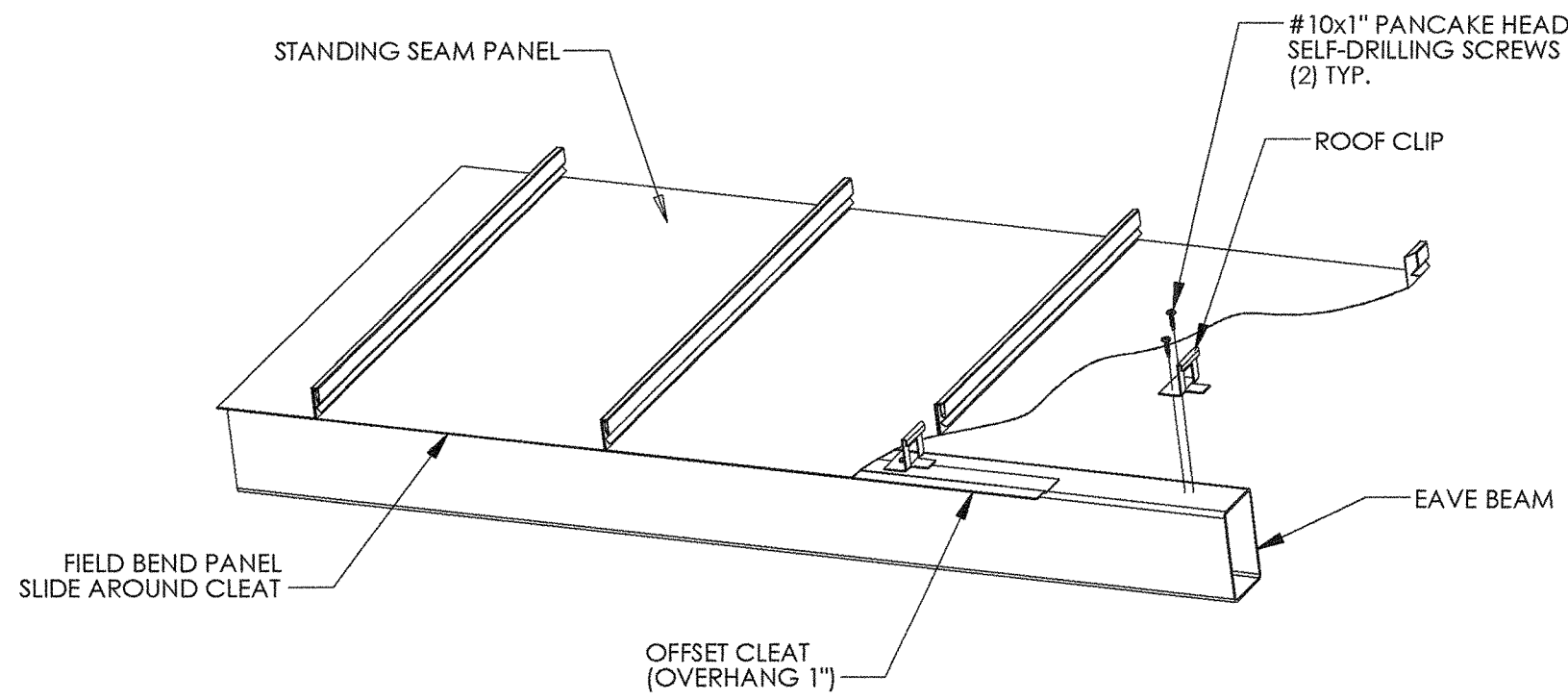
PURLIN DETAIL

SS-600



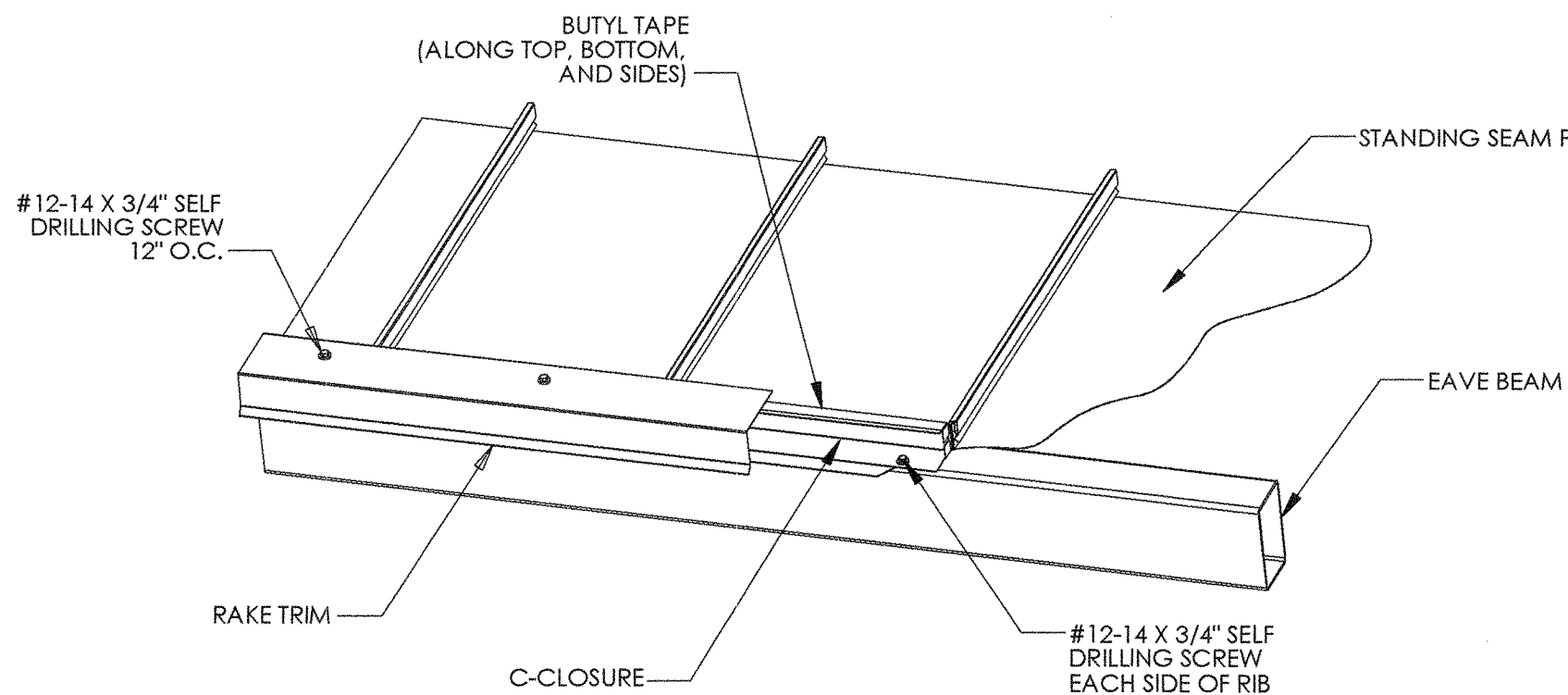
HEMMING DETAIL

MR-950



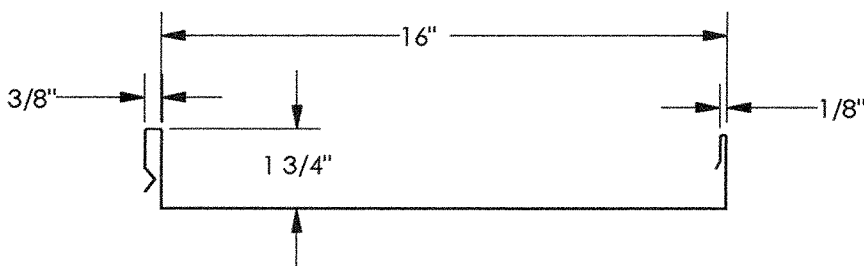
EAVE DETAIL

SS-102



HIGH SIDE DETAIL (VIEWING FROM ABOVE)

SS-202



GENERAL:  
GAGE = 22  
Fy = 50 KSI  
TOP IN COMPRESSION:  
Ix=0.1200 IN<sup>4</sup>  
Sx=0.0803 IN<sup>3</sup>  
Iy=2.405 IN<sup>4</sup>  
Sy=0.0803 IN<sup>3</sup>  
BOTTOM IN COMPRESSION:  
Ix=0.0570 IN<sup>4</sup>  
Sx=0.0229 IN<sup>3</sup>  
Iy=1.722 IN<sup>4</sup>  
Sy=0.0229 IN<sup>3</sup>

ROOF DECK SECTION PROPERTIES

SS-950





GS-100



GS-200



GS-200

1. PREFABRICATED GUTTER SYSTEM IS ATTACHED TO THE STRUCTURE AFTER ROOF IS INSTALLED.
2. DETAILED INSTALLATION INSTRUCTIONS ARE SHIPPED WITH THE STRUCTURE.
3. DOWNSPOUTS REQUIRED AT EACH COLUMN.



EC-100

1. AT A MINIMUM, ELECTRICAL COMPONENTS INSTALLED IN COMPLIANCE WITH WITH ASCE 24-14 SECTION 7.2
2. CUTOUTS CAN BE PLACED ON ANY SIDE OF A MEMBER.
3. CUTOUTS CAN BE PLACED ALONG MEMBERS AS INDICATED IN THE DETAILS.
4. ARCHITECTS REQUESTING CUTOUTS MUST MARKUP APPROVED PC DRAWINGS TO LOCATE CUTOUTS FOR APPROVAL AND FABRICATION.

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4083 PLAZA GOLDENADO CIRCLE  
SUITE B,  
CAMERON PARK, CA 95582  
530/477-0615

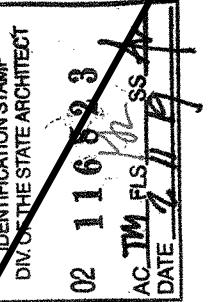


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DOCUMENT  
CODE: 2016 CBC  
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## MISC DESIGN OPTIONS

WALKWAY COVER - CWC

# CWC7.0





# DLR Group

Architecture

Engineering

Planning

Interiors

## **New Kindergarten – Increment 2** (Shade Structure)

**Emma Wilson Elementary School**

**Chico Unified School District**

1530 W. 8<sup>th</sup> Avenue  
Chico, CA 95926

## **Project Manual**

100% Construction Documents

**DLR Group Project No. 75-18118-00**

April 10, 2019

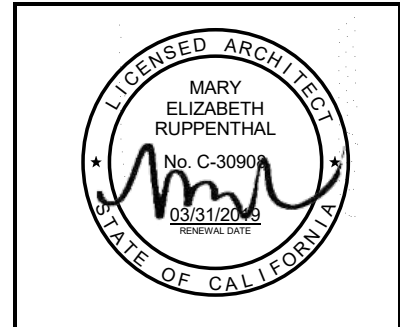
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DOCUMENT 000107 - SEALS PAGE

1.1 DESIGN PROFESSIONALS OF RECORD

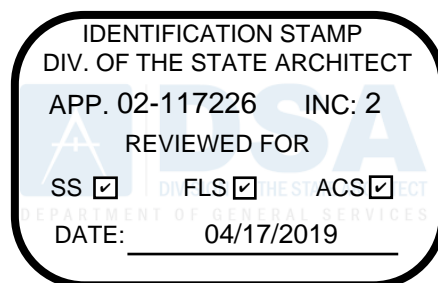
ARCHITECT                      DLR Group  
   1050 20<sup>th</sup> Street, Suite 250  
   Sacramento, CA 95811



STRUCTURAL ENGINEER                      ZFA Structural Engineers  
   7801 Folsom Boulevard, Suite 204  
   Sacramento, CA 95826



CIVIL ENGINEER                      NorthStar Engineering  
   111 Mission Ranch Blvd., Suite 100  
   Chico, CA 95926





DSA-103  
Issued 9/1/2017

## List of Required Structural Tests & Special Inspections - 2016 CBC

INCREMENT # **2** DSA File No.:   
 Application No.:   
 Date Submitted:   
 Revised:   
 Revised:

School Name	District	Chico Unified School District
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**IMPORTANT:** This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.

**NOTE:** This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.

**INSTRUCTIONS:** Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. **Note:** A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests and inspections finally selected. **For more information on use of this form, see DSA-103.INSTR.**

Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.					
REQUIRED		TEST OR SPECIAL INSPECTION		CODE REFERENCE AND NOTES	
		TYPE 1	PERFORMED BY 2		
<b>SOILS</b>					
-	Table 1705A.6				
-	1. GENERAL:				
X	a. Verify that: <ul style="list-style-type: none"><li>• site has been prepared properly prior to placement of controlled fill and/or excavations for foundations,</li><li>• foundation excavations are extended to proper depth and have reached proper material, and</li><li>• materials below footings are adequate to achieve the design bearing capacity.</li></ul>	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)	
-	2. COMPACTED FILLS:				
-	Table 1705A.6				
X	b. Verify use of proper materials, densities and inspect lift thicknesses, placement, and compaction during placement of fill.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.	
X	c. Test compaction of fill.	Test	LOR*	* Under the supervision of the geotechnical engineer.	
<b>CONCRETE</b>					
-	Table 1705A.3, ACI 318-14 Sections 26.12 & 26.13				
-	7. CAST IN PLACE CONCRETE				
<b>Material Verification and Testing:</b>					
X	a. Verify use of required design mix.	Periodic	SI*	Table 1705A.3 item 5, 1910A.1 (1909.2.3'). * To be performed by qualified batch-plant inspector and concrete sampling technician	
X	b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2 (1909.2.4''); ACI 318-14 Section 26.6.1.2. DSA IR 17-10.16	
X	c. During concrete placement, fabricate specimens for strength tests,perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 item 6; ACI 318-14 Sections 26.5 & 26.12	

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(Issued 9-1-17)

+ In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.



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## List of Required Structural Tests & Special Inspections - 2016 CBC

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X	d.	Test concrete ( $f'_c$ ).	Test	LOR	1905A.1.16 (1909.3.7 <sup>+</sup> ); ACI 318-14 Section 26.12.
Inspection:					
+	MASONRY				
-	TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.3 & TMS 602-13/ACI 530.1-13/ASCE 6-13 Table 5				
-	Table 1705A.2.1, AISC 303-10, AISC 360-10, AISC 341-10, AISC 358-10, AISI S100-07/S2-10				
-	17. STRUCTURAL STEEL, COLD-FORMED STEEL, AND ALUMINUM USED FOR STRUCTURAL PURPOSES				
Material Verification:					
X	a.	Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	2203A.1 (2203.1 <sup>+</sup> ), Table 1705A.2.1 Item 3a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S220-11 Section A4. * By special inspector or qualified technician when performed off-site.
X	b.	Test unidentified materials	Test	LOR	2203A.1 (2203.1 <sup>+</sup> ).
X	c.	Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
Inspection:					
X	e.	Verify and document steel fabrication per DSA approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
-	18. HIGH STRENGTH BOLTS:				
Material Verification of High-Strength Bolts, Nuts, and Washers:					
X	a.	Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA approved documents.	Periodic	SI	Table 1705A.2.1 Item 1, 2203A.1; RCSC 2009 Section 2.1. DSA IR 17-9
X	b.	Test high-strength bolts, nuts and washers.	Test	LOR	2213A.1 (2212.6.1 <sup>+</sup> ). RCSC 2009 Section 7.2 DSA IR 17-8.16
Inspection of High-Strength Bolt Installation:					
X	d.	Slip-critical connections.	*	SI	Table 1705A.2.1 Item 2b & 2c. RCSC 2009 Section 9.2 & 9.3. * "Continuous" or "Periodic" depends on the tightening method used. DSA IR 17-9 and 1705A.2.1.
-	19. WELDING:				
Verification of Materials, Equipment, Welders, etc:					
X	a.	Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	DSA IR 17-3.
X	b.	Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
X	c.	Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	19.1 SHOP WELDING:				
X	a.	Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b.	Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.5 & 5a.6. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
+	WOOD				
+	OTHER				

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## List of Required Structural Tests & Special Inspections - 2016 CBC

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Revised:

Date Submitted:

### Other Inspections:

- Materials below footings shall be compacted and tested to 90% after clearing and grubbing per Geotechnical Engineers recommendations.
- Concrete reinforcing steel shall be tested or have Mill Certifications.

### List of required verified report(s):

- 1 Soils testing and inspection: Geotechnical Verified Report - Form DSA-293
- 2 All Structural Testing: Laboratory Verified Report - Form DSA-291
- 3 Concrete Batch Plant Inspection: Laboratory Verified Report - Form DSA-291
- 4 Shop Welding Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292
- 5 HS Bolt Installation Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292

### KEY to Columns

1	Type -	2	Performed By -
Continuous	Indicates that a continuous special inspection is required	GE	Indicates that the special inspection is to be performed by a registered geotechnical engineer or his or her authorized representative
Periodic	Indicates that a periodic special inspection is required	LOR	Indicates that the test or inspection is to be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See section 4-335, 2013 CCR Title 24, Part 1.
Test	Indicates that a test is required	SI	Indicates that the special inspection is to be performed by a special inspector

Mark Moore

Name of Architect or Engineer in general responsible charge

Name of Structural Engineer (When structural design has been delegated)

4/4/2019

date

Signature of Architect or Structural Engineer

IDENTIFICATION STAMP  
DIV OF THE STATE ARCHITECT  
APP. #

AC N/A F/L/S N/A SS SS

DATE \_\_\_\_\_

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

APP. 02-117226 INC: 2

REVIEWED FOR

SS ☒ DFLS ☒ RES/ACS ☒

DATE: 04/17/2019

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(Issued 9-1-17)

+ In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

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Revised:

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### Appendix: Work Exempt from DSA Requirements for Special Inspection or Structural Testing

Exempt items given in IR A-22 or the 2016 CBC (including DSA amendments) and those items identified below with an "X" by the design professional are NOT subject to DSA requirements for the structural tests or special inspections noted. Items marked as exempt shall be identified by either: 1) listing specific details/sheets noted in the spaces provided below OR 2) on the approved construction documents. The project inspector shall verify all construction complies with the approved construction documents.

Exempted by Design Prof.		<b>Soils:</b>
		1. Deep foundations acting as a cantilever footing designed based on minimum allowable pressures per 2016 CBC Table 1806A.2 and having no geotechnical report for the following types of structures: free standing sign, scrolling message sign, scoreboard, covered walkway or shade structure with dead load less than 5 psf and other light-weight structures of which the apex is less than 8' above the highest adjacent grade.
X		
X		2. Shallow foundations meeting the exception item #1 criteria specified in 2016 CBC Section 1803A.2.
(Optional) List details for applicable exempt items:		
<b>Concrete/Masonry:</b>		
X		1. Post-installed anchors for the following: 1) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding") given in CBC Section 1616A.1.18 (which replaces ASCE 7-10, Section 13.1.4) or 2) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding."
X		2. Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section.

Exempted by Design Prof.		<b>Welding:</b>
		1. Solid-clad and open-mesh gates with maximum leaf span or rolling section for rolling gates of 10' and apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
X		
X		2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds cannot be ground flush.
X		3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
X		4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
X		5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
X		6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).





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## List of Required Structural Tests & Special Inspections - 2016 CBC

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<input checked="" type="checkbox"/>	3. Masonry retaining walls less than 4'-0" above the top of foundation not supporting a surcharge and free standing nonbearing non-shear masonry walls up to 6'-0" above adjacent grade do not require grout, mortar or masonry core testing or DSA special inspection.	
<input checked="" type="checkbox"/>	4. Epoxy shear dowels in site flatwork.	
(Optional) List details for applicable exempt items:		
<input checked="" type="checkbox"/>	7. Any support for exempt non-structural components given in CBC Section 1616A.1.18 (which replaces ASCE 7-10, Section 13.1.4) meeting the following: 1) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) <= 4' above supporting floor/roof, 2) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.	
(Optional) List details for applicable exempt items:		



# **PROJECT MANUAL**

**Emma Wilson Elementary School  
New Kindergarten**

**CHICO UNIFIED SCHOOL DISTRICT**

**April 5, 2019**

**DOCUMENT 00 01 10**

**TABLE OF CONTENTS - CONTRACT DOCUMENTS**

**PROCUREMENT AND CONTRACTING REQUIREMENTS**

<b>Division 00</b>	<b>Section</b>	<b>Title</b>
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	00 01 10	Table of Contents (This Document)
	00 01 15	List of Drawings, Tables and Schedules
	00 11 16	Notice to Bidders / Invitation to Bid
	00 21 13	Instructions to Bidders
	00 31 19	Existing Information and Documentation Regarding Project Site ( <b><u>NOT</u></b> part of the <b>Contract Documents</b> )
	00 32 00	Prequalification Questionnaire for Prospective Bidder ( <b><u>NOT</u></b> part of the <b>Contract Documents</b> )

**DOCUMENTS THAT BIDDER MUST SUBMIT AS PART OF ITS BID**

00 41 13	Bid Form
00 43 13	Bid Bond (Security)
00 43 36	Designated Subcontractors List
00 43 40	Noncollusion Declaration
00 43 50	Iran Contracting Act Certification
00 45 00	Notice of Award
00 45 10	Agreement
00 45 40	Certifications to be Completed by Contractor
00 45 55	Disabled Veteran's Business Enterprise Participation Certification
00 45 85	Criminal Background Investigation/Fingerprinting Certification
00 54 50	Escrow of Bid Documentation
00 54 55	Escrow Agreement for Security Deposits in Lieu of Retention
00 54 70	Storm Water Pollution Prevention Plan
00 61 14	Performance Bond
00 61 15	Payment Bond (Contractor's Labor and Material Bond)
00 63 00	District Contract Forms
00 65 00	District Closeout Forms
00 65 10	Notice to Proceed
00 65 36	Warranty and Guarantee Form
00 70 00	General Conditions
00 71 00	Special Conditions
00 91 13	Addenda - <b>All addenda issued by District become part of the Contract.</b>

## **GENERAL REQUIREMENTS - SPECIFICATIONS**

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

END OF DOCUMENT

**DOCUMENT 00 01 15**

**CONTRACT DOCUMENTS**

**The Contract Documents are comprised of the following Parts:**

Part 1 of 6: Project Manual Divisions 0 and 1 (Contract Requirements & General Requirements)

Part 2 of 6: Topographical Survey

Part 3 of 6: Increment 1: DSA Approved Drawings

Part 4 of 6: Increment 1: DSA Approved Technical Specifications + DSA 103 T&I Form

Part 5 of 6: Increment 2: Drawings

Part 6 of 6: Increment 2: Technical Specifications + DSA 103 T&I Form

**All addenda issued by District become part of the Contract.**

END OF DOCUMENT

**DOCUMENT 00 11 16**

**NOTICE TO BIDDERS / INVITATION TO BID**

Notice is hereby given that the Chico Unified School District ("District") will receive sealed bids for the following project : **Emma Wilson Elementary School New Kindergarten.**

To bid on this Project, the Bidder is required to have been prequalified by the District. In addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors performing under the following license classification(s), then each of those subcontractors that intend to bid as a first-tier subcontractor to a general contractor (prime contractor) are required to have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46. All prequalification questionnaires will be received until 4:00 p.m., April 12, 2019, at the Facilities Department, located at 2455 Carmichael Dr., Chico, CA 95928.

Sealed Bids will be received until **2:00 p.m., April 24, 2019** at the Facilities Dept. Plans Room, located at 2455 Carmichael Drive, Chico, at or after which time the bids will be opened and publicly read aloud. Any claim by a bidder of error in its bid must be made in compliance with section 5100 et seq. of the Public Contract Code. Any bid that is submitted after this time shall be non-responsive and returned to the bidder.

A voluntary pre-bid conference and site visit will be held on April 10, 2019, at 3:00 p.m. at Emma Wilson Elementary School. All participants are required to sign in at the Administration Building.

The Project consists of: **All required labor, material, equipment, and services for the Emma Wilson Elementary School New Kindergarten Project, for the Chico Unified School District in strict conformity with the Drawings, Specifications and Contract Documents.**

All bids shall be on the form provided by the District. Each bid must conform and be responsive to all pertinent Contract Documents, including, but not limited to, the Instructions to Bidders.

To bid on this Project, the Bidder is required to possess one or more of the following State of California Contractor Licenses: B. The Bidder's license(s) must be active and in good standing at the time of the bid opening and must remain so throughout the term of the Contract.

As security for its Bid, each bidder shall provide with its Bid form: a bid bond issued by an admitted surety insurer on the form provided by the District, cash, or a cashier's check or a certified check, drawn to the order of the Chico Unified School District, in the amount of ten percent (10%) of the total bid price. This bid security shall be a guarantee that the Bidder shall, within seven (7) calendar days after the date of the Notice of Award, enter into a contract with the District for the performance of the services as stipulated in the bid.

The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the contract for the Project.

The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.

The successful Bidder and its subcontractors shall pay all workers on the Project not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Prevailing wage rates are available from the District or on the Internet at: <<http://www.dir.ca.gov>>. Bidders and Bidders' subcontractors shall comply with the registration and qualification requirements pursuant to sections 1725.5 and 1771.1 of the California Labor Code.

Contract Documents and Prequalification Applications are available by contacting [ktiner@chicousd.org](mailto:ktiner@chicousd.org) or 530-891-3000 ext. 20602.

The District's Board reserves the right to reject any and all bids and/or waive any irregularity in any bid received. If the District awards the Contract, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

Bid shall be awarded based on the lowest base bid price defined by the sum of Bid Item No. 1 and Bid Item No. 2.

Ad run dates: April 5, 2019 and April 12, 2019

END OF DOCUMENT

**DOCUMENT 00 21 13**

**INSTRUCTIONS TO BIDDERS**

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

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

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

**Emma Wilson Elementary School New Kindergarten** ("Project" or "Contract")

2. The Bidder is required to have been prequalified by the District. In addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors performing under the following license classification(s), then each of those subcontractors that intend to bid as a first-tier subcontractor to a general contractor (prime contractor) are required to have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46.
3. **Sealed Bids.** District will receive sealed Bids from Bidders as indicated in the Invitation to Bid and each Bidder shall ensure that its Bid:
  - a. Is sealed and marked with name and address of the Bidder, the Project name and number, the bid number and bid package (if applicable), and the date for opening bids;
  - b. Contains all documents as required herein; and
  - c. Is submitted by date and time shown in the Invitation to Bid.
4. **Bid Opening.** Bids will be opened at or after the time indicated for receipt of bids.
5. **Complete Bids.** Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Each Bidder must complete and submit all of the following documents as its Bid:
  - Bid Form
  - Bid Bond or other security
  - Designated Subcontractors List
  - Noncollusion Declaration
  - Iran Contracting Act Certification
  - a. **Bid Form.** Bidders must submit Bids on the Bid Form and all other required District forms. Bids not submitted on the District's required forms shall be deemed non-responsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible. Bidders shall not modify the Bid Form or qualify their Bids. Bidders shall not submit scanned, re-typed, word-processed, or otherwise recreated versions of the Bid Form or other District-provided documents.
  - b. **Bid Bond or Other Security.** Bidders must submit their Bid Form with cash, a cashier's check or a certified check payable to District, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of their base Bid amount, including all additive alternates. Required form of corporate surety, Bid Bond, is provided by District and must be used and fully completed by Bidders choosing to provide a Bid Bond as security. The Surety on Bidders' Bid Bond must be an insurer admitted in the State of California and



authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.

- c. **Designated Subcontractors List.** Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of Work, including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of total Bid. Failure to submit this list when required by law shall result in Bid being deemed non-responsive and the Bid will not be considered.
  - d. **Noncollusion Declaration.** Bidders shall submit the Noncollusion Declaration with their Bids. Bids submitted without the Noncollusion Declaration shall be deemed non-responsive and will not be considered.
  - e. **Iran Contracting Act Certification.** Bidders shall submit the Iran Contracting Act Certification with their Bids. Bids submitted without the Iran Contracting Act Certification shall be deemed non-responsive and will not be considered.
6. **Erasures.** Bids shall be clearly written without erasure or deletions. District reserves the right to reject any Bid containing erasures or deletions.
  7. **Words / Numerals.** Discrepancies between written words and figures, or words and numerals, will be resolved in favor of written words.
  8. **Prevailing Wages.** Pursuant to sections 1770 et seq. of the California Labor Code, Bidder and all Subcontractors under the Bidder shall pay all workers on all work performed pursuant to the Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the State of California Department of Industrial Relations (DIR) for the type of work performed and the locality in which the work is to be performed within the boundaries of the District. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by the DIR are available from the District or on the internet (<http://www.dir.ca.gov>).
  9. **Contractor Registration.** Bidder shall ensure that it and its Subcontractors comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner, and are registered pursuant to Labor Code section 1725.5. Bidder and its subcontractors shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of the Contract.
  10. **DVBE.** Section 17076.11 of the Education Code requires school districts using funds allocated pursuant to the State of California School Facility Program for the construction and/or modernization of school building(s) to have a participation goal for disabled veteran business enterprises ("DVBE") of at least three percent (3%) per year of the overall dollar amount expended on projects that receive state funding. For any project that is at least partially state-funded, the low Bidder must submit certification of compliance with the procedures for implementation of DVBE contracting goals with its signed Agreement. DVBE Certification Participation Forms are attached. Bidders should not submit these forms with their Bids.
  11. **Bidder Diligence.** Submission of Bid signifies careful examination of the Contract Documents and a complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of Bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:
    - a. Bidder has visited the Project Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all

local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;

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

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

opening.

- b. **Request for Substitution after Bid Award.** Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions.
  - c. **Information with Request.** Requests for substitutions shall contain sufficient information to assess acceptability of the product or system and impact to Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
16. **Alternates.** The Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction, that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Invitation to Bid.
17. **Notice of Award.** The Bidder awarded the Contract shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7<sup>TH</sup>)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to, among other remedies, make a claim against Bidder's Bid Bond or deposit Bidder's cash, cashier's check, or certified check. The proceeds thereof may be retained by District as liquidated damages, in District's sole discretion.
- a. Agreement: To be executed by successful Bidder. Submit four (4) copies, each bearing an original signature.
  - b. Escrow of Bid Documentation: This must include all required documentation. See the document Escrow of Bid Documentation for more information.
  - c. Performance Bond (100%): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - d. Payment Bond (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
  - e. Insurance Certificates and Endorsements as required.
  - f. Certifications to be Completed by Contractor
  - g. Disabled Veterans' Business Enterprise Participation Certification.
  - h. Criminal Background Investigation/Fingerprinting Certification.
18. **Notice to Proceed.** District may issue a Notice to Proceed within **THREE (3)** months from the date of the Notice of Award. Upon receipt of the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation or additional time when the Notice to Proceed is issued within the 3-month period.
- a. The District may postpone issuing the Notice to Proceed beyond the 3-month period, upon reasonable notice to Contractor.
  - b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the postponement of the issuance of the Notice to Proceed beyond the 3-month period. If the Contractor believes that a postponement of issuance of the Notice to Proceed

will cause a hardship to Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond the 3-month period shall be by written notice to District within **SEVEN (7)** calendar days after receipt by Contractor of District's notice of postponement.

- c. It is further understood by Contractor that in the event Contractor terminates the Contract as a result of postponement by the District, District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
  - d. Should Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible bidder.
19. **Bid Protests.** Any bid protest by any Bidder regarding any other bid on this Project must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3<sup>rd</sup>)** Business Day following the date of bid opening.
- a. The protest must contain a complete statement of any and all bases for the protest.
  - b. The protest must refer to the specific portions of all documents that form the bases for the protest.
  - c. The protest must include the name, address and telephone number of the person representing the protesting party.
  - d. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
  - e. The procedure and time limits set forth in this paragraph are mandatory and are each bidder's sole and exclusive remedy in the event of bid protest. Failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.
20. **Rejection of Bids.** District reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, to re-bid, and to reject the bid of any bidder if District believes that it would not be in the best interest of the District to make an award to that bidder, whether because the bid is not responsive or the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive inconsequential deviations not involving price, time, or changes in the Work. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for work item(s) that represent substantive work and/or overly-enhanced prices for nominal work item(s).
21. **Bidder Responsibility.** Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

**DOCUMENT 00 31 19**

**EXISTING INFORMATION AND DOCUMENTATION REGARDING PROJECT SITE**

**1. Summary**

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

**2. Reports and Information on Existing Conditions**

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

- (1) **Geotechnical Data.** Geotechnical data at or near the Project that is in the District's possession available for Contractor's review.

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

**Geotechnical Engineering and Geological Hazards Report  
00 31 32 of Contract Specifications**

- (2) **Original Construction Drawings**
      - (3) **Survey of Site**
      - (4) **Hazardous Material Reports**
      - (5) **Asbestos and/or AHERA Reports.** N/A

**3. Use of Information**

- a. Information regarding existing conditions was obtained only for use of District and its consultants, contractors, and tenants for planning and design and is **not** part of the Contract Documents.

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

#### **4. Limited Reliance on Certain Information**

- a. Reference is made herein for identification of:
  - (1) Reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by District in preparation of the Contract Documents.
  - (2) Drawings of physical conditions in or relating to existing subsurface structures (except underground facilities) that are at or contiguous to the Site and have been utilized by District in preparation of the Contract Documents.
- b. Bidder may rely upon the general accuracy of the "technical data" contained in the reports and drawings identified above, but only insofar as it relates to subsurface conditions, provided Bidder has conducted the independent investigation required pursuant to Instructions to Bidders, and discrepancies are not apparent. The term "technical data" in the referenced reports and drawings shall be limited as follows:
  - (1) The term "technical data" shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment or structures that were encountered during subsurface exploration. The term "technical data" does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures.
  - (2) The term "technical data" shall not include the location of underground facilities.
  - (3) Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder may rely upon the general accuracy of the "technical data" contained in such reports or drawings.
  - (4) Bidder is solely responsible for any interpretation or conclusion drawn from any "technical data" or any other data, interpretations, opinions, or information provided in the identified reports and drawings.

## **5. Investigations/Site Examinations**

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

END OF DOCUMENT



**DOCUMENT 00 32 00**

**PREQUALIFICATION QUESTIONNAIRE FOR PROSPECTIVE BIDDERS**

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

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

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

Location	Date
CHICO UNIFIED SCHOOL DISTRICT _____ _____, CA _____ Attn: _____	First-tier subcontractors <b><u>and</u></b> general (prime) contractors _____, 20____

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

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

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

**Non-responsiveness.** A Contractor's prequalification questionnaire shall be deemed nonresponsive if, without limitation, the Contractor's prequalification questionnaire is not returned on time, does not provide all requested information, is not signed under penalty of perjury by an individual who has the authority to bind the Contractor, is not updated as required or is misleading or inaccurate in any material manner (e.g., financial resources are overstated; previous violations of law are not accurately reported).

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

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

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

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

**CONTACT INFORMATION:**

Firm Name: \_\_\_\_\_ Check One: ☐ Corporation  
(as it appears on license) ☐ Partnership  
☐ Sole Prop.

Contact Person: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

If firm is a sole proprietor or partnership:

Owner(s) of Company \_\_\_\_\_

Contractor's License Number(s): \_\_\_\_\_

DIR Registration No. \_\_\_\_\_

Seeking Prequalification for:

☐ General Contractor

☐ Mechanical Subcontractor

☐ Plumbing Subcontractor

☐ Electrical Subcontractor

☐ Other \_\_\_\_\_

General Contractor/Subcontractors with A, B, C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43 and C-46 licenses must prequalify.

Contractors that successfully prequalify will be eligible to bid on any projects for which they are qualified as outlined below:

1. **Bid Limit:**

The contractor's qualified limit will be the lesser of the following (stated in U.S. currency): (a) the largest public works contract the contractor has fully performed within the last five years (as defined by the original contract price, plus additive and deductive change orders), plus 10%; or (b) the contractor's current bonding capacity (as determined by the surety with which the contractor currently has the highest bonding limit). Your accurate answers to A and B immediately below, once verified by the District, will determine your bid limit.

A. The contract price (as adjusted by change orders) of the largest public works contract your firm has fully performed in the last five years:

\$\_\_\_\_\_ [plus] 10% = \_\_\_\_\_.

B. Your firm's current maximum bonding capacity: \$\_\_\_\_\_.

Bonding Company: \_\_\_\_\_

## 2. Specific Experience Required:

At least two (2) of the projects listed in Part III of this application must be K-12 or Community College projects subject to Division of the State Architect inspection and approval. This does not preclude the District from specifying in the bid documents additional prequalification requirements as may be required for a specific project.

## PART I. ESSENTIAL REQUIREMENTS FOR QUALIFICATION

Contractor will be immediately disqualified if the answer to any of questions 1 through 5 is “no.”<sup>1</sup> **\*\*Subcontractor: Please submit application regardless of your ability to answer “yes” to questions 4 & 5.**

Contractor will be immediately disqualified if the answer to any of questions 6, 7, 8 or 9 is “yes.”<sup>2</sup> If the answer to question 8 is “yes,” and if debarment would be the sole reason for denial of prequalification, any prequalification issued will exclude the debarment period.

1. Contractor possesses a valid and current California Contractor’s license for the project or projects for which it intends to submit a bid.  
☐ Yes      ☐ No
2. Contractor has a liability insurance policy with a policy limit of at least \$1,000,000 per occurrence and \$2,000,000 aggregate.  
☐ Yes      ☐ No
3. Contractor has current workers’ compensation insurance policy as required by the Labor Code or is legally self-insured pursuant to Labor Code section 3700 et. seq.  
☐ Yes      ☐ No      ☐ Contractor is exempt from this requirement, because it has no employees
4. Have you attached your latest copy of a reviewed or audited financial statement with accompanying notes and supplemental information?<sup>3</sup>  
☐ Yes      ☐ No

NOTE: A financial statement that is not either reviewed or audited is not acceptable. A letter verifying availability of a line of credit may also be attached; however, it will be considered as supplemental information only, and is not a substitute for the required financial statement.

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<sup>1</sup> A “no” answer to Question 4 will not be disqualifying if the contractor is exempt from complying with Question 4, for reasons explained in footnote 3.

<sup>2</sup> A contractor disqualified solely because of a “Yes” answer given to question 6, 7, or 9 may appeal the disqualification and provide an explanation of the relevant circumstances during the appeal procedure.

<sup>3</sup> Public Contract Code section 20101(e) exempts from this requirement a contractor who has qualified as a small business pursuant to Government Code section 14837(d)(1), if the bid is “no more than 25 percent of the qualifying amount provided in section 14837(d)(1).” As of January 1, 2001, the qualifying amount is \$10 million, and 25 percent of that amount, therefore, is \$2.5 million.

5. Have you attached a notarized statement from an admitted surety insurer (approved by the California Department of Insurance) and authorized to issue bonds in the State of California, which states: (a) that your current bonding capacity is sufficient for the project for which you seek prequalification if you are seeking prequalification for a single project; or (if you are seeking prequalification valid for a year) (b) your current available bonding capacity?<sup>4</sup>  
☐ Yes ☐ No  
 NOTE: Notarized statement must be from the surety company, not an agent or broker.
6. Has your contractor's license been revoked at any time in the last five years?  
☐ Yes ☐ No
7. Has a surety firm completed a contract on your behalf, or paid for completion because your firm was default terminated by the project owner within the last five (5) years?  
☐ Yes ☐ No
8. At the time of submitting this prequalification form, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either Labor Code section 1777.1 or Labor Code section 1777.7?  
☐ Yes ☐ No  
 If the answer is "Yes," state the beginning and ending dates of the period of debarment: \_\_\_\_\_
9. At any time during the last five years, has your firm or any of its owners or officers been convicted of a crime involving the awarding of a contract of a government construction project, or the bidding or performance of a government contract?  
☐ Yes ☐ No

\*\*\*\*\*

## PART II. ORGANIZATION, HISTORY, ORGANIZATIONAL PERFORMANCE, COMPLIANCE WITH CIVIL AND CRIMINAL LAWS

### A. Current Organization and Structure of the Business

#### For Firms That Are Corporations:

- 1a. Date incorporated: \_\_\_\_\_
- 1b. Under the laws of what state: \_\_\_\_\_
- 1c. Provide all the following information for each person who is either (a) an officer of the corporation (president, vice president, secretary, treasurer), or (b) the owner of at least ten percent of the corporation's stock.

Name	Position	Years with Co.	% Ownership	Social Security #

<sup>4</sup> An additional notarized statement from the surety may be requested by Chico Unified School District at the time of submission of a bid, if this prequalification package is submitted more than 60 days prior to submission of the bid.

- 1d. Identify every construction firm that any person listed above has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, "owner" and "partner" refer to ownership of ten percent or more of the business, or 10 percent or more of its stock, if the business is a corporation.

Person's Name	Construction Firm	Dates of Person's Participation with Firm

**For Firms That Are Partnerships:**

- 1a. Date of formation: \_\_\_\_\_
- 1b. Under the laws of what state: \_\_\_\_\_
- 1c. Provide all the following information for each partner who owns 10 percent or more of the firm.

Name	Position	Years with Co.	% Ownership	Social Security #

- 1d. Identify every construction company that any partner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, "owner" and "partner" refer to ownership of ten percent or more of the business, or ten percent or more of its stock, if the business is a corporation.

Person's Name	Construction Company	Dates of Person's Participation with Company

**For Firms That Are Sole Proprietorships:**

- 1a. Date of commencement of business. \_\_\_\_\_
- 1b. Social security number of company owner \_\_\_\_\_
- 1c. Identify every construction firm that the business owner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

NOTE: For this question, "owner" and "partner" refer to ownership of ten percent or more of the business, or ten percent or more of its stock, if the business is a corporation.

Person's Name	Construction Company	Dates of Person's Participation with Company

**For Firms That Intend to Make a Bid as Part of a Joint Venture:**

- 1a. Date of commencement of joint venture. \_\_\_\_\_
- 1b. Provide all of the following information for each firm that is a member of the joint venture that expects to bid on one or more projects:

Name of firm	% Ownership of Joint Venture

**B. History of the Business and Organizational Performance**

2. Has there been any change in ownership of the firm at any time during the last three years?
- NOTE: A corporation whose shares are publicly traded is not required to answer this question.

☐ Yes ☐ No

If "yes," explain on a separate signed page.

3. Is the firm a subsidiary, parent, holding company or affiliate of another construction firm?

**NOTE: Include information about other firms if one firm owns 50 percent or more of another, or if an owner, partner, or officer of your firm holds a similar position in another firm.**

☐ Yes ☐ No

If "yes," explain on a separate signed page.

4. Are any corporate officers, partners or owners connected to any other construction firms?

**NOTE: Include information about other firms if an owner, partner, or officer of your firm holds a similar position in another firm.**

☐ Yes ☐ No

If "yes," explain on a separate signed page.

5. State your firm's gross revenues for each of the last three years:

\_\_\_\_\_

6. How many years has your organization been in business in California as a contractor under your present business name and license number? \_\_\_\_\_ years

7. Is your firm currently the debtor in a bankruptcy case?

☐ Yes ☐ No

If "yes," please attach a copy of the bankruptcy petition, showing the case number, and the date on which the petition was filed.

8. Was your firm in bankruptcy at any time during the last five years? (This question refers only to a bankruptcy action that was not described in answer to question 7, above)

☐ Yes ☐ No

If "yes," please attach a copy of the bankruptcy petition, showing the case number and the date on which the petition was filed, and a copy of the Bankruptcy Court's discharge order, or of any other document that ended the case, if no discharge order was issued.

## Licenses

9. List all California construction license numbers, classifications and expiration dates of the California contractor licenses held by your firm:

\_\_\_\_\_

10. If any of your firm's license(s) are held in the name of a corporation or partnership, list below the names of the qualifying individual(s) listed on the CSLB records who meet(s) the experience and examination requirements for each license. \_\_\_\_\_

11. Has your firm changed names or license number in the past five years?

☐ Yes ☐ No

If "yes," explain on a separate signed page, including the reason for the change.

12. Has any owner, partner or (for corporations) officer of your firm operated a construction firm under any other name in the last five years?

☐ Yes ☐ No

If "yes," explain on a separate signed page, including the reason for the change.

13. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

☐ Yes ☐ No

If "yes," please explain on a separate signed sheet.

## Disputes

14. At any time in the last five years has your firm been assessed and paid liquidated damages after completion of a project under a construction contract with either a public or private owner?  
☐ Yes ☐ No  
If yes, explain on a separate signed page, identifying all such projects by owner, owner's address, the date of completion of the project, amount of liquidated damages assessed and all other information necessary to fully explain the assessment of liquidated damages.
15. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?  
**NOTE: "Associated with" refers to another construction firm in which an owner, partner or officer of your firm held a similar position, and which is listed in response to question 1c or 1d on this form.**  
☐ Yes ☐ No  
If "yes," explain on a separate signed page. State whether the firm involved was the firm applying for prequalification here or another firm. Identify by name of the company, the name of the person within your firm who was associated with that company, the year of the event, the owner of the project, the project and the basis for the action.
16. In the last five years has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?  
☐ Yes ☐ No  
If "yes," explain on a separate signed page. Identify the year of the event, the owner, the project and the basis for the finding by the public agency.  
**NOTE: The following two questions refer only to disputes between your firm and the owner of a project. You need not include information about disputes between your firm and a supplier, another contractor, or subcontractor. You need not include information about "pass-through" disputes in which the actual dispute is between a sub-contractor and a project owner. Also, you may omit reference to all disputes about amounts of less than \$50,000.**
17. In the past five years has any claim **against** your firm concerning your firm's work on a construction project been **filed in court or arbitration**?  
☐ Yes ☐ No  
If "yes," on separate signed sheets of paper identify the claim(s) by providing the project name, date of the claim, name of the claimant, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).
18. In the past five years has your firm made any claim against a project owner concerning work on a project or payment for a contract and **filed that claim in court or arbitration**?  
☐ Yes ☐ No  
If "yes," on separate signed sheets of paper identify the claim by providing the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution).
19. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf, in connection with a construction project, either public or private?  
☐ Yes ☐ No  
If "yes," explain on a separate signed page the amount of each such claim, the name and telephone number of the claimant, the date of the claim, the grounds for the claim, the present status of the claim, the date of resolution of such claim if resolved, the method by which such was resolved if resolved, the nature of the resolution and the amount, if any, at which the claim was resolved.
20. In the last five years has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?  
☐ Yes ☐ No  
If "yes," explain on a separate signed page. Name the insurance carrier, the form of insurance and the year of the refusal.

### Criminal Matters and Related Civil Suits



21. Has your firm or any of its owners, officers or partners ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or material misrepresentation to any public agency or entity?  
☐ Yes ☐ No  
 If "yes," explain on a separate signed page, including identifying who was involved, the name of the public agency, the date of the investigation and the grounds for the finding.
22. Has your firm or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?  
☐ Yes ☐ No  
 If "yes," explain on a separate signed page, including identifying who was involved, the name of the public agency, the date of the conviction and the grounds for the conviction.
23. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?  
☐ Yes ☐ No  
 If "yes," identify on a separate signed page the person or persons convicted, the court (the county if a state court, the district or location of the federal court), the year and the criminal conduct.

### **Bonding**

24. Bonding capacity: Provide documentation from your surety identifying the following:  
 Name of bonding company/surety: \_\_\_\_\_  
 Name of surety agent, address and telephone number: \_\_\_\_\_
25. If your firm was required to pay a premium of more than one percent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one percent, if you wish to do so.  
 \_\_\_\_\_
26. List all other sureties (name and full address) that have written bonds for your firm during the last five years, including the dates during which each wrote the bonds:  
 \_\_\_\_\_
27. During the last five years, has your firm ever been denied bond coverage by a surety company, or has there ever been a period of time when your firm had no surety bond in place during a public construction project when one was required?  
☐ Yes ☐ No  
 If yes, provide details on a separate signed sheet indicating the date when your firm was denied coverage and the name of the company or companies which denied coverage; and the period during which you had no surety bond in place.

### **C. Compliance with Occupational Safety and Health Laws and with Other Labor Legislation Safety**

28. Has CAL OSHA cited and assessed penalties against your firm for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?  
**NOTE: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.**  
☐ Yes ☐ No  
 If "yes," attached a separate signed page describing the citations, including information about the dates of the citations, the nature of the violation, the project on which the citation(s) was or were issued, the amount of penalty paid, if any. If the citation was appealed to the Occupational Safety and Health Appeals Board and a decision has been issued, state the case number and the date of the decision.
29. Has the federal Occupational Safety and Health Administration cited and assessed penalties against your firm in the past five years?

**NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.**

☐ Yes ☐ No

If "yes," attach a separate signed page describing each citation.

30. Has the EPA or any Air Quality Management District or any Regional Water Quality Control Board cited and assessed penalties against either your firm or the owner of a project on which your firm was the contractor, in the past five years?

**NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.**

☐ Yes ☐ No

If "yes," attach a separate signed page describing each citation.

31. How often do you require documented safety meetings to be held for construction employees and field supervisors during the course of a project? \_\_\_\_\_

32. List your firm's Experience Modification Rate (EMR) (California Workers' Compensation Insurance) for each of the past three premium years:

**NOTE: An Experience Modification Rate is issued to your firm annually by your workers' compensation insurance carrier.**

Current year: \_\_\_\_\_

Previous year: \_\_\_\_\_

Year prior to previous year: \_\_\_\_\_

If your EMR for any of these three years is or was 1.00 or higher you may, if you wish, attach a letter of explanation.

33. Within the last five years has there ever been a period when your firm had employees but was without workers' compensation insurance or state-approved self-insurance?

☐ Yes ☐ No

If "yes," please explain the reason for the absence of workers' compensation insurance on a separate signed page. If "No," please provide a statement by your current workers' compensation insurance carrier that verifies periods of workers' compensation insurance coverage for the last five years. (If your firm has been in the construction business for less than five years, provide a statement by your workers' compensation insurance carrier verifying continuous workers' compensation insurance coverage for the period that your firm has been in the construction business.)

### **Prevailing Wage and Apprenticeship Compliance Record**

34. Has there been more than one occasion during the last five years in which your firm was required to pay either back wages or penalties for your own firm's failure to comply with the **state's** prevailing wage laws?

**NOTE: This question refers only to your own firm's violation of prevailing wage laws, not to violations of the prevailing wage laws by a subcontractor.**

☐ Yes ☐ No

If "yes," attach a separate signed page or pages, describing the nature of each violation, identifying the name of the project, the date of its completion, the public agency for which it was constructed; the number of employees who were initially underpaid and the amount of back wages and penalties that you were required to pay.

35. During the last five years, has there been more than one occasion in which your own firm has been penalized or required to pay back wages for failure to comply with the **federal** Davis-Bacon prevailing wage requirements?

☐ Yes ☐ No

If "yes," attach a separate signed page or pages describing the nature of the violation, identifying the name of the project, the date of its completion, the public agency for which it was constructed; the number of employees who were initially underpaid, the amount of back wages you were required to pay along with the amount of any penalty paid.

36. Provide the **name, address and telephone number** of the apprenticeship program (approved by the California Apprenticeship Council) from whom you intend to request the dispatch of apprentices to your company for use on any public work project for which you are awarded a contract by Chico Unified School District.

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37. If your firm operates its own State-approved apprenticeship program:

- (a) Identify the craft or crafts in which your firm provided apprenticeship training in the past year.
  - (b) State the year in which each such apprenticeship program was approved, and attach evidence of the most recent California Apprenticeship Council approval(s) of your apprenticeship program(s).
  - (c) State the number of individuals who were employed by your firm as apprentices at any time during the past three years in each apprenticeship and the number of persons who, during the past three years, completed apprenticeships in each craft while employed by your firm.
- 

38. At any time during the last five years, has your firm been found to have violated any provision of California apprenticeship laws or regulations, or the laws pertaining to use of apprentices on public works?

NOTE: You may omit reference to any incident that occurred prior to January 1, 1998, if the violation was by a subcontractor and your firm, as general contractor on a project, had no knowledge of the subcontractor's violation at the time they occurred.

☐ Yes ☐ No

If "yes," provide the date(s) of such findings, and attach copies of the Department's final decision(s).

### **PART III. RECENT CONSTRUCTION PROJECTS COMPLETED**

39. Contractor shall provide information about its **six** most recently completed **public works projects** and its three largest completed private projects within the last three years.<sup>5</sup> Names and references must be current and verifiable. Use separate sheets of paper that contain all of the following information:

Project Name: \_\_\_\_\_  
Location: \_\_\_\_\_  
Owner: \_\_\_\_\_  
Owner Contact (name and current phone number): \_\_\_\_\_  
Architect or Engineer Contact (name and current phone number): \_\_\_\_\_  
Construction Manager (name and current phone number): \_\_\_\_\_  
Description of Project, Scope of Work Performed: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Total Value of Construction (including change orders): \_\_\_\_\_  
Original Scheduled Completion Date: \_\_\_\_\_  
Time Extensions Granted (number of days): \_\_\_\_\_  
Actual Date of Completion: \_\_\_\_\_

\*\*\*\*\*

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<sup>5</sup> If you wish, you may, using the same format, also provide information about other projects that you have completed that are similar to the project(s) for which you expect to bid.

I, the undersigned, certify and declare that I have read all the foregoing answers to this prequalification questionnaire and know their contents. The matters stated in the questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California, that the foregoing is correct.

Dated: \_\_\_\_\_

Name: \_\_\_\_\_

**DOCUMENT 00 41 13**

**BID FORM**

To: Governing Board of Chico Unified School District ("District")

From: \_\_\_\_\_  
(Proper Name of Bidder)

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

**Emma Wilson Elementary School New Kindergarten** ("Project" or "Contract")

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

_____ Dollars	\$ _____
Bid Item No. 1 for Increment 1 Work.	
_____ Dollars	\$ _____
Bid Item No. 2 for Increment 2 Work.	
_____ Dollars	\$ _____
<b><i>TOTAL BASE BID</i></b>	

Bid shall be awarded based on the lowest base bid price defined by the sum of Bid Item No. 1 and Bid Item No. 2.

2. **Additive/Deductive Alternates:** NONE

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

NONE

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

NONE

5. **Contract Review.** The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this bid, understands the construction and project management function(s) is described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its bid, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.

6. **Requests for Clarification.** The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager before bid date to verify the issuance of any clarifying Addenda.

7. **Contract Time.** The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all work within the time specified in the Contract Documents.

8. **Contractual Provisions.** The undersigned hereby acknowledges and agrees to be bound by following provisions and all provisions in the Contract Documents:

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

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

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

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

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

No. _____, Dated _____	No. _____, Dated _____
------------------------	------------------------

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

**12. Bidder's License.**

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

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

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

**15. Prequalification.** The Bidder confirms that it has been prequalified by the District. In addition, the bidder confirms that, in addition, if components of the Project will be performed by electrical, mechanical, or plumbing subcontractors, then each of those electrical, mechanical, and plumbing first-tier subcontractors with the following license classifications have also been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46.

**16. SWPPP QSP.** Bidder specifically acknowledges and understands that if it is awarded the Contract, it shall perform the Work of the Project related to being the District's Qualified SWPPP (Storm Water Pollution Prevention Plan) Practitioner ("QSP") and that the Bidder is certified to be the District's QSP, as required by the current California State Water Board's Construction General Permit.

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

**18. False Claims Act.** Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Cal. Gov. Code, §12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.

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

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_

Signature \_\_\_\_\_

Signed by (Print Name) \_\_\_\_\_

Title of Person Signing \_\_\_\_\_

Name of Bidder \_\_\_\_\_

Type of Organization \_\_\_\_\_

Address of Bidder \_\_\_\_\_

Taxpayer's Identification No. of Bidder \_\_\_\_\_

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

E-mail \_\_\_\_\_ Web page \_\_\_\_\_

Bidder's DIR Registration No.: No.: \_\_\_\_\_

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

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

No.: \_\_\_\_\_ Class: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

If Bidder is a corporation, provide the following:

Name of Corporation: \_\_\_\_\_

President: \_\_\_\_\_

Secretary: \_\_\_\_\_

Treasurer: \_\_\_\_\_

Manager: \_\_\_\_\_

END OF DOCUMENT



**DOCUMENT 00 43 13**

**BID BOND (SECURITY)**

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

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, \_\_\_\_\_ as Principal ("Principal"),

and \_\_\_\_\_ as Surety ("Surety"),

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

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

Chico Unified School District ("District")

of \_\_\_\_\_ County, State of California as Obligee, in the sum of

\_\_\_\_\_ (\$ \_\_\_\_\_)

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

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

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

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

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

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

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Principal

\_\_\_\_\_  
By

\_\_\_\_\_  
Surety

\_\_\_\_\_  
By

\_\_\_\_\_  
Name of California Agent of Surety

\_\_\_\_\_  
Address of California Agent of Surety

\_\_\_\_\_  
Telephone Number of California Agent of Surety

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

END OF DOCUMENT

**DOCUMENT 00 43 36**

**DESIGNATED SUBCONTRACTORS LIST**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

**Emma Wilson Elementary School New Kindergarten ("Project" or "Contract")**

1. **Listed.** Bidder must list hereinafter the name and location of each subcontractor who will be employed, and the scope of Work that each will perform if the Contract is awarded to the Bidder. Bidder acknowledges and agrees that under Public Contract Code section 4100, et seq., it must clearly identify the name and location of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work in an amount in excess of one-half of one percent (1/2 of 1%) of Bidder's total Bid.
2. **Same Scope.** In case more than one subcontractor is named for the same scope of Work, state the portion that each will perform.
3. **No Vendors or Suppliers.** Bidder need not list entities that are only vendors or suppliers of materials.
4. **Not Listed.** As to any Work that Bidder fails to list that is in excess of one-half of one percent (1/2 of 1%) of Bidder's total Bid, Bidder agrees to perform that portion itself or be subjected to penalty under applicable law.
5. **Alternate Work.** If alternate bids are called for and Bidder intends to use Subcontractors different from or in addition to those Subcontractors listed for work under the base Bid, Bidder must list Subcontractors that will perform Work in an amount in excess of one half of one percent (1/2 of 1%) of Bidder's total Bid, including alternates.
6. **Prequalification.** If components of the Project will be performed by electrical, mechanical, or plumbing subcontractors, then each of those electrical, mechanical, and plumbing first-tier subcontractors with the following license classifications must also have been prequalified by the District: C-4, C-7, C-10, C-16, C-20, C-34, C-36, C-38, C-42, C-43, and/or C-46.
7. **DVBEs.** Bidder must indicate which, if any, of these subcontractors are disabled veteran business enterprises (DVBE) and the estimated percentage of the Work those subcontractor(s) will perform.
8. **CSLB Number.** Bidder must provide the Contactor State License Board number ("CSLB No.") for all listed subcontractors.
9. **DIR Number.** Bidder must provide the Department of Industrial Relations registration number ("DIR No.") for all listed subcontractors.
10. **THE DISTRICT WILL PERMIT EACH BIDDER TO SUBMIT EACH LISTED SUBCONTRACTOR'S CSLB NO. AND THE DIR NO. NO LATER THAN TWENTY-FOUR (24) HOURS AFTER BID OPENING.**
11. **Additional Sheets.** If further space is required for the list of proposed subcontractors, additional sheets showing the required information, as indicated below, shall be attached hereto and made a part of this document.

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

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

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

**Subcontractor Name:** \_\_\_\_\_ **Location:** \_\_\_\_\_

Scope of Work: \_\_\_\_\_

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

END OF DOCUMENT

Click or tap here to enter text.

**DOCUMENT 00 43 40**

**NONCOLLUSION DECLARATION**  
**Public Contract Code § 7106**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the \_\_\_\_\_ **[PRINT YOUR TITLE]**

of \_\_\_\_\_ **[PRINT FIRM NAME]**.

the party making the foregoing bid.

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

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

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on the following date:

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

Proper Name of Bidder: \_\_\_\_\_

City, State: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 43 50**

**IRAN CONTRACTING ACT CERTIFICATION (Public Contract Code § 2204)**

**Emma Wilson Elementary School New Kindergarten** ("Project" or "Contract")

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

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

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

**OR**

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

**OR**

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

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

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

Proper Name of Bidder: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 00**  
**NOTICE OF AWARD**

Dated: \_\_\_\_\_, 20\_\_

To: \_\_\_\_\_  
("Contractor")  
\_\_\_\_\_  
(Address)

From: Governing Board ("Board") of Chico Unified School District ("District")

Re: **Emma Wilson Elementary School New Kindergarten** ("Project" or "Contract")

Contractor was awarded the Contract on \_\_\_\_\_, 20\_\_, by action of the District's Board pursuant to a delegation of authority by the District's Board.

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

Three (3) copies of each of the Contract Documents (except Drawings) accompany the Notice of Award. Three (3) sets of the Drawings will be delivered separately or otherwise made available. Additional copies are available at cost of reproduction.

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

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

- a. Agreement: Submit two (2) copies, each bearing an original signature. **If Contractor is a corporation, Contractor must attach a certified copy of the corporation's by-laws, or the resolution of the Board of Directors of the corporation, authorizing the signatory to execute the Agreement and the bonds required by the Contract Documents.**
- b. Escrow of Bid Documentation: Include all required documentation. Refer to the Escrow of Bid Documentation document for details.
- c. Performance Bond (100%): Fully executed form provided in the Contract Documents.
- d. Payment Bond (100%) (Contractor's Labor and Material Bond): Fully executed form provided in the Contract Documents.
- e. Insurance Certificates and Endorsements as required.
- f. Certifications to be Completed by Contractor
- g. Disabled Veterans' Business Enterprise Participation Certification.
- h. Criminal Background Investigation/Fingerprinting Certification.



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

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

CHICO UNIFIED SCHOOL DISTRICT

BY: \_\_\_\_\_

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

TITLE: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 10**

**AGREEMENT**

This agreement is made and entered into on \_\_\_\_\_, 201\_\_\_\_\_, by and between the Chico Unified School District ("District") and \_\_\_\_\_ ("Contractor") ("Agreement"). The District and the Contractor agree as follows:

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

**Emma Wilson Elementary School New Kindergarten ("Project" or "Contract" or "Work")**

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

2. **The Contract Documents:**

- The complete Contract consists of all Contract Documents as defined in the General Conditions and incorporated herein by this reference. All obligations of the District and Contractor are fully set forth and described in the Contract Documents. The Contract Documents are intended to cooperate so that Work called for in one and not mentioned in the other or vice versa is to be performed the same as if mentioned in all Contract Documents.
- **Interpretation of Contract Documents/Order of Precedence:** Questions concerning the intent, precedence, or meaning of the Contract Documents, including the Drawings or Specifications, shall be submitted to the District for interpretation. Inconsistencies in the Contract Documents shall be resolved by giving precedence in the following order:
  - (i) District-approved modifications, beginning with the most recent (if any);
  - (ii) Agreement;
  - (iii) Special Conditions (if any);
  - (iv) Supplemental Conditions (if any);
  - (v) General Conditions;
  - (vi) Remaining Division 0 documents (Documents beginning with "00");
  - (vii) Division 1 Documents (Documents beginning with "01");
  - (viii) Division 2 through Division 49 documents (Technical Specifications);
  - (ix) Figured dimensions;
  - (x) Large-scale drawings;
  - (xi) Small-scale drawings.

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

3. **Time for Completion:** It is hereby understood and agreed that the Contractor shall complete the Work within Four Hundred and Eighteen Days ( 418 ) consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed. The District shall not approve an early completion schedule by Contractor. A schedule showing the Work completed in less than the Contract Time indicated in the Contract, shall be considered to have Project Float.

**4. Milestone Dates:**

- **Milestone No. 1: Notice to Proceed: May 16, 2019 (Commence Submittals and Preconstruction Activities):**
- **Milestone No. 2: Start of Construction: June 10, 2019**
- **Milestone No. 3: Beneficial Occupancy/Completion of PC Lunch Shelter, Main Courtyard & Portable: August 9, 2019**
- **Milestone No. 4: Final Completion: July 31, 2020**

**5. Completion-Extension of Time:** If Contractor fails to complete the Work within the Contract Time, due allowance being made for the contingencies provided for herein, Contractor shall become liable to District for all loss and damage that District may suffer on account thereof. Contractor shall coordinate its Work with the work of all other contractors. The District shall not be liable for delays resulting from Contractor's failure to coordinate its Work with other contractors in a manner that allows for timely completion of Contractor's Work. Contractor shall be liable for delays to other contractors caused by Contractor's failure to coordinate its Work with the work of other contractors.

**6. Liquidated Damages:** Time is of the essence for all Work to be performed. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage that District will sustain in the event of and by reason of Contractor's delay; therefore, pursuant to Government Code section 53069.85 and Public Contract Code section 7203, Contractor shall forfeit and pay to District the following sum(s) as liquidated damages ("Liquidated Damages"):

- **Milestones No. 3 and 4:**  
Two Thousand Dollars (\$2,000) per day as Liquidated Damages for each and every day's delay beyond the time herein prescribed in finishing the Work of Milestones No. 3 and 4.
- Each portion of the Liquidated Damages shall be calculated cumulatively. For example, if Contractor is late in completing two milestones and the entire Project, Contractor will forfeit and pay three separate Liquidated Damages amounts. It is hereby understood and agreed that neither the total cumulative Liquidate Damages amount nor any portion of the Liquidated Damage amount are penalties.
- District may deduct Liquidated Damages from money due or that may become due Contractor under this Agreement. Contractor's forfeiture of Liquidated Damages to District, and District's right to retain Liquidated Damages, are as indicated in Government Code section 53069.85 and as indicated herein and in the General Conditions. Liquidated Damages are automatically and without notice of any kind forfeited and payable by Contractor upon the accrual of each day of delay. Neither District's failure or delay in deducting Liquidated Damages from payments otherwise due the Contractor, nor District's failure or delay in notifying Contractor of the forfeiture and payment of Liquidated Damages, shall be deemed a waiver of District's right to Liquidated Damages and/or the District's right to withhold Liquidated Damages from any amounts that would otherwise be payable to the Contractor.
- Contractor and Surety shall be liable for and pay to District the entire amount of Liquidated Damages including any portion that exceeds the amount of the Contract Price then held, retained or controlled by District.
- Liquidated Damages shall be in addition, and not in lieu of, District's right to charge Contractor for the District's cost of completing or correcting items of the Work.

**7. Contract Price:** In consideration of the foregoing covenants, promises, and agreements, Contractor offers, in the amounts stated below, to perform the Work according to the Contract Documents. District covenants, promises, and agrees that it will pay and cause to be paid to Contractor in full, and as the Contract Price the following amount(s):

= \_\_\_\_\_ Dollars (\$) )  
("Contract Price")

- THE ABOVE ALLOWANCES ARE WITHIN THE CONTRACT PRICE ONLY TO THE EXTENT CONTRACTOR HAS PERFORMED WORK ENCOMPASSED BY THE ALLOWANCE DESCRIPTION, CONTRACTOR HAS APPROPRIATELY INVOICED FOR THAT WORK, AND DISTRICT HAS APPROVED CONTRACTOR'S INVOICE. CONTRACTOR SHALL INVOICE ONLY FOR COMPONENTS OF THE WORK ENCOMPASSED BY THE ALLOWANCE DESCRIPTION, IN THE IDENTICAL STRUCTURE AS A CHANGE ORDER. THE UNUSED PORTION OF EACH ALLOWANCE SHALL BE RETAINED BY THE DISTRICT.
  - The Contract Price shall be paid in lawful money of the United States pursuant to the payment provisions in the General Conditions.
  - The District may, at its sole discretion, increase or decrease the Contract Price by unit prices or alternates contained in Contractor's original bid. If the Bid for the Work included proposal(s) for Alternate Bid Item(s), during Contractor's performance of the Work, the District may elect to add any such Alternate Bid Item(s) if the that item did not form a basis for award of the Agreement or delete any such Alternate Bid Item(s) if that item formed a basis for award of the Agreement. If the District elects to add or delete an Alternate Bid Item(s) pursuant to the foregoing, the cost or credit for that Alternate Bid Item(s) shall be as set forth in the Contractor's Bid, at the District's discretion. If any Alternate Bid Item is added or deleted from the Work pursuant to the foregoing, the Contract Time shall be adjusted by the number of days allocated for the added or deleted Alternate Bid Item in the Contract Documents; if days are not allocated for any Alternate Bid Item added or deleted pursuant to the foregoing, the Contract Time shall be equitably adjusted.
8. **Insurance and Bonds:** Contractor shall provide all required certificates of insurance, and payment and performance bonds.
9. **Performance of Work:** If Contractor fails to perform the Work properly or fails to perform any provisions of this Contract, the District, may, pursuant to the General Conditions and without prejudice to any other remedy it may have, cure the deficiencies and deduct the cost thereof from the payment then or thereafter due Contractor.
10. **Authority of Architect, Project Inspector, and DSA:** Contractor hereby acknowledges that the Architect(s), the Project Inspector(s), and the Division of the State Architect have authority to approve and/or stop Work if Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws. Contractor shall be liable for any delay caused by its non-compliant Work.
11. **Assignment of Contract:** Neither the Contract, nor any part thereof, nor any moneys due or to become due thereunder, may be assigned by Contractor without the written approval of District, nor without the written consent of the Surety on Contractor's Performance Bond (the "Surety"), unless the Surety has waived in writing its right to notice of assignment.
12. **Classification of Contractor's License:** Contractor hereby acknowledges that it currently holds valid Type B Contractor's license issued by the State of California, Contractor's State Licensing Board, in accordance with division 3, chapter 9, of the Business and Professions Code and in the classification called for in the Contract Documents.
13. **Payment of Prevailing Wages:** Contractor and all Subcontractors under Contractor shall pay all workers on Work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the

general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code.

- 14. Contractor & Subcontractor Registration:** Contractor shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including complying with any applicable enforcement by the Department of Industrial Relations.
- 15. Authority of Contractor's Representative:** Contractor hereby certifies that its legal representative as defined in the General Conditions and the person(s) it employees on the Project at or above the level of project superintendent, each have the authority to legally bind the Contractor.
- 16. Severability:** If any term, covenant, condition, or provision of the Contract Documents is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions in the Contract Documents shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby.

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

Dated: \_\_\_\_\_, 20\_\_\_\_\_

Dated: \_\_\_\_\_, 20\_\_\_\_\_

**CHICO UNIFIED SCHOOL DISTRICT**

\_\_\_\_\_ **CONTRACTOR**

By: \_\_\_\_\_

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Title: \_\_\_\_\_

Print Title: \_\_\_\_\_

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

END OF DOCUMENT

**DOCUMENT 00 45 40**

**CERTIFICATIONS TO BE COMPLETED BY CONTRACTOR**

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

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

☐ **Labor Code Sections 1860-1861 (Workers' Compensation).** In accordance with Labor Code section 3700, every contractor will be required to secure the payment of compensation to his or her employees. I certify that I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

☐ **Government Code Sections 8355-8357 (Drug-Free Workplace).** I certify that I will provide a drug-free workplace by doing all of the following:

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

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

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

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

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

vehicles owned by others while on District property. I acknowledge that I am aware of the District's policy regarding tobacco-free environments at District sites, including the Project site and certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents to use tobacco and/or smoke on the Project site. The District also prohibits electronic cigarettes, "vaping" or similar product uses on District sites.



**No Hazardous Materials.** I certify that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for District. I have instructed our employees with respect to the above-mentioned standards, hazards, risks, and liabilities.

- (i) Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (.1%) asbestos shall be defined as asbestos-containing material. Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the District's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
- (ii) All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing "New Hazardous Material," will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the District.

This certification provides notice to the Contractor that:

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

#### **1. Lead as a Health Hazard**

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

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

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

## 2. Overview of California Law

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

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

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

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors subject to that regulation. The OSHA Regulations define construction work as work for construction, alteration, and/or repair, including painting and decorating. It includes, but is not limited to, the following:

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

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

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

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

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



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

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

#### **4. Contractor's Liability**

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

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

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

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

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

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



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

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

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

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 55**

**DISABLED VETERAN BUSINESS ENTERPRISE PARTICIPATION CERTIFICATION**

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

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

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

### DVBE PARTICIPATION REPORT

Contractor Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Name: \_\_\_\_\_ Project Number: [PROJECT NO.]

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

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

YES \_\_\_\_\_ NO \_\_\_\_\_

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

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

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

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

**DOCUMENT 00 45 85**

**CRIMINAL BACKGROUND INVESTIGATION / FINGERPRINTING CERTIFICATION**

The undersigned does hereby certify to the governing board of the District that he/she is a representative of the Contractor, is familiar with the facts herein certified, is authorized and qualified to execute this certificate on behalf of Contractor; and that the information in this Criminal Background Investigation / Fingerprinting Certification is true and correct.

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

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

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

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

**Name:** \_\_\_\_\_ **Title:** \_\_\_\_\_

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

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

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

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

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENTClick or tap here to enter text.

**DOCUMENT 00 54 50**

**ESCROW OF BID DOCUMENTATION**

**1. Requirement to Escrow Bid Documentation**

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

**2. Ownership of Escrow Bid Documentation**

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

**3. Format and Contents of Escrow Bid Documentation**

- a. Contractor may submit Escrow Bid Documentation in its usual cost-estimating format; a standard format is not required.
- b. Escrow Bid Documentation must clearly itemize the estimated costs of performing the work of each bid item contained in the bid schedule, separating bid items into sub-items as required to present a detailed cost estimate and allow a detailed cost review.

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

#### 4. Submittal of Escrow Bid Documentation

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

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

- a. The Escrow Bid Documentation will be placed in escrow, for the term of the Contract, at the District offices.
- b. The Escrow Bid Documentation may be examined by the District, by the Contractor, and/or by both parties, upon **Five (5) Business Days** written notice from the party noticing the examination to the other party.
- c. An examination is permissible at any time that one party reasonably believes that an examination of the

Escrow Bid Documentation is necessary to assist in the negotiation of price adjustments and change orders or the settlement of disputes or claims. In the case of legal proceedings, Escrow Bid Documentation may be subject to the terms of an appropriate protective order, if requested via motion by Contractor and ordered by a court of competent jurisdiction.

- d. If Contractor or District fails to designate a representative or fails to appear for the noticed examination, then the Contractor or District representative may examine the Escrow Bid Documents alone if a representative of the Contractor or District does not appear at the time set.
- e. **Subcontractor.** If a subcontractor has submitted sealed information that is included in the Escrow Bid Documentation and that subcontractor is reasonably involved in the negotiation of price adjustments and change orders or the settlement of disputes or claims, then the party requesting examination (the Contractor or the District) is required to also notify that Subcontractor with the same **Five (5) Business Days** written notice that the requesting party sends to the other party.
- f. The Escrow Bid Documentation will be returned to Contractor when the District accepts Project Completion, when all of Contractor's claims (if any) have been resolved to District's and Contractor's satisfaction, and when the Contractor certifies that it has no further claims against the District.

END OF DOCUMENT



**DOCUMENT 00 54 55**

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

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

Chico Unified School District ("District"), whose address is 2455 Carmichael Drive, Chico, California, and

\_\_\_\_\_ ("Contractor"), whose address is \_\_\_\_\_, and

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

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

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

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

**OR**

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

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

Securities shall be held in name of **CHICO UNIFIED SCHOOL DISTRICT**, and shall designate Contractor as beneficial owner.

2. District shall make payments to Contractor for those funds which otherwise would be withheld from payments pursuant to Contract provisions, provided that Escrow Agent holds securities in the form and amount specified above.
3. When District makes payment of retention earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this Escrow Agreement is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the Parties shall be equally applicable and binding when District pays Escrow Agent directly.
4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of District. The District will charge Contractor \$\_\_\_\_\_ for each of District's deposits to the escrow account. These expenses and payment terms shall be determined by District, Contractor, and Escrow Agent.
5. Interest earned on securities or money market accounts held in escrow and all interest earned on that interest

shall be for sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to District.

6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from District to Escrow Agent that District consents to withdrawal of amount sought to be withdrawn by Contractor.
7. District shall have the right to draw upon the securities and/or withdraw amounts from the Escrow Account in event of default by Contractor. Upon seven (7) days written notice to Escrow Agent from District of the default, if applicable, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by District.
8. Upon receipt of written notification from District certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all monies and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on written notifications from District and Contractor pursuant to Paragraphs 5 through 8, inclusive, of this Escrow Agreement and District and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of securities and interest as set forth above.
10. Names of persons who are authorized to give written notice or to receive written notice on behalf of District and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

**On behalf of District:**

\_\_\_\_\_  
Title  
\_\_\_\_\_  
Name  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Address

**On behalf of Contractor:**

\_\_\_\_\_  
Title  
\_\_\_\_\_  
Name  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Address

**On behalf of Escrow Agent:**

\_\_\_\_\_  
Title  
\_\_\_\_\_  
Name  
\_\_\_\_\_  
Signature  
\_\_\_\_\_  
Address

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

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

**On behalf of District:**

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

**On behalf of Contractor:**

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

**On behalf of Escrow Agent:**

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

END OF DOCUMENT

**DOCUMENT 00 54 70**

**STORM WATER POLLUTION PREVENTION PLAN**

**THE DISTRICT INTENDS TO HAVE THE CONTRACTOR BE ITS QUALIFIED SWPPP PRACTITIONER**

**SWPPP REQUIREMENTS IN THE FOLLOWING DOCUMENTS:**

- **DOCUMENT 00 71 00 (SPECIAL CONDITIONS)**
- **DIVISION ONE, INCLUDING DOCUMENT 01 57 10 (STORM WATER POLLUTION PREVENTION PLAN – CONSTRUCTION)**

**END OF DOCUMENT**

**DOCUMENT 00 61 14**

**PERFORMANCE BOND (100% of Contract Price)**

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

**KNOW ALL PERSONS BY THESE PRESENTS:**

**WHEREAS**, the governing board ("Board") of the Chico Unified School District, ("District") and \_\_\_\_\_, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

Emma Wilson Elementary School New Kindergarten  
("Project" or "Contract")

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

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

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

\_\_\_\_\_ DOLLARS

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

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

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

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

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

including, but not limited to, California Code of Civil Procedure section 337.15.

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

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

\_\_\_\_\_

\_\_\_\_\_

**Attention:** \_\_\_\_\_

**Telephone No.:** (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**Fax No.:** (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**E-mail Address:** \_\_\_\_\_

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

**Principal**

**Surety**

\_\_\_\_\_  
(Name of Principal)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Name of California Agent of Surety)

\_\_\_\_\_  
(Address of California Agent of Surety)

\_\_\_\_\_  
(Telephone Number of California Agent of Surety)

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

END OF DOCUMENT

**DOCUMENT 00 61 15**

**PAYMENT BOND -- Contractor's Labor & Material Bond (100% of Contract Price)**

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

**KNOW ALL PERSONS BY THESE PRESENTS:**

**WHEREAS**, the governing board ("Board") of the Chico Unified School District, (or "District") and \_\_\_\_\_, ("Principal") have entered into a contract for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to

Emma Wilson Elementary School New Kindergarten  
("Project" or "Contract")

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

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

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

\_\_\_\_\_ DOLLARS

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

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

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

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

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

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

**Principal**

**Surety**

\_\_\_\_\_  
(Name of Principal)

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Signature of Person with Authority)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Name of California Agent of Surety)

\_\_\_\_\_  
(Address of California Agent of Surety)

\_\_\_\_\_  
(Telephone Number of California Agent of Surety)

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

END OF DOCUMENT



**DOCUMENT 00 63 00**

**DISTRICT CONTRACT FORMS**

**Change Order Form** - See General Conditions Document 00 70 00-46

**Application & Certificate Payment Form** – Use AIA Document G702

END OF DOCUMENT

DOCUMENT 00 65 00

DISTRICT CLOSEOUT FORMS

**Not Applicable**

END OF DOCUMENT

**DOCUMENT 00 65 10**

**NOTICE TO PROCEED**

Dated: \_\_\_\_\_, 20\_\_

To: \_\_\_\_\_  
("Contractor")  
\_\_\_\_\_  
(Address)

From: Governing Board ("Board") of Chico Unified School District ("District")

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

Contractor is hereby notified that the Contract Time under the Contract will commence to run on May 16  
\_\_\_\_\_, 2019. By that date, Contractor shall start performing its obligations under the  
Contract Documents. In accordance with the Agreement executed by Contractor, the Contract Time and Project  
Completion is July 31, 2020.

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

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

Thank you. We look forward to a successful Project.

**CHICO UNIFIED SCHOOL DISTRICT**

BY: \_\_\_\_\_

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

TITLE: \_\_\_\_\_

END OF DOCUMENT

DOCUMENT 00 65 36

WARRANTY AND GUARANTEE FORM

1. \_\_\_\_\_ ("Contractor")  
hereby agrees that the \_\_\_\_\_ ("Work" of Contractor)  
which Contractor has installed for the Chico Unified School District ("District")  
for the following project: \_\_\_\_\_ ("Project" or "Contract")  
was performed in accordance with the requirements of the Contract Documents and that the Work as  
installed fulfills the requirements of the Contract Documents.
2. Contractor agrees to repair or replace all of the Work that may prove to be defective in workmanship or  
material and any other adjacent Work that may be displaced in connection with such replacement within a  
period of TWO YEAR(S) from the date of Completion as defined in the Contract, ordinary wear  
and tear and unusual abuse or neglect excepted. The date of completion is \_\_\_\_\_, 20\_\_.
3. In the event Contractor fails to comply with the above-mentioned conditions within a reasonable period of  
time, as determined by District, but not later than **SEVEN (7)** calendar days after being notified in writing by  
District, Contractor authorizes District to proceed to repair or replace the defective Work at the expense of  
Contractor. Contractor shall pay the costs and charges therefor upon demand.

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

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

ADDRESS: \_\_\_\_\_

PHONE NO.: \_\_\_\_\_

EMAIL: \_\_\_\_\_

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

Proper Name of Contractor: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

END OF DOCUMENT

DOCUMENT 00 70 00

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## 1. CONTRACT TERMS AND DEFINITIONS

### 1.1. Definitions

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

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

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

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

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

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

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

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

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

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

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

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

**1.1.11.1.** Notice to Bidders / Invitation to Bid

**1.1.11.2.** Instructions to Bidders

**1.1.11.3.** Bid Form

- 1.1.11.4. Bid Bond
- 1.1.11.5. Designated Subcontractors List
- 1.1.11.6. Noncollusion Declaration
- 1.1.11.7. Iran Contracting Act Certification
- 1.1.11.8. Certifications to be Completed by Contractor
- 1.1.11.9. Disabled Veteran’s Business Enterprise Participation Certification
- 1.1.11.10. Criminal Background Investigation/Fingerprinting Certification
- 1.1.11.11. Notice of Award
- 1.1.11.12. Agreement
- 1.1.11.13. Escrow of Bid Documentation (if applicable)
- 1.1.11.14. Escrow Agreement for Security Deposits in Lieu of Retention
- 1.1.11.15. Storm Water Pollution Prevention Plan (if applicable)
- 1.1.11.16. Hazardous Materials Procedures and Requirements
- 1.1.11.17. Notice to Proceed
- 1.1.11.18. Performance Bond
- 1.1.11.19. Payment Bond (Contractor’s Labor and Material Bond)
- 1.1.11.20. District Contract Forms (if applicable)
- 1.1.11.21. District Closeout Forms (if applicable)
- 1.1.11.22. Warranty and Guarantee Form
- 1.1.11.23. General Conditions
- 1.1.11.24. Special Conditions
- 1.1.11.25. Project Plans, Specifications, Technical Specifications, and Drawings
- 1.1.11.26. Addenda to any of the above documents
- 1.1.11.27. Schedules if approved in writing by the District
- 1.1.11.28. Change Orders or written modifications to the above documents if approved in writing by the District

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

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

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

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

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

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

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

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

**1.1.20. DSA:** Division of the State Architect.

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

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

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

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

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

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

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

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

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

**1.1.30. Request for Information:** (or "RFI") A written request prepared by the Contractor requesting that the Architect provide additional information necessary to clarify or amplify an item in the Contract

Documents that the Contractor believes is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address issues that have arisen under field conditions.

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

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

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

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

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

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

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

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

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

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

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

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

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

**Change Order that DSA must approve).**

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

**1.2. Laws Concerning the Contract**

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

**1.3. No Oral Agreements**

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

**1.4. No Assignment**

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

**1.5. Confidentiality**

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

**1.6. Notice and Service Thereof**

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

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

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

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

**1.6.1.4.** By registered or certified mail with postage prepaid, return receipt requested;

considered delivered on the day the notice is signed for.

**1.7. No Waiver**

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

**1.8. Substitutions for Specified Items**

See Special Conditions.

**1.9. Materials and Work**

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

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

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

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

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

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

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

company or political subdivision. In the event of installation of any such metering device or equipment, Contractor shall advise District as to owner thereof.

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

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

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

## **2. DISTRICT**

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

**2.2.** The District may, at any time,

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

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

**2.3. District's Rights if Contractor Fails to Perform.** If the District at any time believes that the Contractor is behind schedule, is failing to construct the Project pursuant to the Contract Documents or is otherwise failing to perform any provisions of this Contract, the District, after **FORTY-EIGHT (48)** hours written notice to the Contractor, may take any action necessary or beneficial to the District to complete the Project, takeover the Work of the Contract, terminate or suspend the Contract as indicated herein, or any combination or portion of those actions. The Contractor and the Surety shall be liable to the District for any cost incurred by the District in those actions and the District has the right to deduct the cost thereof from any payment then or thereafter due the Contractor.

## **3. ARCHITECT**

**3.1.** Architect shall have the authority to act on behalf of District to the extent expressly provided in the Contract Documents and to the extent determined by District to, among other things, observe the progress and quality of the Work on behalf of the District.

**3.2.** Architect shall have authority to reject materials, workmanship, and/or the Work whenever rejection

may be necessary, in Architect's reasonable opinion, to insure the proper execution of the Contract and if Work is defective or does not conform to the requirements of the Contract Documents. Whenever the Architect considers it necessary or advisable, for implementation of the intent of the Contract Documents, the Architect will have authority to require additional inspections or testing of the Work, whether or not such Work is fabricated, installed or completed. Neither this authority of the Architect nor a decision made in good faith by the Architect to exercise or not to exercise that authority shall give rise to a duty or responsibility to the Contractor, Subcontractors, material suppliers, their agents or employees, or other persons performing portions of the Work.

- 3.3. Architect shall, with the District and on behalf of the District, determine the amount, quality, acceptability, and fitness of all parts of the Work, and interpret the Specifications, Drawings, and shall, with the District, interpret all other Contract Documents.
- 3.4. Architect shall have all authority and responsibility established by law, including title 24 of the California Code of Regulations.
- 3.5. Contractor shall provide District and the Construction Manager with a copy of all written communication between Contractor and Architect at the same time as that communication is made to Architect, including, without limitation, all RFIs, correspondence, submittals, claims, and proposed change orders.

#### **4. CONSTRUCTION MANAGER**

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

#### **5. INSPECTOR, INSPECTIONS AND TESTS**

##### **5.1. Project Inspector**

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

5.1.2. No Work shall be carried on except with the knowledge and under the inspection of the Project Inspector(s). The Project Inspector(s) shall have free access to all parts of Work at any time. Contractor



shall furnish Project Inspector(s) reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector(s) fully informed respecting progress and manner of work and character of materials. Inspection of Work shall not relieve Contractor from the obligation to fulfill the Contract. Project Inspector(s) and the DSA are authorized to stop work whenever the Contractor and/or its Subcontractor(s) are not complying with the Contract Documents. Any work stoppage by the Project Inspector(s) and/or DSA shall be without liability to the District. Contractor shall instruct its Subcontractors and employees accordingly.

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

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

## **5.2. Tests and Inspections**

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

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

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

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

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

**5.2.6.** The District will select and pay testing laboratory costs for all tests and inspections. Costs of tests

of any materials found to be not in compliance with the Contract Documents shall be paid for by the District and reimbursed by the Contractor or deducted from the Contract Price.

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

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

## **6. CONTRACTOR**

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

### **6.1. Status of Contractor**

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

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

### **6.2. Contractor's Supervision**

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

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

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

shall each represent Contractor, and all directions given to Contractor's project manager and/or construction superintendent shall be as binding as if given to Contractor.

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

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

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

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

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

### **6.3. Duty to Provide Fit Workers**

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

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

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

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

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

#### **6.4. Personnel**

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

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

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

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

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

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

#### **6.5. Prohibition on Harassment**

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

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

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

## **6.6. Conferences and Meetings.**

**6.6.1.** In addition to the conference and meeting requirements in the Specifications, Contractor's supervisory personnel for the Work and the Contractor's management personnel shall attend all required meetings as required by the Contract Documents or as requested by the District. The Contractor's personnel participating in conferences and meetings relating to the Work shall be authorized to act on behalf of the Contractor and to bind the Contractor. The Contractor is solely responsible for arranging for the attendance by Subcontractors and Material Suppliers at meetings and conferences relating to the Work as necessary, appropriate or as requested by the District.

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

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

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

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

## **6.7. Purchase of Materials and Equipment**

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

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

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

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

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

**6.7.2.2.2.** Verified invoices for the Stored Materials; and

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

## **6.8. Documents on Work**

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

### **6.8.2. Daily Job Reports.**

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

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

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

## **6.9. Preservation of Records**

District shall have the right to examine and audit all Daily Job Reports or other Project records of Contractor's project manager(s), project superintendent(s), and/or project foreperson(s), all certified payroll records and/or related documents including, without limitation, payroll, payment, timekeeping and tracking documents; all books, estimates, records, contracts, documents, bid documents, bid cost

data, subcontract job cost reports, and other data of the Contractor, any Subcontractor, and/or supplier, including computations and projections related to bidding, negotiating, pricing, or performing the Work or Contract modification, in order to evaluate the accuracy, completeness, and currency of the cost, manpower, coordination, supervision, or pricing data at no additional cost to the District. These documents may be duplicative and/or be in addition to any Bid Documents held in escrow by the District. Contractor shall make available at its office at all reasonable times the materials described in this paragraph for the examination, audit, or reproduction until three (3) years after final payment under this Contract. Notwithstanding the provisions above, Contractor shall provide any records requested by any governmental agency, if available, after the time set forth above.

#### **6.10. Integration of Work**

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

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

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

#### **6.11. Obtaining of Permits and Licenses**

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

#### **6.12. Work to Comply with Applicable Laws and Regulations**

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

**6.12.1.1.** National Electrical Safety Code, U. S. Department of Commerce

**6.12.1.2.** National Board of Fire Underwriters' Regulations

**6.12.1.3.** Uniform Building Code, latest addition, and the California Code of Regulations, title 24, including amendments

**6.12.1.4.** Manual of Accident Prevention in Construction, latest edition, published by A.G.C. of America

**6.12.1.5.** Industrial Accident Commission's Safety Orders, State of California

**6.12.1.6.** Regulations of the State Fire Marshall (title 19, California Code of Regulations) and



Pertinent Local Fire Safety Codes

- 6.12.1.7.** Americans with Disabilities Act
- 6.12.1.8.** Education Code of the State of California
- 6.12.1.9.** Government Code of the State of California
- 6.12.1.10.** Labor Code of the State of California, division 2, part 7, Public Works and Public Agencies
- 6.12.1.11.** Public Contract Code of the State of California
- 6.12.1.12.** California Art Preservation Act
- 6.12.1.13.** U. S. Copyright Act
- 6.12.1.14.** U. S. Visual Artists Rights Act

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

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

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

**6.13. Safety/Protection of Persons and Property**

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

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

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

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

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

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

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

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

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

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

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

**6.13.12.** In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization, shall act, at its discretion, to prevent such threatened loss or injury. Any compensation claimed by Contractor on account of emergency work shall be determined by agreement.

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

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

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

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

**6.13.17.** Contractor shall take adequate precautions to protect existing roads, sidewalks, curbs,

pavements, utilities, adjoining property, and structures (including, without limitation, protection from settlement or loss of lateral support), and to avoid damage thereto, and repair any damage thereto caused by construction operations.

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

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

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

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

#### **6.14. Working Evenings and Weekends**

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

#### **6.15. Noise and Dust Control**

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

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

**6.15.3. Dust Control.** The Contractor shall be fully and solely responsible for maintaining and upkeeping

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

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

#### **6.16. Cleaning Up**

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

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

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

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

## **7. SUBCONTRACTORS**

- 7.1.** Contractor shall provide the District with information for all Subcontracts as required in the Contractor's Submittals and Schedules Section.
- 7.2.** No contractual relationship exists between the District and any Subcontractor, supplier, or sub-subcontractor by reason of the Contract.
- 7.3.** Contractor agrees to bind every Subcontractor by terms of the Contract as far as those terms are applicable to Subcontractor's work. If Contractor shall subcontract any part of the Contract, Contractor shall be as fully responsible to District for acts and omissions of any Subcontractor and of persons either directly or indirectly employed by any Subcontractor, as it is for acts and omissions of persons directly employed by Contractor. The divisions or sections of the Specifications are not intended to control the Contractor in dividing the Work among Subcontractors or limit the work performed by any trade.
- 7.4.** District's consent to, or approval of, or failure to object to, any Subcontractor under the Contract shall not in any way relieve Contractor of any obligations under the Contract and no such consent shall be deemed to waive any provisions of the Contract.
- 7.5.** Contractor acknowledges sections 4100 through 4114 of the Public Contract Code of the State of California, as regards subletting and subcontracting, and shall comply with all applicable requirements therein. In addition, Contractor acknowledges sections 1720 through 1861 of the Labor Code of the State of California, as regards the payment of prevailing wages and related issues, and shall comply with all applicable requirements therein all including, without limitation, section 1775 and the Contractor's and Subcontractors' obligations and liability for violations of prevailing wage law and other applicable laws.
- 7.6.** No Contractor whose Bid is accepted shall, without consent of the awarding authority and in full compliance with section 4100, et seq, of the Public Contract Code, including, without limitation, sections 4107, 4107.5, and 4109 of the Public Contract Code, either:
  - 7.6.1.** Substitute any person as a Subcontractor in place of the Subcontractor designated in the original Bid; or
  - 7.6.2.** Permit any Subcontract to be assigned or transferred, or allow any portion of the Work to be performed by anyone other than the original Subcontractor listed in the Bid; or
  - 7.6.3.** Sublet or subcontract any portion of the Work in excess of one-half of one percent (1/2 of 1%) of the Contractor's total bid as to which his original bid did not designate a Subcontractor.
- 7.7.** The Contractor shall be responsible for the coordination of the trades, Subcontractors, sub-subcontractors, and material or equipment suppliers working on the Project.
- 7.8.** Contractor is solely responsible for settling any differences between the Contractor and its Subcontractor(s) or between Subcontractors.
- 7.9.** Contractor must include in all of its subcontracts the assignment provisions as indicated in the

Termination section of these General Conditions.

**8. OTHER CONTRACTS/CONTRACTORS**

- 8.1. District reserves the right to let other contracts, and/or to perform work with its own forces, in connection with other portions of the Project or other construction or operations at or about the Site. Contractor shall afford other contractors reasonable opportunity for introduction and storage of their materials and execution of their work and shall properly coordinate and connect Contractor's Work with the work of other contractors.
- 8.2. In addition to Contractor's obligation to protect its own Work, Contractor shall protect the work of any other contractor that Contractor encounters while working on the Site.
- 8.3. If any part of Contractor's Work depends for proper execution or results upon work of District or any other contractor, Contractor shall inspect and promptly report to the District in writing before proceeding with its Work any defects in District's or any other contractor's work that render Contractor's Work unsuitable for proper execution and results. Contractor shall be held accountable for damages to District for District's or any other contractor's work that Contractor failed to inspect or should have inspected. Contractor's failure to inspect and report shall constitute Contractor's acceptance of all District's or any other contractor's work as fit and proper for reception of Contractor's Work, except as to defects that may develop in District's or any other contractor's work after execution of Contractor's Work.
- 8.4. To ensure proper execution of its subsequent work, Contractor shall measure and inspect work already in place and shall at once report to the District in writing any discrepancy between that executed work and the Contract Documents.
- 8.5. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of District's or any other contracts that have been or may be awarded by District in completion of the Project to the end that Contractor may perform this Contract in light of the other contracts, if any.
- 8.6. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy of the Site, the Premises, or of the Project. The District shall have complete access to the Project Site for any reasonable purpose at all times. Contractor shall not cause any unnecessary hindrance or delay to the use and/or school operation(s) of the Premises and/or to District or any other contractor working on the Project. If simultaneous execution of any contract or school operation is likely to cause interference with performance of Contractor's Contract, Contractor shall coordinate with those contractor(s), person(s), and/or entity(s) and shall notify the District of the resolution.

**9. DRAWINGS AND SPECIFICATIONS**

- 9.1. A complete list of all Drawings that form a part of the Contract is to be found as an index on the Drawings themselves, and/or may be provided to the Contractor and/or in the Table of Contents.
- 9.2. Materials or Work described in words that so applied have a well-known technical or trade meaning shall be deemed to refer to recognized standards, unless noted otherwise.
- 9.3. Trade Name or Trade Term. It is not the intention of the Contract to go into detailed descriptions of any materials and/or methods commonly known to the trade under "trade name" or "trade term." The mere mention or notation of "trade name" or "trade term" shall be considered sufficient notice to Contractor that it will be required to complete the work so named, complete, finished, and operable, with all its appurtenances, according to the best practices of the trade.
- 9.4. The naming of any material and/or equipment shall mean furnishing and installing of same, including

all incidental and accessory items thereto and/or labor therefor, as per best practices of the trade(s) involved, unless specifically noted otherwise.

- 9.5. Contract Documents are complementary, and what is called for by one shall be binding as if called for by all. As such, Drawings and Specifications are intended to be fully cooperative and to agree. However, if Contractor observes that Drawings and Specifications are in conflict, Contractor shall promptly notify District and Architect in writing, and any necessary changes shall be made as provided in the Contract Documents.
- 9.6. In the case of discrepancy or ambiguity in the Contract Documents, the order of precedence in the Agreement shall prevail. However, in the case of discrepancy or ambiguity solely between and among the Drawings and Specifications, the discrepancy or ambiguity shall be resolved in favor of the interpretation that will provide District with the functionally complete and operable Project described in the Drawings and Specifications. In case of ambiguity, conflict, or lack of information, District will furnish clarifications with reasonable promptness.
- 9.7. Drawings and Specifications are intended to comply with all laws, ordinances, rules, and regulations of constituted authorities having jurisdiction, and where referred to in the Contract Documents, the laws, ordinances, rules, and regulations shall be considered as a part of the Contract within the limits specified. Contractor shall bear all expense of correcting work done contrary to said laws, ordinances, rules, and regulations.

**9.8. Ownership of Drawings**

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

**10. CONTRACTOR'S SUBMITTALS AND SCHEDULES**

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

**10.1. Schedules, Safety Plan and Complete Subcontractor List**

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

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

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

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

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

**10.1.1.3. Schedule of Values.** The Contractor shall provide a preliminary schedule of values for all component parts of the Work for which progress payments may be requested. The schedule of values must include quantities and prices of items totaling the Contract Price and must subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. The preliminary schedule of values should include, at a minimum, the following information and the following structure:

**10.1.1.3.1.** Divided into at least the following categories:

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

**10.1.1.3.2.** Divided by each of the following areas:

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

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



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

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

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

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

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

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

of the Contractor's overhead, supervision and general conditions costs and profit, as such items are reflected in the Schedule of Values, shall be made incrementally as included in the activities included in the Approved Construction Schedule.

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

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

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

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

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

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

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

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

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

## **10.2. Monthly Progress Schedule(s)**

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

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

## **10.3. Material Safety Data Sheets (MSDS)**

Contractor is required to ensure Material Safety Data Sheets are available in a readily accessible place at the Work Site for any material requiring a Material Safety Data Sheet per the Federal "Hazard Communication" standard, or employees right to know law. The Contractor is also required to ensure proper labeling on substances brought onto the Project Site and that any person working with the

material or within the general area of the material is informed of the hazards of the substance and follows proper handling and protection procedures. Two additional copies of the Material Safety Data Sheets shall also be submitted directly to the District.

#### **10.4. Logistic Plan**

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

#### **10.5. Information Included in Submittals.**

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

#### **10.6. Verification of Submittal Information.**

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

#### **10.7. Contractor Responsibility for Deviations.**

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

#### **10.8. No Performance of Work Without Architect Review.**

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

other applicable portions of the Contract Documents.

#### **10.9. District and Architect Review of Submittals.**

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

#### **10.10. Deferred Approval Items.**

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

#### **10.11. Contractor Responsibility for Deviations**

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

### **11. SITE ACCESS, CONDITIONS AND REQUIREMENTS**

#### **11.1. Site Investigation**

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

#### **11.2. Soils Investigation Report**

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

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

### **11.3. Access to Work**

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

### **11.4. Layout and Field Engineering**

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

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

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

### **11.5. Utilities for Construction**

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

### **11.6. Sanitary Facilities**

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

### **11.7. Surveys**

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

### **11.8. Regional Notification Center**

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

#### **11.9. Existing Utility Lines**

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

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

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

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

#### **11.10. Notification**

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

#### **11.11. Hazardous Materials**

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

#### **11.12. No Signs**

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

## **12. TRENCHES**

### **12.1. Trenches Greater Than Five Feet**

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

### **12.2. Excavation Safety**

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

### **12.3. No Tort Liability of District**

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

### **12.4. No Excavation without Permits**

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

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

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

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

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

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

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

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

### **13. INSURANCE AND BONDS**

#### **13.1. Insurance**

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

##### **13.1.1. Commercial General Liability and Automobile Liability Insurance**

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

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

##### **13.1.2. Umbrella Liability Insurance**

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

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

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

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



#### **13.1.4. Workers' Compensation and Employers' Liability Insurance**

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

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

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

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

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

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

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

**13.1.6.2.1.** A clause stating:

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

**13.1.6.2.1.2.** In lieu of receiving an endorsement with this clause, the District may, at its sole discretion, accept written notification from Contractor and its insurer to the District of

any amendments, modifications, cancellations or reduction in coverage, not less than thirty (30) days prior to such coverage changes occur.

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

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

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

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

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

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

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

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

**13.1.7. Insurance Policy Limits**

Unless different limits are indicated in the **Special Conditions**, the limits of insurance shall not be less than the following amounts: **See Special Conditions for this project.**

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

	General Aggregate	of Work stored off-site.
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### **13.2. Contract Security – Bonds**

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

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

**13.2.1.2. Payment Bond:** A bond in an amount at least equal to one hundred percent (100%) of the Contract Price as security for payment of persons performing labor and/or furnishing materials in connection with the Contract.

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

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

## **14. WARRANTY/GUARANTEE/INDEMNITY**

### **14.1. Warranty/Guarantee**

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

**14.1.2.** In addition to guarantees required elsewhere, Contractor shall, and hereby does guarantee and warrant all Work against all defects for a period of **TWO (2)** year after the later of the following dates:

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

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

**14.1.3.** At the District's sole option, Contractor shall repair or replace any and all of that Work, together with any other Work that may be displaced in so doing, that may prove defective in workmanship and/or materials within a **TWO (2)** year period from date of Completion as defined above without expense whatsoever to District. In the event of failure of Contractor and/or Surety to commence and pursue with diligence said replacements or repairs within **TEN (10)** days after being notified in writing, Contractor and Surety hereby acknowledge and agree that District is authorized to proceed to have defects repaired and made good at expense of Contractor and/or Surety who hereby agree to pay costs and charges therefore immediately on demand.

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

**14.1.5.** The above provisions do not in any way limit the guarantees on any items for which a longer guarantee is specified or on any items for which a manufacturer gives a guarantee for a longer period.

Contractor shall furnish to District all appropriate guarantee or warranty certificates as indicated in the Specifications or upon request by District.

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

#### **14.2. Indemnity**

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

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

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

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

#### **15. TIME**

##### **15.1. Notice to Proceed**

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

### **15.2. Hours of Work**

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

### **15.3. Progress and Completion**

#### **15.3.1. Time of the Essence**

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

#### **15.3.2. No Commencement Without Insurance**

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

### **15.4. Schedule**

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

### **15.5. Expeditious Completion**

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

## **16. EXTENSIONS OF TIME – LIQUIDATED DAMAGES**

### **16.1. Contractor's Notice of Delay**

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

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

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

occurrence of the delay or execution of Work related to any changes to the Scope of Work.

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

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

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

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

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

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

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

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

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

**16.1.8.2.** How long the delay continues; and

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

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

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

that ends last. If an Unexcused Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days, if any, which the Excusable Delay or the Compensable Delay exceeds the period of time of the Unexcused Delay.

#### **16.2. Excusable and Compensable Delay(s)**

**16.2.1.** Contractor is **not** entitled to additional compensation for any delay, even a delay caused by Adverse Weather or an Excusable Delay, unless **all** of the following conditions are met:

**16.2.1.1.** The District is responsible for the delay;

**16.2.1.2.** The delay is unreasonable under the circumstances involved and impacts the critical path of the Work and extends the most current Contract Completion date;

**16.2.1.3.** The delay was not within the contemplation of District and Contractor; and

**16.2.1.4.** Contractor complies with the claims procedure of the Contract Documents.

**16.2.1.5.** The delay could **not** have been avoided or mitigated by the Contractor's care, prudence, foresight, and diligence.

**16.2.1.6.** The delay extends the most current Contract Completion date, and is not concurrent with a Contractor caused delay or other type of Excusable Delay.

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

#### **16.3. Excusable and Non-Compensable Delay(s)**

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

**16.3.1.1.** Could have not been avoided by the Contractor exercising care, prudence, foresight, and diligence, and

**16.3.1.2.** Actually extended the most current Project Completion date.

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

**16.3.3.** Excusable Delays are limited to interruptions that satisfy the above requirements and that are acts of God; acts of a public enemy; fires; floods; windstorms; tornadoes; earthquakes; wars; riots;

insurrections; epidemics; quarantine restrictions; strikes; lockouts; fuel shortages; freight embargoes; and Adverse Weather that satisfies the requirements herein.

**16.3.4.** Contractor is aware that governmental agencies and utilities, including, without limitation, the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies may have to approve Contractor-prepared drawings or approve a proposed installation. Contractor shall include in its bid, time for possible review of its drawings and for reasonable delays and damages that may be caused by such agencies. Contractor is not entitled to make a claim for damages or delays or an Excusable Delay arising from the review of Contractor's drawings or other approvals from the Division of the State Architect, the Department of General Services, gas companies, electrical utility companies, water districts, and other agencies.

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

**16.3.6. Computation of Time / Adverse Weather**

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

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

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

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

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

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

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

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

**16.4. Unexcused Delay(s) – Liquidated Damages**



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

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

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

## **17. CHANGES IN THE WORK**

### **17.1. No Changes Without Authorization**

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

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

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

**17.1.4.** No extension of time for performance of the Work shall be allowed hereunder unless claim for such extension is made at the time changes in the Work are ordered, and such time duly adjusted in writing in the Change Order, Unilateral Change Order, or Force Account Directive. The provisions of the

Contract Documents shall apply to all such changes, additions, and omissions with the same effect as if originally embodied in the Drawings and Specifications.

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

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

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

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

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

## **17.2. Architect Authority**

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

## **17.3. Change Orders**

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

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

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

**17.3.3.** If the District approves of a Change, the District or the Architect shall provide a written Change Order to the Contractor describing the Change and setting forth the adjustment to the Contract Time and the Contract Price, if any, on account of that Change. All Change Orders shall be full payment and final

settlement of all rights for direct, indirect and consequential costs, including without limitation, costs of delays or impacts related to, or arising out of, items covered and affected by the Change Order, as well as any adjustments to the Contract Time. Any demand or request for an adjustment to the Contract Time or the Contract Price relating to any Change incorporated into a Change Order not presented by the Contractor for inclusion in the Change Order shall be deemed waived. The Contractor shall execute the Change Order prepared pursuant to the foregoing. After the Change Order has been prepared and forwarded to the Contractor for execution, the Contractor shall not modify or amend the form or content of such Change Order, or any portion thereof.

#### **17.4. Unilateral Change Orders**

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

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

#### **17.5. Force Account Directives**

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

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

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

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

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

**17.5.6.** Contractor shall diligently proceed with the work, and on a daily basis, submit a daily force account report on a form supplied by the District no later than 5:00 p.m. each day. The report shall contain a detailed itemization of the daily labor, material, and equipment used on the force account work

only. The names of the individuals performing the force account work shall be included on the daily force account reports. The type and model of equipment shall be identified and listed. District will review the information contained in the reports, and sign the reports no later than the next work day, and return a copy of the report to Contractor for its records. District will not sign, nor will Contractor receive compensation for work District cannot verify. Contractor will provide a weekly force account summary indicating the status of each Force Account Directive in terms of percent complete of the not-to-exceed budget and the estimated percent complete of the work.

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

#### **17.6. Price Request**

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

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

#### **17.7. Proposed Change Order**

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

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

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

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

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

Contractor's waiver, release, discharge and relinquishment of any right to assert or claim any entitlement to an adjustment of the Contract Time or the Contract Price on account of the circumstances giving rise to the PCO.

**17.8. Format for Proposed Change**

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



**FORMAT FOR PROPOSED CHANGE FOR SUBCONTRACTOR PERFORMED WORK**

	<b><u>SUBCONTRACTOR PERFORMED WORK</u></b>	<b><u>ADD</u></b>	<b><u>DEDUCT</u></b>
(A)	<b><u>Labor Charge</u></b> 1. <b>Hours.</b> Attach total itemized hours.  2. <b>Rate.</b> This shall be no more than the Straight-Time Total Hourly Rate as determined by the Department of Industrial Relations ("DIR") for the applicable labor category.		
(B)	<b><u>Labor Burden &amp; Worker's Compensation Charge</u></b> 1. This shall be no more than twenty percent (20%) of <b>item (A)</b> , the Labor Charge.  2. This shall be the total cumulative charge permitted for all Subcontractors or all labor performed by the Subcontractor or Subcontractor's Subcontractor(s) (i.e., all "lower-tier" Subcontractor(s)).		
(C)	<b><u>Subtotal (A+B)</u></b>		
(D)	<b><u>Material Charge</u></b> Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s).		
(E)	<b><u>Equipment Charge</u></b> Attach invoice(s) from supplier(s).		
(F)	<b><u>Subtotal (C+D+E)</u></b>		
(G)	<b><u>Subcontractor's Overhead and Profit Charge</u></b> 1. This shall be no more than five percent (5%) of <b>item (F)</b> .  2. This shall be the total cumulative mark-up permitted for the Subcontractor and Subcontractor's Subcontractor(s) (i.e., all "lower-tier" Subcontractor(s)).		
(H)	<b><u>Subtotal (F+G)</u></b>		
(I)	<b><u>Contractor's Overhead, Profit, Bond and Insurance</u></b> 1. This shall be no more than six percent (6%) of <b>Item (F)</b> .  2. This shall be the total mark-up permitted for Contractor.		
(J)	<b><u>Subtotal (H+I)</u></b>		
(K)	<b><u>Time</u></b>	<u>          </u> Days	
(L)	<b><u>Contractor's Home Office Overhead</u></b>  This shall be no more than \$200 times the number of days of Item (K) (i.e., not to exceed \$200/day)		
(M)	<b><u>TOTAL (J+L)</u></b>		

**FORMAT FOR PROPOSED CHANGE FOR CONTRACTOR PERFORMED WORK**

	<b><u>CONTRACTOR PERFORMED WORK</u></b>	<b><u>ADD</u></b>	<b><u>DEDUCT</u></b>
(A)	<b><u>Labor Charge</u></b> 1. <b>Hours.</b> Attach total itemized hours.  2. <b>Rate.</b> This shall be no more than the Straight-Time Total Hourly Rate as determined by the Department of Industrial Relations ("DIR") for the applicable labor category.		
(B)	<b><u>Labor Burden &amp; Worker's Compensation Charge</u></b> 1. This shall be no more than twenty percent (20%) of <b>item (A)</b> , the Labor Charge.  2. This shall be the total cumulative charge permitted for all labor performed by Contractor.		
(C)	<b><u>Subtotal (A+B)</u></b>		
(D)	<b><u>Material Charge</u></b> Attach itemized quantity and unit cost plus sales tax and invoice(s) from vendor(s).		
(E)	<b><u>Equipment Charge</u></b> Attach invoice(s) from supplier(s).		
(F)	<b><u>Subtotal (C+D+E)</u></b>		
(G)	<b><u>Contractor's Overhead, Profit, Bond and Insurance</u></b> 1. This shall be no more than six percent (6%) of <b>Item (F)</b> .  2. This shall be the total mark-up permitted for Contractor.		
(H)	<b><u>Total (F+G)</u></b>		

*The Contractor approves the foregoing as to the changes, if any, and the price specified for each item and the extension of time allowed, if any, for completion of the entire Work as stated herein, and agrees to furnish all labor, materials, and service, and perform all work necessary to complete all additional work specified for the consideration stated herein. Submission of sums which have no basis in fact or which Contractor knows are false are at the sole risk of Contractor and may be a violation of the False Claims Act set forth under Government Code section 12650 et seq. It is understood that the changes herein to the Contract shall only be effective when approved by the governing board of the District. It is expressly understood that the value of the extra Work or changes includes all of the Contractor's costs, expenses, field overhead, home office overhead, profit, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.*

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

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

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

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

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

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

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

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

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

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

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

**17.8.2.3.6.1.** All field, field office and home office personnel including, but not limited to,

principals, project managers, superintendents, supervisory foremen, estimators, project engineers, detailers, draftsmen, schedulers, consultants, watchmen, payroll clerks, administrative assistants, labor compliance costs and secretaries.

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

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

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

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

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

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

#### **17.9. Change Order Certification**

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

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

*the extra Work or changes includes all of the Contractor's costs, expenses, field overhead, home office overhead, profit, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs, expenses, damages, or time extensions not included are deemed waived.*

**17.10. Determination of Change Order Cost**

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

**17.10.1.1.** District acceptance of a PCO;

**17.10.1.2.** By agreement between District and Contractor.

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

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

**17.11. Deductive Change Orders**

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

**17.12. Discounts, Rebates and Refunds**

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment



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

**17.13. Accounting Records**

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

**17.14. Notice Required**

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

**17.15. Applicability to Subcontractors**

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

**17.16. Alteration to Change Order Language**

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

**17.17. Failure of Contractor to Execute Change Order**

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

**18. REQUEST FOR INFORMATION**

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

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

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

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

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

**18.2.4.** Is not justified for any other reason.

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

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

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

## **19. PAYMENTS**

### **19.1. Contract Price**

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

### **19.2. Applications for Progress Payments**

#### **19.2.1. Procedure for Applications for Progress Payments**

##### **19.2.1.1. Application for Progress Payment**

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

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

**19.2.1.1.1.2.** The amount being requested by the Application for Payment by the Contractor on its own behalf and separately stating the amount requested on behalf of each

of the Subcontractors and all others furnishing labor, material, and equipment under the Contract;

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

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

**19.2.1.1.1.5.** An Itemized breakdown of Work performed;

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

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

**19.2.1.1.1.8.** A total of the retention held;

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

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

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

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

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

**19.2.1.1.1.14.** A certification by the Contractor of the following:

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

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

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

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

**19.2.2. Prerequisites for Progress Payments**

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

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

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

**19.2.2.3. No Waiver of Criteria:** Any payment made to Contractor where criteria set forth herein have not been met shall not constitute a waiver of said criteria by District. The approval of any Application for Progress Payment or the disbursement of any Progress Payment to the Contractor shall not be deemed nor constitute acceptance of defective Work or Work not in conformity with the Contract Documents. Instead, such payment shall be construed as a good faith effort by District to resolve differences so Contractor may pay its Subcontractors and suppliers. Contractor agrees that failure to submit such items may constitute a material breach of the Contract by Contractor and may subject Contractor to termination.

### **19.3. Progress Payments**

#### **19.3.1. District's Approval of Application for Payment**

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

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

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

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

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

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

**19.3.1.2.2.** Results of subsequent tests and inspections,

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

**19.3.1.2.4.** Specific qualifications expressed by the Architect.

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

#### **19.3.2. Payments to Contractor**

**19.3.2.1.** Within thirty (30) days after approval of the Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The value of the Work completed shall be Contractor's best estimate. No inaccuracy or error in Contractor's estimate shall operate to release the Contractor, or any Surety upon any bond, from damages arising from such Work, or from the District's right to enforce each and every provision of this Contract, and the District shall have the right subsequently to correct any error made in any estimate for payment.



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

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

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

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

**19.3.3. No Waiver**

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

**19.3.4. Warranty of Title**

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

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

**19.4. Decisions to Withhold Payment**

**19.4.1. Reasons to Withhold Payment**

District may withhold payment in whole, or in part, to the extent reasonably necessary to protect the District if, in the District's opinion, the representations to the District required herein cannot be made. District may withhold payment, in whole, or in part, to such extent as may be necessary to protect the District from loss because of, but not limited to:

**19.4.1.1.** Defective Work not remedied within **FORTY-EIGHT (48)** hours of written notice to Contractor;

**19.4.1.2.** Stop notices, stop payment notices or other liens served upon the District as a result of the Contract;

**19.4.1.3.** Liquidated damages assessed against the Contractor;

- 19.4.1.4.** The cost to complete the Work if there exists reasonable doubt that the Work can be completed for the unpaid balance of the Contract Price or by the Completion Date;
- 19.4.1.5.** Damage to the District or other contractor(s);
- 19.4.1.6.** Unsatisfactory performance of the Work by Contractor;
- 19.4.1.7.** Failure to store and properly secure materials;
- 19.4.1.8.** Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, Schedule of Submittals, Schedule of Values, Monthly Progress Schedules, Shop Drawings, Product Data and samples, Proposed product lists, executed Change Orders, and/or verified reports;
- 19.4.1.9.** Failure of the Contractor to maintain As-Built Drawings;
- 19.4.1.10.** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;
- 19.4.1.11.** Unauthorized deviations from the Contract Documents;
- 19.4.1.12.** Failure of the Contractor to perform the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, and/or completion dates;
- 19.4.1.13.** If requested by the District, or the failure to provide to the DIR, certified payroll records acceptable to the District and the DIR for each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work for the period of the Application for Payment;
- 19.4.1.14.** Failure to properly pay prevailing wages as defined in Labor Code sections 1720 et seq. and/or failure to comply with any other Labor Code requirements;
- 19.4.1.15.** Failure to properly maintain or clean up the Site;
- 19.4.1.16.** Failure to timely indemnify, defend or hold harmless the District;
- 19.4.1.17.** Any payments due to the District, including but not limited to payments for failed tests, utilities changes, or permits;
- 19.4.1.18.** Failure to pay Subcontractor(s) or supplier(s) as required by law and by the Contract Documents;
- 19.4.1.19.** Failure to pay any royalty, license or similar fees;
- 19.4.1.20.** Failure of the Contractor to submit on a timely basis all Closeout Documentation in a manner and form that is proper, sufficient, and reasonably acceptable to the District, and to not cause a delay in the Completion or approval of the Project; or
- 19.4.1.21.** Failure to perform any implementation and/or monitoring required by any SWPPP for the Project and/or the imposition of any penalties or fines imposed therefore against Contractor or District.
- 19.4.1.22.** Payment is delayed due to an audit inquiry by the State, the County Office of Education, the County, or any entity with jurisdiction related to the Project.

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

**19.4.2. Reallocation of Withheld Amounts**

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

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

**19.4.3. Payment After Cure**

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

**19.5. Subcontractor Payments**

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

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

**19.5.3. Joint Checks.** District shall have the right in its sole discretion, if necessary for the protection of the District, to issue joint checks made payable to the Contractor and Subcontractors and material or equipment suppliers. The joint check payees shall be responsible for the allocation and disbursement of funds included as part of any such joint payment. In no event shall any joint check payment be construed to create any contract between the District and a Subcontractor of any tier, any obligation from the District to such Subcontractor, or rights in such Subcontractor against the District.

**20. COMPLETION OF THE WORK**

**20.1. Completion**

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

**20.1.2.** District shall accept the Project and may have a Notice of Completion recorded when Project Completion has been achieved in accordance with the Contract Documents and to the satisfaction of

District. For purposes of the payment of Retention, Completion is defined in Public Contract Code section 7107. For purposes of the timely filing of Stop Payment Notices, Completion is defined in California Civil Code section 9200, et seq.

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

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

## **20.2. Closeout Procedures**

### **20.2.1. Punch List**

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

### **20.2.2. Closeout Requirements**

#### **20.2.2.1. Utility Connections**

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

#### **20.2.2.2. As-Built Drawings**

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

**20.2.2.2.2.** Contractor is liable and responsible for any and all inaccuracies in the As-Built Drawings, even if inaccuracies become evident at a future date.

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

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

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

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

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

**20.2.2.4.3.** All Warranties, as further defined herein.

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

### **20.3. Final Inspection**

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

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

### **20.3.3. Final Inspection Requirements**

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

**20.3.3.1.1.** The Work has been completed.

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

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

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

**20.3.3.1.5.** Painting and special finishes complete.

**20.3.3.1.6.** Doors complete with hardware, cleaned of protective film, relieved of sticking or binding, and in working order.

**20.3.3.1.7.** Tops and bottoms of doors sealed.

**20.3.3.1.8.** Floors waxed and polished as specified.

**20.3.3.1.9.** Broken glass replaced and glass cleaned.

**20.3.3.1.10.** Grounds cleared of Contractor's equipment, raked clean of debris, and trash removed from Site.

**20.3.3.1.11.** Work cleaned, free of stains, scratches, and other foreign matter, of damaged



and broken material replaced.

**20.3.3.1.12.** Finished and decorative work shall have marks, dirt, and superfluous labels removed.

**20.3.3.1.13.** Final cleanup, as provided herein.

#### **20.4. Costs of Multiple Inspections**

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

#### **20.5. Partial Occupancy or Use Prior to Completion**

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

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

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

### **21. FINAL PAYMENT AND RETENTION**

#### **21.1. Final Payment**

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

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

#### **21.2. Prerequisites for Final Payment**

The following conditions must be fulfilled prior to Final Payment:

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

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

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

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

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

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

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

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

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

### **21.3. Retention**

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

**21.3.1.1.** After approval of the District by the Architect's Certificate of Payment;

**21.3.1.2.** After the satisfaction of the conditions set forth herein;

**21.3.1.3.** Within sixty (60) days after Completion;

**21.3.1.4.** No earlier than thirty-five (35) days of the recording of the Notice of Completion by District, if a Notice of Completion is recorded by the District.

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

### **21.4. Substitution of Securities**

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

### **21.5. Claims Asserted After Final Payment**

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

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

### **22.1. Uncovering of Work**

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

### **22.2. Rejection of Work**

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

### **22.3. Nonconforming Work**

**22.3.1.** Contractor shall promptly remove from Premises all Work identified by District as failing to conform to the Contract Documents whether incorporated or not. Contractor shall promptly replace and re-execute its own Work to comply with the Contract Documents without additional expense to the District and shall bear the expense of making good all work of other contractors destroyed or damaged by any removal or replacement pursuant hereto and/or any delays to the District or other Contractors caused thereby.

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

### **22.4. Correction of Work**

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

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

## **22.5. District's Right to Takeover Work**

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

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

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

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

**22.5.2.3.** That the District exercise any other remedy it may have at law or under the Contract Documents, including but not limited to the District hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the District shall either issue a deductive Change Order, a Unilateral Change Order, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or District may withhold those amounts from payment(s) to Contractor.

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

## **23. TERMINATION AND SUSPENSION**

### **23.1. District's Right to Terminate Contractor for Cause**

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

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

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

**23.1.1.3.** Contractor persistently fails or refused to perform Work or provide material of sufficient

quality as to be in compliance with Contract Documents; or

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

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

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

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

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

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

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

**23.1.2. Notification of Termination**

**23.1.2.1.** Upon the occurrence at District's sole determination of any of the above conditions, District may, without prejudice to any other right or remedy, serve written notice upon Contractor and its Surety of District's termination of this Contract and/or the Contractor's right to perform the work of the Contract. This notice will contain the reasons for termination. Unless, within three (3) days after the service of the notice, any and all condition(s) shall cease, and any and all violation(s) shall cease, or arrangement satisfactory to District for the correction of the condition(s) and/or violation(s) be made, this Contract and/or the Contractor's right to perform the Work shall cease and terminate. Upon termination, Contractor shall not be entitled to receive any further payment until the entire Work is finished.

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

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

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

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

**23.1.2.4. Conversion to Termination for Convenience.** In the event the Contract is terminated under this "District's Right to Terminate Contractor for Cause" section and it is finally determined by



an arbitrator, court, jury or other tribunal having jurisdiction, for any reason, that the Contractor was not in default under the provisions hereof or that the District's exercise of its rights this section was defective, deficient, ineffective, invalid or improper for any reason, the termination shall be deemed a termination for convenience of the District under the "Termination of Contractor for Convenience" section herein and thereupon, the rights and obligations of the District and the Contractor shall be determined in accordance with the "Termination of Contractor for Convenience" section herein.

#### **23.1.3. Effect of Termination**

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

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

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

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

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

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

#### **23.2. Emergency Termination of Public Contracts Act of 1949**

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

**23.2.1.1.** Section 4410 of the Government Code states:

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

**23.2.1.2.** Section 4411 of the Government Code states:

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

**23.2.2.** Compensation to the Contractor shall be determined at the sole discretion of District on the basis of the reasonable value of the Work done, including preparatory work. As an exception to the foregoing and at the District's discretion, in the case of any fully completed separate item or portion of the Work for which there is a separate previously submitted unit price or item on the accepted Schedule of Values, that price shall control. District, in its sole discretion, may adopt the Contract Price as the reasonable value of the Work performed or any portion thereof.

**23.3. Termination of Contractor for Convenience**

**23.3.1.** District in its sole discretion may terminate the Contract upon three (3) days written notice to the Contractor. Under a termination for convenience, the District retains the right to all the options available to the District if there is a termination for cause. In case of a termination for convenience, Contractor shall have no claims against the District except:

**23.3.1.1.** The actual cost for labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and

**23.3.1.2.** Five percent (5%) of the total cost of work performed as of the date of termination, or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) amount shall be full compensation for all Contractor's and its Subcontractor(s)' mobilization and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience.

**23.4. Suspension of Work**

**23.4.1.** District may, without cause, order Contractor in writing to suspend, delay or interrupt the Project in whole or in part for such period of time as District may determine. When the District resumes the Project, the Parties will attempt to negotiate an adjustment in the Contract Price for increases or decreases in the cost of performance of the Project caused by suspense, delay or interruption. If the parties cannot agree on an adjusted Contract Price, the District may terminate the Contract as permitted herein.

**23.4.2.** In the event the District shall order suspension of the Work, an adjustment shall be made to the Contract Price for increases in the direct cost of performance of the Work of the Contract Documents, actually caused by suspension, delay or interruption ordered by the District; provided however that no adjustment of the Contract Price shall be made to the extent: (i) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible under the Contract Documents; or (ii) that an equitable adjustment is made or denied under another

provision of the Contract Documents. The foregoing notwithstanding, any adjustment of the Contract Price shall not include any adjustment to increase the Contractor's overhead, general administrative costs or profit, all of which will remain as reflected in the Schedule of Values submitted by the Contractor pursuant to the Contract Documents. In the event of the District's suspension of the Work, the Contract Time shall be equitably adjusted.

#### **23.5. Scope Reduction**

In cases of suspension, partial or complete termination, or at the discretion of the District, the District reserves the right to unilaterally approve a deductive Change Order to reduce scope of work or perform work with other forces or its own forces.

### **24. CLAIMS RESOLUTION**

#### **24.1. Exclusive Remedy.**

**24.1.1.** Compliance with the claim resolution process and timelines described in this Claims Resolution section as well as the notice provisions of the Contract are express conditions precedent to Contractor's right to commence litigation or arbitration, file a claim under the California Government Code, or commence any other legal action related to the Project ("Claims Resolution Process").

**24.1.2.** Contractor acknowledges that its failure, for any reason, to provide written notice and all required supporting documentation to permit the District's review and evaluation within the time frame required by this Claims Resolution Process, shall be deemed Contractor's waiver, release, discharge and relinquishment of any right to assert, request, or demand any entitlement to an adjustment of the Contract Time or the contract Price on account of any instruction, request, drawings, specifications, action, condition, omission, default or other situation.

**24.1.3.** To the extent any provision(s) of this Claims Resolution Process conflict with or otherwise impair the timeframes and procedures of Public Contract Code section 9204, the provisions of Section 9204 shall control. If provisions of this Claims Resolution Process are supplementary and/or in addition to the requirements of Section 9204, but do not conflict with or otherwise impair the timeframes and procedures of Section 9204, the provisions of this Claims Resolution Process and the Contract shall control.

#### **24.2. Performance during Claim Resolution Process.**

The Contractor shall diligently proceed with Work on the Project at the same time that Claims are addressed under the Claims Resolution Process. It is the intent of District to resolve Claims with the Contractor as close to the events giving rise to the Claims as possible, and to avoid stale or late Claims and the late documenting of Claims. Contractor's failure to diligently proceed in accordance with the District's instructions or the Contract terms will be considered a material breach of the Contract and a waiver of Contractor's rights under this Contract.

#### **24.3. Waiver.**

If Contractor fails to timely submit any written notices required under the terms of the Contract or in this Claims Resolution section, Contractor waives and releases its rights regarding further review of its Claim, unless Contractor and District mutually agree in writing to other time limits.

#### **24.4. Intention.**

The Claims Resolution Process required herein is intended to provide a concise mechanism for resolving Claims as they arise during the Project, while requiring accurate documentation related to contested

issues as to those Claims that are not contemporaneously resolved.

#### **24.5. Other Provisions.**

If portions of the Contract, other than this Claims Resolution Process, establish a specific process regarding a specific subject, then that process shall govern and control the resolutions of any disagreements thereunder. Otherwise, the provisions in this Claims Resolution Process shall control the resolution of all Claims.

#### **24.6. Claim Presentation**

**24.6.1. Claim:** A claim is a written demand by Contractor (or by Contractor on behalf of a Subcontractor) that the Contractor must submit by **registered mail or certified mail return receipt requested** for:

**24.6.1.1.** An extension to the Contract Time, including relief from damages or penalties assessed by the District for delay;

**24.6.1.2.** Payment of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment that is not otherwise expressly provided for in the Contract Documents or the Contractor is not otherwise entitled; or

**24.6.1.3.** Payment that is disputed by the District.

(“Claim”)

**24.6.2.** A PCO may be a Claim, but the Parties agree that a PCO shall only be a Claim if:

**24.6.2.1.** The District states in writing that it disagrees with the terms of a PCO and directs the Contractor to utilize the Claim Resolution Process, or

**24.6.2.2.** The District rejects in whole or in part a PCO and the Contractor states in writing that it is utilizing the Claim Resolution Process for the portion of the PCO that the District rejected.

#### **24.7. Subcontractors.**

**24.7.1.** Public Contract Code section 9204(d)(5) states that the Contractor may present to the District a Claim on behalf of a Subcontractor or lower tier Subcontractor. A Subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier Subcontractor, that the Contractor present a claim for Work which was performed by the Subcontractor or by a lower tier Subcontractor on behalf of the Subcontractor. The Subcontractor requesting that the Claim be presented to the District shall furnish reasonable documentation to support the Claim. Within 45 days of receipt of this written request, the Contractor shall notify the Subcontractor in writing as to whether the Contractor presented the claim to the District and, if the Contractor did not present the Claim, provide the Subcontractor with a statement of the reasons for not having done so.

**24.7.2.** Contractor is responsible for providing this Claims Resolution Process to its Subcontractors and for ensuring that all Subcontractors or others who may assert Claims by and through Subcontractors and/or the Contractor are informed of this Claims Resolution Process. No Claim submitted by any party that fails to follow the provisions of this Claims Resolution Process will be considered. Contractor shall indemnify, keep and hold harmless the District and its consultants, against all suits, claims, damages, losses, and expenses, including but not limited to attorney’s fees, caused by, arising out of, resulting from, or incidental to, the failure to provide this Claims Resolution Process to its Subcontractors or others who may assert Claims by and through Subcontractors and/or the Contractor.

### **24.7.3. Contractor Must Timely Identify, Present and Document Any Claim**

**24.7.3.1.** Every Claim shall be stated with specificity in writing and signed by Contractor under penalty of perjury and presented to the District within ten (10) calendar days from the date Contractor discovers or reasonably should discover, that an act, error or omission of District, its agents or employees, or action, condition or other situation has occurred that may entitle Contractor to make a Claim. This shall include the Contractor's actual or constructive knowledge of any instruction, request, drawings, specifications, action, condition, omission, default or other situation for which the contractor believes there should an adjustment of the Contract Price or Contract Time. Contractor shall provide this writing even if Contractor has not yet been damaged, delayed, or incurred extra cost when Contractor discovers, or reasonably should discover, the act, error, omission, action, condition or situation giving rise to the incidents giving rise to the Claim. The writing shall:

**24.7.3.1.1.** Identify all of the issues, events, conditions, circumstances and/or causes giving rise to the Claim;

**24.7.3.1.2.** Identify all pertinent dates and/or durations and all actual and/or anticipated effects on the Contract Price, milestones and/or Contract Time adjustments; and

**24.7.3.1.3.** Identify in detail line-item costs if the Claim seeks money.

**24.7.3.1.4.** If the Claim involves extra work, a detailed cost breakdown of the amounts the Contractor is seeking, including actual cost records (including without limitation, payroll records, material and rental invoices and the like) demonstrating that those costs have actually been incurred. To the extent costs have not yet been incurred at the time the Claim is submitted, actual cost records must be submitted on a current basis not less than once a week during any periods costs are incurred. A cost record will be considered current if submitted within seven (7) days of the date the cost reflected in the record is incurred. At the request of District, extra costs may be subject to further verification procedures (such as having an inspector verify the performance of alleged extra work on a daily basis).

**24.7.3.1.5.** If the Claim involves an error or omission in the Contract Documents:

**24.7.3.1.5.1.** An affirmative representation under penalty of perjury by Contractor and any affected Subcontractors and suppliers that the error or omission was not discovered prior to submitting a proposal for the Work, and

**24.7.3.1.5.2.** A detailed statement demonstrating that the error or omission reasonably should not have been discovered, by Contractor, its Subcontractors and suppliers, prior to submitting a proposal for the Work.

**24.7.3.1.6.** If the Claim involves a request for additional compensation for escalation of materials costs, then this provision exclusively governs those request(s) by Contractor and the following are all conditions precedent to Contractor's submission of a Change Order Request or Claim for additional compensation for escalation of materials costs.

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

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

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

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

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

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

**24.7.3.2.** The writing shall be accompanied by all documents substantiating Contractor's position regarding the Claim.

**24.7.3.3.** A Claim that asserts an effect on any schedule milestones and/or Contract Time shall include all pertinent scheduling data demonstrating the impact(s) on the critical path(s), milestone(s) and/or Contract Time.

**24.7.4. Certification.** Each copy of the Claim Documentation shall be certified by a responsible officer of the Contractor in accordance with the requirements of the Contract Documents. This certification shall be under penalty of perjury and must include the following language immediately above or before the Contractor's signature: ***"I declare under penalty of perjury under the laws of the State of California that the information provided and statements made in this Claim are true and correct, substantiated and of merit."*** The Contractor acknowledges that this requirement is not a mere formality but is intended to ensure that the Contractor only submits Claims that it believes are true and correct, substantiated and have merit. Should Contractor fail to submit the foregoing written statement signed under penalty of perjury, Contractor waives and releases its Claim, including all rights and remedies in connection therewith. This certification must include a certification of any portion of the Claim from Subcontractor(s) or others who are asserting Claims by and through Subcontractors and/or the Contractor

**24.7.5. District's Written Statement/Decision on Claim.** The District shall issue a written statement/decision regarding the Claim to the Contractor within forty-five (45) days of receipt of the written Claim from the Contractor, or three (3) days after the District's first regular governing board meeting after that 45-day period if the District's governing board does not meet within that first 45-day period. If the District fails to timely provide a written statement/decision regarding the Claim, the Claim shall be deemed rejected in its entirety.

**24.7.6. Contractor Must Demand an Informal Meet and Confer Conference if Contractor Pursues Any Claim**

**24.7.6.1. FAILURE OF A CONTRACTOR TO TIMELY DEMAND A MEET AND CONFER CONFERENCE IS A WAIVER OF ITS RIGHT TO PURSUE ALL OR A PORTION OF ITS CLAIM.**

**24.7.6.2. Where There Is No Agreement:** If there is no agreement between Contractor and the District on a Claim, then within ten (10) calendar days of the date of the District's written statement/decision in response to a Claim or PCO, if Contractor pursues that Claim, then Contractor must demand, by **registered mail or certified mail return receipt requested**, a meet and confer conference with District staff. A meet and confer conference with District staff shall be a condition precedent to Contractor seeking any further relief, including a mediation as indicated below.



**24.7.6.3. Where There Is Partial Agreement:** If Contractor and the District partially agree on a Claim but do not reach complete agreement, then the Parties shall complete a Change Order, if applicable, for the issues and/or amounts agreed to. For those issues not agreed to, if Contractor pursues those issues from that Claim, then Contractor must demand, by **registered mail or certified mail return receipt requested**, a meet and confer conference with District staff regarding those issues. A meet and confer conference with District staff shall be a condition precedent to Contractor seeking any further relief, including a mediation as indicated below, in connection with the District's rejection.

**24.7.6.4. Meet and Confer Conference.** District and Contractor shall schedule the meet and confer conference as soon as reasonably possible after Contractor's written demand for a meet and confer conference, but in no case later than thirty (30) days after Contractor's demand.

**24.7.6.5. District's Written Decision.** Within ten (10) **business** days of the meet and confer conference, the District shall issue a written decision. If the District fails to timely provide a written statement/decision after the meet and confer conference, all Claim issues that were part of the meet and confer conference shall be deemed rejected in their entirety.

**24.7.6.5.1.** If the District's decision completely resolves the Claim, then the Parties shall complete a Change Order, if applicable, for the issues and/or amounts agreed to.

**24.7.6.5.2.** If the District rejects the Contractor's Claim in whole or in part or does not issue a timely written response, then the parties shall mediate the remaining issues of the Claim.

**24.7.6.5.3.** Contractor's costs incurred in seeking relief for Claims are not recoverable from District.

#### **24.7.7. Mediation.**

**24.7.7.1.** At the District's sole discretion, this mediation may be a multiple-party mediation with the Architect, the Construction Manager, the Inspector, and/or other District consultants.

**24.7.7.2.** The District and Contractor shall mutually agree to a mediator within ten (10) **business** days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the Claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

**24.7.8. Contractor's Obligation to File a Government Code Claim.** Nothing in this Contract, including this Claims Resolution Process, waives, modifies or tolls the Contractor's obligation to present a timely claim under Government Code section 910, et seq. Therefore, in addition to complying with this Claims Resolution Process, the Contractor is required to present claims to the District pursuant to Government Code section 910, et seq. If after the requirements of this Claims Resolution Process are satisfied, and all or a portion of the Claim remains unresolved, and if the Government Code claim is rejected by the District, the Contractor may proceed under the post-mediation provisions of this Claims Resolution Process.

#### **24.7.9. Post Mediation Provisions**

**24.7.9.1. Claims of \$375,000 or Less:** The provisions of Public Contract Code § 20104.4 shall apply. Pursuant to Public Contract Code § 20104.4(a), within sixty (60) days, but no earlier than thirty (30) days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. Pursuant to Public Contract Code §

9204(d)(2)(D), a mediation conducted pursuant to this Claims Resolution Process shall excuse the obligation under Public Contract Code § 20104.4(a) to mediate after litigation has been commenced unless otherwise agreed to by the parties in writing.

**24.7.9.2. Litigation of Claims in Excess of \$375,000.** If, after a mediation as indicated above, the Parties have not resolved the Claim, either Party may commence an action in a court of competent jurisdiction to contest that decision within ninety (90) days following the conclusion of that mediation or one (1) year following the accrual of the cause of action, whichever is later. By mutual agreement, the Parties can agree to instead resolve the Claim through arbitration.

**24.7.10.** The District shall be entitled to remedy any false claims, as defined in California Government Code section 12650 *et seq.*, made to the District by the Contractor or any Subcontractor under the standards set forth in Government Code section 12650 *et seq.* Any Contractor or Subcontractor who submits a false claim shall be liable to the District for three times the amount of damages that the District sustains because of the false claim. A Contractor or Subcontractor who submits a false claim shall also be liable to the District for (a) the costs, including attorney fees, of a civil action brought to recover any of those penalties or damages, and (b) a civil penalty of up to \$11,000 for each false claim. In addition, Contractor may be subject to criminal prosecution under California Penal Code §72 and/or civil liability under False Claims Act. If so, the District may be entitled to recover its costs incurred to investigate any False Claim, including but not limited to attorneys' fees and expert fees incurred in connection with that investigation.

**24.8. Documentation of Resolution.**

If a Claim is resolved, the District shall determine if that resolution shall be documented in an Agreement and Release of Any and All Claims form or other document, as appropriate.

**24.9. Claim Resolution Process – Non-Applicability.**

The procedures and provisions in this Claims Resolution section shall **not** apply to:

**24.9.1.** District's determination of what Work is or will be constructed, or whether the Work complies with the Contract Documents for purposes of accepting the Work;

**24.9.2.** District's rights and obligations as a public entity, such as, but without limitation, the revocation of pre-qualified or qualified status, barring a contractor from District contracts, the imposition of penalties or forfeitures prescribed by statute or regulation; provided, however, that penalties imposed against a public entity by statutes such as Public Contract Code section 7107, shall be subject to the mandatory dispute resolution provisions of this Claims Resolution section and the Contract;

**24.9.3.** Personal injury, wrongful death or property damage claims;

**24.9.4.** Latent defect or breach of warranty or guarantee to repair;

**24.9.5.** Stop notices or stop payment notices; or

**24.9.6.** Any other District rights as set forth herein.

**24.10.** The District's failure to respond to a Claim from the Contractor within the time periods described herein or to otherwise meet the time requirements of Public Contract Code section 9204 shall automatically result in the Claim being deemed rejected in its entirety, with no admission by the District as to the merits of the Claim.

- 24.11.** If District fails timely issue payment for any Claim or portion of a Claim as required pursuant to these Claim Resolution Procedures, the Contractor is permitted to assess interest indicated in Public Contract Code section 9204. Notwithstanding this provision, and in accordance with Public Contract Code section 7107, the District is entitled to withhold up to 150% of disputed amounts and the District shall not be liable for payment of interest on such disputed amounts pending final adjudication of such disputes.

## **25. LABOR, WAGE & HOUR, APPRENTICE AND RELATED PROVISIONS**

### **25.1. Contractor & Subcontractor Registration**

**25.1.1.** Contractor shall comply with the registration and compliance monitoring provisions of Labor Code section 1771.4, including furnishing its CPRs to the Labor Commissioner of California and complying with any applicable enforcement by the Department of Industrial Relations. Labor Code section 1771.1(a) states the following:

“A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.”

**25.1.2.** Contractor acknowledges that, for purposes of Labor Code section 1725.5, all or some of the Work is a public work to which Labor Code section 1771 applies. Contractor shall comply with Labor Code section 1725.5, including without limitation the registration requirements. Additionally, all Contractor's Subcontractors shall comply with Labor Code section 1725.5 to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of the Contract. Contractor represents that all of its Subcontractors are registered pursuant to Labor Code section 1725.5.

**25.1.3.** The Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall post job site notices, as prescribed by regulation. Contractor shall comply with all requirements of Labor Code section 1771.4, except the requirements that are exempted by the Labor Commissioner for the Project.

### **25.2. Wage Rates, Travel and Subsistence**

**25.2.1.** Pursuant to the provisions of article 2 (commencing at section 1770), chapter 1, part 7, division 2, of the Labor Code of California, the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this public work is to be performed for each craft, classification, or type of worker needed to execute this Contract are on file at the District's principal office and copies will be made available to any interested party on request. Contractor shall obtain and post a copy of these wage rates at the job site.

**25.2.2.** Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half times the above specified rate of per diem wages, unless otherwise specified. The holidays upon which those rates shall be paid need not be specified by the District, but shall be all holidays recognized in the applicable collective bargaining agreement. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code.

**25.2.3.** Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations ("DIR") ("Director"), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers.

**25.2.4.** If during the period this bid is required to remain open, the Director determines that there has been a change in any prevailing rate of per diem wages in the locality in which the Work under the Contract is to be performed, such change shall not alter the wage rates in the Invitation to Bid or the Contract subsequently awarded.

**25.2.5.** Pursuant to Labor Code section 1775, Contractor shall, as a penalty to District, forfeit the statutory amount, (currently not to exceed two hundred dollars (\$200) for each calendar day, or portion thereof), for each worker paid less than the prevailing rates, as determined by the District and/or the Director, for the work or craft in which that worker is employed for any public work done under Contract by Contractor or by any Subcontractor under it.

**25.2.5.1.** The amount of the penalty shall not be less than forty dollars (\$40) for each calendar day, or portion thereof, unless the failure of Contractor was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of Contractor.

**25.2.5.2.** The amount of the penalty shall not be less than eighty dollars (\$80) for each calendar day or portion thereof, if Contractor has been assessed penalties within the previous three (3) years for failing to meet Contractor's prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

**25.2.5.3.** The amount of the penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, if the Labor Commissioner determines the Contractor willfully violated Labor Code section 1775.

**25.2.5.4.** The difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by Contractor.

**25.2.6.** Any worker employed to perform Work on the Project, which Work is not covered by any classification listed in the general prevailing wage rate of per diem wages determined by the Director, shall be paid not less than the minimum rate of wages specified therein for the classification which most nearly corresponds to Work to be performed by him, and such minimum wage rate shall be retroactive to time of initial employment of such person in such classification.

**25.2.7.** Pursuant to Labor Code section 1773.1, per diem wages are deemed to include employer payments for health and welfare, pension, vacation, travel time, subsistence pay, and apprenticeship or other training programs authorized by section 3093, and similar purposes.

**25.2.8.** Contractor shall post at appropriate conspicuous points on the Site of Project, a schedule showing all determined minimum wage rates and all authorized deductions, if any, from unpaid wages actually earned. In addition, Contractor shall post a sign-in log for all workers and visitors to the Site, a list of all subcontractors of any tier on the Site, and the required Equal Employment Opportunity poster(s).

### **25.3. Hours of Work**

**25.3.1.** As provided in article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code, eight (8) hours of labor shall constitute a legal days work. The time of service of any worker employed at any time by Contractor or by any Subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract shall be limited and restricted by

Contractor to eight (8) hours per day, and forty (40) hours during any one week, except as hereinafter provided. Notwithstanding the provisions hereinabove set forth, Work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.

**25.3.2.** Contractor shall keep and shall cause each Subcontractor to keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by Contractor in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of District and to the Division of Labor Standards Enforcement of the DIR.

**25.3.3.** Pursuant to Labor Code section 1813, Contractor shall as a penalty to the District forfeit the statutory amount (believed by the District to be currently twenty five dollars (\$25)) for each worker employed in the execution of this Contract by Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of article 3 (commencing at section 1810), chapter 1, part 7, division 2, of the Labor Code.

**25.3.4.** Any Work necessary to be performed after regular working hours, or on Sundays or other holidays shall be performed without additional expense to the District.

#### **25.4. Payroll Records**

**25.4.1.** If requested by the District, Contractor shall provide to the District and shall cause each Subcontractor performing any portion of the Work to provide the District and an accurate and certified payroll record ("CPR(s)"), showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each Subcontractor in connection with the Work.

**25.4.1.1.** In addition to any other requirements pursuant to Labor Code sections 1770, et seq., the CPRs enumerated hereunder shall be certified and shall be provided to the District on a weekly basis. The CPRs from the Contractor and each Subcontractor for each week shall be provided on or before Wednesday of the week following the week covered by the CPRs. District shall not make any payment to Contractor until:

**25.4.1.1.1.** Contractor and/or its Subcontractor(s) provide CPRs acceptable to the District, and

**25.4.1.1.2.** The District is given sufficient time to review and/or audit the CPRs to determine their acceptability. Any delay in Contractor and/or its Subcontractor(s) providing CPRs to the District in a timely manner will directly delay the District's review and/or audit of the CPRs and Contractor's payment.

**25.4.2.** All CPRs shall be available for inspection at all reasonable hours at the principal office of Contractor on the following basis:

**25.4.2.1.** A certified copy of an employee's CPR shall be made available for inspection or furnished to the employee or his/her authorized representative on request.

**25.4.2.2.** CPRs shall be made available for inspection or furnished upon request to a representative of District, Division of Labor Standards Enforcement, Division of Apprenticeship Standards, and/or the Department of Industrial Relations.

**25.4.2.3.** CPRs shall be made available upon request by the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the District, Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested CPRs have not been provided pursuant to the provisions herein, the requesting party shall, prior to being provided the records reimburse the costs of preparation by Contractor, Subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of Contractor.

**25.4.3.** The form of certification for the CPRs shall be as follows:

I, \_\_\_\_\_ (Name-Print), the undersigned, am the \_\_\_\_\_  
\_\_\_\_\_ (Position in business) with the authority to act for and on behalf of \_\_\_\_\_  
\_\_\_\_\_ (Name of business and/or Contractor), certify under penalty of perjury that the records or copies thereof submitted and consisting of \_\_\_\_\_  
(Description, number of pages) are the originals or true, full, and correct copies of the originals which depict the payroll record(s) of actual disbursements by way of cash, check, or whatever form to the individual or individual named, and (b) we have complied with the requirements of sections 1771, 1811, and 1815 of the Labor Code for any work performed by our employees on the Project.

Date: \_\_\_\_\_ Signature: \_\_\_\_\_  
(Section 16401 of Title 8 of the California Code of Regulations)

**25.4.4.** Each Contractor shall file a certified copy of the CPRs with the entity that requested the records within ten (10) days after receipt of a written request.

**25.4.5.** Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by District, Division of Apprenticeship Standards, or Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of Contractor awarded Contract or performing Contract shall not be marked or obliterated.

**25.4.6.** Contractor shall inform District of the location of the records enumerated hereunder, including the street address, city, and county, and shall, within five (5) Business Days, provide a notice of change of location and address.

**25.4.7.** In the event of noncompliance with the requirements of this section, Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects Contractor must comply with this section. Should noncompliance still be evident after the ten (10) day period, Contractor shall, as a penalty to District, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of Division of Apprenticeship Standards or Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

**25.4.8.** It shall be the responsibility of Contractor to ensure compliance with the provisions of Labor Code section 1776.

## **25.5. Apprentices**

**25.5.1.** Contractor acknowledges and agrees that, if this Contract involves a dollar amount greater than or a number of working days greater than that specified in Labor Code section 1777.5, then this Contract is governed by the provisions of Labor Code Section 1777.5. It shall be the responsibility of Contractor to ensure compliance with this Article and with Labor Code section 1777.5 for all apprenticeship occupations.



**25.5.2.** Apprentices of any crafts or trades may be employed and, when required by Labor Code section 1777.5, shall be employed provided they are properly registered in full compliance with the provisions of the Labor Code.

**25.5.3.** Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he/she is employed, and shall be employed only at the work of the craft or trade to which she/he is registered.

**25.5.4.** Only apprentices, as defined in section 3077 of the Labor Code, who are in training under apprenticeship standards and written apprentice agreements under chapter 4 (commencing at section 3070), division 3, of the Labor Code, are eligible to be employed. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which he/she is training.

**25.5.5.** Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractors employing workers in any apprenticeable craft or trade in performing any Work under this Contract shall apply to the applicable joint apprenticeship committee for a certificate approving the Contractor or Subcontractor under the applicable apprenticeship standards and fixing the ratio of apprentices to journeymen employed in performing the Work.

**25.5.6.** Pursuant to Labor Code section 1777.5, if that section applies to this Contract as indicated above, Contractor and any Subcontractor may be required to make contributions to the apprenticeship program.

**25.5.7.** If Contractor or Subcontractor willfully fails to comply with Labor Code section 1777.5, then, upon a determination of noncompliance by the Administrator of Apprenticeship, it shall:

**25.5.7.1.** Be denied the right to bid on any subsequent project for one (1) year from the date of such determination;

**25.5.7.2.** Forfeit as a penalty to District the full amount as stated in Labor Code section 1777.7. Interpretation and enforcement of these provisions shall be in accordance with the rules and procedures of the California Apprenticeship Council and under the authority of the Chief of the Division of Apprenticeship Standards.

**25.5.8.** Contractor and all Subcontractors shall comply with Labor Code section 1777.6, which section forbids certain discriminatory practices in the employment of apprentices.

**25.5.9.** Contractor shall become fully acquainted with the law regarding apprentices prior to commencement of the Work. Special attention is directed to sections 1777.5, 1777.6, and 1777.7 of the Labor Code, and title 8, California Code of Regulations, section 200 et seq. Questions may be directed to the State Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, California 94102.

**25.5.10.** Contractor shall ensure compliance with all certification requirements for all workers on the Project including, without limitation, the requirements for electrician certification in Labor Code sections 108, et seq.

## **25.6. Non-Discrimination**

**25.6.1.** Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion, or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, or physical handicap in the performance of this Contract and to comply with the provisions of the California Fair Employment and Housing Act as set forth in part 2.8 of division 3 of the California Government Code, commencing at section 12900; the Federal Civil Rights Act of 1964, as set forth in Public Law 88-352, and all amendments thereto; Executive Order 11246, and all administrative rules and regulations found to be

applicable to Contractor and Subcontractor.

**25.6.2.** Special requirements for Federally Assisted Construction Contracts: During the performance of this Contract, Contractor agrees to incorporate in all subcontracts the provisions set forth in Chapter 60-1.4(b) of Title 41 published in Volume 33 No. 104 of the Federal Register dated May 28, 1968.

#### **25.7. Labor First Aid**

Contractor shall maintain emergency first aid treatment for Contractor's workers on the Project which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.) the California Occupational Safety and Health Act of 1973, and all related regulations, including without limitation section 330 et seq. of Title 8 of the California Code of Regulations.

### **26. MISCELLANEOUS**

#### **26.1. Assignment of Antitrust Actions**

**26.1.1.** Section 7103.5(b) of the Public Contract Code states:

In entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

**26.1.2.** Section 4552 of the Government Code states:

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

**26.1.3.** Section 4553 of the Government Code states:

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

**26.1.4.** Section 4554 of the Government Code states:

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.

**26.1.5.** Under this Article, "public purchasing body" is District and "bidder" is Contractor.

#### **26.2. Excise Taxes**

If, under Federal Excise Tax Law, any transaction hereunder constitutes a sale on which a Federal Excise Tax is imposed and the sale is exempt from such Federal Excise Tax because it is a sale to a State or Local Government for its exclusive use, District, upon request, will execute documents necessary to show (1) that District is a political subdivision of the State for the purposes of such exemption, and (2) that the sale is for the exclusive use of District. No Federal Excise Tax for such materials shall be included in any Contract Price.

#### **26.3. Taxes**

Contract Price is to include any and all applicable sales taxes or other taxes that may be due in accordance with section 7051 of the Revenue and Taxation Code; Regulation 1521 of the State Board of Equalization or any other tax code that may be applicable.

#### **26.4. Shipments**

All shipments must be F.O.B. destination to Site or sites, as indicated in the Contract Documents. There must be no charge for containers, packing, unpacking, drayage, or insurance. The total Contract Price shall be all inclusive (including sales tax) and no additional costs of any type will be considered.

#### **26.5. Compliance with Government Reporting Requirements**

If this Contract is subject to federal or other governmental reporting requirements because of federal or other governmental financing in whole or in part for the Project which it is part, or for any other reason, Contactor shall comply with those reporting requirements at the request of the District at no additional cost.

END OF DOCUMENT

**DOCUMENT 00 71 00**

**SPECIAL CONDITIONS**

1. **Prevailing Wages:** Contractor shall pay and shall cause to be paid each worker engaged in Work on the Project not less than the general prevailing rate of per diem wages determined by the Director of the Department of Industrial Relations ("DIR") ("Director"), regardless of any contractual relationship which may be alleged to exist between Contractor or any Subcontractor and such workers. Companies that manufacture and deliver ready-mixed concrete directly to construction sites using their own drivers, are not subject to this requirement pending the final adjudication of *Allied Concrete & Supply Co., v. Edmund Gerald Brown Jr., et al.*, United State District Court, Central District of California, Case. No. 2:16-CV-04830-RGK (FFM).

2. **Prequalification**

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

- Mechanical Subcontractors

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

- Electrical Subcontractors

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

- Plumbing Subcontractors

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, CA; CSLB No. \_\_\_\_\_

### 3. **Mitigation Measures**

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

### 4. **Modernization Projects**

- a. **Access.** Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with District and onsite District personnel before Contractor commences Work. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor's Work, the overtime wages for the custodian will be paid by Contractor, unless, at the discretion of District, other arrangements are made in advance.
- b. **Master Key.** Upon request, District may, at its own discretion, provide a master key to the school site for the convenience of Contractor. Contractor agrees to pay all expenses to re-key the entire school site and all other affected District buildings if the master key is lost or stolen or if any unauthorized party obtains a copy of the key or access to the school.
- c. **Maintaining Services.** Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with District. Contractor shall provide temporary services to all facilities interrupted by Contractor's Work.
- d. **Maintaining Utilities.** Contractor shall maintain in operation during term of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.
- e. **Work During Instructional Time.** By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to the school up to, and including, rescheduling specific work activities, at no additional cost to District.
- f. **No Work During Student Testing.** Contractor shall, at no additional cost to District and at District's request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State-required tests.

5. **Badge Policy for Contractors**

Contractor shall provide their workers and all of Subcontractors' workers with identification badges. These badges shall be worn by all members of the Contractor's staff and all of Subcontractors' staff who are working in a District facility.

- a. Badges must be filled out in full and contain the following information:
  - (1) Name of Contractor
  - (2) Name of Employee
  - (3) Contractor's address and phone number
- b. Badges must be worn when Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow District employees, the Architect, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.
- c. Failure to display identification badges as required by this policy may result in the assessment of fines against the Contractor.

6. **Substitution for Specified Items**

- a. Requests for substitutions prior to award of the Contract shall be done within the time period indicated in the Instructions to Bidders.
- b. Requests for substitutions after award of the Contract shall be within **THIRTY-FIVE (35)** days of the date of the Notice of Award. This time period can be extended by the District only, in its sole discretion.
- c. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified.
  - (1) If the material, process, or article offered by Contractor is not, in the opinion of the District, substantially equal or better in every respect to that specified, then Contractor shall furnish the material, process, or article specified in the Specifications without any additional compensation or change order.
  - (2) This provision shall not be applicable with respect to any material, product, thing or service for which District made findings and gave notice in accordance with Public Contract Code section 3400(b); therefore, Contractor shall not be entitled to request a substitution with respect to those materials, products or services.
- d. A request for a substitution shall be in writing and shall include:
  - (1) All variations of the proposed substitute from the material specified including, but not limited to, principles of operation, materials, or construction finish, thickness or gauge of materials, dimensions, weight, and tolerances;
  - (2) Available maintenance, repair or replacement services;
  - (3) Increases or decreases in operating, maintenance, repair, replacement, and spare parts costs;
  - (4) Whether or not acceptance of the substitute will require other changes in the Work (or in work



performed by the District or others under Contract with the District); and

(5) The time impact on any part of the Work resulting directly or indirectly from acceptance of the proposed substitute.

- e. No substitutions shall be made until approved, in writing, by the District. The burden of proof as to equality of any material, process, or article shall rest with Contractor. The Contractor warrants that if substitutes are approved:

(1) The proposed substitute is equal or superior in all respects to that specified, and that such proposed substitute is suitable and fit for the intended purpose and will perform adequately the function and achieve the results called for by the general design and the Contract Documents;

(2) The Contractor provides the same warranties and guarantees for the substitute that would be provided for that specified;

(3) The Contractor shall be fully responsible for the installation of the substitute and any changes in the Work required, either directly or indirectly, because of the acceptance of such substitute, with no increase in Contract Price or Contract Time. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time;

(4) The Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute; and

(5) The Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one hundred percent (100%) of the net difference between the substitute and the originally specified material. In this event, the Contractor agrees to execute a deductive Change Order to reflect that credit.

- f. In the event Contractor furnishes a material, process, or article more expensive than that specified, the difference in the cost of that material, process, or article so furnished shall be borne by Contractor.
- g. In no event shall the District be liable for any increase in Contract Price or Contract Time due to any claimed delay in the evaluation of any proposed substitute or in the acceptance or rejection of any proposed substitute.
- h. If the District approves a substitution after the award of the Contract, the District shall memorialize that approval in a Change Order or other applicable Contract modification process.

**7. Fingerprinting**

Contractor shall comply with the provisions of Education Code section 45125.2 regarding the submission of employee fingerprints to the California Department of Justice and the completion of criminal background investigations of its employees, its subcontractor(s), and its subcontractors' employees. Contractor shall not permit any employee to have any contact with District pupils until such time as Contractor has verified in writing to the governing board of the District, that such employee has not been convicted of a felony, as defined in Education Code section 45122.1. Contractor shall fully complete and perform all tasks required pursuant to the Criminal Background Investigation/ Fingerprinting Certification.

**8. Weather Days**

Delays due to Adverse Weather conditions will only be permitted in compliance with the provisions in the General Conditions and only if the number of days of Adverse Weather exceeds the following parameters:

January	<b>[11]</b>	July	<b>[0]</b>
February	<b>[10]</b>	August	<b>[1]</b>
March	<b>[10]</b>	September	<b>[1]</b>
April	<b>[6]</b>	October	<b>[4]</b>
May	<b>[4]</b>	November	<b>[7]</b>
June	<b>[2]</b>	December	<b>[10]</b>

9. **Insurance Policy Limits.** Prior to commencement of Work, Contractor shall maintain the following insurance coverages and minimum limits until the earlier of final completion of the Work or Termination of this Contract except for Products and Completed Operations coverage as described in the sections below. The minimum limits of coverage required by this Agreement may be satisfied by a combination of primary and Excess/Umbrella insurance policies provided that the form of the Excess/Umbrella coverage follows the form of the primary liability insurance. Contractor shall bear all cost for payment of insurance premiums and any and all deductibles or self-insurance retentions under its policies and shall remain solely and fully liable for the full amount of any claim or item not compensated by insurance.

**Minimum Scope of Insurance - Coverage shall be at least as broad as:**

1. Commercial General Liability on an occurrence form (no sunset clauses). Liability deductible or Self-Insured Retention not to exceed \$5,000. Claims Made or Modified Occurrence Liability coverage will not be accepted. Coverage shall be at least as broad as ISO form CG0001. Products and Completed Operations coverage shall continue for three (3) years after the earlier of Final Completion of the Work, or Termination of this Agreement.
2. Umbrella/Excess Liability insurance following form of the primary General Liability, Auto Liability and Employer's Liability insurance.
3. Business Automobile Liability insurance including coverage for owned, non-owned, hired vehicles and trailers. Such insurance shall cover occurrences both at and away from the Project Site.
4. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.
5. Builder's Risk (Course of Construction). Deductible not to exceed \$2,500.
6. Performance & Payment Bonds.

**Minimum Limits of Insurance - Contractor shall maintain limits no less than:**

- |                               |   |  |
|-------------------------------|---|--|
| 1. General Liability:         | \$2,000,000   | General Aggregate (Per Project)                |
|                               | \$2,000,000   | Products/Completed Operations Aggregate        |
|                               | \$1,000,000   | Personal & Advertising Injury                  |
|                               | \$1,000,000   | Each Occurrence                                |
| 2. Umbrella/Excess Liability: | \$6,000,000   | Per Occurrence                                 |
| 3. Automobile Liability:      | \$1,000,000   | Per Accident for Bodily Injury & Property Dmg. |
| 4. Workers' Compensation:     | As required by the State of California                      |  |
| 5. Employer's Liability:      | \$1,000,000   | Per Accident for Bodily Injury or Disease      |
| 6. Builder's Risk:            | Completed Value of the Project with no Coinsurance Penalty. |  |

**Insurance Provisions**

The general liability policy is to contain, or be endorsed to contain, the following provisions:

1. **Additional Insured:** The **District**, its elected or appointed officials, employees, agents and volunteers are to be covered as Additional Insured's (utilizing Form CG2010 11/85 edition or an acceptable equivalent) by an endorsement to the general liability policy. A CG2010 11/85 acceptable equivalent is an additional insured endorsement that includes the named insured's "ongoing" operations and completed operations.
2. **Primary Insurance:** For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the **District**, its elected or appointed officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the **District**, its elected or appointed officials, employees, agents and volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. **Cancellation Provision:** Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after thirty (30) day's prior written notice has been provided to the **District**.

#### **Waiver of Subrogation**

The Contractor's General Liability and Workers' Compensation insurance policies shall provide a Waiver of Subrogation in favor of the **District**.

#### **Builder's Risk (Course of Construction) Insurance**

If and only if the Contract Sum exceeds \$250,000 at the time of award, Contractor shall procure and maintain Builder's Risk insurance (all-risk, special form with valuation on a replacement cost basis) on a one hundred percent completed value of the project for the benefit of the **District**, and the Contractor and Subcontractor, as their interest may appear. The policy shall contain a clause which provides coverage until the building is accepted by the **District**. If the Builder's Risk policy contains an occupancy provision, permission for early occupancy must be obtained from the insurance company. The Policy should include debris removal, collapse, theft, and transit coverage with no coinsurance penalty provisions. The Builders' Risk Policy is primary and no insurance held or owned by the **District** shall be called upon to contribute to a loss.

#### **Contractor's Property**

Contractor shall be responsible for and shall bear the risk of loss and damage to any property including but not limited to (1) tools and equipment of Contractor (owned or rented) and (2) any property for which it is responsible or that is in its care, custody and control, wherever located.

#### **Transit Insurance**

Where Contractor has responsibility to coordinate transportation of construction materials (whether ocean, air or inland transit), Contractor shall bear responsibly for providing transit coverage on an all-risk basis, including lightering operations, loading and unloading at each point of delivery, including final destination, unless total risk of loss in transit is borne by the shipper or supplier, or District provides notification that it will carry such coverage. Such coverage shall provide a limit of full replacement value of each conveyance. Any marine inspections and/or survey fees under this coverage shall be for the account of Contractor.

#### **Workers' Compensation**

Before the Contract is entered into, the Bidder to whom it is awarded shall furnish to the **District** satisfactory proof that he and all Subcontractors he intends to employ have taken out, for the period covered by the proposed Contract, full compensation insurance and Employer's Liability with limits of at

least \$1,000,000 with an insurance carrier satisfactory to the **District** for all persons whom they may employ in carrying out the work contemplated under this Contract in accordance with the Act of the Legislature of the State of California, known as the "Workers' Compensation Insurance and Safety Act" approved May 26, 1913, and all Acts amendatory or supplemental thereto. Such insurance shall be maintained in full force and effect during the period covered by the Contract. In the event the Contractor is self-insured, he shall furnish a Certificate of Permission to Self-Insure, signed by the Department of Industrial Relations Administration of Self-Insurance, Sacramento, California.

If the Contractor fails to maintain such insurance, the **District** may take out compensation insurance to cover any compensation which the **District** might be liable to pay under the provisions of said Act as amended, by reason of any employee of the Contractor being injured or killed, and deduct and retain the amount of the premiums for such insurance from any sums due the Contractor under the Contract.

If an injury occurs to any employee of the Contractor for which the employee, or the employee's dependents in the event of the employee's death, is entitled to compensation from the **District** under the provisions of said Act as amended, or for which compensation is claimed from the **District**, the **District** may retain out of the sums due the Contractor under this Contract, an amount sufficient to cover such compensation, as fixed by said Act as amended, until such compensation is paid, or until it is determined that no compensation is due, and if the **District** is compelled to pay such compensation, it will deduct and retain from such sums the amount so paid.

The policies represented by the certificates must contain the provision (and the certificates must so state) that the insurance cannot be cancelled until thirty (30) days after written notice of intended revocation has been given to the **District** by Certified Mail.

#### **Indemnity**

Contractor shall indemnify, hold harmless and defend **District** and its elected or appointed officials, agents and employees from and against all claims, damages, losses and expenses, including reasonable costs and attorneys' fees, arising out of or resulting from Contractor's performance of the Work, or work performed by Contractor's agents or employees, or subcontractors employed on the project, their agents or employees, or products installed on the project by Contractor or subcontractors, excepting only such injury or harm as may be caused solely and exclusively by **District's** fault or negligence. Such indemnification shall extend to all claims, demands, or liabilities occurring after completion of the project as well as during the progress of work.

#### **Subcontractors**

Contractor shall require all Subcontractors of any tier that may work on or in connection with the Agreement to maintain the coverages required in this Contract; provided however, that Contractor may vary the limits of such coverage of subcontractors depending on the services provided, but such limits shall be comparable to those customarily provided by others within similar size and scope of business. In no event shall the insurance requirements be deemed to limit the liability or responsibility of Contractor or any of its Subcontractors to Owner.

Contractor shall require all tiers of Subcontractors to waive the rights of recovery against Owner, its elected or appointed officials, employees, agents and volunteers. Contractor shall be responsible for any loss resulting from the failure of any Subcontractor to maintain sufficient insurance.

Subcontractor shall be responsible for and shall bear the risk of loss and damage to any property including but not limited to (1) tools and equipment of subcontractor (owned or rented) and (2) any property for which it is responsible or that is in its care, custody and control, wherever located

### **Acceptability of Insurers**

All required insurance must be written by an admitted company licensed to do business in the State of California at the time the policy is issued. All required Insurance as set forth in this Contract shall be underwritten by a company with a balance sheet strength, operating performance and business profile that are equal to or exceed an A VIII rating as listed in the A.M. Best Insurance Guide's latest edition. On a case-by-case basis, the **District** may accept insurance written on a company listed on the State of California Department of Insurance List of Eligible Surplus Lines ("LESLI List") with a rating of A VIII or above as listed in Best's Insurance Guide's latest edition. Exception may be made for Workers' Compensation Insurance provided by the State Compensation Insurance Fund when not specifically rated.

### **Proof of Insurance**

Contractor shall furnish the **District** with original certificates and amendatory endorsements effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the **District** before work commences. However, failure to do so shall not operate as a waiver of these insurance requirements. If the Contractor fails to maintain such insurance as specified by this Contract, the **District** may take out such insurance to cover any damages of the above mentioned classes for which the **District** might be held liable on account of the Contractor's failure to pay such damages, and deduct and retain the amount of the premium from any sums due the Contractor under the Contract.

The **District** reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

#### **Mail all certificates and endorsements to:**

Chico Unified School District  
Attn: Julie Kistle  
2455 Carmichael Drive  
Chico, CA 95928

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

- a. **Job Cost Reporting.** The Contractor and each Subcontractor with a Subcontract valued at Three Hundred Thousand Dollars (\$300,000) or greater shall maintain a computerized job cost reporting system conforming to the requirements set forth herein. The computer program(s) utilized by the Contractor and applicable Subcontractors shall be subject to the review and acceptance by the District. The job cost reporting systems for the Work shall be updated in regular intervals of not more than one (1) calendar month.
- b. **Job Cost Reporting System Requirements.** The computerized job cost programs utilized by the Contractor and applicable Subcontractors shall conform and comply with generally accepted accounting principles applied in a consistent manner and with recognized and generally accepted construction industry accounting standards, guidelines and procedures. The job cost reporting system format and configuration shall follow the general format of the District approved Cost Breakdown (Schedule of Values) and budgets established for each line item shall be traceable to a bid estimate of costs. The job cost reporting systems utilized by the Contractor and applicable Subcontractors shall be capable of: (a) providing overall cost status on a monthly and cumulative basis; (b) providing comparative analysis of the original budgeted costs, actual costs, remaining budget, and projected cost of completion; the job cost reporting system shall be capable of

providing comparative analysis for individual line items and the totality of the Work reflected in the job cost report and; (c) tracking adjustments to original budget amounts for Changes to the Work (including, without limitation, issued, pending and potential Change Orders).

- c. **Job Cost System Information.** Upon request of the District, the Contractor and applicable Subcontractors shall make available written job cost reports and provide the District and the Project Manager with the electronic files of the then current or requested job cost report. The Contractor's obligations hereunder are material.

#### 11. Permits, Certificates, Licenses, Fees, Approval

- a. Approvals, Certificates, Fees, Inspections, Licenses, Permits, Etc.

- (1) **Permits in Bid Price.** Contractor shall include in its Bid the cost of any approvals, certificates, fees, inspections, licenses, permits or similar requirements necessary for the performance of the Work ("Permits").

- a) "Permits" includes, without limitation, any of the following if required: temporary or permanent building, mechanical, electrical or plumbing permits; certificates of occupancy; curb-breaking permits, highway entrance permits; water permits; local inspector fees; etc.

- b) "Permits" does not include Project Inspector fees (which will be paid by the District unless otherwise indicated herein), professional licensing, or contractors' licensing.

- c) The Contractor shall be required to obtain all Permits. The Contractor shall ensure sufficient time in its Construction Schedule to secure and obtain all permits and shall not be permitted to claim a delay in the Project due to a delay in obtaining a Permit.

- b. **Certain Fees Not Part of Permits.** Notwithstanding the above requirements, District shall oversee the obtaining and payment of the following permits, fees or charges, but Contractor shall assist in those efforts as requested by the District at no additional cost to District:

- (1) **City of Chico Sewer Connection Fees**

- c. Storm Water Permits

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

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

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

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

- d. Project Inspection

In addition to the requirements in the Contract Documents related to cooperation with and authority of



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

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

END OF DOCUMENT

**DOCUMENT 01 11 00**

**SUMMARY OF WORK**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals; and
- 1.1.5. Temporary Facilities and Controls.

**1.2. SUMMARY OF WORK COVERED BY CONTRACT DOCUMENTS**

The Work may consist of the following:

- 1.2.1. Selective demolition and construction necessary for the **Emma Wilson Elementary School New Kindergarten**, including associated civil, architectural, structural, plumbing, mechanical and/or electrical work as indicated in the Drawings and Specifications. Generally, these categories of work involve new finishes, adaptive re-use and modification of certain selected areas, new cabinetry, handicap accessibility retrofits, re-roofing, and adding HVAC to instructional areas, library and administrative areas and pertain to changing and expanding selected infrastructure utilities, and extensive modifications. Increment 2 -Shade Structure.
- 1.2.2. The Project will involve the "phasing" and barricading of work areas as indicated on the Plans and enumerated in these Specifications.

**1.3. CONTRACTS**

Perform the Work under a single, fixed-price Contract.

**1.4. DEFERRED APPROVAL ITEMS**

- 1.4.1. All items that are subject to subsequent review and approval by the Division of the State Architect shall be as indicated below. No deferred approval items shall be installed until the Contractor has complied with all the processes in the Contract Documents, including Division 01 Document "Submittals."
- 1.4.2. Deferred approval items for this Project are the following: None

**1.5. SPECIAL PROJECT REQUIREMENTS**

- 1.5.1. Hours of Work: Work is to be performed during regular work hours. Contractor shall coordinate its operations with activities taking place at each campus such as summer school. Contractor shall ensure that there are no disruptions to such activities.

**1.6. WORK BY OTHERS**

- 1.6.1. Work to be performed and completed prior to the start of the Project:

- 1.6.1.1. Asbestos removal/abatement. N/A

- 1.6.1.2. Lead paint removal/abatement. N/A

**1.7. CODES, REGULATIONS AND STANDARDS**

- 1.7.1. The codes, regulations, and standards adopted by the State and federal agencies having jurisdiction shall govern minimum requirements for the Project. Where codes, regulations, and standards conflict with the Contract Documents, these conflicts shall be brought to the immediate attention of the District and the Architect.
- 1.7.2. Codes, regulations, and standards are as published effective as of date of bid opening, unless otherwise specified or indicated.

**1.8. EXAMINATION OF EXISTING CONDITIONS**

- 1.8.1. Contractor shall be held to have examined the Project Site and acquainted itself with the conditions of the Site and of the streets and roads approaching the Site.
- 1.8.2. Prior to commencement of Work, Contractor shall survey the Site and existing buildings and improvements to observe existing damage and defects such as cracks, sags, broken, missing or damaged glazing, other building elements and Site improvements, and other damage.
- 1.8.3. Should Contractor observe cracks, sags, and other damage to and defects of the Site and adjacent buildings, paving, and other items not indicated in the Contract Documents, Contractor shall immediately report same to the District and the Architect.

**1.9. CONTRACTOR'S USE OF PREMISES**

- 1.9.1. Contractor shall take all reasonable precautions for the safety of the students and the school employees throughout the duration of the Project.
- 1.9.2. If unoccupied and only with District's prior written approval, Contractor may use the building(s) at the Project Site without limitation for its operations, storage, and office facilities for the performance of the Work. If the District chooses to beneficially occupy any building(s), Contractor must obtain the District's written approval for Contractor's use of spaces and types of operations to be performed within the building(s) while so occupied. Contractor's access to the building(s) shall be limited to the areas indicated.
- 1.9.3. If the space at the Project Site is not sufficient for Contractor's operations, storage, office facilities and/or parking, Contractor shall arrange and pay for any additional facilities needed by Contractor, at no expense to District.

- 1.9.4. Contractor shall not interfere with others use of or access to occupied portions of the building(s) or adjacent property.
- 1.9.5. Contractor shall maintain corridors, stairs, halls, and other exit-ways of building clear and free of debris and obstructions at all times.
- 1.9.6. No one other than those directly involved in the demolition and construction or specifically designated by the District or the Architect shall be permitted in the areas of Work during demolition and construction activities.

#### **1.10. PROTECTION OF EXISTING STRUCTURES AND UTILITIES**

- 1.10.1. The Drawings show above-grade and below-grade structures, utility lines, and other installations that are known or believed to exist in the area of the Work. Contractor shall locate these existing installations before proceeding with excavation and other operations that could damage same; maintain them in service, where appropriate; and repair damage to them caused by the performance of the Work. Should damage occur to these existing installations, the costs of repair shall be at the Contractor's expense and made to the District's satisfaction.
- 1.10.2. Contractor shall be alert to the possibility of the existence of additional structures and utilities. If Contractor encounters additional structures and utilities, Contractor will immediately report to the District for disposition of same as indicated in the General Conditions.

#### **1.11. UTILITY SHUTDOWNS AND INTERRUPTIONS**

- 1.11.1. Contractor shall give the District a minimum of three (3) days written notice in advance of any need to shut off existing utility services or to effect equipment interruptions. District will set exact time and duration for shutdown, and will assist Contractor with shutdown. Work required to re-establish utility services shall be performed by the Contractor.
- 1.11.2. Contractor shall obtain District's written approval as indicated in the General Conditions in advance of deliveries of material or equipment or other activities that may conflict with District's use of the building(s) or adjacent facilities.

#### **1.12. STRUCTURAL INTEGRITY**

- 1.12.1. Contractor shall be responsible for and supervise each operation and work that could affect structural integrity of various building elements, both permanent and temporary.
- 1.12.2. Contractor shall include structural connections and fastenings as indicated or required for complete performance of the Work.

#### **1.13. ENVIRONMENTAL REQUIREMENTS**

- 1.13.1. This Project has been designated to incorporate environmental concepts established as part of the Collaboration for High Performance Schools. To the extent possible, materials, processes, procedures, and equipment included in these Specifications shall comply with sustainable design practices.

**END OF DOCUMENT**

**DOCUMENT 01 12 10**

**CONTRACT FORMS AND SUBMITTALS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals; and
- 1.1.5. Construction Schedule.

**2. REQUIREMENTS OF THE DISTRICT:**

- 2.1.** The Contractor and their Subcontractors shall utilize Newforma for all communication correspondence.

**2.2. CONTRACTOR SUBMITTALS**

All submittals required by the Contract Documents shall be submitted using the programs, processes and software indicated below. If no specific program or format is indicated, then Microsoft Word or Microsoft Excel is acceptable.

**2.2.1. Preliminary Construction Schedule**

- 2.2.1.1. Utilize Primavera P6 Project Management® software (latest version) by Oracle (PCM) (<http://www.oracle.com/us/industries/engineering-and-construction/index.html>) or another program if pre-approved by the District.

**2.2.2. Schedule of Values**

- 2.2.2.1. Utilize PCM or another program if pre-approved by the District.

**2.2.3. Contractor's Completed Subcontractor List**

**2.2.4. Contractor's Safety Plan**

**2.2.5. Schedule of Submittals**

- 2.2.5.1. Utilize PCM or another program if pre-approved by the District.



**2.2.6. Operations and Maintenance Manual & Instructions**

**END OF DOCUMENT**

**DOCUMENT 01 20 00**

**PRICE AND PAYMENT PROCEDURES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).

**1.2. DESCRIPTION**

- 1.2.1. This Document contains procedures to be followed by the Contractor to request payment.
- 1.2.2. **IF THERE IS ANY INCONSISTENCY IN THIS DOCUMENT WITH THE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS THAT THE CONTRACTOR SHALL COMPLY WITH RELATED TO CHANGES AND/OR REQUESTS FOR CHANGES (e.g., "PAYMENTS," "SCHEDULE OF VALUES"), THOSE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS SHALL TAKE PRECEDENCE.**

**1.3. SECTION INCLUDES**

- 1.3.1. Schedule of Values.
- 1.3.2. Application for Payment.

**1.4. SCHEDULE OF VALUES**

- 1.4.1. Provide a breakdown of the Contract Price with enough detail to facilitate continued evaluation of Applications for Payment and Progress Reports.
- 1.4.2. Contractor must update and resubmit the Schedule of Values before the next Invoice or Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Price.
- 1.4.3. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule. Comply with the provisions in the General Conditions regarding the Schedule of Values.
  - 1.4.3.1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:
    - 1.4.3.1.1. Application for Payment forms.

- 1.4.3.1.2. Submittal Schedule.
    - 1.4.3.1.3. Contractor's Construction Schedule.
  - 1.4.3.2. Submit the Schedule of Values to District as indicated in the Contract Documents and, if an updated Schedule of Values is needed, then no later than ten (10) days before the date scheduled for submittal of the next Application(s) for Payment.
  - 1.4.3.3. Subschedules: Where the Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.
- 1.4.4. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one line item for each Specification Section.
  - 1.4.4.1. Identification: Include the following Project identification on the Schedule of Values:
    - 1.4.4.1.1. Project name and location.
    - 1.4.4.1.2. Name of District's Representative.
    - 1.4.4.1.3. DSA Application #.
    - 1.4.4.1.4. District's name and address.
    - 1.4.4.1.5. Date of submittal.
  - 1.4.4.2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
    - 1.4.4.2.1. Related Specification document, section or division.
    - 1.4.4.2.2. Description of the Work.
    - 1.4.4.2.3. Name of subcontractor.
    - 1.4.4.2.4. Name of manufacturer or fabricator.
    - 1.4.4.2.5. Name of supplier.
    - 1.4.4.2.6. Change Orders (numbers) that affect value.
    - 1.4.4.2.7. Dollar value.
      - 1.4.4.2.7.1. Percentage of the Contract Price to nearest one-hundredth percent, adjusted to total 100 percent.
  - 1.4.4.3. Provide a breakdown of the Contract Price in enough detail to facilitate continued evaluation of Applications for Payment and progress reports.

Provide several line items for principal subcontract amounts, where appropriate. Include separate line items under required principal subcontracts for operation and maintenance manuals, punch list activities, Project Record Documents, and demonstration and training.

1.4.4.4. Round amounts to nearest whole dollar; total shall equal the Contract Price.

1.4.4.5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.

1.4.4.6. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

1.4.4.7. Allowances (if any): Provide a separate line item in the Schedule of Values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.

1.4.4.8. Each item in the Schedule of Values and Applications for Payments shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

1.4.5. Schedule Updating: Update and resubmit the Schedule of Values before the next Application for Payment if there is a change in the Contract Price.

## **1.5. APPLICATIONS FOR PAYMENT**

1.5.1. **Form:** Contractor shall utilize AIA Form G702 - Application and Certificate for Payment and AIA Form G703 - Continuation Sheet, or District-approved form with the same information as these AIA forms.

1.5.2. **Content and Format:** District shall use Schedule of Values for listing items in its Application for Payment.

1.5.3. Each Application for Payment shall be consistent with previous applications and payments as certified and paid for by District.

**END OF DOCUMENT**

**DOCUMENT 01 21 00**

**ALLOWANCES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including without limitation, Contract Terms and Definitions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).
- 1.1.4. Agreement;
- 1.1.5. Bid Form; and

**1.2. SUMMARY**

- 1.2.1. **THE SPECIFIC ALLOWANCES FOR THIS PROJECT ARE AS LISTED IN THE AGREEMENT.**
- 1.2.2. This Document includes administrative and procedural requirements governing Allowances.
- 1.2.3. Certain items are specified in the Contract Documents by Allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements may be issued by Change Order or similar document.

**1.3. SELECTION AND PURCHASE**

- 1.3.1. At the earliest practical date after award of the Contract, Contractor shall advise District of the date when final selection and purchase of each product or system described by an Allowance must be completed to avoid delaying the Work.
- 1.3.2. At District's request, obtain proposals for each Allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- 1.3.3. Purchase products and systems selected by District from the designated supplier.

**1.4. SUBMITTALS**

- 1.4.1. Submit proposals for purchase of products or systems included in Allowances, in the form specified for Change Orders.
- 1.4.2. Submit invoices or delivery slips to show actual quantities of materials delivered to the Site for use in fulfillment of each Allowance.

- 1.4.3. Coordinate and process submittals for Allowance items in same manner as for other portions of the Work.

## **1.5. COORDINATION**

Coordinate Allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

## **1.6. PAYMENT FOR ALLOWANCES**

- 1.6.1. Allowance shall include all-inclusive cost to Contractor of specific products and materials under Allowance and Contractor may bill its time, materials, and other items in the identical structure as a Change Order.

## **1.7. UNUSED MATERIALS**

- 1.7.1. Return unused materials purchased under an Allowance to manufacturer or supplier for credit to District, after installation has been completed and accepted.
- 1.7.2. If requested, prepare and deliver unused material for storage by District when it is not economically practical (as determined by District) to return the material for credit. If directed, deliver unused material to District's storage space. Otherwise, disposal of unused material is Contractor's responsibility.

## **2. EXECUTION**

### **2.1. EXAMINATION**

Examine products covered by an Allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

### **2.2. PREPARATION**

Coordinate materials and their installation for each Allowance with related materials and installations to ensure that each Allowance item is completely integrated and interfaced with related work.

**END OF DOCUMENT**



**DOCUMENT 01 23 00**

**ALTERNATES AND UNIT PRICING**

**1. ALTERNATES AND UNIT PRICES**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Bid Form and Proposal; and
- 1.1.5. Instruction to Bidders.

**2. ALTERNATES**

**2.1. DESCRIPTION**

An amount proposed by Contractor and stated in its Bid Form for certain work defined in the Instruction to Bidders, Bid Form or Contract Documents that may be added to or deducted from the Base Bid amount. The acceptance or rejection of any of the alternates is strictly at the option of the District and subject to District's acceptance of Contractor's stated prices contained in this Proposal.

The cost or credit for each alternate is the net addition to or deduction from the Contract Price to incorporate the alternate into the Work. No other adjustments are made to the Contract Price.

**2.2. GENERAL:**

- 2.2.1. Coordination: Contractor shall modify or adjust adjacent work as necessary to completely integrate work of the alternate into the Project.
  - 2.2.1.1. Include as part of each alternate, miscellaneous devices, accessories and similar items incidental to or required for a complete installation whether or not indicated as part of the alternate.
  - 2.2.1.2. Include as part of each alternate, the costs of related coordination, modification, or adjustments.
- 2.2.2. If District accepts an alternate, Contractor shall perform the work of the alternate under the same conditions as other Work required by Contract Documents.
- 2.2.3. Notification: Immediately following award of the Contract, Contractor shall notify all of its Subcontractor(s) in writing of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

- 2.2.4. Schedule of Alternates: A Schedule of Alternates is included at the end of this Document. Specifications referenced in the Schedule of Alternates contain requirements for materials necessary to achieve the Work described under each alternate.

### **3. UNIT PRICING**

#### **3.1. DESCRIPTION**

An amount proposed by Contractor and stated in its Bid Form for certain work defined in the Instruction to Bidders and Bid Form that may be priced by unit. The acceptance or rejection of any of the unit prices is strictly at the option of the District and subject to District's acceptance of Contractor's stated prices contained in the Bid Form and may be subsequently negotiated prior to incorporation on Change Order(s).

#### **3.2. GENERAL**

Contractor shall completely state all required figures based on Unit Prices required in the Bid Form. Where scope of Work is decreased, all Work pertaining to the item, whether specifically stated or not, shall be omitted and where scope of Work is increased, all work pertaining to that item required to render same ready for use on the Project in accordance with intention of Drawings and Specifications shall be included in an agreed upon price amount.

#### **3.3. UNIT PRICES**

Furnish unit prices for each of the named items on a square foot, lineal foot, or per each basis, as requested and applicable. Unit prices shall include all labor, materials, services, profit, overhead, insurance, bonds, taxes, and all other incidental costs of Contractor, subcontractors, and supplier(s).

### **4. EXECUTION**

#### **4.1. SCHEDULE OF ALTERNATES: NONE**

**END OF DOCUMENT**

**DOCUMENT 01 25 10**

**PRODUCT OPTIONS AND SUBSTITUTIONS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Instructions to Bidders.

**1.2. DOCUMENT INCLUDES**

- 1.2.1. Product options.
- 1.2.2. Limitations on Substitutions.
- 1.2.3. Regulatory Requirements.
- 1.2.4. Substitution Representation.
- 1.2.5. Submittal Procedure.
- 1.2.6. District's Review.

**1.3. DEFINITIONS**

- 1.3.1. Requests for changes in products, materials, or equipment required by Contract Documents proposed by the Contractor prior to and after award of the Contract are considered requests for substitutions. Contractor must refer to the Instructions to Bidders, the General Conditions and the Special Conditions for limitations on when requests for substitution(s) are permitted on Project. The following are not considered substitutions:
  - 1.3.1.1. Revisions to Contract Documents requested by the District or Architect.
  - 1.3.1.2. Specified options of products, materials, and equipment included in Contract Documents.
- 1.3.2. Whenever in the Specifications any material, product, thing, or service is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be used for the purpose of facilitating the description

of the material, product, thing, or service, and shall be deemed to be followed by the words "or equal," except:

1.3.2.1. When designated to match other material, product, thing, or service in use on a particular public improvement either completed or in the course of completion;  
or

1.3.2.2. When designated as a field test or experiment.

#### **1.4. PRODUCT OPTIONS**

1.4.1. **Products Specified by Reference Standards or by Description Only:** Any Product meeting those standards or description.

1.4.2. **Products Specified by Naming One or More Manufacturers with or without Provision for Substitution:** Products of manufacturers named and meeting specifications with substitution of Products or manufacturer only when submitted under provisions of this section.

#### **1.5. LIMITATIONS ON SUBSTITUTIONS**

1.5.1. **Requests for substitution prior to bid or after bid, shall only be permitted as indicated in and in accordance with requirements specified in the Instructions to Bidders and the Special Conditions.**

1.5.2. The Bid shall be based upon the standards of quality established by those items of equipment and/or materials which are specifically identified in the Contract Documents.

1.5.3. Burden of proof of merit of requested substitution is the responsibility of the Contractor.

1.5.4. It is the sole responsibility of Contractor to submit the proper content of any requests for substitutions. Incomplete submittals will be rejected.

#### **1.6. REGULATORY REQUIREMENTS**

1.6.1. It shall be the responsibility of Contractor to obtain all regulatory approvals required for proposed substitutions.

1.6.2. All regulatory approvals shall be obtained for proposed substitutions prior to submittal of substitution request to Architect.

1.6.3. All costs incurred by the District in obtaining regulatory approvals for proposed substitutions to include the costs of the Architect and any authority having jurisdiction over the Project shall be reimbursed to the District. Costs of these services shall be reimbursed regardless of final acceptance or rejection of substitution.

1.6.4. Substitutions of materials or work procedures which affect the health, safety and welfare of the public shall have prior approval of the Division of the State Architect (DSA) field representative.

## **1.7. SUBSTITUTION REPRESENTATION**

- 1.7.1. In submitting a request for substitution, Contractor makes the representation that:
- 1.7.2. Contractor has investigated the proposed substitution and determined that it meets or exceeds the quality level of the specified product;
- 1.7.3. Contractor has determined that all components of the proposed substitution are identical and fully interchangeable with the product name and number specified;
- 1.7.4. Contractor will provide the same warranty or guarantee for the substitution as for the specified product;
- 1.7.5. Contractor will coordinate installation and make changes to other work which may be required for the work to be completed with no additional cost to the District;
- 1.7.6. Contractor waives claims for additional cost or time extension which may subsequently become apparent; and
- 1.7.7. Contractor will reimburse District for the cost of District's and Architect's review or redesign services associated with substitution request.

## **1.8. SUBMITTAL PROCEDURE**

- 1.8.1. Submit six (6) copies of each request.
- 1.8.2. Submit request using District's Substitution Request Form as indicated in Contract Forms and Submittals. Substitution requests that are not on District's required form shall be returned without review.
- 1.8.3. Limit each request to one proposed substitution.
- 1.8.4. Request to include sufficient data so that direct comparison of proposed substitution can be made.
- 1.8.5. Provide complete documentation for each request. Documentation shall include the following information, as appropriate, as a minimum:
  - 1.8.5.1. Statement of cause for substitution request.
  - 1.8.5.2. Identify product by specification section and article number.
  - 1.8.5.3. Provide manufacturer's name, address, and phone number. List fabricators, suppliers, and installers as appropriate.
  - 1.8.5.4. List similar projects where proposed substitution has been used, dates of installation and names of Architect and District.
  - 1.8.5.5. List availability of maintenance services and replacement materials.
  - 1.8.5.6. Documented or confirmation of regulatory approval.

- 1.8.5.7. Product data, including drawings and descriptions of products.
- 1.8.5.8. Fabrication and installation procedures.
- 1.8.5.9. Samples of proposed substitutions.
- 1.8.5.10. Itemized comparison of significant qualities of the proposed substitution with those of the product specified. Significant qualities may include size, weight, durability, performance requirements and visual effects.
- 1.8.5.11. Coordination information, including a list of changes or modifications needed to other items of work that will become necessary to accommodate proposed substitution.
- 1.8.5.12. Statement on the substitutions effect on the Construction Schedule.
- 1.8.5.13. Cost information including a proposal of the net reduction in cost to the Contract Price if the proposed substitution is accepted.
- 1.8.5.14. Certification that the substitution is equal to or better in every respect to that required by the Contract Documents and that substitution will perform adequately in the application intended.
- 1.8.5.15. Waiver of right to additional payment or time that may subsequently become necessary because of failure of substitution to perform adequately.
- 1.8.6. Inadequate warranty, vagueness of submittal, failure to meet specified requirements, or submittal of insufficient data will be cause for rejection of substitution request.

**1.9. DISTRICT'S REVIEW**

- 1.9.1. The District will accept or reject proposed substitution within a reasonable amount of time.
- 1.9.2. If a request is made prior to bid opening and the District has not completed its review, Contractor shall base its bid on the product specified only.
- 1.9.3. There shall be no claim for additional time for review of proposed substitutions.
- 1.9.4. Final acceptance of a substitution submitted prior to the date established for the receipt of bids will be in the form of an addendum.

**END OF DOCUMENT**



**DOCUMENT 01 26 00**

**CONTRACT MODIFICATION PROCEDURES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Allowances;
- 1.1.5. Product Options and Substitutions; and
- 1.1.6. Project Coordination.

**1.2. DESCRIPTION**

- 1.2.1. This Document contains procedures to be followed by the Contractor to request changes in the Contract Time of the Contract Price.
- 1.2.2. **IF THERE IS ANY INCONSISTENCY IN THIS DOCUMENT WITH THE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS THAT THE CONTRACTOR SHALL COMPLY WITH RELATED TO CHANGES AND/OR REQUESTS FOR CHANGES (e.g., "Change in the Work"), THOSE PROVISIONS IN THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS SHALL TAKE PRECEDENCE.**

**1.3. SUMMARY**

This Document specifies administrative and procedural requirements for handling and processing Contract modifications.

**1.4. CONSTRUCTION CHANGE DIRECTIVE**

The District may as provided by law, by Construction Directive and without invalidating the Contract, order changes in the Work consisting of additions, deletions, or other revisions.

**1.5. PRICE REQUESTS**

- 1.5.1. Do not consider Price Requests to be instructions either to stop work in progress or to execute the proposed change.
- 1.5.2. Within time specified in Price Request after receipt of Price Request, submit a quotation estimating cost adjustments to the Contract Price and the Contract Time necessary to execute the change.

- 1.5.2.1. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
- 1.5.2.2. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
- 1.5.2.3. Include costs of labor and supervision directly attributable to the change.
- 1.5.2.4. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

#### **1.6. PROPOSED CHANGE ORDERS**

Contractor may propose changes by submitting a request for a change on District's Proposed Change Order form (PCO) to District.

- 1.6.1. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- 1.6.2. Comply with Contract Document requirements if the proposed change requires substitution of one product or system for product or system specified.

**END OF DOCUMENT**

**DOCUMENT 01 26 10**

**REQUESTS FOR INFORMATION**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Documentation Requirements;
- 1.1.5. Electronic Data Transfer;
- 1.1.6. Submittals;
- 1.1.7. Contract Closeout and Final Cleaning;
- 1.1.8. Operation and Maintenance Data;
- 1.1.9. Warranties; and
- 1.1.10. Record Documents;

**1.2. DESCRIPTION**

This Document contains procedures to be followed by the Contractor to request Architect provide additional information necessary to clarify or amplify an item in the Contract Documents that Contractor thinks is not clearly shown or called for in the Drawings or Specifications or other portions of the Contract Documents, or to address issues that have arisen under field conditions.

**1.3. PROCEDURES**

- 1.3.1. Notification by Contractor:
  - 1.3.1.1. Submit all requirements for clarification or additional information, whether originated by the Contractor, a Subcontractor, or supplier at any tier, in writing to District as required by the Contract Documents.
  - 1.3.1.2. Number RFIs sequentially. Follow RFI number with sequential alphabetical suffix as necessary for each resubmission. For example, the first RFI would be "001." The second RFI would be "002."
  - 1.3.1.3. All RFIs shall reference all applicable Contract Document(s), including Specification section(s), detail(s), page number(s), drawing number(s), and sheet number(s), etc. Contractor shall make suggestions and interpretations of

the issue raised by each RFI. An RFI cannot modify the Contract Price, Contract Time, or the Contract Documents.

1.3.1.4. Limit each RFI to one subject.

1.3.1.5. Submit a RFI if one of the following conditions occurs:

1.3.1.5.1. Contractor discovers an unforeseen condition or circumstance that is not described in the Contract Documents.

1.3.1.5.2. Contractor discovers an apparent conflict or discrepancy between portions of the Contract Documents that appears to be inconsistent or is not reasonably inferred from the intent of the Contract Documents.

1.3.2. Contractor shall not:

1.3.2.1. Submit an RFI as a request for substitution.

1.3.2.2. Submit an RFI as a submittal.

1.3.2.3. Submit an RFI without first having thoroughly reviewed the Contract Documents.

1.3.2.4. Submit an RFI in a manner that suggests that specific portions of the Contract Documents are assumed to be excluded or by taking an isolated portion of the Contract Documents in part rather than whole.

1.3.2.5. Submit an RFI in an untimely manner without proper coordination and scheduling of Work related trades.

1.3.2.6. If Contractor submits an RFI contrary to the above, Contractor shall pay the cost of any review, which cost shall be deducted from the Contract Price.

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

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

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

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

1.3.3.4. Is not justified for any other reason.

#### **1.4. RESPONSE TIME**

- 1.4.1. Architect shall review RFIs and issue a response and instructions to Contractor within a reasonable time frame from the date the RFI is received and dated by the District.
- 1.4.2. Responses from the District will not change any requirement of the Contract unless so noted by the District in the response to the RFI. Should the Contractor contend that a response to an RFI causes a change to the Contract that requires a Change Order, the Contractor shall, before proceeding, give written notice to the District, indicating that the Contractor considers the District's response to the RFI to be a Change Order, as required by the Contract Documents.
- 1.4.3. Should Contractor direct its Subcontractors to proceed with the Work affected before receipt of a response from Architect, any portion of the Work which is not done in accordance with the Architect's ultimate interpretations, clarifications, instructions, or decisions is subject to removal or replacement at Contractor's sole expense and responsibility.

**END OF DOCUMENT**

**DOCUMENT 01 31 00**

**COORDINATION AND PROJECT MEETINGS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS:**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Technical Specifications.

**1.2. SECTION INCLUDES**

- 1.2.1. Coordination Responsibilities of the Contractor.
- 1.2.2. Field Engineering Responsibilities of the Contractor.
- 1.2.3. Preconstruction Conference.
- 1.2.4. Progress Meetings.
- 1.2.5. Pre-Installation Conferences.
- 1.2.6. Post Construction Dedication.

**1.3. COORDINATION RESPONSIBILITIES OF THE CONTRACTOR**

- 1.3.1. Coordinate scheduling, submittals, and Work of the Specifications to assure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- 1.3.2. Prior to commencement of a particular type or kind of Work examine relevant information, contract documents, and subsequent data issued to the Project.
- 1.3.3. Verify that utility requirement characteristics of operating equipment are compatible with building utilities. Coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- 1.3.4. Closing up of holes, backfilling, and other covering up operations shall not proceed until all enclosed or covered Work and inspections have been completed. Verify before proceeding.
- 1.3.5. Coordinate space requirements and installation of mechanical and electrical Work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and

conduit as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

- 1.3.6. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- 1.3.7. In locations where several elements of mechanical and electrical Work must be sequenced and positioned with precision in order to fit into available space, prepare coordination drawings showing the actual conditions required for the installation. Prepare coordination drawings prior to purchasing, fabricating, or installing any of the elements required to be coordinated.
- 1.3.8. Closing up of walls, partitions or furred spaces, backfilling, and other covering up operations shall not proceed until all enclosed or covered Work and inspections have been completed. Verify before proceeding.
- 1.3.9. Coordinate completion and cleanup of Work of separate sections in preparation for completion and for portions of Work designated for District's occupancy.
- 1.3.10. After District occupancy of Project, coordinate access to Site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of District's activities.
- 1.3.11. Coordinate all utility company Work in accordance with the Contract Documents.
- 1.3.12. Key Personnel Names: Within fifteen (15) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

#### **1.4. FIELD ENGINEERING RESPONSIBILITIES OF THE CONTRACTOR**

- 1.4.1. Contractor shall employ a Land Surveyor registered in the State of California and acceptable to the Architect.
- 1.4.2. Control datum for survey is that established by District provided survey. Contractor to locate and protect survey control and reference points.
- 1.4.3. Replace dislocated survey control points based on original survey control.
- 1.4.4. Provide field engineering services. Establish elevations, lines, and levels utilizing recognized engineering survey practices.
- 1.4.5. Upon completion of Work, submit certificate signed by the Land Surveyor that elevations and locations of Work are in conformance with Contract Documents. Record deviations on Record Drawings.



## **1.5. PRECONSTRUCTION CONFERENCE**

- 1.5.1. Construction Manager or Project Engineer will schedule a conference immediately after, and in no case more than fifteen (15) days after, receipt of fully executed Contract Documents prior to Project mobilization.
- 1.5.2. Mandatory Attendance: Construction Manager, Project Engineer, Project Inspector, Architect of Record, Contractor, Contractor's Project Manager, and Contractor's Job/Project Superintendent.
- 1.5.3. Optional Attendance: Architect's consultants, and utility company representatives.
- 1.5.4. Construction Manager shall preside at conference and the Project Architect shall prepare and record minutes and distribute copies.
- 1.5.5. Agenda:
  - 1.5.5.1. Execution of Owner-Contractor Agreement.
  - 1.5.5.2. Issue Notice to Proceed.
  - 1.5.5.3. Submission of executed bonds and insurance certificates.
  - 1.5.5.4. Distribution of Contract Documents.
  - 1.5.5.5. Submission of list of Subcontractors, list of Products, Schedule of Values, and Progress Schedule.
  - 1.5.5.6. Designation of responsible personnel representing the parties.
  - 1.5.5.7. Procedures for processing Change Orders.
  - 1.5.5.8. Procedures for Request for Information.
  - 1.5.5.9. Procedures for testing and inspecting.
  - 1.5.5.10. Procedures for processing applications for payment.
  - 1.5.5.11. Procedures for Project closeout.
  - 1.5.5.12. Use of Premises.
  - 1.5.5.13. Work restrictions.
  - 1.5.5.14. District's occupancy requirements or options.
  - 1.5.5.15. Responsibility for temporary facilities and controls.
  - 1.5.5.16. Construction waste management and recycling.
  - 1.5.5.17. Parking availability.

1.5.5.18. Office, work and storage areas.

1.5.5.19. Equipment deliveries and priority.

1.5.5.20. Security.

1.5.5.21. Progress cleaning.

1.5.5.22. Review required submittals and (if applicable) LEED Certification requirements.

## **1.6. PROGRESS MEETINGS**

1.6.1. Construction Manager shall schedule and administer meetings throughout progress of the Work at a minimum of every week.

1.6.2. Construction Manager or Project Engineer will make arrangements for meetings, prepare agenda, and preside at meetings. Project Architect shall record minutes (Field Reports), and distribute copies.

1.6.3. Attendance Required: Job Superintendent, Construction Manager, Project Engineer, Project Inspector, Architect of Record, Subcontractors, and suppliers as appropriate to agenda topics for each meeting.

1.6.4. Agenda:

1.6.4.1. Review minutes of previous meetings (Field Reports).

1.6.4.2. Review of Work progress.

1.6.4.3. Field observations, problems, and decisions.

1.6.4.4. Identification of problems which impede planned progress.

1.6.4.5. Review of submittals schedule and status of submittals.

1.6.4.6. Review of off-site fabrication and delivery schedules.

1.6.4.7. Maintenance of construction schedule.

1.6.4.8. Corrective measures to regain projected schedules.

1.6.4.9. Planned progress during succeeding work period.

1.6.4.10. Coordination of projected progress.

1.6.4.11. Maintenance of quality and work standards.

1.6.4.12. Effect of proposed changes on progress schedule and coordination.

1.6.4.13. Other business relating to Work.

1.6.5. District has authority to schedule mandatory meetings other than those listed, as

necessary.

#### **1.7. PRE-INSTALLATION CONFERENCES**

- 1.7.1. When required in individual specification section, Contractor shall convene a pre-installation conference prior to commencing Work of the section. Refer to individual specification section for timing requirements of conference.
- 1.7.2. Contractor shall require its Subcontractors and suppliers directly affecting, or affected by, Work of the specific section to attend.
- 1.7.3. Notify the Construction Manager, Project Engineer, Project Inspector, and Architect of Record four (4) days in advance of meeting date.
- 1.7.4. A pre-installation conference may coincide with a regularly scheduled progress meeting.
- 1.7.5. Contractor shall prepare agenda, preside at conference, record minutes, and distribute copies within two (2) days after conference to participants.
- 1.7.6. The purpose of the meeting will be to review Contract Documents, conditions of installation, preparation and installation procedures, and coordination with related Work and manufacturer's recommendations.
- 1.7.7. Pre-installation Schedule: As a minimum, Work being installed under the Contract Documents technical sections will require pre-installation conferences. Contractor shall review the technical specifications and add all additional requirements for pre-installation meetings contained in those sections.

#### **1.8. POST CONSTRUCTION DEDICATION**

- 1.8.1. Attendance Required: Project Superintendent, Contractor, Project Manager, major Subcontractors, Construction Manager, Project Engineer, Project Inspector, and Architect of Record.
- 1.8.2. Preparation prior to Dedication: Contractor and appropriate Subcontractors and suppliers shall:
- 1.8.3. Assist District in operation of mechanical devices and systems.
  - 1.8.3.1. Verify operation and adjust controls for communication systems.
  - 1.8.3.2. Assist District in operation of lighting systems.

**END OF DOCUMENT**

**DOCUMENT 01 32 16**

**CONSTRUCTION SCHEDULE – NETWORK ANALYSIS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Coordination and Meetings; and
- 1.1.5. Submittals.

**1.2. REFERENCES**

- 1.2.1. Construction Planning and Scheduling Manual - A Manual for General Contractors and the Construction Industry, The Associated General Contractors of America (AGC).
- 1.2.2. CSI - Construction Specifications Institute MP-2-1 Master Format.
- 1.2.3. U.S. National Weather Service - Local Climatological Data.

**1.3. PERFORMANCE REQUIREMENTS**

- 1.3.1. Ensure adequate scheduling during construction activities so Work may be prosecuted in an orderly and expeditious manner within stipulated Contract Time.
- 1.3.2. Ensure coordination of Contractor and Subcontractors at all levels.
- 1.3.3. Ensure coordination of submittals, fabrication, delivery, erection, installation, and testing of products, materials and equipment.
- 1.3.4. Ensure on-time delivery of District furnished products, materials and equipment.
- 1.3.5. Ensure coordination of jurisdictional reviews.
- 1.3.6. Prepare applications for payment.
- 1.3.7. Monitor progress of Work.
- 1.3.8. Prepare proper requests for changes to Contract Time.
- 1.3.9. Prepare proper requests for changes to Construction Schedule.
- 1.3.10. Assist in detection of schedule delays and identification of corrective actions.

#### **1.4. QUALITY ASSURANCE**

- 1.4.1. Perform scheduling work in accordance with Construction Planning and Scheduling Manual published by the AGC.
- 1.4.2. Maintain one copy of Construction Planning and Scheduling Manual on Site.
- 1.4.3. In the event of discrepancy between the AGC publication and the Contract Documents, provisions of the Contract Documents shall govern.

#### **1.5. QUALIFICATIONS**

##### **1.5.1. Scheduler:**

- 1.5.1.1. Contractor shall retain a construction scheduler to work in enough capacity to perform all of the Contractor's requirements to prepare the Construction Schedule. The Scheduler shall plan, coordinate, execute, and monitor a cost/resource loaded CPM schedule as required for Project and have a minimum of five (5) years direct experience using Primavera Project Management.
- 1.5.1.2. Scheduler will cooperate with District and shall be available on site for monitoring, maintaining and updating schedules in a timely manner.
- 1.5.1.3. District has the right to reject the Scheduler based upon a lack of experience as required by this Document or based on lack of performance and timeliness of schedule submittals/fragnets on past projects. Contractor shall within seven (7) calendar days of District's rejection, propose another scheduler who meets the experience requirements stated above.

- 1.5.2. **Administrative Personnel:** Five (5) years minimum experience in using and monitoring schedules on comparable projects.

#### **1.6. SUBMITTALS**

- 1.6.1. Submit Short Interval Schedule at each Construction Progress Meeting.
- 1.6.2. Submit Time Adjustment Schedule within five (5) days of commencement of a claimed delay.
- 1.6.3. Submit Recovery Schedules as required for timely completion of Work or when demanded by the District.
- 1.6.4. Submit job cost reports when demanded by the District.
- 1.6.5. Submit one (1) reproducible and two (2) copies of each schedule and cost report.
- 1.6.6. Submit large format plotted schedules monthly or at the request of the District or Construction Manager.

## **1.7. REVIEW AND EVALUATION**

- 1.7.1. Contractor shall participate in joint review of Construction Schedule and Reports with District and Architect.
- 1.7.2. Within seven (7) days of receipt of District and/or Architect's comments provide satisfactory revision to Construction Schedule or adequate justification for activities in question.
- 1.7.3. In the event that an activity or element of Work is not detected by District or Architect review, such omission or error shall be corrected by next scheduled update and shall not affect Contract Time.
- 1.7.4. Acceptance by District of corrected Construction Schedule shall be a condition precedent to making any progress payments.
- 1.7.5. Cost-loaded values of Construction Schedule shall be basis for determining progress payments.
- 1.7.6. Review and acceptance by District and Architect of Preliminary Construction Schedule or Construction Schedule does not constitute responsibility whatsoever for accuracy or feasibility of schedules nor does such acceptance expressly or impliedly warrant, acknowledge or admit reasonableness of activities, logic, duration, manpower, cost or equipment loading stated or implied on schedules.

## **1.8. FORMAT**

- 1.8.1. Prepare diagrams and supporting mathematical analyses using Precedence Diagramming Method, under concepts and methods outlined in AGC Construction Planning and Scheduling Manual, or other method pre-approved by District.
- 1.8.2. **Listings:** Reading from left to right, in ascending order for each activity.
- 1.8.3. **Diagram Size:** 42 inches maximum height x width required.
- 1.8.4. **Scale and Spacing:** To allow for legible notations and revisions.
- 1.8.5. Illustrate order and interdependence of activities and sequence of Work.
- 1.8.6. Illustrate complete sequence of construction by activity.
- 1.8.7. Provide legend of symbols and abbreviations used.

## **1.9. COST AND SCHEDULE REPORTS**

- 1.9.1. **Activity Analysis:** Tabulate each activity of network diagram and identify for each activity:
  - 1.9.1.1. Description.
  - 1.9.1.2. Interface with outside contractors or agencies.

- 1.9.1.3. Number.
- 1.9.1.4. Preceding and following number.
- 1.9.1.5. Duration.
- 1.9.1.6. Earliest start date.
- 1.9.1.7. Earliest finish date.
- 1.9.1.8. Actual start date.
- 1.9.1.9. Actual finish date.
- 1.9.1.10. Latest start date.
- 1.9.1.11. Latest finish date.
- 1.9.1.12. Total and free float.
- 1.9.1.13. Identification of critical path activity.
- 1.9.1.14. Monetary value keyed to Schedule of Values.
- 1.9.1.15. Manpower requirements.
- 1.9.1.16. Responsibility.
- 1.9.1.17. Percentage complete.
- 1.9.1.18. Variance positive or negative.

1.9.2. **Cost Report:** Tabulate each activity of network diagram and identify for each activity:

- 1.9.2.1. Description.
- 1.9.2.2. Number.
- 1.9.2.3. Total cost.
- 1.9.2.4. Percentage complete.
- 1.9.2.5. Value prior to current period.
- 1.9.2.6. Value this period.
- 1.9.2.7. Value to date.

1.9.3. **Required Sorts:** List activities in sorts or groups:

- 1.9.3.1. By activity number.



- 1.9.3.2. By amount of float time in order of early start.
- 1.9.3.3. By responsibility in order of earliest start date.
- 1.9.3.4. In order of latest start dates.
- 1.9.3.5. In order of latest finish dates.
- 1.9.3.6. Application for payment sorted by Schedule of Values.
- 1.9.3.7. Listing of activities on critical path.
- 1.9.4. Listing of basic input data which generates schedule.

#### **1.10. CONSTRUCTION SCHEDULE**

- 1.10.1. Contractor shall develop and submit a cost loaded preliminary schedule of construction (or Preliminary Construction Schedule) as required by this Document and the Contract Documents. It shall be submitted in computer generated network format and shall be organized by Activity Codes representing the intended sequencing of the Work, and with time scaled network diagrams of activities. The Preliminary Construction Schedule shall include activities such as mobilization, preparation of submittals, specified review periods, procurement items, fabrication items, milestones, and all detailed construction activities.
- 1.10.2. Upon District's acceptance of the Preliminary Construction Schedule, Contractor shall update the accepted Preliminary Construction Schedule until Contractor's Construction Schedule is fully developed and accepted. Since updates to the Construction Schedule are the basis for payment to Contractor, submittal and acceptance of the Construction Schedule and updates shall be a condition precedent to making of monthly payments, as indicated in the General Conditions.
- 1.10.3. Failure to submit an adequate or accurate Preliminary Construction Schedule, Construction Schedule, updates thereto or failure to submit on established dates, will be considered a breach of Contract.
- 1.10.4. Failure to include any activity shall not be an excuse for completing all Work by required Completion Date.
- 1.10.5. Activities of long intervals shall be broken into increments no longer than fourteen (14) days or a value over \$20,000.00, unless approved by the District or it is a non-construction activity for procurement and delivery.
- 1.10.6. The Construction Schedule shall comply with the following and include the following:
  - 1.10.6.1. Provide a written narrative describing Contractor's approach to mobilization, procurement, and construction during the first thirty (30) calendar days including crew sizes, equipment and material delivery, Site access, submittals, and permits.
  - 1.10.6.2. Shall designate critical path or paths.

- 1.10.6.3. Procurement activities to include mobilization, shop drawings and sample submittals.
- 1.10.6.4. Identification of key and long-lead elements and realistic delivery dates.
- 1.10.6.5. Construction activities in units of whole days limited to fourteen (14) days for each activity except non-construction activities for procurement and delivery.
- 1.10.6.6. Approximate cost and duration of each activity.
- 1.10.6.7. Shall contain seasonal weather considerations.
- 1.10.6.8. Indicate a date for Project Completion that is no later than Completion Date subject to any time extensions processed as part of a Change Order.
- 1.10.6.9. Conform to mandatory dates specified in the Contract Documents.
- 1.10.6.10. Contractor shall allow for inclement weather in the Proposed Baseline Schedule by incorporating an activity titled "Rain Day Impact Allowance" as the last activity prior to the Completion Milestone. No other activities may be concurrent with it. The duration of the Rain Day Impact Allowance activity will be in accordance with the Special Conditions, and will be calculated from the Notice to Proceed until the Completion.
- 1.10.6.11. Level of detail shall correspond to complexity of work involved.
- 1.10.6.12. Indicate procurement activities, delivery, and installation of District furnished material and equipment.
- 1.10.6.13. Designate critical path or paths.
- 1.10.6.14. Subcontractor work at all levels shall be included in schedule.
- 1.10.6.15. As developed, shall show sequence and interdependence of activities required for complete performance of Work.
- 1.10.6.16. Shall be logical and show a coordinated plan of Work.
- 1.10.6.17. Show order of activities and major points of interface, including specific dates of completion.
- 1.10.6.18. Duration of activities shall be coordinated with Subcontractors and suppliers and shall be best estimate of time required.
- 1.10.6.19. Shall show description, duration and float for each activity.
- 1.10.7. **Activity.** An activity shall meet the following criteria:
  - 1.10.7.1. Any portion or element of Work, action, or reaction that is precisely described, readily identifiable, and is a function of a logical sequential process.

- 1.10.7.2. Descriptions shall be clear and concise. Beginning and end shall be readily verifiable. Starts and finishes shall be scheduled by logical restraints.
- 1.10.7.3. Responsibility shall be identified with a single performing entity.
- 1.10.7.4. Additional codes shall identify building, floor, bid opening and/or District's receipt of proposals, whichever is acceptable and CSI classification.
- 1.10.7.5. Assigned dollar value (cost-loading) of each activity shall cumulatively equal total contract amount. Mobilization, bond and insurance costs shall be separate. General requirement costs, overhead, profit, shall be prorated throughout all activities. Activity costs shall correlate with Schedule of Values.
- 1.10.7.6. Each activity shall have manpower-loading assigned.
- 1.10.7.7. Major construction equipment shall be assigned to each activity.
- 1.10.7.8. Activities labeled start, continue or completion are not allowed.
- 1.10.8. **Equipment and Materials.** For major equipment and materials show a sequence of activities including:
  - 1.10.8.1. Preparation of shop drawings and sample submissions.
  - 1.10.8.2. Review of shop drawings and samples.
  - 1.10.8.3. Finish and color selection.
  - 1.10.8.4. Fabrication and delivery.
  - 1.10.8.5. Erection or installation.
  - 1.10.8.6. Testing.
- 1.10.9. Include a minimum of fifteen (15) days prior to Completion Date for punch lists and clean up. No other activities shall be scheduled during this period.

**1.11. SHORT INTERVAL SCHEDULE**

- 1.11.1. The Four-Week Rolling Schedule shall be based on the most recent District Accepted Construction Schedule or Update. It shall include weekly updates to all construction, submittal, fabrication/procurement, and separate Work Contract activities. Contractor shall ensure that it accurately reflects the current progress of the Work.
- 1.11.2. Shall be fully developed horizontal bar-chart-type schedule directly derived from Construction Schedule.
- 1.11.3. Prepare schedule on sheet of sufficient width to clearly show data.
- 1.11.4. Provide continuous heavy vertical line identifying first day of week.

- 1.11.5. Provide continuous subordinate vertical line identifying each day of week.
- 1.11.6. Identify activities by same activity number and description as Construction Schedule.
- 1.11.7. Show each activity in proper sequence.
- 1.11.8. Indicate graphically sequences necessary for related activities.
- 1.11.9. Indicate activities completed or in progress for previous two (2) week period.
- 1.11.10. Indicate activities scheduled for succeeding three (3) week period.
- 1.11.11. Further detail should be added if necessary to monitor schedule or if requested by District.

**1.12. REQUESTED TIME ADJUSTMENT SCHEDULE**

- 1.12.1. Updated Construction Schedule shall not show a Completion Date later than the Contract Time, subject to any time extensions processed as part of a Change Order.
- 1.12.2. If an extension of time is requested, a separate schedule entitled "Requested Time Adjustment Schedule" shall be submitted to District and Architect.
- 1.12.3. Indicate requested adjustments in Contract Time which are due to changes or delays in completion of Work.
- 1.12.4. Extension request shall include forecast of Project Completion date and actual achievement of any dates listed in Contract Documents.
- 1.12.5. To the extent that any requests are pending at time of any Construction Schedule update, Time Adjustment Schedule shall also be updated.
- 1.12.6. Schedule shall be a time-scaled network analysis.
- 1.12.7. Accompany schedule with formal written time extension request and detailed impact analysis justifying extension.
- 1.12.8. Time impact analysis shall demonstrate time impact based upon date of delay, and status of construction at that time and event time computation of all affected activities. Event times shall be those as shown in latest Construction Schedule.
- 1.12.9. Activity delays shall not automatically constitute an extension of Contract Time.
- 1.12.10. Failure of Subcontractors shall not be justification for an extension of time.
- 1.12.11. Float is not for the exclusive use or benefit of any single party. Float time shall be apportioned according to needs of Project, as determined by the District.
- 1.12.12. Float suppression techniques such as preferential sequencing, special lead/lag logic restraints, extended activity durations, or imposed dates shall be apportioned according to benefit of Project.

- 1.12.13. Extensions will be granted only to extent that time adjustments to activities exceed total positive float of the critical path and extends Completion date.
- 1.12.14. District shall not have an obligation to consider any time extension request unless requirements of Contract Documents, and specifically, but not limited to these requirements, are complied with.
- 1.12.15. District shall not be responsible or liable for any construction acceleration due to failure of District to grant time extensions under Contract Documents should requested adjustments in Contract Time not substantially comply with submission and justification requirements of Contract for time extension requests.
- 1.12.16. In the event a Requested Time Adjustment Schedule and Time Impact Analysis are not submitted within ten (10) days after commencement of a delay it is mutually agreed that delay does not require a Contract Time extension.

#### **1.13. RECOVERY SCHEDULE**

- 1.13.1. When activities are behind Construction Schedule a supplementary Recovery Schedule shall be submitted.
- 1.13.2. Contractor shall prepare and submit to the District a Recovery Schedule whenever activities are behind Construction Schedule or at any time requested by the District, at no cost to the District.
- 1.13.3. Form and detail shall be sufficient to explain and display how activities will be rescheduled to regain compliance with Construction Schedule and to complete the Work by the Completion Date.
- 1.13.4. Maximum duration shall be one (1) month and shall coincide with payment period.
- 1.13.5. Ten (10) days prior to expiration of Recovery Schedule, Contractor shall have to show verification to determine if activities have regained compliance with Construction Schedule. Based upon this verification the following will occur:
  - 1.13.5.1. Supplemental Recovery Schedule will be submitted to address subsequent payment period.
  - 1.13.5.2. Construction Schedule will be resumed.

#### **1.14. UPDATING SCHEDULES**

- 1.14.1. Review and update schedules at least ten (10) days prior to submitting an Application for Payment.
- 1.14.2. Maintain schedules to record actual prosecution and progress.
- 1.14.3. Approved Change Orders which affect schedules shall be identified as separate new activities.
- 1.14.4. Change Orders of less than \$5,000.00 value or less than three (3) days duration need not be shown unless critical path is affected.

- 1.14.5. No other revisions shall be made to schedules unless authorized by District.
- 1.14.6. **Schedule Narrative Report:** Contractor shall include a written report to explain the Monthly Schedule Update. The narrative shall, at a minimum, include the following headings with appropriate discussions of each topic:
  - 1.14.6.1. Activities or portions of activities completed during previous reporting period.
  - 1.14.6.2. Actual start dates for activities currently in progress.
  - 1.14.6.3. Deviations from critical path in days ahead or behind.
  - 1.14.6.4. List of major construction equipment used during reporting period and any equipment idle.
  - 1.14.6.5. Number of personnel by trade engaged on Work during reporting period.
  - 1.14.6.6. Progress analysis describing problem areas.
  - 1.14.6.7. Current and anticipated delay factors and their impact.
  - 1.14.6.8. Proposed corrective actions and logic revisions for Recovery Schedule.
  - 1.14.6.9. Proposed modifications, additions, deletions and changes in logic of Construction Schedule.
  - 1.14.6.10. In updating the Schedule, Contractor shall not modify Activity ID numbers, schedule calculation rules/criteria, or the Activity Coding Structure required.
- 1.14.7. Schedule update will form basis upon which progress payments will be made.
- 1.14.8. District will not be obligated to review or process Application for Payment until the Construction Schedule and Schedule Narrative Report have been submitted.

## **1.15. DISTRIBUTION**

- 1.15.1. Following joint review and acceptance of updated schedules distribute copies to District, Architect, and all other concerned parties.
- 1.15.2. Instruct recipients to promptly report in writing any problem anticipated by projections shown in schedules.

## **2. PRODUCTS**

### **2.1. SCHEDULING SOFTWARE**

Contractor shall utilize District-approved software and shall employ the Critical Path Method (CPM) in the development and maintenance of the Construction Schedule. The scheduling software shall be capable of being resource loaded with manpower, costs and materials. It shall also be capable of generating time-scaled logic diagrams, resource histograms and profiles, bar charts, layouts and reports with any and/or all activity detail.

**2.2. ELECTRONIC DATA**

Provide compact disk(s) that contain a back-up of the Proposed Baseline Schedule data on it and in a format approved by the District.

**END OF DOCUMENT**



**DOCUMENT 01 33 00**

**SUBMITTALS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions;
- 1.1.3. Instructions to Bidders;
- 1.1.4. Summary of Work;
- 1.1.5. Contract Forms and Submittals;
- 1.1.6. Product Options and Substitutions;
- 1.1.7. Requests for Information;
- 1.1.8. Contract Closeout and Final Cleaning;
- 1.1.9. Operation and Maintenance Data;
- 1.1.10. Warranties;
- 1.1.11. Record Documents;
- 1.1.12. Demonstration and Training;

**1.2. DOCUMENT INCLUDES**

- 1.2.1. Submittal procedures – Use of Primavera.
- 1.2.2. Shop drawings.
- 1.2.3. PCM (or other pre-approved program) Electronic Submittal Process
- 1.2.4. Product data.
- 1.2.5. Samples.
- 1.2.6. Manufacturers' Instructions.
- 1.2.7. Manufacturers' Certificates.
- 1.2.8. Mock-Up.

- 1.2.9. Deferred approval requirements.

**1.3. SUBMITTAL PROCEDURES – USE OF PRIMAVERA OR ANOTHER PRE-APPROVED PROGRAM**

**Contractor shall utilize District-approved software** for the submittal process.

- 1.3.1. Contractor shall transmit each submittal in conformance with requirements of this Document. For each submittal, Contractor shall:
  - 1.3.1.1. Sequentially number the transmittal forms. Resubmitted submittals must have the original number with an alphabetic suffix;
  - 1.3.1.2. Identify Project and Architect's project number, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate;
  - 1.3.1.3. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the Work and Contract Documents. Submittals without Contractor's stamp and signature will be returned without review.
- 1.3.2. Coordinate preparation and processing of submittals with performance of Work. Transmit each submittal sufficiently in advance of performance of Work to avoid delay.
  - 1.3.2.1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 1.3.2.2. Coordinate transmittal of different types of submittals for related parts of Work so processing will not be delayed because of the need to review submittals concurrently for coordination.
  - 1.3.2.3. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- 1.3.3. Comply with Contract Documents for list of submittals and time requirements for scheduled performance of Work.
- 1.3.4. No extension of Contract Time will be authorized because of failure to transmit submittals to the Architect sufficiently in advance of the Work to permit processing.
- 1.3.5. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- 1.3.6. Provide space for Contractor and Architect review stamps.
- 1.3.7. Revise and resubmit submittals as required, identify all changes made since previous submittal.
- 1.3.8. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.
- 1.3.9. Submittals not requested will not be recognized or processed. Submittals not requested

will be returned without review.

#### **1.4. SHOP DRAWINGS**

- 1.4.1. Prepare Project-specific information, drawn accurately to scale. Do not reproduce Contract Documents or copy standard information as the basis of shop drawings. Standard information prepared without specific reference to the Project is not a shop drawing.
- 1.4.2. Do not use or allow others to use Shop Drawings which have been submitted and have been rejected.
- 1.4.3. Preparation: Fully illustrate requirements in Contract Documents. Include the following information, as applicable:
  - 1.4.3.1. Dimensions.
  - 1.4.3.2. Identification of products.
  - 1.4.3.3. Fabrication and installation drawings.
  - 1.4.3.4. Roughing-in and setting diagrams.
  - 1.4.3.5. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
  - 1.4.3.6. Shop work manufacturing instructions.
  - 1.4.3.7. Templates and patterns.
  - 1.4.3.8. Schedules.
  - 1.4.3.9. Design calculations.
  - 1.4.3.10. Compliance with specified standards.
  - 1.4.3.11. Notation of coordination requirements.
  - 1.4.3.12. Notation of dimensions established by field measurements.
  - 1.4.3.13. Relationship to adjoining construction clearly indicated.
  - 1.4.3.14. Seal and signature of professional engineer if specified.
  - 1.4.3.15. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
  - 1.4.3.16. All deviations from the Contract Documents, clearly indicated.
  - 1.4.3.17. Copy of letter indicating acceptance of deviations indicated on the submittal.
- 1.4.4. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop

Drawings on sheets at least 8-1/2 by 11 inches (215 by 280 mm) but no larger than 30 by 40 inches (750 by 1000 mm).

- 1.4.5. Do not use Shop Drawings without an appropriate final stamp from the Contractor and District indicating action taken in connection with construction.
- 1.4.6. Deviations from Contract Documents require specific written acceptance by the District of the noted deviation and clear indication on the submittal.

## **1.5. ELECTRONIC SUBMITTAL PROCESS**

### **1.5.1. Submittal Procedure for Large Format Shop Drawings.**

- 1.5.1.1. Contractor shall provide six (6) paper copies of the large format Shop Drawings directly to the District and the Construction Manager (CM) and Contractor will upload/post an electronic transmittal (with a detailed description of the submittal including the subject, specification number and number of drawings) on PCM (or other pre-approved program).
- 1.5.1.2. Contractor shall verify that the Schedule of Submittals and all submittal log(s) on PCM (or other pre-approved program) are accurate and up to date.
- 1.5.1.3. The District and Architect will review and markup each Submittal and provide changes to Contractor for Contractor's incorporation into the Submittal.
- 1.5.1.4. This process will continue until the Contractor has provided a Submittal that is acceptable to the District and the Architect.
- 1.5.1.5. Once a Submittal is accepted, the District will provide a final accepted Submittal to the Contractor and the Contractor will closeout that one Submittal.
- 1.5.1.6. Contractor shall send one (1) copy of the completed record submittal of the large format documents to a vendor (Ford Graphics is suggested) for scanning and posting on PCM (or other pre-approved program).

### **1.5.2. Product Data, Calculations and Small Format Drawings**

- 1.5.2.1. Contractor shall upload/post one (1) electronic copy (from manufacturer's website or pre-scanned) of the product literature, data, calculations, and/or small format shop drawings to PCM (or other pre-approved program) with a Transmittal (with a detailed description of the submittal) directly to the CM.
- 1.5.2.2. The District and Architect will review and markup each Submittal and provide changes to Contractor for Contractor's incorporation into the Submittal.
- 1.5.2.3. This process will continue until the Contractor has provided a Submittal that is acceptable to the District and the Architect.
- 1.5.2.4. Once a Submittal is accepted, the District will provide a final accepted Submittal to the Contractor and the Contractor will closeout that one Submittal.

- 1.5.2.5. Contractor shall send one (1) copy of the completed record submittal of the large format documents to a vendor (Ford Graphics is suggested) for scanning and posting on PCM (or other pre-approved program).

**1.5.3. Sample Submittal Procedure – (Product / Assembly Samples)**

- 1.5.3.1. Contractor shall provide four (4) physical samples directly to the District and the CM and Contractor will upload/post an electronic transmittal (with a detailed description of the submittal including the subject, specification number and number of drawings) on PCM (or other pre-approved program).
- 1.5.3.2. The District and Architect will review and markup each Submittal and provide changes to Contractor for Contractor's incorporation into the Submittal.
- 1.5.3.3. This process will continue until the Contractor has provided a Submittal that is acceptable to the District and the Architect.
- 1.5.3.4. Once a Submittal is accepted, the District will provide a final accepted Submittal to the Contractor and the Contractor will closeout that one Submittal.
- 1.5.3.5. Contractor shall send one (1) copy of the completed record submittal of the large format documents to a vendor (Ford Graphics is suggested) for scanning and posting on PCM (or other pre-approved program).

**1.6. PRODUCT DATA**

- 1.6.1. In addition to the above requirements, mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.
- 1.6.2. After review, distribute in accordance with the above provisions and provide copies for Record Documents described in the Contract Documents.

**1.7. SAMPLES**

- 1.7.1. In addition to the above requirements, submit samples to illustrate functional and aesthetic characteristics of the Product in accordance with this Document, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- 1.7.2. Where specific colors or patterns are not indicated, provide materials and products specified in the full range of color, texture and pattern for selection by District. Range shall include standard stocked color/texture/pattern, standard color/texture/pattern not stocked, but available from manufacturer, and special color/ texture/pattern available from manufacturer as advertised in product data and brochures. Unless otherwise indicated in individual specification sections, District may select from any range at no additional cost to District.
- 1.7.3. Include identification on each sample, with full Project information.
- 1.7.4. Submit the number of samples that Contractor requires, plus one that will be retained

by Architect and one by District.

- 1.7.5. Reviewed samples which may be used in the Work are indicated in individual specification Sections.

#### **1.8. MANUFACTURERS' INSTRUCTIONS**

- 1.8.1. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
- 1.8.2. Identify conflicts between manufacturers' instructions and Contract Documents.

#### **1.9. MANUFACTURERS' CERTIFICATES**

- 1.9.1. When specified in individual specification Sections, submit manufacturers' certificates to Architect for review, in quantities specified for Product Data.
- 1.9.2. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference date, affidavits, and certifications as appropriate.
- 1.9.3. Certificates may be recent or previous test results on material or Product, but must be acceptable to District.

#### **1.10. MOCK-UP**

- 1.10.1. Where indicated, provide mock-ups as required. Mock-ups shall be prepared per the specifications and shall accurately and reasonably represent the quality of construction the Contractor will provide. If the mock-up or portions thereof do not adequately represent the quality of the work specified, the Contractor shall modify the mock-up as needed.
- 1.10.2. Once completed to the District's satisfaction, the mock-up shall serve as the standard of quality for the work.
- 1.10.3. All mock-ups, at District's option, shall remain the property of the District. If not required by the District, Contractor shall remove and dispose of the mock-up.
- 1.10.4. Where indicated, on-site mock-ups, if accepted, may be integrated into the Work.

#### **1.11. ARCHITECT'S REVIEW OF SUBMITTALS**

- 1.11.1. Submittals will be reviewed and stamped by the Architect "No exceptions taken," "Submit specified item" or "Make corrections noted" to indicate full or conditioned approval or "Revise and resubmit" or "Rejected" to indicate disapproval. Terms are defined as follows:
  - 1.11.1.1. No Exceptions Taken: Accepted subject to its compatibility with future submittals and additional partial submittals for portions of the work not covered in this submittal. Does not constitute approval or deletion of specified or required items not shown in the partial submittal.

- 1.11.1.2. Submit specified item: Submit to the Architect the items indicated for review.
- 1.11.1.3. Correct as noted: Same as 1., except that minor corrections as noted shall be made by the Contractor. No resubmittal required.
- 1.11.1.4. Revise and resubmit: Rejected because of major inconsistencies or errors which shall be resolved or corrected by the Contractor prior to subsequent review by the Architect.
- 1.11.1.5. Rejected: Submitted material does not conform to plans and specifications in major respect. For example, wrong size, model, capacity or material. Resubmit.
- 1.11.1.6. Receipt Acknowledged. Received, recorded and distributed without further action.
- 1.11.2. Submittals reviewed by the Architect which have been stamped shall be deemed to have the following language affixed and made a part thereof, regardless of the initial or subsequent readability of the actual stamp.
  - 1.11.2.1. Corrections or comments made on submittals during this review do not relieve the contractor from compliance with the requirements of the drawings and specifications. This check is for review of general conformance with the design concept of the project and general compliance with information given in the Contract Documents. The contractor is responsible for confirming and correlating all quantities and dimensions, selection of fabrication processes and techniques of construction, coordinating the work of the trades; and performing the work in a safe and satisfactory manner.
- 1.11.3. Architect's review of submittals shall be completed within ten working days of the date of submission. Any requests by Architect for additional time shall not be unreasonably withheld.
- 1.11.4. Architect's review of submittals has, as a primary objective, to assist in the completion of the project on time and in conformance with the Contract requirements by permitting review of material and fabricated items prior to ordering. Architect's review of submittals is based only on the data presented and extends only to conformance with general design intent and information contained in the Contract Documents.
- 1.11.5. Architect's approval of submittals does not constitute final acceptance or unqualified approval of items or work proposed or put in place, nor does it constitute acceptance of responsibility for the accuracy, coordination or completeness of submittals. Architect's approval of submittals does not relieve the Contractor from the responsibility for errors, omissions, or compliance with all the requirements of the Contract Documents.
- 1.11.6. Reimbursement of the Architect's costs for review:



- 1.11.6.1. Architect will record all time and expenses incurred to review submittals requiring more than two reviews.
- 1.11.6.2. Contractor shall reimburse the District through deduction from amounts due the Contractor upon receipt of the Architect's billing and that of the Architect's consultants at standard billing rates for all time and expenses incurred in unanticipated reviews.
- 1.11.7. Architect's review of submittals does not change the Contract in any manner.

**1.12. RESUBMITTAL**

- 1.12.1. Make all corrections or revisions required by reviewer's comments at Contractor's expense and resubmit as initially specified above. No additional costs will be authorized for corrections or revisions.
- 1.12.2. Product data and shop drawings:
  - 1.12.2.1. Revise initial drawings or data and resubmit as initially specified.
  - 1.12.2.2. Indicate changes which have been made other than those requested by reviewer.
- 1.12.3. Submit new samples as initially specified.

**1.13. DISTRIBUTION**

- 1.13.1. Distribute only submittals with Architect/Engineer (and DSA as applicable) stamps of review. Contractor is responsible for coordination of submittals and comments following review. Contractor to provide all additional reproduction costs for copies required by the Contractor at its expense. No additional costs will be authorized for Contractor costs pertaining to submittals.

**1.14. DEFERRED APPROVAL REQUIREMENTS**

- 1.14.1. Installation of deferred approval items shall not be started until detailed plans, specifications, and engineering calculations have been accepted and signed by the Architect or Engineer in general responsible charge of design and signed by a California registered Architect or professional engineer who has been delegated responsibility covering the work shown on a particular plan or specification and approved by the agency having authority (e.g., State Fire Marshall, Division of the State Architect, gas company, electrical utility company, water district, etc.). Deferred approval items for this Project are as indicated in the Summary of Work.
- 1.14.2. Unless otherwise indicated in the Contract Documents or if District provides written approval of a longer time period, Contractor shall submit all deferred approval items for approval within thirty (30) days of the notice to proceed with the Construction Phase.
- 1.14.3. Deferred approval drawings and specifications become part of the approved documents for the Project when they are submitted to and approved by DSA.
- 1.14.4. Submit material using electronic submittal process as defined above.

- 1.14.5. Identify and specify all supports, fasteners, spacing, penetrations, etc., for each of the deferred approval items, including calculations for each and all fasteners.
- 1.14.6. Submit documents to Architect for review prior to forwarding to DSA.
- 1.14.7. Documents shall bear the stamp and signature of the Structural, Mechanical, or Electrical Engineer licensed in the State of California who is responsible for the work shown on the documents.
- 1.14.8. Architect and its subconsultants will review the documents only for conformance with design concept shown on the documents. The Architect will then forward the Submittal to agency having authority for approval.
- 1.14.9. Contractor shall respond to review comments made by DSA and revise and resubmit submittal to the Architect for re-submittal to DSA.
- 1.14.10. Contractor is notified that significant lead time is required for deferred approval review by DSA and shall schedule work accordingly. No extension of Contract Time will be allowed for delays incurred by deferred approval review. The Architect is not responsible for DSA delays in deferred approval review.

**END OF DOCUMENT**

**DOCUMENT 01 35 45**

**COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS)**

**SPECIAL ENVIRONMENTAL REQUIREMENTS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Materials and Equipment; and
- 1.1.5. General Commissioning Requirements.

**1.2. SUMMARY**

- 1.2.1. **Special Environmental Requirements.** Work includes special environmental, sustainable, and “green” building practices related to energy conservation and efficiency, indoor air quality, and resource efficiency, including the following:

1.2.1.1. Special Requirements:

- 1.2.1.1.1. Require practices to ensure healthy indoor air quality.
- 1.2.1.1.2. Maximize use of durable Products.
- 1.2.1.1.3. Maximize use of Products easy to maintain, repair, and that can be cleaned using non-toxic substances.
- 1.2.1.1.4. Maximize recycled content in materials, Products, and systems.
- 1.2.1.1.5. Require use of wood that is certified sustainably harvested by the Forest Stewardship Council (FSC).
- 1.2.1.1.6. Maximize use of reusable and recyclable packaging.
- 1.2.1.1.7. Maximize use of Products with low embodied energy (production, manufacturing, and transportation).

- 1.2.1.2. Contractor is required to comply with sustainable building practices during construction and when considering materials for substitutions.

**1.3. DESIGN REQUIREMENTS**

- 1.3.1. **General.** District has established general environmental goals for design and construction of Project; Contractor, subcontractors, suppliers, and manufacturers are encouraged to participate where possible to achieve District's environmental goals.
  - 1.3.1.1. Environmental goals should be achieved in manner that ultimately provides safe and healthy environment for building occupants with minimal impact on local, regional and global environment.
  - 1.3.1.2. Contract Documents are not intended to limit alternative means of achieving environmental goals.
    - 1.3.1.2.1. Suggestions from Contractor for implementing goals are encouraged.
- 1.3.2. **Environmental Goals.**
  - 1.3.2.1. Refer to Specifications for more detailed construction requirements related to specific materials and systems.
    - 1.3.2.1.1. **Energy Efficiency (Operations through Project).** Materials and systems are intended to maximize energy efficiency for operation of Project through service life.
    - 1.3.2.1.2. **Indoor Environmental and Air Quality.** Materials are selected and processes specified, such as preconditioning and temporary ventilation, to maximize healthy indoor air quality. Cleaning, surface coating, and renewal or replacement of interior materials should be feasible with lowest practical use of toxic, irritating, or odorous compounds. Ventilation system design, construction, and commissioning ensure adequate outside air supply under all anticipated conditions of use. Documentation of system design assumptions is included in Project Manual to enable District to use and modify the system as required to provide continued assurance of indoor air quality. Additionally, materials are selected to sustain healthy indoor environmental qualities.
    - 1.3.2.1.3. **Resource Efficiency (Project Construction):** Materials and systems are to maximize environmentally-benign construction techniques, including construction waste recycling, reusable delivery packaging, and reusability of selected materials.
- 1.3.3. **Energy Conservation.** Maximize energy conservation strategies in order to reduce life-cycle energy requirements.
  - 1.3.3.1. Reduce undesirable heat gain and heat loss through exterior envelope.
  - 1.3.3.2. Use daylight as the primary lighting source in classrooms and supplement with integrated and energy-efficient electrical lighting systems.
  - 1.3.3.3. Choose equipment with high-end energy performance characteristics, including lighting, HVAC systems, appliances, and office equipment.

1.3.3.4. Where appropriate, use thermal storage strategies such as thermal mass of building or ground to minimize total energy consumption.

1.3.3.5. Design mechanical systems for efficient operation throughout the typical operating range, from minimum to peak load.

1.3.4. **Sustainable Site Planning and Landscape.**

1.3.4.1. Maximize erosion and sedimentation control.

1.3.4.2. Minimize Site disturbance.

1.3.4.3. Maximize planted areas.

1.3.4.4. Reduce heat islands.

1.3.4.5. Where possible, reduce or eliminate light pollution from site lighting.

1.3.4.6. Reduce or eliminate use of pesticides.

1.3.4.7. Rely on indigenous, dry or xeriscape planting. Maintain existing planting on Site to reduce costs.

1.3.4.8. Implement seasonal plant and soil maintenance schedule to maintain healthy soil and landscaping.

1.3.4.9. Maximize use of storm water runoff.

1.3.4.10. Reduce water use with water efficient irrigation systems and local vegetation.

1.3.5. **Durable Materials.**

1.3.5.1. Select materials with longest useful service life.

1.3.5.2. Select materials that deteriorate minimally under installed conditions, exposures, and uses.

1.3.5.3. Select materials with surfaces that require minimal or no refinishing or resurfacing.

1.3.5.4. Select materials with protective coating requirements that do not involve frequent application of toxic or odorous components for materials that require surface renewal or protection

1.3.5.5. Select materials that can be re-used after their service life in this building.

1.3.5.6. Select materials that can be recycled at the end of their useful lives for materials that cannot be re-used.

1.3.6. **Resource Efficient Materials.** Use resource efficient materials; consider energy use over life cycle of material including harvesting, mining, manufacturing, transport, installation, use, operations, recycling and disposal.

- 1.3.6.1. Where possible and allowable, re-use existing Project materials to extent feasible within design concept expressed in Contract Documents.
- 1.3.6.2. Select materials that efficiently use resources such as energy, water, and component materials.
- 1.3.6.3. Use construction practices such as material reduction and dimensional planning that maximize efficient use of resources and materials.
- 1.3.6.4. Provide materials that utilize recycled content to maximum degree possible without being detrimental to product performance or indoor air quality.
- 1.3.6.5. Where possible and feasible, provide for non-destructive removal and re-use of materials after their service life in this building.
- 1.3.6.6. Select materials that use less embodied energy to manufacture.
  - 1.3.6.6.1. Exceptions might include materials that result in net energy conservation during their useful life in building and building's life cycle.
- 1.3.6.7. Select materials that conserve energy during building operations.
- 1.3.6.8. Where possible, select materials harvested and manufactured regionally, within a 500-mile radius of the Project Site.

1.3.7. **Scarce, Irreplaceable, and Endangered Resources.**

- 1.3.7.1. Select materials from abundant resources.
  - 1.3.7.1.1. For natural resources, determine abundance based on ratio of removal rate from existing stocks to natural replacement/renewal rate, where this information is available.
  - 1.3.7.1.2. For mineral resources, determine abundance based on ratio of removal rate from terrestrial storage minus amount re-entering commerce through recycling or resource recovery compared to total in terrestrial storage, where this information is available.
- 1.3.7.2. Select renewable materials, and materials which can be replenished.
- 1.3.7.3. Select materials that create minimal or no damage to natural habitats and natural environment.
- 1.3.7.4. Select materials that can be easily refinished, repaired or refurbished to extend their useful life.
- 1.3.8. **Pollution.** Select materials that generate least amount of pollution during mining, manufacturing, transport, installation, use, and disposal.
  - 1.3.8.1. Avoid materials that emit greenhouse gases

- 1.3.8.2. Avoid materials that require energy intensive extraction, manufacturing, processing, transport, installation, maintenance, or removal.
- 1.3.8.3. Avoid materials that contain ozone-depleting chemicals (e.g. CFCs or HCFCs).
- 1.3.8.4. Avoid materials that emit potentially harmful volatile organic chemicals (VOCs).
- 1.3.8.5. Employ construction practices that minimize dust production and combustion by-products.
- 1.3.8.6. Avoid materials that can leach harmful chemicals into ground water; do not allow potentially harmful chemicals to enter sewers or storm drains.
- 1.3.8.7. Protect soil against erosion and topsoil depletion.
- 1.3.8.8. Minimize noise generation during construction; screen mechanical equipment to block noise.
- 1.3.8.9. Select materials that can be reused or recycled and materials with significant percentage of recycled content; conform with or exceed specified Project recycled content percentages for individual materials; avoid materials difficult to recycle.
- 1.3.8.10. Protect natural habitats; restore natural habitats where feasible within scope of Project.

**1.3.9. Wood Products.**

- 1.3.9.1. Use woods from Forest Stewardship Council (FSC) accredited certified sustainably harvested sources, and verify that the material itself is FSC-certified.
- 1.3.9.2. Composite wood products with high-recycled content, which meet the indoor air quality data requirements, are acceptable.

**1.3.10. Water Efficiency.**

- 1.3.10.1. Reduce the use of municipally supplied potable water.
- 1.3.10.2. Reduce dependence on municipal storm water system for plumbing fixtures and irrigation. Eliminate irrigation or use micro-irrigation. Use no moisture sensors or clock timers on irrigation systems.
- 1.3.10.3. Maintain natural aquifer conditions.
- 1.3.10.4. Consider roofwater or groundwater collection system.
- 1.3.10.5. Consider graywater collection system for irrigation systems.
- 1.3.10.6. Commission irrigation, graywater, roofwater collection systems. Provide measurement and verification for these systems. Train maintenance staff on performance of all water collection and distribution systems.

**1.4. SUBMITTALS**



**1.4.1. Resource Efficient Product Data.**

1.4.1.1. Environmental Issues Data: Submit following information, including manufacturer’s certifications, verifying information, and test data, where Specifications sections require data relating to environmental issues including but not limited to:

- 1.4.1.1.1. Project Recyclability. Submit information to assist District and Contractor in recycling materials involved in shipping, handling, and delivery, and for temporary materials necessary for installation of products.
- 1.4.1.1.2. Recycled Content. Submit information regarding product post industrial recycled and post consumer recycled content.
  - 1.4.1.1.2.1. Use the “Recycled Content Certification Form”, attached as Appendix A to this Section, signed by a corporate office holder (i.e. Chairman of the Board, President, Vice President, Secretary, or similar position of authority).
- 1.4.1.1.3. Product Recyclability. Submit information regarding product and product’s component’s recyclability including potential sources accepting recyclable materials.
- 1.4.1.1.4. Provide certification for all wood products provided by a Forest Stewardship Council (FSC) accredited certifier.
- 1.4.1.1.5. Provide final certification of well-managed forest of origin to provide final documentation of FSC-certified sustainably harvested status: Acceptable wood “certified sustainably harvested” certifications shall include:
  - 1.4.1.1.5.1. Wood suppliers’ certificate issued by one of the Forest Stewardship Council-accredited certifying agencies, such as Smart wood (800-434-5491) or Forest Conservation Program (510-832-1415);
  - 1.4.1.1.5.2. Suppliers’ invoice detailing the quantities of certified wood products for project; and
  - 1.4.1.1.5.3. Letter from one of a certifying agency corroborating that the products on the wood supplier’s invoice originate from FSC-certified well-managed forests.

**1.4.2. Indoor Air Quality (IAQ) Data.**

1.4.2.1. Environmental Issues. Submit emission test data produced by acceptable testing laboratory listed in Quality Assurance Article for materials as required in each specific Specification section.

- 1.4.2.1.1. Laboratory reports shall contain emissions test data on VOCs including total VOCs (TVOC), specific individual VOCs, formaldehyde and other aldehydes as described in this Specification Section.

1.4.2.1.2. In special cases it may be necessary to identify other specific chemicals for listing based on known quantity present or on known odor, irritation or toxicity.

1.4.2.1.3. Identify all VOCs emitted by each material as required in these Specifications.

1.4.2.1.4. Specific test conditions and requirements are set forth in this Section. For required tests, submit documentation of sample acquisition, handling, and test specimen preparation, as well as test conditions, methods, and procedures. The tests consist of a ten (10) day conditioning period followed by a 96 hour test period.

1.4.2.1.4.1. Samples collected during the test period at 24, 48, and 96 hours shall be analyzed for TVOC and formaldehyde.

1.4.2.1.4.2. VOC samples collected at 96 hours shall be identified and quantified for all compounds that are Chemicals of Concern as indicated herein.

1.4.2.2. **Cleaning and Maintenance Products.** Provide data on manufacturers' recommended maintenance, cleaning, refinishing and disposal procedures for materials and products. These procedures are for final Contractor cleaning of the Project prior to Completion and for provided materials and products as required by the specific specification sections.

1.4.2.2.1. Where chemical products are recommended for these procedures, provide documentation to indicate that no component present in the cleaning product at more than one percent (1%) of the total mass of the cleaning product is a carcinogen or reproductive toxicant as defined in the lists in this specification section.

1.4.2.2.2. For purposes of reporting, identification of product VOC contents shall not be limited to those regulated under Clean Air Act (CAA) but shall also include compounds exempted from the CAA definition and listing of VOCs.

1.4.2.2.3. California EPA and local air district definitions of VOCs based on CAA are not sufficient as they exempt compounds based on non-reactivity for outdoor air pollution control but still important for indoor air quality.

1.4.2.2.4. Avoid cleaning products containing alpha-pinene, d-limonene or other unsaturated carbon double bond alkenes due to chemical reactions with ozone to form aldehydes, acidic aerosols, and ultra fine particulate matter in indoor air. DGS has published specifications for Environmentally Preferable Janitorial Chemicals and a list of cleaning/maintenance products meeting these specifications. Both are available on the internet at:  
<http://www.ciwmb.ca.gov/greenbuilding/Specs/Janitorial.doc> and  
<http://www.resd.dgs.ca.gov/BPM/lists.htm>.

#### 1.4.3. Certificates.

**1.4.3.1. Environmental Issues Certifications.**

- 1.4.3.1.1. Submit documentation certifying accuracy of post-industrial and post-consumer recycled content, and recyclability.
- 1.4.3.1.2. Prior to Completion, submit certificate signed by corporate office holder (i.e. Chairman of the Board, President, Vice President, Secretary, or similar position of authority) of Contractor, subcontractor, supplier, vendor, installer or manufacturer, provided they are primarily responsible for manufacture of product, indicating:
  - 1.4.3.1.2.1. Post-industrial and post-consumer recycled content of materials installed are same as those required by Project requirements;
  - 1.4.3.1.2.2. Product recyclability of materials installed is the same as those required by Project requirements; and
  - 1.4.3.1.2.3. Indoor air quality requirements. Certification shall state products and materials provided are essentially same, and contain essentially same components as products and materials tested.
- 1.4.3.1.3. Comply with requirements specified in the “Contract Closeout and Final Cleaning” Document.

**1.4.4. Closeout Submittals.** Submit data relating to environmental issues.

**1.4.4.1.** Submit environmental product certifications, in two (2) forms:

- 1.4.4.1.1. Two (2) CD-ROMs organized by CSI 16 Division Format.
- 1.4.4.1.2. Four (4) three-ring binders organized by CSI 16 Division Format with Table of Contents and with dividers for each division.

**1.5. QUALITY ASSURANCE**

- 1.5.1. **Environmental Project Management and Coordination.** Contractor to identify one person on Contractor’s staff to be responsible for environmental issues compliance and coordination.
  - 1.5.1.1. Experience. Environmental project manager to have experience relating to sustainable building construction.
  - 1.5.1.2. Responsibilities. Carefully review Contract Documents for environmental issues, coordinate work of trades, subcontractors, and suppliers; instruct workers relating to environmental issues; and oversee Project Environmental Goals.
  - 1.5.1.3. **Meetings.** Discuss Environmental Goals at following meetings:
    - 1.5.1.3.1. Pre-construction meeting.

- 1.5.1.3.2. Pre-installation meetings.
- 1.5.1.3.3. Regularly scheduled job-site meetings.
- 1.5.1.3.4. Special sustainability issues meetings.

1.5.2. **Environmental Issues Criteria:**

- 1.5.2.1.1. Comply with requirements listed in various Specification sections.

1.5.3. **Acceptable Indoor Air Emissions Testing Laboratories.**

1.5.3.1. **Berkeley Analytical Associates.** 815 Harbour Way South, Suite 6, Richmond, California 94804; telephone 510.236.2325; fax 510.236.2335; e-mail [berkeleyanalytical@att.net](mailto:berkeleyanalytical@att.net).

1.5.3.2. **Air Quality Sciences, Inc.** 1337 Capital Circle, Atlanta, Georgia 30067; telephone 770.933.0638; fax 770.933.0641; e-mail [info@aq.com](mailto:info@aq.com).

1.5.3.3. **Other Laboratories.**

- 1.5.3.3.1. Selection of testing laboratories shall include assessment of prior experience in conducting indoor source emissions tests.
- 1.5.3.3.2. Many laboratories participate in and are certified by American Industrial Hygiene Association laboratory accreditation program; <http://www.aiha.org/>.
  - 1.5.3.3.2.1. These laboratories are accredited to do analysis for hazards at levels of concern for industrial workplaces and not necessarily accredited, organized, or able to perform analysis for chemicals and particulate matter at concentrations of concern for indoor air.
- 1.5.3.3.3. The proposed laboratory shall be an independent company or organization not related to manufacturer of product to be tested.
- 1.5.3.3.4. Submit documentation on proposed laboratory for review and approval by District.

1.5.4. **Indoor Air Emissions Tests:**

- 1.5.4.1. Provide environmental chamber test data from tests based on most recent ASTM Standard. (Refer to ASTM, Annual Book of Standards; <http://www.astm.org>.)
- 1.5.4.2. Tests shall be conducted according to guidance contained in ASTM Standard D5116-97 on material test specimens pre-conditioned in clean air prior to testing.
  - 1.5.4.2.1. Review test specimen collection, documentation, collection, preparation and shipping procedures with testing laboratory prior to preparing and shipping sample.

- 1.5.4.2.2. Test specimens shall be packaged in the normal manner at the factory and shipped directly to testing laboratory by the manufacturer. For materials that are not packaged in convenient consumer units, alternate procedures to preserve the chemical integrity of the specimen are required. Obtain test laboratory procedure sheet covering the handling and shipping of materials. If such information is not provided by the laboratory, then wrap the specimen in a manner that will eliminate direct contact with air or packaging materials other than an inert air barrier such as foil or laboratory grade plastic sheet wrapping material.
- 1.5.4.2.3. **Conditioning.** Condition all test specimens for ten (10) days in clean air. Clean air should be free from the Chemicals of Concern. Hold in clean vessels approximately the size of the test chambers and ventilated at the same air flow rate to be used in the test period. Suspend or place specimens on wire racks so that air freely circulates around all sides during the conditioning period. The air temperature and relative humidity during the conditioning period shall be  $23 \pm 2^{\circ}\text{C}$  and  $50 \pm 10\%$  RH. Otherwise, the material must be held in an environmental chamber for the entire period.
- 1.5.4.2.4. For wet-applied products and material assemblies, a realistic test specimen shall be prepared using the substrate material on which it will be applied in the building. Alternately, it may be necessary to use a substrate material that closely simulates the actual building substrate.
- 1.5.4.2.5. For material assemblies (e.g., floor and wall systems where the finish material is placed over a substrate, either with or without the use of adhesives), individual components of the assembly system shall be tested separately. If all components meet the emissions criteria established herein, no further testing shall be required. For assemblies where one component, such as a floor or wall covering adhesive, does not meet the criteria, the assembled system may be tested with specimen preparation following the manufacturer's recommended procedures for application of wet components and assembly of the system. If there is a difference between the manufacturers' recommended procedures and procedures required by the project specifications, the project specifications shall be followed.
- 1.5.4.2.6. Wall and other types of paints shall be tested according to the specifications for the particular material. For example, if two coats are to be applied over a primer coat, then the test specimen shall be prepared accordingly, dried between coats per manufacturer's label instructions, and tested as a complete assembly after required conditioning. The total quantity of paint applied shall be reported based on the weight of the assembly immediately before and after the application of each coat.

- 1.5.4.3. The maximum concentration for any chemical emitted at 96 hours in emissions tests shall not result in a modeled indoor air concentration greater than one half ( $\frac{1}{2}$ ) the chronic inhalation REL concentration of California Office of Environmental Health Hazard

Assessment (OEHHA) Chronic Reference Exposure Limit (REL), with the exception of formaldehyde.

- 1.5.4.4. **Formaldehyde.** No single product shall contribute more than one half (½) the OEHHA staff recommended indoor air limit of 33 µg/m<sup>3</sup> (27 ppb) for formaldehyde. The calculated concentration of formaldehyde shall not exceed 16.5 µg/m<sup>3</sup>. Same modeling procedure as described above shall be used for formaldehyde. This concentration limit shall apply to all building and occupancy types.
- 1.5.4.5. Construction adhesives used in Work shall comply with following requirement: no component present in adhesive at more than one percent (1%) of total mass of adhesive shall be a carcinogen or reproductive toxicant as defined in the Chronic Reference Exposure Levels for organic chemicals with possible indoor sources, based on the California OEHHA list as of June 2014 (The most recent list shall be used for this specification as published <http://www.oehha.ca.gov/air/allrels.html>)..
- 1.5.4.6. Provide calculations of modeled concentrations based on emissions test results.
- 1.5.4.6.1. Calculations shall be submitted with all other documentation. This requires the calculation of emission factors based on emissions tests, then application of the emission factors, product loading factors in the building, and building parameters in a steady state mass-balance model. The model assumes zero outdoor concentrations, perfect mixing and no sink effects. Alternatively, follow procedures in the most recent applicable ASTM standards and submit assumptions and calculations.
- 1.5.4.6.2. The concentration of a compound in the building shall be calculated using the following Equation;
- $$\text{Concentration} = \frac{(\text{Emission factor}) * (\text{Loading factor})}{(\text{Air change rate})}$$
- For this equation, the units are:  $\mu\text{g}/\text{m}^3 = \frac{(\mu\text{g}/\text{m}^2 \text{ hr}) * (\text{m}^2/\text{m}^3)}{(\text{h}^{-1})}$
- This can be simplified as follows: **Concentration** =  $\frac{\text{Emission rate}}{\text{Air change rate}}$
- Note that the weekly average air change rate must be used in the calculations of concentrations of contaminants.
- 1.5.4.6.3. **Calculation of emission rate.** Determine the emission rate by multiplying the emission factor by the amount of the material to be used in the building or air handler zone being evaluated. Multiply the emission factor by the area of the material in the building zone being assessed. Note that in some cases a length or mass may be the appropriate unit for emission factor that must then be multiplied by the length or mass of the emission source.
- 1.5.4.6.4. Provide to the laboratory the total area of the zone being assessed by consulting the Contract Documents or the design engineer, to identify the total area served by the air handler that serves the area(s) within it

where the material will be applied. If the material is used in multiple zones, then calculations shall be made to determine the concentration in the zone with the highest loading ratio of material to volume or material to weekly average minimum air change rate, whichever is greater.

- 1.5.4.6.5. Provide to the laboratory the volume of the space served by the air handler by multiplying the floor area by the floor-to-floor clear height (top of finish floor to bottom of structure of floor above) and multiply by 0.9 (to take account of the portion of the volume that is occupied by solid objects). This value represents the ventilated volume for purposes of the calculations required here.
- 1.5.4.6.6. Determine the air change rate by dividing the volume of outside air introduced into the space per hour by the ventilated volume of the space.
- 1.5.4.6.7. Determine the weekly average air change rate by adding the minimum design air change rate during ventilation system operating hours times the number of hours the system is operated to an assumed air change rate from infiltration during ventilation system non-operational hours times the number of hours the system is off; then divide the total by one hundred sixty-eight (168), the number of hours in a week. Where no values are available from the Contact Documents, use default values as follows:

1.5.4.6.7.1. **Offices.**

- 1.5.4.6.7.1.1. Where design data are not available to calculate the weekly average air change rate, the modeling shall assume a weekly average air change rate for office buildings of 0.75 air changes per hour (ach). This “default” office air exchange rate is based on a typical weekly office building fifty-five (55) hour operating schedule and an assumed off-hours air change rate of 0.3 ach (assumed air change rate during normal operating hours is in excess of 1.0 per hour).
- 1.5.4.6.7.1.2. Where specific information is available, the Project specific data should be used to calculate the weekly average air change rate. A default building air change rate of 0.2 per hour during non-HVAC operations should be used.

1.5.4.6.7.2. **Schools.**

- 1.5.4.6.7.2.1. Modeling shall assume weekly average air change rate for school buildings of 0.9 per hour. This air change rate is based on an assumed forty (40) hours per week of ventilation system operation at 3.0 ach and one hundred twenty-eight (128) hours per week of 0.2 ach through infiltration.



1.5.4.6.7.2.2. Where specific information is available, the Project specific data should be used to calculate the weekly average air change rate. A default building air exchange rate of 0.2 per hour during non-HVAC operations should be used.

1.5.4.6.7.3. Other building types or occupancy types: Use ASHRAE Standard 62.1 2001 default occupant densities and ventilation rates for hours of operation and 0.2 ach for non operating hours unless actual rates are known in which case the actual rates and hours of operation are to be used.

1.5.4.7. **Environmental Chamber Testing.** Indoor Air Emissions Testing Laboratories may use a range of acceptable loading ratios in order to make use of various size chambers, since these are not standardized across laboratories. Loading ratios ranging from 0.25 m<sup>2</sup>/m<sup>3</sup> to 0.45 m<sup>2</sup>/m<sup>3</sup> will be acceptable.

1.5.4.7.1. For dry products, loading ratios within reasonable limits are not critical for determining emission factors; conditioning of test specimens prior to testing will reduce or eliminate differences that may occur in unconditioned samples due to evaporation-limited emissions and sink effects from adsorption of VOCs during final stages of manufacturing or while in packaging during transport to and storage at the laboratory.

1.5.4.7.2. Higher loading ratios lower expected emission factor; however, the relationship is not linear, especially at higher concentrations. Therefore, where strong formaldehyde (or other chemical) sources are known or expected to be present, loading ratios should be selected to represent a median value for the plausible range of actual building loading ratios.

1.5.4.7.3. Loading ratios used shall be included in test report.

1.5.4.7.4. Contractor shall provide to product manufacturers information on actual quantity of material to be used in Project. The product manufacturers will then forward this information to Indoor Air Emissions Testing Laboratory so loading ratios can be adjusted toward actual loading ratio of Project. However, for most low-emitting materials used in construction, actual loading ratio will not significantly affect emission rates except for strong formaldehyde sources, primarily products using urea-formaldehyde resins.

1.5.4.8. **Sample Preparation Requirements.**

1.5.4.8.1. Substrates for environmental chamber emissions tests of individual Products or materials (materials tested separately):

1.5.4.8.1.1. Dry solid sheet type products.

1.5.4.8.1.1.1. Sheet stainless steel or aluminum tray to provide tight fit at edges and reduce emissions from edge of material specimen. If material does not fit very

snugly, then use aluminized, low-emitting, clean room tape to seal edges. Dry fabric type products:

1.5.4.8.1.1.2. No substrate necessary.

1.5.4.8.1.2. Wet products such as adhesives and sealers:

1.5.4.8.1.2.1. Sheet stainless steel, aluminum, or glass unless product is to be applied to gypsum board or other highly absorbent material. If substrate is a highly absorbent material, use a sample the substrate pre-conditioned for 24 hours to the temperature and humidity of the test chamber.

1.5.4.8.1.3. Substrates for specific products.

1.5.4.8.1.3.1. Composite wood products (Section 06400): sample to be suspended or supported in chamber with all edges exposed and no edge masking.

1.5.4.8.1.3.2. Gypsum Board (Section 09260): no substrate (testing required ONLY if recycled content gypsum board or if water resistant types are used).

1.5.4.8.1.3.3. Acoustical Ceiling Panels (Section 09510): no substrate, sample to be suspended or supported in chamber with no edge masking.

1.5.4.8.1.3.4. Resilient flooring (Section 09650): stainless steel tray, fitted tightly so that only the upper surface is exposed. Alternately, cover back of flooring with sheet stainless steel and seal edges with low-VOC emitting aluminized clean room tape so only wear surface of flooring is exposed.

1.5.4.8.1.3.5. Carpet Tile and Broadloom Carpet (Section 09680): stainless steel tray, fitted tightly so that only the upper surface is exposed.

1.5.4.8.1.3.6. Flat and eggshell Paints (Section 09900): 5/8" gypsum board.

1.5.4.8.1.3.7. Semi-gloss paints (Section 09900): Where applied to metal, use sheet stainless steel. Where applied to gypsum board, use gypsum board conditioned as described in subsection c below.

1.5.4.8.1.3.8. Joint Sealers (Section 07900): Steel channel 0.64 cm by 0.64 cm by 25.4 cm Channel shall be filled with sealant.

- 1.5.4.8.2. Substrates for environmental chamber emissions tests of assemblies of products or materials (materials tested in an assembly):
  - 1.5.4.8.2.1. Laminates or wood veneers applied with adhesives (Section 06400): Medium density fiberboard (MDF).
  - 1.5.4.8.2.2. Resilient flooring applied with adhesives (Section 09650): Sheet stainless steel or glass plate.
  - 1.5.4.8.2.3. Carpet Tile/Broadloom Carpet applied with adhesives and adhesives (Section 09685/Section 09680): Sheet stainless steel or glass plate.
  - 1.5.4.8.2.4. Wall Coverings applied with adhesives (Section 09700 Series): 5/8" gypsum board. Prior to preparation of the test specimen, Gypsum board substrate shall be pre-conditioned for at least 24 hours at  $23 \pm 2^{\circ}\text{C}$  and  $50 \pm 10\%$  RH while ventilated with clean air. [Ventilation rate is not important.]
- 1.5.4.8.3. Protocol for Paint Testing: Preparation and handling of paint test specimen.
  - 1.5.4.8.3.1. Flat and Eggshell Paints.
    - 1.5.4.8.3.1.1. Apply paints to 5/8" thick gypsum board. Hold Gypsum board substrate for at least 24 hours at  $23 \pm 2^{\circ}\text{C}$  and  $50 \pm 10\%$  RH while ventilated with clean air. Accurately weigh substrate just prior to painting, mask borders to avoid paint dripping on edges and leave center area for paint. Alternative approaches to protecting the edges are acceptable and shall be reported if used.
    - 1.5.4.8.3.1.2. Apply paint using standardized roller procedure that simulates application of paint in building. For most wall paint applications use a 4" wide 3/8" nap roller intended for smooth surfaces.
    - 1.5.4.8.3.1.3. Stir paint in container and transfer 100 mL of paint to heavy-duty aluminum foil disposable tray.
    - 1.5.4.8.3.1.4. Saturate roller cover with paint by running back and forth in tray.
    - 1.5.4.8.3.1.5. Apply paint to substrate using four strokes, two in vertical direction and two in horizontal direction, so entire area is uniformly covered.
    - 1.5.4.8.3.1.6. Remove tape from substrate and re-weigh substrate.

- 1.5.4.8.3.1.7. Difference in weight determines amount of applied paint and coverage in grams of wet paint per square meter of substrate surface.
- 1.5.4.8.3.1.8. Place substrate on 6" by 6" piece of sheet stainless steel to cover entirely the back surface. Attach substrate to stainless steel with strips of low VOC aluminized clean room tape so only painted surface is exposed. For a blank specimen, similarly prepare an unpainted piece of gypsum. Alternate procedures to cover unpainted surfaces of gypsum board may be used and must be adequately described in the laboratory report if used.
- 1.5.4.8.3.1.9. Place sample in conditioning environment immediately and hold for ten (10) days.
- 1.5.4.8.3.1.10. Where multiple coats, which may include primer, are being tested, apply paints and follow manufacturers' instructions for drying time between coats. Report weight of test specimen prior to and after each coat of paint is applied. Hold specimen in conditioning environment between coats. The ten (10) day conditioning period begins after application of final coat. Apply semi-gloss paint to clean steel sheet following same procedure as above for "flat and eggshell paints." No tape should be used. Sheet should be weighed immediately before and after painting.

#### 1.5.4.9. Chemical Analyses.

- 1.5.4.9.1. VOC Analysis: Make multi-point calibrations using pure compounds whenever such compounds are available from commercial suppliers (such as Aldrich Chemical Company, Sigma Aldrich). Quantitative analyses performed using surrogate compounds shall be indicated in reported test results. Identify EPA and ASTM standard methods and practices, and testing laboratory calibration procedures, which should include a calibration at least once every three (3) months.
- 1.5.4.9.2. Formaldehyde and Acetaldehyde Analysis: Formaldehyde and Acetaldehyde analysis shall be performed following ASTM Standard D 5197-09e1 "Standard Test Method for Formaldehyde and other Carbonyl Compounds in Air (Active Sampler Methodology)."

- 1.5.4.10. **Reporting Requirements.** In addition to reporting requirement stated elsewhere in Specifications, reports shall include: (a) all compounds emitted from sample that are on the most recent Chronic Reference Exposure Level- Air Toxicology and Epidemiology list as published by the California Office of Environmental Health Hazard Assessment and listed in their website at <http://www.oehha.org/air/allrels.html>, (b) all compounds on the California Proposition 65 list ([http://www.oehha.ca.gov/prop65/prop65\\_list/files/P65single111811.pdf](http://www.oehha.ca.gov/prop65/prop65_list/files/P65single111811.pdf)), and (c) all

compounds on the California Toxic Air Contaminant list (<http://www.arb.ca.gov/toxics/cattable.htm>). In addition, the ten (10) most abundant compounds shall be reported separately if not listed on any of these lists. For these compounds, report following:

- 1.5.4.10.1. Measured chamber concentrations at each required time point;
- 1.5.4.10.2. Calculated emission factors; and
- 1.5.4.10.3. Calculated building concentrations and assumptions used to make calculation.

1.5.5. State Agency Buy Recycled Campaign (SABRC) Recycled Content (<http://www.calrecycle.ca.gov/BuyRecycled/StateAgency/>). Implement the SABRC recycled-content goals for specific building Products, including but not limited to:

- 1.5.5.1. Paper products;
- 1.5.5.2. Glass products (windows, glazing, fiberglass, tile, construction blocks, loose-grain abrasives);
- 1.5.5.3. Plastic products (carpet, plastic lumber, furniture made from plastic, fencing, parking bumpers, toilet partitions, entry mats, signage, sheet plastic and other plastic-containing building products);
- 1.5.5.4. Solvents;
- 1.5.5.5. Tire-derived products (entry-mats, resilient flooring, wheelchair and other ramps, playground surfacing, parking bumpers, speed bumps, tree ties, road surfacing);
- 1.5.5.6. Steel products (structural steel, steel framing, architectural metal, reinforcing bars, sheet metal, metal siding, metal roofing, lockers, toilet partitions, office furniture for filing and storage);
- 1.5.5.7. Paint (allowed only in exterior installations); and
- 1.5.5.8. Compost.

## **1.6. DELIVERY, STORAGE, AND HANDLING**

- 1.6.1. Packaging. Deliver materials in recyclable or in reusable packaging such as cardboard, wood, paper, or reusable blankets, which will be reclaimed by supplier or manufacturer for recycling.
  - 1.6.1.1. General. Minimize packaging materials to maximum extent possible while still ensuring protection of materials during delivery, storage, and handling.
    - 1.6.1.1.1. Unacceptable Packaging Materials: Polyurethane, polyisocyanate, polystyrene, polyethylene, and similar plastic materials such as “foam” plastics and “shrink-fit” plastics.

- 1.6.1.2. Reusable Blankets. Deliver and store materials in reusable blankets and mats reclaimed by manufacturers or suppliers for reuse where program exists or where program can be developed for such reuse.
- 1.6.1.3. Pallets. Where pallets are used, suppliers shall be responsible to ensure pallets are removed from Site for reuse or for recycling.
- 1.6.1.4. Corrugated Cardboard and Paper. Where paper products are used, recycle as part of construction waste management recycling program, or return to material's manufacturer for use by manufacturer or supplier.
- 1.6.1.5. Sealants, Paint, Primers, Adhesives, and Coating Containers. Return to supplier or manufacturer for reuse where such program is available.

## **1.7. PROJECT CONDITIONS**

### **1.7.1. Certifications.**

#### **1.7.1.1. Environmental Product Certification.**

- 1.7.1.1.1. Include manufacturer certification indicating product contains maximum recycled content possible without being detrimental to product performance.
- 1.7.1.1.2. Include certification indicating cleaning materials comply with requirements of these Specifications.

### **1.7.2. Construction Ventilation and Preconditioning.**

- 1.7.2.1. Temporary Construction Ventilation. Maintain sufficient temporary ventilation of areas where materials are being used that emit VOCs. Maintain ventilation continuously during installation, and until emissions dissipate after installation. If continuous ventilation is not possible via building's HVAC system(s) then ventilation shall be supplied via open windows and temporary fans, sufficient to provide no less than three air changes per hour.
  - 1.7.2.1.1. Period after installation shall be sufficient to dissipate odors and elevated concentrations of VOCs. Where no specific period is stated in these Specifications, a time period of 72 hours shall be used.
  - 1.7.2.1.2. Ventilate areas directly to outside; ventilation to other enclosed areas is not acceptable.
- 1.7.2.2. During dust producing activities (e.g. drywall installation and finishing) turn ventilation system off, and openings in supply and return HVAC system shall be protected from dust infiltration. Provide temporary ventilation as required.
- 1.7.2.3. Preconditioning. Prior to installation, allow products which have odors and significant VOC emissions to off-gas in dry, well-ventilated space for fourteen (14) calendar days to allow for reasonable dissipation of odors and emissions prior to delivery to Project site.

- 1.7.2.3.1. Condition Products without containers and packaging to maximize off-gassing of VOCs
- 1.7.2.3.2. Condition Products in ventilated warehouse or other building. Comply with substitution requirements for consideration of other locations.

1.7.3. **Protection.**

- 1.7.3.1. Moisture Stains. Materials with evidence of moisture damage, including stains, are not acceptable, including both stored and installed materials; immediately remove from Site and properly dispose. Take special care to prevent accumulation of moisture on installed materials and within packaging during delivery, storage, and handling to prevent development of molds and mildew on packaging and on Products.
  - 1.7.3.1.1. Immediately remove from Site and properly dispose of materials showing signs of mold and signs of mildew, including materials with moisture stains.
  - 1.7.3.1.2. Replace moldy materials with new, undamaged materials.
- 1.7.3.2. Ducts. Seal ducts during transportation, delivery, and construction to prevent accumulation of construction dust and construction debris inside ducts.

1.8. **SEQUENCING**

- 1.8.1. Environmental Issues.
  - 1.8.1.1. On-Site Application. Where odorous and/or high VOC emitting Products are applied on-site, apply prior to installation of porous and fibrous materials. Where this is not possible, protect porous materials with polyethylene vapor retarders.
  - 1.8.1.2. Complete interior finish material installation no less than fourteen (14) days prior to Completion to allow for building flush out.

2. **PRODUCTS**

2.1. **CHEMICALS OF CONCERN**

- 2.1.1. **Chemicals of Concern.** Chemicals listed below as toxic air contaminants, carcinogens, teratogens, reproductive toxins, and chemicals with established Chronic Reference Exposure Levels (REL).
- 2.1.2. **Carcinogens.** Chemicals listed as probable or known human carcinogens in the latest published edition of the following two (2) lists:
  - 2.1.2.1. California Environmental Protection Agency, Air Resources Board (ARB), list of Toxic Air Contaminants (California Air Toxics): <http://www.arb.ca.gov/toxics/id/taclist.htm>.
  - 2.1.2.2. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): [http://www.oehha.ca.gov/prop65/prop65\\_list/Newlist.html](http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html).



- 2.1.3. **Reproductive Toxicants.** Chemicals known to cause reproductive toxicity including birth defects or other reproductive harm in the latest published edition of the following list:

2.1.3.1. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

[http://www.oehha.ca.gov/prop65/prop65\\_list/files/P65single111811.pdf](http://www.oehha.ca.gov/prop65/prop65_list/files/P65single111811.pdf).

- 2.1.4. **Chemicals with established Chronic Reference Exposure Levels (REL).** Chronic RELs have been developed for hazardous airborne substances as of December 2008. A chronic REL is an airborne concentration level that would pose no significant health risk to individuals indefinitely exposed to that level. RELs are based solely on health considerations, and are developed from the best available data in the scientific literature. The California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) establishes and publishes RELs. The most recent list shall be used for this Specification as published at [http://www.oehha.ca.gov/air/hot\\_spots/pdf/CPFs042909.pdf](http://www.oehha.ca.gov/air/hot_spots/pdf/CPFs042909.pdf).

## 2.2. SUBSTITUTIONS

- 2.2.1. Substitutions Environmental Issues: Requests for substitutions shall comply with requirements specified in the Contract Documents and with the following additional information required where environmental issues are specified:

2.2.1.1. Indicate each proposed substitution complies with requirements for VOCs;

2.2.1.2. District reserves the right to reject proposed substitutions where data for VOCs is not provided or where emissions of individual VOCs are higher than for specified Products; and

2.2.1.3. Comply with specified recycled content and other environmental requirements.

## 3. EXECUTION

### 3.1. FIELD QUALITY CONTROL

- 3.1.1. Building Flush Out: Just prior to Completion, flush out building continuously (i.e. 24 hours per day, seven (7) days a week) using maximum tempered outside air (or maximum amount of outside air while achieving reasonable indoor temperature) for at least fourteen (14) calendar days. If interruptions of more than a few hours are required for testing and balancing purposes, extend flush out period accordingly.

3.1.1.1. When Contractor is required to perform touch-up work, provide temporary construction ventilation during installation and extend building flush-out by a minimum of four (4) days after touch-up installation with maximum tempered outside air for 24 hour per day.

3.1.1.2. If construction schedule permits, extend flush-out period beyond fifteen (15) days.

3.1.1.3. Return ventilation system to normal operation following flush-out period to minimize energy consumption.

### 3.2. CLEANING

**3.2.1. Final Cleaning Environmental Issues.**

- 3.2.1.1. Clean interior and exterior surfaces exposed to view; remove temporary labels, stains, and foreign substances; polish transparent and glossy surfaces using cleaning and maintenance products as described in Part 1 of this Section.
- 3.2.1.2. Clean equipment and fixtures to sanitary condition using cleaning and maintenance products as described in Part 1 of this Document.
- 3.2.1.3. Vacuum carpeted and soft surfaces with high efficiency particulate arrestor (HEPA) vacuum.
- 3.2.1.4. If ducts were not sealed during construction, and contain dust or dirt, clean ducts using HEPA vacuum immediately prior to Completion and prior to using ducts to circulate air. Oil film on sheet metal shall be removed before shipment to Site. However, ducts shall be inspected to confirm that no oil film is present. If present, remove oil.
- 3.2.1.5. Replace all air filters (i.e., pre and final filters) just prior to Completion.
- 3.2.1.6. Remove and properly dispose of recyclable materials using construction waste management program described in the Specifications.

**3.3. PROTECTION**

**3.3.1. Environmental Issues.**

- 3.3.1.1. Protect interior materials from water intrusion or penetration; where interior Products not intended for wet applications are exposed to moisture, immediately remove from Site and dispose of properly.
- 3.3.1.2. Protect installed Products using methods that do not support growth of molds and mildews.
  - 3.3.1.2.1. Immediately remove from Site Products with mold or mildew.

**END OF DOCUMENT**

**APPENDIX A****THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS**

Project Name: \_\_\_\_\_

**RECYCLED CONTENT CERTIFICATION FORM**

This form is to be completed by a Corporate Officer of the Product Manufacturer for the General Contractor. Contractor must return the certification, completed for each product with recycled content as required by Specifications. Attach additional sheets if necessary.

<b>CONTRACTOR</b> Name:  Address:  Telephone, fax, e-mail:	<b>SUBCONTRACTOR/INSTALLER</b> Name:  Address:  Telephone, fax, e-mail:	<b>PRODUCT MANUFACTURER</b> Name:  Address:  Telephone, fax, e-mail:
---	--	---

Item #	Product Category <sup>1&amp;2</sup> (Include if applicable)	Product Description CSI section number <sup>3</sup> (Needed for all products)	Quantity Bid	Unit of measure	Cost of material, (Excluding installation labor)	Weight in pounds	% Virgin Content <sup>5</sup>	% Post-consumer <sup>6</sup>	% Post-industrial <sup>7</sup>	Total % <sup>8</sup>
							As a percent of total weight			
		CSI section:								100
		CSI section:								100
		CSI section:								100
		CSI section:								100
		CSI section:								100
		CSI section:								100

---

 Printed Name: (a corporate officer) \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_ Signature \_\_\_\_\_

## APPENDIX A

## THE COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS

### GENERAL NOTES:

- A. The Public Contract Code Sections, listed below, apply to California public (DGS) projects only. The required document has been adapted for use on other types of projects, including public schools.
- B. Public Contract Code Sections 10233, 10308.5, and 10354 require all vendors and contractors to certify in writing, under penalty of perjury, to the state agency awarding a contract, the minimum, if not the exact percentage, of post-consumer and post-industrial material in the materials, goods, or supplies offered or used.
- C. Public Contract Code Section 12205(a) requires all state agencies to require all contractors to certify in writing, under penalty of perjury, the minimum, if not the exact percentage, of post-consumer and post-industrial material in the materials, goods, or services provided or used.

### NOTES:

- (1) Product Category: (Fill in above, if applicable. This information is used to determine compliance with the State Agency Buy Recycled Campaign.)
  - 1. Compost/Co-compost
  - 2. Glass Products
  - 3. Lubricating Oils
  - 4. Paint
  - 5. Plastic Products
  - 6. Paper Products
  - 7. Printing and Writing Papers
  - 8. Solvents
  - 9. Steel Products
  - 10. Tires
  - 11. Tire-derived Products
- (2) Product category is used for State agency reporting for State projects, excluding public schools. Products that are made from multiple material types should be reported in the product category of the material type representing most of the product. The amount of material used in the product can be measured by weight or volume. If, for instance, a chair is made from steel, aluminum, and plastic and most of the material, either by weight or volume, is plastic, report it as a plastic product. If, however, most of the product, either by weight or volume, is steel, report the purchase as a steel product.
- (3) Identify the Construction Specifications Institute (CSI) Specification Section number for the product, as indicated in the Project Specifications.
- (4) Below are products preliminarily identified in the Project Specifications as having minimum recycled content requirements. Refer to the Project Specifications for individual sections in the specifications for recycled content level that must be achieved. Recycled content guidelines shall include, but not be limited to, the products below (to be revised for each project):

1.	Parking Bumpers (Section 2760)	7.	Building Insulation (Section 07210)
2.	Fluid-Applied Waterproofing (Section 07140)	8.	Steel doors and frames (Section 08110)
3.	Concrete reinforcement (Section 03200)	9.	Glazing (Section 08800)
4.	Bentonite Waterproofing (Section 07170)	10.	Paints and Coatings (Section 09900)
5.	Structural steel (Section 05120)	11.	Cold-Formed Metal Framing (Section 05400)
6.	Metal Decking	12.	Gypsum board

## **APPENDIX A**

## **REFERENCE SPECIFICATIONS FOR ENERGY AND RESOURCE EFFICIENCY**

- |     |  |     |  |
|-----|--|-----|--|
|     | (Sections 09255, 09260, 09265)         |     | (Sections 09682, 09686)                      |
| 13. | Ceramic tile<br>(Section 09300)        | 17. | Metal Toilet Compartments<br>(Section 10160) |
| 14. | Acoustical ceilings<br>(Section 09510) | 18. | Identifying Devices<br>(Section 10400)       |
| 15. | Resilient flooring<br>(Section 09650)  | 19. | Architectural Woodwork<br>(Section 06400)    |
16. Carpeting
- (5) Virgin material content is that portion of the product made from non-recycled material, that is, the material is neither post-industrial nor post-consumer material.
- (6) Post-consumer material is defined as "a finished material which would have been disposed of as a solid waste, having completed its life cycle as a consumer item, and does not include manufacturing wastes." This is material such as a newspaper that is read, recycled and then made into recycled content newsprint or some other recycled product. Post-consumer material is generally any product that is bought by the consumer, used, and then recycled into another product.
- (7) Post-industrial (also referred to as pre-consumer or secondary material) is defined as "fragments of finished products or finished products of a manufacturing process, which has converted a resource into a commodity of real economic value, but does not include excess virgin resources of the manufacturing process." This is material such as newsprint that is trimmed from a roll in the paper plant that is returned to the beginning of the process to make recycled content newsprint. The material (product) did not get to the consumer before being recycled. Post-industrial material DOES NOT include post-consumer material. FOR EXAMPLE: If a Printing and Writing Paper contained 20% post-consumer material, you would indicate 20 in the post-consumer column and 80 in the virgin column. If the product had 40% secondary material and 20% post-consumer material, you would indicate 40 in the post-industrial column, 20 in the post-consumer column, and 40 in the virgin column.
- (8) The sum of the percentages for virgin, post-consumer, and post-industrial content must equal 100 percent.

**DOCUMENT 01 40 00**

**QUALITY REQUIREMENTS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Drawings;
- 1.1.5. Construction Schedule – Network Analysis;
- 1.1.6. General Definitions and References.

**1.2. SUMMARY**

- 1.2.1. This Document includes administrative and procedural requirements for quality assurance and quality control.
- 1.2.2. Testing and inspecting services by the District are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Documents' requirements.
  - 1.2.2.1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Specifications for those activities. Requirements in those Specifications may also cover production of standard products.
  - 1.2.2.2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Documents' requirements.
  - 1.2.2.3. Requirements for Contractor to provide quality-assurance and -control services required by District, District's consultants, or authorities having jurisdiction are not limited by provisions of this Document.

**1.3. DEFINITIONS**

- 1.3.1. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- 1.3.2. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by District or its consultants.

- 1.3.3. Mock-ups: Full-size, physical assemblies that are constructed on-site. Mock-ups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mock-ups establish the standard by which the Work will be judged.
- 1.3.4. Laboratory Mock-ups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
- 1.3.5. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- 1.3.6. Product Testing: Tests and inspections that are performed by an NRTL (National Recognized Testing Laboratory), an NVLAP (National Voluntary Laboratory Accreditation Program), or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- 1.3.7. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- 1.3.8. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

#### **1.4. CONFLICTING REQUIREMENTS**

- 1.4.1. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different but apparently equal, to District for a decision before proceeding.
- 1.4.2. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to District for a decision before proceeding.

#### **1.5. SUBMITTALS**

- 1.5.1. Qualification Data: For testing agencies specified in "Quality Assurance" below to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- 1.5.2. Schedule of Tests and Inspections: Prepare in tabular form and include the following:
  - 1.5.2.1. Specification number and title.
  - 1.5.2.2. Description of test and inspection.
  - 1.5.2.3. Identification of applicable standards, codes or regulations.
  - 1.5.2.4. Identification of test and inspection methods.

- 1.5.2.5. Number of tests and inspections required.
- 1.5.2.6. Time schedule or time span for tests and inspections.
- 1.5.2.7. Entity responsible for performing tests and inspections.
- 1.5.2.8. Requirements for obtaining samples.
- 1.5.2.9. Unique characteristics of each quality-control service.
- 1.5.3. Reports: Prepare and submit certified written reports that include the following:
  - 1.5.3.1. Date of issue.
  - 1.5.3.2. Project title and number.
  - 1.5.3.3. Name, address, and telephone number of testing agency.
  - 1.5.3.4. Dates and locations of samples and tests or inspections.
  - 1.5.3.5. Names of individuals making tests and inspections.
  - 1.5.3.6. Description of the Work and test and inspection method.
  - 1.5.3.7. Identification of product and Specification.
  - 1.5.3.8. Complete test or inspection data.
  - 1.5.3.9. Test and inspection results and an interpretation of test results.
  - 1.5.3.10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
  - 1.5.3.11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Documents' requirements.
  - 1.5.3.12. Name and signature of laboratory inspector.
  - 1.5.3.13. Recommendations on retesting and reinspecting.
  - 1.5.3.14. Descriptions of deficiencies noted, and corrective action undertaken to resolve such deficiencies.
    - 1.5.3.14.1. Deficiencies observed shall immediately be brought to the attention of the Contractor's field superintendent, and trade foreman. In the event deficiencies are not corrected, or if an interpretation of the Contract Documents is required, the Testing Agency shall immediately notify the District and applicable consultant, Architect, or Engineer.
    - 1.5.3.14.2. The Testing Agency shall maintain a deficiency list of all items not corrected and shall reinspect the area after the deficiency has been corrected. The list shall include a description of the deficiency, the date and time the deficiency was observed,



who was notified, the date of reinspection and description of any corrective action taken. Distribute the deficiency list at least once per month.

1.5.3.15.15. At the end of the Project, the Testing Agency shall submit a final signed report stating whether the work tested and inspected conforms to the Contract Documents' requirements.

1.5.4. Permits, Licenses, and Certificates: For District's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

## **1.6. QUALITY ASSURANCE**

1.6.1. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specifications specify additional requirements.

1.6.2. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance. Where required by the individual Specifications, Installer employing workers trained and approved by manufacturer, Installer being acceptable to manufacturer, and/or Installer being an authorized representative of manufacturer for both installation and maintenance.

1.6.3. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

1.6.4. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

1.6.5. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in the State of California, and who is experienced in providing engineering services of the kind indicated.

1.6.6. Engineering services are defined as those performed for installations of the system, assembly, or products that are similar to those indicated for this Project in material, design, and extent.

1.6.7. Specialists: Certain Specifications may require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1.6.7.1. Requirement for specialists shall not supersede building codes or regulations governing the Work.

1.6.8. Testing Agency Qualifications: An NRTL, an NVLAP, Division of the State of Architect's Accepted Laboratory, or an independent agency with the experience and capability to conduct testing and inspecting indicated; and with additional qualifications stated in

individual Specifications; and where required by and acceptable to authorities having jurisdiction.

1.6.8.1. NRTL: A Nationally Recognized Testing Laboratory according to 29 CFR 1910.7.

1.6.8.2. NVLAP: A testing agency accredited according to NIST's (National Institute of Standards and Technology) National Voluntary Laboratory Accreditation Program.

1.6.8.3. Tests shall be made by an accredited testing agency with a minimum of 5 years of experience in the specific type of testing to be performed. Except as otherwise provided, sampling and testing of all materials and the laboratory methods and testing equipment shall be in accordance with the applicable standards and methods of the California Building Standards code.

1.6.8.4. For each type of inspection and testing service to be performed, the Testing Agency shall submit certification, signed and sealed by the Agency's professional engineer, of compliance with all applicable requirements of the following:

1.6.8.4.1. ASTM E329, "Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction."

1.6.8.4.2. "Recommended Requirements for Independent Laboratory Qualifications" published by the American Council of Independent Laboratories.

1.6.8.5. Furnish written certification to the District that all equipment to be used has been calibrated in accordance with applicable ASTM standards within the last year and is in proper working order.

1.6.8.6. Testing Agency Personnel Qualifications: Testing and inspection services shall be performed only by trained and experienced technicians currently qualified for the work they are to perform. Documentation of such training and experience shall be submitted to the District and/or its consultants upon request.

1.6.8.7. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.

1.6.8.8. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

1.6.9. Preconstruction Testing: Where a testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1.6.9.1. Contractor responsibilities include the following:

1.6.9.1.1. Verify by its Quality Assurance/Quality Control procedures that an element is ready for testing prior to requesting a test.

- 1.6.9.1.2. Provide test specimens representative of proposed products and construction.
- 1.6.9.1.3. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
- 1.6.9.1.4. Provide sizes and configurations of test assemblies, mock-ups, and laboratory mock-ups to adequately demonstrate capability of products to comply with performance requirements.
- 1.6.9.1.5. Build site-assembled test assemblies and mock-ups using installers who will perform same tasks for Project.
- 1.6.9.1.6. Build laboratory mock-ups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
- 1.6.9.1.7. When testing is complete, remove test specimens, assemblies, mock-ups, and laboratory mock-ups; do not reuse products on Project.
- 1.6.9.2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to District with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected Work complies with or deviates from the Contract Documents' requirements.
- 1.6.10. Mock-ups: Before installing portions of the Work requiring mock-ups, build mock-ups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
  - 1.6.10.1. Build mock-ups in location and of size indicated or, if not indicated, as directed by District or its consultant.
  - 1.6.10.2. Notify District and its consultants seven (7) days in advance of dates and times when mock-ups will be constructed.
  - 1.6.10.3. Demonstrate the proposed range of aesthetic effects and workmanship.
  - 1.6.10.4. Obtain District and its consultant's approval of mock-ups before starting work, fabrication, or construction.
    - 1.6.10.4.1. Allow seven (7) days for initial review and each re-review of each mock-up.
  - 1.6.10.5. Incorporate seismic design of nonstructural components as listed in Division 01 Document "Seismic Design Requirements for Non-Structural Components" into mock-ups.
  - 1.6.10.6. Maintain mock-ups during construction in an undisturbed condition as a standard for judging the completed Work.
  - 1.6.10.7. Demolish and remove mock-ups when directed, unless otherwise indicated.

- 1.6.11. Laboratory Mock-Ups: Comply with requirements of preconstruction testing and those specified in individual Specifications in Divisions 02 through 49.

## **1.7. QUALITY CONTROL**

- 1.7.1. District Responsibilities: Where quality-control services are indicated as District's responsibility, District will engage a qualified testing agency to perform these services.
  - 1.7.1.1. District will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting the testing agencies are engaged to perform.
  - 1.7.1.2. Costs for retesting and reinspecting construction that replaces or is necessitated by Work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Price will be adjusted by Change Order per the Contract Documents.
- 1.7.2. Tests and inspections not explicitly assigned to District are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  - 1.7.2.1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform the quality-control services.
    - 1.7.2.1.1. Contractor shall not employ same entity engaged by District, unless agreed to in writing by District.
  - 1.7.2.2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  - 1.7.2.3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  - 1.7.2.4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  - 1.7.2.5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- 1.7.3. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Document "Submittal Procedures."
- 1.7.4. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents' requirements.
- 1.7.5. Testing Agency Responsibilities: Cooperate with District, District's consultants, and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

- 1.7.5.1. Notify District, District's consultants, and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
- 1.7.5.2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
- 1.7.5.3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
- 1.7.5.4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
- 1.7.5.5. Do not release, revoke, alter, or increase the Contract Documents' requirements or approve or accept any portion of the Work.
- 1.7.5.6. Do not perform any duties of Contractor.
- 1.7.6. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify testing agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
  - 1.7.6.1. Access to the Work.
  - 1.7.6.2. Incidental labor and facilities necessary to facilitate tests and inspections.
  - 1.7.6.3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  - 1.7.6.4. Facilities for storage and field curing of test samples.
  - 1.7.6.5. Delivery of samples to testing agencies.
  - 1.7.6.6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  - 1.7.6.7. Security and protection for samples and for testing and inspecting equipment at Project Site.
  - 1.7.6.8. Furnish tools, samples of materials, design mixes, equipment and assistance as requested.
  - 1.7.6.9. Provide and maintain, for the sole use of the Testing Agency, adequate facilities for the safe storage and proper curing of concrete test cylinders on the project site for the first 24 hours after casting as required by ASTM C31, Method of Making and Curing Concrete Test Specimens in the Field.
  - 1.7.6.10. Build and store masonry test prisms in a manner acceptable to the Testing Agency. Prisms to be tested shall remain at the job site until moved by Testing Agency personnel.
  - 1.7.6.11. Notify Testing Agency at least 10 working days in advance of any qualification testing for welding required herein.

- 1.7.6.12. Notify Testing Agency at least 24 hours prior to expected time for operations requiring testing or inspection services.
- 1.7.6.13. Make arrangements with the Testing Agency and pay for additional samples and tests made for the Contractor's convenience or for retesting of failed samples.
- 1.7.6.14. For deficiencies requiring corrective action, submit in writing a description of the deficiency and a proposed correction to the District. After review and approval, the proposed corrective action shall be implemented and inspected by the Testing Agency. It is Contractor's responsibility to ascertain that the deficiency is corrected and inspected prior to the work being covered.
- 1.7.6.15. Retention of an independent Testing Agency by the District shall in no way relieve Contractor of responsibility for performing all work in accordance with the Contract Documents' requirements.
- 1.7.7. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
  - 1.7.7.1. Schedule times for tests, inspections, obtaining samples, and similar activities.

## **1.8. TESTS AND SPECIAL INSPECTIONS**

- 1.8.1. Tests and Special Inspections: District will engage a qualified testing agency to conduct tests and special inspections required by authorities having jurisdiction as follows:
  - 1.8.1.1. All tests and special inspections identified in Form DSA-103 List of Required Structural Tests & Special Inspections - 2016 CBC
- 1.8.2. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specifications, and as follows:
  - 1.8.2.1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
  - 1.8.2.2. Notifying District, District's consultants, and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  - 1.8.2.3. Submitting a certified written report of each test, inspection, and similar quality-control service to District, with copy to Contractor and to authorities having jurisdiction.
  - 1.8.2.4. Submitting a final report of special tests and inspections at Project Completion, which includes a list of unresolved deficiencies.
  - 1.8.2.5. Interpreting tests and inspections and stating in each report whether tested and inspected Work complies with or deviates from the Contract Documents.
  - 1.8.2.6. Retesting and reinspecting corrected work.

## **2. PRODUCTS**

### **2.1. GENERAL**

- 2.1.1. Do not use any materials or equipment represented by samples until tests, if required, have been made and the materials or equipment found to be acceptable. Any product which becomes unfit for use after acceptance shall not be incorporated into the Work.

## **3. EXECUTION**

### **3.1. TEST AND INSPECTION LOG**

- 3.1.1. Prepare a record of tests and inspections. Include the following:
  - 3.1.1.1. Date test or inspection was conducted.
  - 3.1.1.2. Description of the Work tested and inspected.
  - 3.1.1.3. Date test or inspection results were transmitted to District.
  - 3.1.1.4. Identification of testing agency or special inspector conducting test or inspection.
- 3.1.2. Maintain log at Project Site. Post changes and modifications as they occur. Provide access to test and inspection log for District's reference during normal working hours.

### **3.2. REPAIR AND PROTECTION**

- 3.2.1. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 3.2.1.1. Provide materials and comply with installation requirements specified in other Specifications. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible.
  - 3.2.1.2. Comply with Document "Cutting and Patching" and all related Contract Documents' requirements.
- 3.2.2. Protect construction exposed by or for quality-control service activities.
- 3.2.3. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

**END OF DOCUMENT**

**ABBREVIATIONS AND ACRONYMS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including without limitation, Contract Terms and Definitions; and
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).

**1.2. ABBREVIATIONS AND ACRONYMS FOR STANDARDS AND REGULATIONS**

1.2.1. Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations as indicated in Thomson Gale™ ([www.gale.com](http://www.gale.com)), Gale Research's "Encyclopedia of Associations" or "Encyclopedia of Associations: National Organizations of the U.S.," or in Columbia Books' "National Trade & Professional Associations of the U.S."

1.2.2. Some of the applicable abbreviations and acronyms referenced in the Specifications or other Contract Documents have the following meanings, subject to updates or revisions based on the above-referenced publications:

- AA: Aluminum Association
- AAMA: Architectural Aluminum Manufacturers Association
- AASHTO: American Association of State Highway and Transportation Officials
- ABPA: Acoustical and Board Products Association
- ACI: American Concrete Institute
- AGA: American Gas Association
- AGC: Associated General Contractors
- AHC: Architectural Hardware Consultant
- AI: Asphalt Institute
- AIA: American Institute of Architects
- AIEE: American Institute of Electrical Engineers
- AISC: American Institute of Steel Construction
- AISI: American Iron and Steel Institute
- AMCA: Air Moving and Conditioning Association
- ANSI: American National Standards Institute
- APA: American Plywood Association
- ARI: Air Conditioning and Refrigeration Institute
- ASHRAE: American Society of Heating, Refrigeration and Air Conditioning Engineers
- ASME: American Society of Mechanical Engineers
- ASSE: American Society of Structural Engineers
- ASTM: American Society of Testing and Materials
- AWPB: American Wood Preservers Bureau



- AWPI: American Wood preservers Institute
- AWS: American Welding Society
- AWSC: American Welding Society Code
- AWI: Architectural Woodwork Institute
- AWWA: American Water Works Association
- BIA: Brick Institute of America
- CCR: California Code of Regulations
- CLFMI: Chain Link Fence Manufacturers Institute
- CMG: California Masonry Guild
- CRA: California Redwood Association
- CRSI: Concrete Reinforcing Steel Institute
- CS: Commercial Standards
- CSI: Construction Specifications Institute
- CTI: Cooling Tower Institute
- FGMA: Flat Glass Manufacturer's Association
- FIA: Factory Insurance Association
- FM: Factory Mutual
- FS: Federal Specification
- FTI: Facing Title Institute
- GA: Gypsum Association
- ICC: International Code Council
- IEEE: Institute of Electrical and Electronic Engineers
- IES: Illumination Engineering Society
- LIA: Lead Industries Association
- MIA: Marble Institute of America
- MLMA: Metal Lath Manufacturers Association
- MS: Military Specifications
- NAAMM: National Association of Architectural Metal Manufacturers
- NBHA: National Builders Hardware Association
- NBFU: National Board of Fire Underwriters
- NBS: National Bureau of Standards
- NCMA: National Concrete Masonry Association
- NEC: National Electrical Code
- NEMA: National Electrical Manufacturers Association
- NFPA: National Fire Protection Association/National Forest Products Association
- NMWIA: National Mineral Wool Insulation Association
- NTMA: National Terrazzo and Mosaic Association
- NWMA: National Woodwork Manufacturer's Association
- ORS: Office of Regulatory Services (California)
- OSHA: Occupational Safety and Health Act
- PCI: Precast Concrete Institute
- PCA: Portland Cement Association
- PDCA: Painting and Decorating Contractors of America
- PDI: Plumbing Drainage Institute
- PEI: Porcelain Enamel Institute
- PG&E: Pacific Gas & Electric Company
- PS: Product Standards
- SDI: Steel Door Institute; Steel Deck Institute
- SJI: Steel Joist Institute
- SSPC: Steel Structures Painting Council
- TCA: Tile Council of America

- TPI: Truss Plate Institute
- UBC: Uniform Building Code
- UL: Underwriters Laboratories Code
- UMC: Uniform Mechanical Code
- USDA: United States Department of Agriculture
- VI: Vermiculite Institute
- WCLA: West Coast Lumberman's Association
- WCLB: West Coast Lumber Bureau
- WEUSER: Western Electric Utilities Service Engineering Requirements
- WIC: Woodwork Institute of California
- WPOA: Western Plumbing Officials Association

- 1.2.3. Additional Abbreviations and Symbols: Refer to the above-referenced publications or to Drawings for additional abbreviations and for symbols.

**END OF DOCUMENT**

**GENERAL DEFINITIONS AND REFERENCES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including without limitation, Contract Terms and Definitions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Special Conditions.

**1.2. DEFINITIONS**

General: Basic Contract definitions are included in the General Conditions of the Contract for Construction. The following are in addition to those definitions.

- 1.2.1. "Alternate": A cost or credit for certain Work that may be added to or deducted from the Project.
- 1.2.2. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- 1.2.3. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- 1.2.4. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- 1.2.5. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- 1.2.6. "Provide": Furnish and install, complete and ready for the intended use.

**1.3. QUALITY ASSURANCE**

- 1.3.1. For products or workmanship specified by association, trade, or Federal Standards, Contractor shall comply with requirements of the standard, except when more stringent requirements are specified in the Contract Documents, or are required by applicable codes.
- 1.3.2. Contractor shall conform to current reference standard publication in effect on the date of bid opening.

- 1.3.3. Unless directed otherwise by the Contract Documents, Contractor shall obtain copies of referenced standards.
- 1.3.4. Unless directed otherwise by the Contract Documents, Contractor shall maintain a copy of referenced standards at jobsite until Completion.
- 1.3.5. If specified standards conflict with Contract Documents, Contractor shall request clarification from the District or the Architect before proceeding.
- 1.3.6. Governing Codes shall be as shown in the Contract Documents including, without limitation, the Specifications.

#### **1.4. STANDARDS**

- 1.4.1. Standard Specifications: References to codes, specifications and standards referred to in the Contract Documents shall mean, and are intended to be, the latest edition, amendment or revision of such reference standard in effect as of the date of these Contract Documents. If those standard specifications are revised prior to Completion of any part of the Work to which such revision would pertain, Contractor may, if acceptable to and approved by the District, perform such Work in accordance with the revised standard specifications.
- 1.4.2. Conflicting Requirements: Where compliance with two or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the District for a decision before proceeding.
- 1.4.3. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to District for a decision before proceeding.
- 1.4.4. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
- 1.4.5. Copies from the Publication Source: Where copies of standards are needed for performance of a required construction activity, Contractor shall obtain copies directly from the publication source.

#### **1.5. SCHEDULE OF REFERENCES**

**The following information is intended only for the general assistance of Contractor. District does not represent the accuracy of the information. Contractor shall independently verify the information for each entity listed below:**

AA	Aluminum Association 900 19th Street NW, Suite 300 Washington, DC 20006 <a href="http://www.aluminum.org">www.aluminum.org</a>	202/862-5100
AABC	Associated Air Balance Council 1518 K Street, NW, Suite 503	202/737-0202

	Washington, DC 20005 <a href="http://www.aabchg.com">www.aabchg.com</a>	
AAMA	American Architectural Manufacturers Association 1827 Walden Office Sq., Suite 104 Schaumburg, IL 60173-4268 <a href="http://www.aamanet.org">www.aamanet.org</a>	847/303-5664
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, Suite 249 Washington, DC 20001 <a href="http://www.aashto.org">www.aashto.org</a>	202/624-5800
AATCC	American Association of Textile Chemists and Colorists P.O. Box 12215 One Davis Drive Research Triangle Park, NC 27709-2215 <a href="http://www.aatcc.org">www.aatcc.org</a>	919/549-8141
ACI	American Concrete Institute P.O. Box 9094 Farmington Hills, MI 48333-9094 <a href="http://www.aci-int.org">www.aci-int.org</a>	248/848-3700
ACPA	American Concrete Pipe Association 222 West Las Colinas Blvd., Suite 641 Irving, TX 75039-5423 <a href="http://www.concrete-pipe.org">www.concrete-pipe.org</a>	972/506-7216
ADC	Air Diffusion Council 11 South LaSalle St., Suite 1400 Chicago, IL 60603 <a href="http://www.flexibleduct.org/index.asp">http://www.flexibleduct.org/index.asp</a>	312/201-0101
AFPA	American Forest and Paper Association 1111 19th St., NW, Suite 800 Washington, DC 20036 <a href="http://www.afandpa.org/">http://www.afandpa.org/</a>	202/463-2700
AGA	American Gas Association 1515 Wilson Blvd. Arlington VA 22209 <a href="http://www.aga.com">www.aga.com</a>	703/841-8400
AHA	American Hardboard Association 1210 W. Northwest Hwy Palatine, IL 60067-1897 <a href="http://domensino.com/AHA/default.htm">http://domensino.com/AHA/default.htm</a>	847/934-8800
AI	Asphalt Institute Research Park Drive P.O. Box 14052 Lexington, KY 40512-4052	606/288-4960

[www.asphaltinstitute.org](http://www.asphaltinstitute.org)

AIA	The American Institute of Architects 1735 New York Avenue, NW Washington, DC 20006-5292 <a href="http://www.aia.org">www.aia.org</a>	202/626-7300
AISC	American Institute of Steel Construction One East Wacker Drive, Suite 3100 Chicago, IL 60601-2001 <a href="http://www.aisc.org/">http://www.aisc.org/</a>	800/644-2400
AITC	American Institute of Timber Construction 7012 S. Revere Pkwy., Suite 140 Englewood, CO 80112 <a href="http://www.aitc-glulam.org">www.aitc-glulam.org</a>	303/792-9559
ALCA	Associated Landscape Contractors of America 12200 Sunrise Valley Drive, Suite 150 Reston, VA 20191 <a href="http://www.alca.org">www.alca.org</a>	703/620-6363
ALI	Associated Laboratories, Inc. P.O. Box 152837 1323 Wall St. Dallas, TX 75315 <a href="http://www.assoc-labs.com/">http://www.assoc-labs.com/</a>	214/565-0593
ALSC	American Lumber Standards Committee P.O. Box 210 Germantown, MD 20875	301/972-1700
AMCA	Air Movement and Control Association International, Inc. 30 W. University Drive Arlington Heights, IL 60004-1893 <a href="http://www.amca.org">www.amca.org</a>	847/394-0150
ANLA	American Nursery and Landscape Association 1250 Eye Street, NW, Suite 500 Washington, DC 20005	202/789-2900
ANSI	American National Standards Institute 11 West 42nd Street, 13th Floor New York, NY 10036-8002 <a href="http://www.ansi.org">www.ansi.org</a>	212/642-4900
APA	APA-The Engineered Wood Association P.O. Box 11700 Tacoma, WA 98411-0700 <a href="http://www.apawood.org">www.apawood.org</a>	206/565-6600
APA	Architectural Precast Association P.O. Box 08669 Fort Myers, FL 33908-0669	941/454-6989

ARI	Air Conditioning and Refrigeration Institute 4301 Fairfax Drive, Suite 425 Arlington, VA 22203 <a href="http://www.ari.org">www.ari.org</a>	703/524-8800
ARMA	Asphalt Roofing Manufacturers Association Center Park 4041 Powder Mill Road, Suite 404 Calverton, MD 20705	301/231-9050
ASA	Acoustical Society of America 500 Sunnyside Blvd. Woodbury, NY 11797	516/576-2360
ASCE	American Society of Civil Engineers- World Headquarters 1801 Alexander Bell Drive Reston, VA 20190-4400 <a href="http://www.asce.org">www.asce.org</a>	800/548-2723 703/295-6000
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329-2305 <a href="http://www.ashrae.org">www.ashrae.org</a>	800/527-4723 404/636-8400
ASLA	American Society of Landscape Architects 4401 Connecticut Ave., NW, 5th Floor Washington, DC 20008-2369 <a href="http://www.asla.org">www.asla.org</a>	202/686-2752
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017-2392 <a href="http://www.asme.org">www.asme.org</a>	800/434-2763
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd., Suite 210 Westlake, CA 91362-3649	805/495-7120
ASQC	American Society for Quality Control 611 E. Wisconsin Avenue Milwaukee, WI 53201-3005 <a href="http://www.asqc.org">www.asqc.org</a>	800/248-1946 414/272-8575
ASSE	American Society of Sanitary Engineering 28901 Clemens Road Westlake, OH 44145 <a href="http://www.asse-plumbing.org">www.asse-plumbing.org</a>	216/835-3040
ASTM	American Society for Testing and Materials 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 <a href="http://www.astm.org">www.astm.org</a>	610/832-9500

AWCI	Association of the Wall and Ceiling Industries--International 307 E. Annandale Road, Suite 200 Falls Church, VA 22042-2433 <a href="http://www.awci.org">www.awci.org</a>	703/534-8300
AWPA	American Wood-Preservers' Association 3246 Fall Creek Highway, Suite 1900 Granbury, TX 76049-7979	817/326-6300
AWS	American Welding Society 550 NW LeJeune Road Miami, FL 33126 <a href="http://www.amweld.org">www.amweld.org</a>	800/443-9373 305/443-9353
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235 <a href="http://www.awwa.org">www.awwa.org</a>	800/926-7337 303/794-7711
BHMA	Builders' Hardware Manufacturers Association 355 Lexington Avenue, 17th Floor New York, NY 10017-6603	212/661-4261
CBM	Certified Ballast Manufacturers Association 1422 Euclid Avenue, Suite 402 Cleveland, OH 44115-2094	216/241-0711
CGA	Compressed Gas Association 1725 Jefferson Davis Hwy, Suite 1004 Arlington, VA 22202-4102 <a href="http://www.cganet.com">www.cganet.com</a>	703/412-0900
CISCA	Ceilings & Interior Systems Construction Association 1500 Lincoln Hwy, Suite 202 St. Charles, IL 60174 <a href="http://www.cisca.org">www.cisca.org</a>	630/584-1919
CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Road, Suite 419 Chattanooga, TN 37421	423/892-0137
CPSC	Consumer Product Safety Commission East West Towers 4330 East-West Hwy. Bethesda, MD 20814	800/638-2772
CPPA	Corrugated Polyethylene Pipe Association 432 N. Superior Street Toledo, OH 43604	800/510-2772 419/241-2221
CRA	California Redwood Association 405 Enfrente Drive, Suite 200	415/382-0662



	Novato, CA 94949	
CRI	Carpet and Rug Institute 310 S. Holiday Avenue Dalton, GA 30722-2048 <a href="http://www.carpet-rug.com">www.carpet-rug.com</a>	800/882-8846 706/278-3176
CRSI	Concrete Reinforcing Steel Institute 933 N. Plum Grove Road Schaumburg, IL 60173-4758 <a href="http://www.crsi.org">www.crsi.org</a>	847/517-1200
CTI	Ceramic Tile Institute of America 12061 W. Jefferson Blvd. Culver City, CA 90230-6219	310/574-7800
DHI	Door and Hardware Institute 14170 Newbrook Drive Chantilly, VA 20151-2223 <a href="http://www.dhi.org">www.dhi.org</a>	703/222-2010
DIPRA	Ductile Iron Pipe Research Association 245 Riverchase Pkwy East, Suite O Birmingham, AL 35244	205/988-9870
DOC	Department of Commerce 14th Street and Constitution Avenue, NW Washington, DC 20230	202/482-2000
DOT	Department of Transportation 400 Seventh Street, SW Washington, DC 20590	202/366-4000
EJMA	Expansion Joint Manufacturers Association 25 N. Broadway Tarrytown, NY 10591-3201	914/332-0040
EPA	Environmental Protection Agency 401 M Street, SW Washington, DC 20460	202/260-2090
FCICA	Floor Covering Installation Contractors Association P.O. Box 948 Dalton, GA 30722-0948	706/226-5488
FM	Factory Mutual 1151 Boston-Providence Turnpike P.O. Box 9102 Norwood, MA 02062-9102 <a href="http://www.factorymutual.com">www.factorymutual.com</a>	781/255-4300
FS	Federal Specifications Unit (Available from GSA) 470 East L'Enfant Plaza, SW, Suite 8100	202/619-8925

Washington, DC 20407

GA	Gypsum Association 810 First Street NE, Suite 510 Washington, DC 20002 <a href="http://www.usg.com">www.usg.com</a>	202/289-5440
GANA	Glass Association of North America 3310 SW Harrison Street Topeka, KS 66611-2279 <a href="http://www.glasswebsite.com/gana">www.glasswebsite.com/gana</a>	913/266-7013
HMA	Hardwood Manufacturers Association 400 Penn Center Blvd., Suite 530 Pittsburgh, PA 15235-5605 <a href="http://www.hardwood.org">www.hardwood.org</a>	412/828-0770
HPVA	Hardwood Plywood and Veneer Association 1825 Michael Farraday Drive P.O. Box 2789 Reston, VA 22195-0789 <a href="http://www.hpva.org">www.hpva.org</a>	703/435-2900
IEEE	Institute of Electrical and Electronic Engineers 345 E. 47th Street New York, NY 10017-2394 <a href="http://www.ieee.org">www.ieee.org</a>	800/678-4333 212/705-7900
IESNA	Illuminating Engineering Society of North America 120 Wall Street, 17th Floor New York, NY 10005-4001 <a href="http://www.iesna.org">www.iesna.org</a>	212/248-5000
ITS	Intertek Testing Services P.O. Box 2040 607/753-6711 3933 US Route 11 Cortland, NY 13045-7902 <a href="http://www.itsglobal.com">www.itsglobal.com</a>	800/345-3851
LMA	Laminating Materials Association 116 Lawrence Street Hillsdale, NJ 07642-2730 <a href="http://www.lma.org">www.lma.org</a>	201/664-2700
MCAA	Mechanical Contractors Association of America 1385 Piccard Drive Rockville, MD 20850-4329	301/869-5800
ML/SFA	Metal Lath/Steel Framing Association (A Division of the NAAMM) 8 South Michigan Avenue, Suite 1000 Chicago, IL 60603	312/456-5590
MSS	Manufacturers Standardization Society for the Valve and Fittings Industry	703/281-6613

	127 Park Street, NE Vienna, VA 22180-4602	
NAA	National Arborist Association P.O. Box 1094 603/673-3311 Amherst, NH 03031-1094 <a href="http://www.natlarb.com">www.natlarb.com</a>	800/733-2622
NAAMM	National Association of Architectural Metal Manufacturers 8 South Michigan Avenue, Suite 1000 Chicago, IL 60603 <a href="http://www.gss.net/naamm">www.gss.net/naamm</a>	312/782-5590
NAIMA	North American Insulation Manufacturers Association 44 Canal Center Plaza, Suite 310 Alexandria, VA 22314 <a href="http://www.naima.org">www.naima.org</a>	703/684-0084
NAPA	National Asphalt Pavement Association NAPA Building 5100 Forbes Blvd. Lanham, MD 20706-4413	301/731-4748
NCSPA	National Corrugated Steel Pipe Association 1255 23rd Street, NW, Suite 850 Washington, DC 20037 <a href="http://www.ncspa.org">www.ncspa.org</a>	202/452-1700
NEBB	National Environmental Balancing Bureau 8575 Grovemont Circle Gaithersburg, MD 20877-4121	301/977-3698
NECA	National Electrical Contractors Association 3 Bethesda Metro Center, Suite 1100 Bethesda, MD 20814-5372	301/657-3110
NEI	National Elevator Industry 185 Bridge Plaza North, Suite 310 Fort Lee, NJ 07024	201/944-3211
NEMA	National Electrical Manufacturers' Association 1300 N. 17th Street, Suite 1847 Rosslyn, VA 22209 <a href="http://www.nema.org">www.nema.org</a>	703/841-3200
NFPA	National Fire Protection Association One Batterymarch Park P.O. Box 9101 Quincy, MA 02269-9101 <a href="http://www.nfpa.org">www.nfpa.org</a>	800/344-3555 617/770-3000
NHLA	National Hardwood Lumber Association P.O. Box 34518	901/377-1818

	Memphis, TN 38184-0518 <a href="http://www.natlhardwood.org">www.natlhardwood.org</a>	
NIA	National Insulation Association 99 Canal Center Plaza, Suite 222 Alexandria, VA 22314 <a href="http://www.insulation.org">www.insulation.org</a>	703/683-6422
NPA	National Particleboard Association 18928 Premiere Court Gaithersburg, MD 20879-1569 <a href="http://www.pbmdf.com">www.pbmdf.com</a>	301/670-0604
NPCA	National Paint and Coatings Association 1500 Rhode Island Avenue, NW Washington, DC 20005-5597 <a href="http://www.paint.org">www.paint.org</a>	202/462-6272
NRCA	National Roofing Contractors Association O'Hare International Center 10255 W. Higgins Road, Suite 600 Rosemont, IL 60018-5607 <a href="http://www.roofonline.org">www.roofonline.org</a>	800/323-9545
NRMCA	National Ready Mixed Concrete Association 900 Spring Street Silver Spring, MD 20910 <a href="http://www.nrmca.org">www.nrmca.org</a>	301/587-1400
NSF	NSF International P.O. Box 130140 Ann Arbor, MI 48113-0140 <a href="http://www.nsf.org">www.nsf.org</a>	313/769-8010
NUSIG	National Uniform Seismic Installation Guidelines 12 Lahoma Court Alamo, CA 94526	510/946-0135
NWWDA	National Wood Window and Door Association 1400 E. Touhy Avenue, G-54 Des Plaines, IL 60018 <a href="http://www.nwwda.org">www.nwwda.org</a>	800/223-2301 847/299-5200
SHA	Occupational Safety and Health Administration (U.S. Department of Labor) 200 Constitution Ave., NW Washington, DC 20210	202/219-8148
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077-1083 <a href="http://www.portcement.org">www.portcement.org</a>	847/966-6200
PDCA	Painting and Decorating Contractors of America	800/332-7322 703/359-0826

3913 Old Lee Hwy, Suite 33-B  
 Fairfax, VA 22030  
[www.pdca.com](http://www.pdca.com)

PDI	Plumbing and Drainage Institute 45 Bristol Drive, Suite 101 South Easton, MA 02375	800/589-8956 508/230-3516
RFCI	Resilient Floor Covering Institute 966 Hungerford Drive, Suite 12-B Rockville, MD 20805-1714	301/340-8580
RIS	Redwood Inspection Service c/o California Redwood Association 405 Enfrente Drive, Suite 200 Novato, CA 94949-7206	415/382-0662
SDI	Steel Deck Institute P.O. Box 25 Fox River Grove, IL 60012 <a href="http://www.sdi.org">www.sdi.org</a>	847/462-1930
SDI	Steel Door Institute 30200 Detroit Road Cleveland, OH 44145-1967	216/889-0010
SMA	Stucco Manufacturers Association 14006 Ventura Blvd. Sherman Oaks, CA 91403	213/789-8733
SMACNA	Sheet Metal and Airconditioning Contractors National Association, Inc. P.O. Box 221230 Chantilly, VA 20151-1209 <a href="http://www.smacna.org">www.smacna.org</a>	703/803-2980
SPI	Society of the Plastics Industry, Inc. Spray Polyurethane Division 1801 K Street, NW, Suite 600K Washington, DC 20006 <a href="http://www.socplas.org">www.socplas.org</a>	800/951-2001 202/974-5200
SSPC	Steel Structures Painting Council 40 24th Street, 6th Floor Pittsburgh, PA 15222-4643	412/281-2331
TCA	Tile Council of America 100 Clemson Research Blvd. Anderson, SC 29625	864/646-8453
TPI	Turfgrass Producers International 1855-A Hicks Road Rolling Meadows, IL 60008	800/405-8873 847/705-9898
UL	Underwriters Laboratories, Inc.	800/704-4050

	333 Pfingston Road Northbrook, IL 60062 <a href="http://www.ul.com">www.ul.com</a>	847/272-8800
UNI	Uni-Bell PVC Pipe Association 2655 Villa Creek Drive, Suite 155 Dallas, TX 75234 <a href="http://www.members.aol.com/unibell1">www.members.aol.com/unibell1</a>	972/243-3902
USDA	U.S. Department of Agriculture 14th St. and Independence Ave., SW Washington, DC 20250	202/720-8732
WA	Wallcoverings Association 401 N. Michigan Avenue Chicago, IL 60611-4267	312/644-6610
WCLIB	West Coast Lumber Inspection Bureau P.O. Box 23145 Portland, OR 97281-3145	503/639-0651
WCMA	Window Covering Manufacturers Association 355 Lexington Ave., 17th Floor New York, NY 10017-6603	212/661-4261
WIC	Woodwork Institute of California P.O. Box 980247 West Sacramento, CA 95798-0247	916/372-9943
WLPDIA	Western Lath/Plaster/Drywall Industries Association 8635 Navajo Road San Diego, CA 92119	619/466-9070
WMMPA	Wood Moulding & Millwork Producers Association 507 First Street Woodland, CA 95695 <a href="http://www.wmmpa.com">www.wmmpa.com</a>	800/550-7889 916/661-9591
WRI	Wire Reinforcement Institute 203 Loudoun Street, SW Leesburg, VA 20175-2718	703/779-2339
WWPA	Western Wood Products Association Yeon Building 522 S.W. 5th Avenue Portland, OR 97204-2122	503/224-3930

**END OF DOCUMENT**

## SECTION 014523 - TESTING & INSPECTION REQUIREMENTS FOR SCHOOLS

### TESTS

The Owner will select a DSA approved, independent testing laboratory to conduct the tests. Selection of the material required to be tested shall be by the laboratory or the Owner's representative and not by the Contractor.

The Contractor shall notify the Owner's representative a sufficient time in advance of the manufacture of material to be supplied by him under the Contract Documents, which must be terms of the Contract be tested, in order that the Owner may arrange for the testing of same at the source of supply.

Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice from said representative that such testing and inspection will not be required shall not be incorporated in the job.

The Owner will pay testing laboratory costs for all tests and inspections, but may be reimbursed by the Contractor for such costs under the Contract documents.

### TEST REPORTS

One copy of all test reports shall be forwarded to the Division of the State Architect by the testing agency. Such reports shall include all the 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 Title 24 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.

### VERIFICATION OF TEST REPORTS

Each testing agency shall submit to the Division of the State Architect a verified report in duplicate covering all 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 test up to that time, and at the completion of the project, covering all tests.

#### INSPECTION BY THE OWNER

The Owner and his representatives shall be at times have access for the purpose of inspection to all parts of the work and to the shops wherein the work is in preparation, and the Contractor shall at all times maintain proper facilities and provide safe access for such inspection.

#### TESTING AND INSPECTION

The Owner shall have the right to reject materials and workmanship which are defective, or to require their correction. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the Owner. If the Contractor does not correct such rejected work within a reasonable time, fixed by written notice, the Owner may correct same and charge the expense to the Contractor.

Should it be considered necessary or advisable by the Owner at any time before final acceptance of the entire work to make an examination of the work already completed by removing or tearing out the same, the Contractor shall on request promptly furnish all necessary facilities, labor and materials. If such work is found to be defective in any respect due to the fault of the Contractor or his subcontractor, he shall defray all expenses of such examinations and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the additional cost of labor and material necessarily involved in the examination and replacement shall be allowed the Contractor.

#### INSPECTOR – OWNER’S

An Inspector employed by the Owner and approved by DSA in accordance with the requirements of the California Code of Regulations, Title 24, will be assigned to the work. His duties are specifically defined in Title 24, Part I, Sec. 4-342.

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

#### INSPECTOR – OWNER – FIELD OFFICE

The Contractor shall provide for the use of the Owner’s Inspector a temporary office to be located as directed by the Inspector and to be maintained until removal is authorized by the Owner. 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 adequate heat for this field office until the completion of the Contract.



#### TESTS AND SPECIAL INSPECTIONS

Owner's Inspector shall conduct tests and special inspections required by authorities having jurisdiction as follows: All tests and special inspections identified in Form DSA-103 List of Required Structural Tests & Special Inspections - 2016 CBC.

END OF SECTION

**TESTING LABORATORY SERVICES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including “Tests and Inspections”; and
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any).

**1.2. DOCUMENT INCLUDES**

- 1.2.1. Observation and Supervision.
- 1.2.2. Testing Laboratories and Agencies
- 1.2.3. Tests and Inspections
- 1.2.4. Selection and Payment
- 1.2.5. District's Testing Laboratory Responsibilities
- 1.2.6. Laboratory reports.
- 1.2.7. Limits on testing laboratory authority.
- 1.2.8. Contractor responsibilities.
- 1.2.9. Schedule of inspections and tests.
- 1.2.10. Project Inspector’s Access to Site

**1.3. REFERENCES**

- 1.3.1. ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
- 1.3.2. ASTM E329 - Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.
- 1.3.3. CBC - California Building Code.
- 1.3.4. UBC - Uniform Building Code.
- 1.3.5. Title 24, Parts 1 and 2, of the California Code of Regulations. Contractor shall keep a copy of these available at the job Site for ready reference during construction

- 1.3.6. DSA - Division of the State Architect, Office of Regulation Services, Structural Safety Section. DSA shall be notified at or before the start of construction.

#### **1.4. OBSERVATION AND SUPERVISION**

- 1.4.1. The District and Architect or their appointed representatives will review the Work and the Contractor shall provide facilities and access to the Work at all times as required to facilitate this review. Administration by the Architect and any consulting Structural Engineer will be in accordance with applicable regulations, including, without limitation, 24 C.C.R. § 4-341.
- 1.4.2. One or more Project Inspector(s) approved by DSA and employed by or in contract with the District( "Project Inspector"), will observe the Work in accordance with 24 C.C.R. §§ 4-333(b) and 4-342:
- 1.4.3. Project Inspector shall have access to the Work wherever it is in preparation or progress for ascertaining that the Work is in accordance with the Contract Documents and all applicable code sections. Contractor shall provide facilities and access as required and shall provide assistance for sampling or measuring materials.
  - 1.4.3.1. Project Inspector will notify District and Architect and inform Contractor of any observed failure of Work or material to conform to Contract Documents.
  - 1.4.3.2. The Project Inspector shall observe and monitor all testing and inspection activities required.
- 1.4.4. Contractor shall conform with all applicable laws as indicated in the Contract Documents, including, without limitation, to 24 C.C.R. § 4-343. Contractor shall supervise and direct the Work and maintain a competent superintendent on the Project who is authorized to act in all matters pertaining to the Work. The Contractor shall inspect all materials, as they arrive, for compliance with the Contract Documents. Contractor shall reject defective Work or materials immediately upon delivery or failure of the Work or material to comply with the Contract Documents. The Contractor shall submit verified reports as indicated in the Contract Documents, including, without limitation, the Specifications and as required by 24 C.C.R. § 4-336.

#### **1.5. TESTING LABORATORIES AND AGENCIES**

- 1.5.1. Testing agencies and tests shall be in conformance with the Contract Documents and the requirements of 24 C.C.R. § 4-335.
- 1.5.2. Testing and inspection in connection with earthwork shall be under the direction of the District's consulting soils engineer ("Soils Engineer").
- 1.5.3. Testing and inspection of construction materials and workmanship shall be performed by a qualified laboratory ("Testing Laboratory" or "Laboratory"). The Testing Laboratory shall be under direction of an engineer registered in the State of California, shall conform to requirements of ASTM E329, and shall be employed by or in contract with the District.

#### **1.6. TESTS AND INSPECTIONS**

- 1.6.1. Contractor shall be responsible for notifying District and Project Inspector of all required tests and inspections. Contractor shall notify District and Project Inspector forty-eight (48) hours in advance of performing any Work requiring testing or inspection.
- 1.6.2. Contractor shall provide access to Work to be tested and furnish incidental labor, equipment, and facilities to facilitate all inspections and tests.
- 1.6.3. District will pay for first inspections and tests required by the Title 24 and other inspections or tests that District and/or Architect may direct to have made, including, but not limited to, the following principal items:
  - 1.6.3.1. Tests and observations for earthwork and pavings.
  - 1.6.3.2. Tests for concrete mix designs, including tests of trial batches.
  - 1.6.3.3. Tests and inspections for structural steel work.
  - 1.6.3.4. Field tests for framing lumber moisture content.
  - 1.6.3.5. Additional tests directed by District that establish that materials and installation comply with the Contract Documents.
  - 1.6.3.6. Test and observation of welding and expansion anchors.
  - 1.6.3.7. Factory observation of components and assembly of modular prefabrication structures and buildings.
- 1.6.4. District may at its discretion, pay and back charge Contractor for:
  - 1.6.4.1. Retests or reinspections, if required, and tests or inspection required due to Contractor error or lack of required identifications of material.
  - 1.6.4.2. Uncovering of work in accordance with Contract Documents.
  - 1.6.4.3. Testing done on weekends, holidays, and overtime will be chargeable to Contractor for the overtime portion.
  - 1.6.4.4. Testing done off site.
- 1.6.5. Testing and inspection reports and certifications:
  - 1.6.5.1. If initially received by Contractor, Contractor shall provide to each of the following a copy of the agency or laboratory report of each test or inspection or certification: District; Construction Manager, if any; Architect; Consulting Engineer, if any; Other Engineers on the Project, as appropriate; and; Project Inspector.
  - 1.6.5.2. When the test or inspection is one required by the Title 24, a copy of the report shall also be provided to the DSA.

## **1.7. SELECTION AND PAYMENT**

- 1.7.1. District will hire and pay for services of an independent Testing Laboratory to perform specified inspection and testing as specified by District's Testing Laboratory.

- 1.7.2. District's hiring of Testing Laboratory shall in no way relieve Contractor of its obligation to perform work in accordance with requirements of Contract Documents.

#### **1.8. DISTRICT'S TESTING LABORATORY RESPONSIBILITIES**

- 1.8.1. Test samples of mixes submitted by Inspector.
- 1.8.2. Perform specified inspection, sampling, and testing of Products in accordance with specified standards.
- 1.8.3. Notify Architect and Contractor of observed irregularities or non-conformance of Work or Products.
- 1.8.4. Attend preconstruction conferences and progress meetings when requested by Architect.

#### **1.9. LABORATORY REPORTS**

- 1.9.1. After each inspection and test, District shall then submit one copy of laboratory report to Contractor. Reports of test results of materials and inspections found not to be in compliance with the requirements of the Contract Documents shall be forwarded immediately.
- 1.9.2. Each Testing Laboratory shall submit a verified report covering all of the tests which were required to be made by that agency during the progress of the Project. Such report shall be furnished each time that Work is suspended, covering the tests up to that time and at the Completion of the Project, covering all tests.

#### **1.10. LIMITS ON TESTING LABORATORY AUTHORITY**

- 1.10.1. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- 1.10.2. Laboratory may not approve or accept any portion of the Work.
- 1.10.3. Laboratory may not assume any duties of Contractor.
- 1.10.4. Laboratory has no authority to stop the Work.

#### **1.11. CONTRACTOR RESPONSIBILITIES**

- 1.11.1. Submit proposed items for testing as required herein and/or as further required in the Contract Documents to Architect for review in accordance with applicable specifications.
- 1.11.2. Cooperate with Laboratory personnel, and provide access to the Work and to manufacturer's facilities.
- 1.11.3. Notify Architect, District, and Testing Laboratory 48 hours prior to expected time for operations requiring inspection and testing services.
- 1.11.4. When tests or inspections cannot be performed after such notice, reimburse District for Laboratory personnel and travel expenses incurred due to the Contractor's negligence.

- 1.11.5. Contractor shall notify District a sufficient time in advance of the manufacture of material to be supplied by Contractor pursuant to the Contract Documents, which must by terms of the Contract be tested, in order that the District may arrange for the testing of same at the source of supply.

1.11.5.1. Any material shipped by the Contractor from the source of supply prior to having satisfactorily passed such testing and inspection or prior to the receipt of notice that such testing and inspection will not be required shall not be incorporated in the Work.

- 1.11.6. Contract and pay for services of District's Testing Laboratory to perform additional inspections, sampling and testing required when initial tests indicate Contractor's work and/or materials does not comply with Contract Documents.

## **1.12. SCHEDULE OF INSPECTIONS AND TESTS**

The Testing Laboratory shall perform tests and inspections for the following in conformance with the (CBC) California Building Code (International Building Code with State of California Amendments), California Code of Regulations, Title 24, Part 2:

- Structural Tests and Special Inspections (Chapter 17A)
  - Special Inspections (§ 1704A)
- Soils and Foundations (Chapter 18A)
  - Geotechnical Investigations (§ 1803A)
- Concrete (Chapter 19A)
  - Specifications for Tests and Materials
  - Concrete Quality, Mixing and Placing
  - Concrete Reinforcement and Anchor Testing Inspection (§ 1916A)
- Masonry (Chapter 21A)
  - Masonry Construction Materials (§ 2103A)
  - Masonry Quality (§ 2103A)
  - Quality Assurance (§ 2105A)
- Structural Steel (Chapter 22A)
  - Structural Steel (§ 2205A)
  - Identification & Protection of Steel for Structural Purposes (§ 2203A)
  - Inspection and Tests of Structural Steel (§ 2212A)
- Wood (Chapter 23)
  - Minimum Standards and Quality (§ 2303)
  - Wood Construction (§ 1704A.6)
- Exterior Walls (Chapter 14)
  - Masonry Units (§ 1404.4)
  - Masonry Construction Materials (§ 2103A)
  - Exterior Insulation and Finish Systems (§ 1408)
- Roof Assemblies and Roofing Structures (Chapter 15)
  - Materials (§ 1506)
- Aluminum (Chapter 20)
  - Materials (§ 2002.1)
  - Inspection (§ 2003.1)

### **1.12.1. Plumbing**

Testing as specified in Division 15 including, but not limited to: Sterilization, soil waste and vent, water piping, source of water, gas piping, downspouts and storm drains.

**1.12.2. Automatic Fire Sprinklers (where applicable)**

Testing as specified in Division 15 shall include, but not be limited to: hydrostatic pressure.

**1.12.3. Heating, Ventilating and Air Conditioning**

Testing as specified in Division 15 shall include, but not be limited to: Ductwork tests, cooling tower tests, boiler tests, controls testing, piping tests, water and air systems, and test and balance of heating and air conditioning systems.

**1.12.4. Electrical**

Testing as specified in Division 16, including, but not limited to: Equipment testing, all electrical system operations, grounding system and checking insulation after cable is pulled.

**1.13. PROJECT INSPECTOR'S ACCESS TO SITE**

- 1.13.1. A Project Inspector employed by the District in accordance with the requirement of State of California Code of Regulations, Title 24, Part 1 will be assigned to the Work. Project Inspector's duties are specifically defined in 24. C.C.R. §4-342, and as indicated in the General Conditions.
- 1.13.2. District and Construction Manager shall at all times have access for the purpose of inspection to all parts of the Work and to the shops wherein the Work is in preparation, and Contractor shall at all times maintain proper facilities and provide safe access for such inspection.
- 1.13.3. The Work in all stages of progress shall be subject to the personal continuous observation of the Inspector. Inspector shall have free access to any or all parts of the Work at any time. Contractor shall furnish the Inspector reasonable facilities for obtaining such information as may be necessary to keep Inspector 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 set forth in the Contract Documents.
- 1.13.4. The Inspector is not authorized to change, revoke, alter, enlarge or decrease in any way any requirement of the Contract Documents, drawings, specifications or subsequent change orders.
- 1.13.5. Whenever there is insufficient evidence of compliance with any of the provisions of Title 24 or evidence that any material or construction does not conform to the requirements of Title 24, the Division of the State Architect may require tests as proof of compliance. Test methods shall be as specified herein or by other recognized and accepted test methods determined by the Division of the State Architect. All tests shall be performed by a testing laboratory accepted by the Division of the State Architect.

**END OF DOCUMENT**

**TEMPORARY FACILITIES AND CONTROLS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Site Standards; and
- 1.1.5. Temporary Tree and Plant Protection.

**1.2. TEMPORARY UTILITIES**

**1.2.1. Electric Power and Lighting:**

- 1.2.1.1. Contractor will furnish and pay for power during the course of the work to the extent power is not in the building(s) or on the Site. Contractor shall be responsible for providing temporary facilities required on the Site to point of intended use.
- 1.2.1.2. Contractor shall furnish, wire for, install, and maintain temporary electrical lights wherever it is necessary to provide illumination for the proper performance and/or observation of the Work: a minimum of 20 foot-candles for rough work and 50 foot-candles for finish work.
- 1.2.1.3. Contractor shall be responsible for maintaining existing lighting levels in the Project vicinity should temporary outages or service interruptions occur.

**1.2.2. Heat and Ventilation:**

- 1.2.2.1. Contractor shall provide temporary heat to maintain environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation and curing of materials, and to protect materials and finishes from damage due to improper temperature and humidity conditions. Portable heaters shall be standard units complete with controls.
- 1.2.2.2. Contractor shall provide forced ventilation and dehumidification, as required, of enclosed areas for proper installation and curing of materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors, and gases.
- 1.2.2.3. Contractor shall pay the costs of installation, maintenance, operation, and removal of temporary heat and ventilation, including costs for fuel consumed, required for the performance of the Work.



1.2.3. **Water:**

1.2.3.1. Contractor will furnish and pay for water during the course of the work. Contractor shall be responsible for providing temporary facilities required.

1.2.3.2. Contractor shall make potable water available for human consumption.

1.2.4. **Sanitary Facilities:**

1.2.4.1. Contractor shall provide sanitary temporary facilities in no fewer numbers than required by law and such additional facilities as may be directed by the Inspector for the use of all workers. The facilities shall be maintained in a sanitary condition at all times and shall be left at the Site until removal is directed by the District or Contractor completes all Work.

1.2.4.2. Use of toilet facilities in the Site shall not be permitted except by consent of the Project Inspector and District.

1.2.5. **Telephone Service:**

1.2.5.1. Contractor shall arrange with local telephone service company for telephone service for the performance of the Work. Contractor shall, at a minimum, provide in its field office one line for telephone and one line for fax machine.

1.2.5.2. Contractor shall pay the costs for telephone and fax lines installation, maintenance, service, and removal; for Construction Site Office, Construction Manager's Office and Inspector's Office.

1.2.6. **Fire Protection:**

1.2.6.1. Contractor shall provide and maintain fire extinguishers and other equipment for fire protection. Such equipment shall be designated for use for fire protection only and shall comply with all requirements of the California Fire, State Fire Marshall and/or its designee.

1.2.6.2. Where on-site welding and burning of steel is unavoidable, Contractor shall provide protection for adjacent surfaces.

1.2.7. **Trash Removal:**

1.2.7.1. Contractor shall provide trash removal on a timely basis from all Site Offices and throughout the Site.

1.2.8. **Temporary Facilities:**

1.2.8.1. Contractor shall provide sufficient space and facilities for its own force's needs.

1.2.8.2. In addition, unless otherwise indicated in the Contract Documents, Contractor shall provide the following facilities, trailers, offices, furniture and:

1.2.8.2.1. One (1) 12X20 Project Inspector's Trailer/Office;

1.2.8.2.2. Basic furniture: chair, desks, plan table, conference room

table, and chairs; and

- 1.2.8.2.3. Basic services: fixed line for phone, fax, and high speed internet service.

### **1.3. CONSTRUCTION AIDS**

#### **1.3.1. Plant and Equipment:**

1.3.1.1. Contractor shall furnish, operate, and maintain a complete plant for fabricating, handling, conveying, installing, and erecting materials and equipment; and for conveyances for transporting workmen. Include elevators, hoists, debris chutes, and other equipment, tools, and appliances necessary for performance of the Work.

1.3.1.2. Contractor shall maintain plant and equipment in safe and efficient operating condition. Damages due to defective plant and equipment, and uses made thereof, shall be repaired by Contractor at no expense to the District.

- 1.3.2. No District tools or equipment shall be used by Contractor or its subcontractors for the performance of the Work.

### **1.4. BARRIERS AND ENCLOSURES**

- 1.4.1. Contractor shall obtain District's written permission for locations and types of temporary barriers and enclosures, including fire-rated materials proposed for use, prior to their installation.

- 1.4.2. Contractor shall provide a six (6) foot high, chain link perimeter fence with posts driven into the ground and fabric screen as a temporary barrier around construction area. Contractor shall provide and maintain temporary enclosures to prevent public entry and to protect persons using other buildings and portions of the Site and/or Premises. Contractor shall remove temporary fence, barriers and enclosure upon Completion of the Work.

- 1.4.3. Contractor shall provide site access to existing facilities for persons using other buildings and portions of the Site, for the public, and for deliveries and other services and activities.

### **1.5. SECURITY**

Contractor shall secure all construction equipment, machinery and vehicles, park and store only within fenced area, and render inoperable during non-work hours. Contractor is responsible for ensuring that no construction materials, tools, equipment, machinery or vehicles can be used for unauthorized entry or other damage or interference to activities and security of existing facilities adjacent to and in the vicinity of the Project Site.

### **1.6. TEMPORARY CONTROLS**

#### **1.6.1. Noise Control:**

- 1.6.1.1. Contractor acknowledges that adjacent facilities may remain in operation during all or a portion of the Work, and Contractor shall take all reasonable precautions to minimize noise as required by applicable laws and the Contract

Documents.

- 1.6.1.2. Notice of proposed noisy operations, including without limitation, operation of pneumatic demolition tools, concrete saws, and other equipment, shall be submitted to District a minimum of forty-eight (48) hours in advance of their performance.

**1.6.2. Noise and Vibration:**

- 1.6.2.1. Equipment and impact tools shall have intake and exhaust mufflers.
- 1.6.2.2. Contractor shall cooperate with District to minimize and/or cease the use of noisy and vibratory equipment if that equipment becomes objectionable by its longevity.

**1.6.3. Dust and Dirt:**

- 1.6.3.1. Contractor shall conduct demolition and construction operations to minimize the generation of dust and dirt, and prevent dust and dirt from interfering with the progress of the Work and from accumulating in the Work and adjacent areas including, without limitation, occupied facilities.
- 1.6.3.2. Contractor shall periodically water exterior demolition and construction areas to minimize the generation of dust and dirt.
- 1.6.3.3. Contractor shall ensure that all hauling equipment and trucks carrying loads of soil and debris shall have their loads sprayed with water or covered with tarpaulins, and as otherwise required by local and state ordinance.
- 1.6.3.4. Contractor shall prevent dust and dirt from accumulating on walks, roadways, parking areas, and planting, and from washing into sewer and storm drain lines.

**1.6.4. Surface and Subsurface Water:**

Contractor shall not permit surface and subsurface water, and other liquids, to accumulate in or about the vicinity of the Premises. Should accumulation develop, Contractor shall control the water or other liquid, and suitably dispose of it by means of temporary pumps, piping, drainage lines, troughs, ditches, dams, or other methods.

**1.6.5. Pollution:**

- 1.6.5.1. No burning of refuse, debris, or other materials shall be permitted on or in the vicinity of the Premises.
- 1.6.5.2. Contractor shall comply with applicable regulatory requirements and anti-pollution ordinances during the conduct of the Work including, without limitation, demolition, construction, and disposal operations.

**1.6.6. Lighting**

If portable lights are used after dark, all light must be located so as not to direct light into neighboring property.

**1.7. JOB SIGN(S)**

**1.7.1. General:**

- 1.7.1.1. Contractor shall provide and maintain and locate a Project identification sign with the design, text, and colors designated by District and/or the Architect.
- 1.7.1.2. Signs other than the specified Project sign and or signs required by law, for safety, or for egress, shall not be permitted, unless otherwise approved in advance by the District.

**1.7.2. Materials:**

- 1.7.2.1. Structure and Framing: Structurally sound, new or used wood or metal; wood shall be nominal 3/4-inch exterior grade plywood.
- 1.7.2.2. Sign Surface: Minimum 3/4-inch exterior grade plywood.
- 1.7.2.3. Rough Hardware: Galvanized.
- 1.7.2.4. Paint: Exterior quality, of type and colors selected by the District and/or the Architect.

**1.7.3. Fabrication:**

- 1.7.3.1. Contractor shall fabricate to provide smooth, even surface for painting.
- 1.7.3.2. Size: 4'-0" x 8'-0", unless otherwise indicated.
- 1.7.3.3. Contractor shall paint exposed surfaces of supports, framing, and surface material with exterior grade paint: one coat of primer and one coat of finish paint.
- 1.7.3.4. Text and Graphics: As indicated.

**1.8. PUBLICITY RELEASES**

Contractor shall not release any information, story, photograph, plan, or drawing relating to information about the Project to anyone, including press and other public communications medium, including, without limitation, on website(s).

**END OF DOCUMENT**

**DOCUMENT 01 52 10**

**SITE STANDARDS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS:**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including without limitation, Site Access, Conditions, and Regulations;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Drug-Free Workplace Certification;
- 1.1.5. Tobacco-Free Environment Certification;
- 1.1.6. Criminal Background Investigation/Fingerprinting Certification; and
- 1.1.7. Temporary Facilities and Controls.

**1.2. REQUIREMENTS OF THE DISTRICT**

**1.2.1. Drug-Free Schools and Safety Requirements:**

- 1.2.1.1. All school sites and other District Facilities have been declared "Drug-Free Zones." No drugs, alcohol, smoking or the use of tobacco products are allowed at any time in any buildings, Contractor-owned vehicles or vehicles owned by others while on District property. No students, staff, visitors, or contractors are to use drugs on these sites.
- 1.2.1.2. Contractor shall post: "Non-Smoking Area" in a highly visible location on Site. Contractor may designate a smoking area outside of District property within the public right-of-way, provided that this area remains quiet and unobtrusive to adjacent neighbors. This smoking area must be kept clean at all times.
- 1.2.1.3. Contractor shall ensure that no alcohol, firearms, weapons, or controlled substances enter or are used at the Site. Contractor shall immediately remove from the Site and terminate the employment of any employee(s) found in violation of this provision.

- 1.2.2. **Language:** Unacceptable and/or loud language will not be tolerated, "Cat calls" or other derogatory language toward students or public will not be allowed.

**1.2.3. Disturbing the Peace (Noise and Lighting):**

- 1.2.3.1. Contractor shall observe the noise ordinance of the Site at all times including, without limitation, all applicable local, city, and/or state laws, ordinances, and/or regulations regarding noise and allowable noise levels.

1.2.3.2. The use of radios, etc., shall be controlled to keep all sound at a level that cannot be heard beyond the immediate area of use. District reserves the right to prohibit the use of radios at the Site, except for handheld communication radios.

1.2.3.3. If portable lights are used after dark, the lights must be located so as not to direct light into neighboring properties.

1.2.4. **Traffic:**

1.2.4.1. Driving on the Premises shall be limited to periods when students and public are not present. If driving or deliveries must be made during the school hours, two (2) or more ground guides shall lead the vehicle across the area of travel. In no case shall driving take place across playgrounds or other pedestrian paths during recess, lunch, and/or class period changes. The speed limit on-the Premises shall be five (5) miles per hour (maximum) or less if conditions require.

1.2.4.2. All paths of travel for deliveries, including without limitation, material, equipment, and supply deliveries, shall be reviewed and approved by District in advance. Any damage will be repaired to the pre-damaged condition by the Contractor.

1.2.4.3. District shall designate a construction entry to the Site. If Contractor requests, District determines it is required, and to the extent possible, District shall designate a staging area so as not to interfere with the normal functioning of school facilities. Location of gates and fencing shall be approved in advance with District and at Contractor's expense.

1.2.4.4. Parking areas shall be reviewed and approved by District in advance. No parking is to occur under the drip line of trees or in areas that could otherwise be damaged.

1.2.4.5. All of the above shall be observed and complied with by the Contractor and all workers on the Site. Failure to follow these directives could result in individual(s) being suspended or removed from the work force at the discretion of the District. The same rules and regulations shall apply equally to delivery personnel, inspectors, consultants, and other visitors to the Site.

**END OF DOCUMENT**

**TEMPORARY TREE AND PLANT PROTECTION**

**1. GENERAL**

**1.1. RELATED DOCUMENTS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Temporary Facilities and Controls.

**1.2. SUMMARY**

This Document includes the protection and trimming of existing trees that interfere with, or are affected by, execution of the Work, whether temporary or permanent construction.

**1.3. DEFINITIONS**

Tree Protection Zone: Area surrounding individual trees or groups of trees to remain during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

**1.4. SUBMITTALS – Arborist not needed for this project.**

- 1.4.1. Product Data: For each type of product indicated.
- 1.4.2. Tree Pruning Schedule: Written schedule from arborist detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.
- 1.4.3. Qualification Data: For tree service firm and arborist.
- 1.4.4. Certification: From arborist, certifying that trees indicated to remain have been protected during construction according to recognized standards and that trees were promptly and properly treated and repaired when damaged.
- 1.4.5. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.

**1.5. QUALITY ASSURANCE**

- 1.5.1. Tree Service Firm Qualifications: An experienced tree service firm that has successfully completed tree protection and trimming work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of tree protection and trimming.

- 1.5.2. Arborist Qualifications: An arborist certified by ISA (International Society of Arboriculture) or licensed in the jurisdiction where Project is located.
- 1.5.3. Tree Pruning Standard: Comply with ANSI A300 (Part 1), "Tree, Shrub, and Other Woody Plant Maintenance--Standard Practices (Pruning)."
  - 1.5.3.1. Before tree protection and trimming operations begin, meet with District to review tree protection and trimming procedures and responsibilities.

## **2. PRODUCTS**

### **2.1. MATERIALS**

- 2.1.1. Unless otherwise specified, Contractor shall select materials as recommended by arborist or landscape architect.
- 2.1.2. Drainage Fill: Selected crushed stone, or crushed or uncrushed gravel, washed, ASTM D 448, Size 24, with 90 to 100 percent passing a 2-1/2-inch (63-mm) sieve and not more than 10 percent passing a 3/4-inch (19-mm) sieve.
- 2.1.3. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 1 inch (25 mm) in diameter; and free of weeds, roots, and toxic and other nonsoil materials.
  - 2.1.3.1. Obtain topsoil only from well-drained sites where topsoil is 4 inches (100 mm) deep or more; do not obtain from bogs or marshes.
- 2.1.4. Filter Fabric: Manufacturer's standard, nonwoven, pervious, geotextile fabric of polypropylene, nylon, or polyester fibers.
- 2.1.5. Chain-Link Fence: Metallic-coated steel chain-link fence fabric of 0.120-inch- (3-mm-) diameter wire; a minimum of 48 inches (1200 mm) high; with 1.9-inch- (48-mm-) diameter line posts; 2-3/8-inch- (60-mm-) diameter terminal and corner posts; 1-5/8-inch- (41-mm-) diameter top rail; and 0.177-inch- (4.5-mm-) diameter bottom tension wire; with tie wires, hog ring ties, and other accessories for a complete fence system.
- 2.1.6. Select mulch as recommended by arborist or landscape architect.
- 2.1.7. Organic Mulch: Use shredded hardwood, ground or shredded bark, or wood and bark chips, all free of deleterious materials.

## **3. EXECUTION**

### **3.1. PREPARATION**

- 3.1.1. Temporary Fencing: Install temporary fencing around tree protection zones to protect remaining trees and vegetation from construction damage. Maintain temporary fence and remove when construction is complete.
- 3.1.2. Install chain-link fence according to ASTM F 567 and manufacturer's written instructions.



- 3.1.3. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.
- 3.1.4. Mulch areas inside tree protection zones and other areas indicated.
  - 3.1.4.1. Select mulch as recommended by arborist or landscape architect.
  - 3.1.4.2. Apply 2-inch (50-mm) to 3-inch (75-mm) average thickness of organic mulch. Do not place mulch within 6 inches (150 mm)] of tree trunks.
- 3.1.5. Do not store construction materials, debris, or excavated material inside tree protection zones. Do not permit vehicles or foot traffic within tree protection zones; prevent soil compaction over root systems.
- 3.1.6. Maintain tree protection zones free of weeds and trash.
- 3.1.7. Do not allow fires within tree protection zones.

### **3.2. EXCAVATION**

- 3.2.1. Install shoring or other protective support systems to minimize sloping or benching of excavations where construction or utility excavation is near trees to be protected.
- 3.2.2. Do not excavate within tree protection zones, unless otherwise indicated.
- 3.2.3. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks and comb soil to expose roots.
  - 3.2.3.1. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.
- 3.2.4. Where utility trenches are required within tree protection zones, tunnel under or around roots by drilling, auger boring, pipe jacking, or digging by hand.
  - 3.2.4.1. Root Pruning: Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots with sharp pruning instruments; do not break or chop.

### **3.3. REGRADING**

- 3.3.1. Grade Lowering: Where new finish grade is indicated below existing grade around trees, slope grade beyond tree protection zones. Maintain existing grades within tree protection zones.
- 3.3.2. Grade Lowering: Where new finish grade is indicated below existing grade around trees, slope grade away from trees as recommended by arborist, unless otherwise indicated.
  - 3.3.2.1. Root Pruning: Prune tree roots exposed during grade lowering. Do not cut main lateral roots or taproots; cut only smaller roots. Cut roots with sharp pruning instruments; do not break or chop.

- 3.3.3. Minor Fill: Where existing grade is 6 inches (150 mm) or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.
- 3.3.4. Moderate Fill: Where existing grade is more than 6 inches (150 mm) but less than 12 inches (300 mm) below elevation of finish grade, place drainage fill, filter fabric, and topsoil on existing grade as follows:
  - 3.3.4.1. Carefully place drainage fill against tree trunk approximately 2 inches (50 mm) above elevation of finish grade and extend not less than 18 inches (450 mm) from tree trunk on all sides. For balance of area within drip-line perimeter, place drainage fill up to 6 inches (150 mm) below elevation of grade.
  - 3.3.4.2. Place filter fabric with edges overlapping 6 inches (150 mm) minimum.
  - 3.3.4.3. Place fill layer of topsoil to finish grade. Do not compact drainage fill or topsoil. Hand grade to required finish elevations.

#### **3.4. TREE PRUNING**

- 3.4.1. Prune trees to remain that are affected by temporary and permanent construction.
- 3.4.2. Prune trees to remain to compensate for root loss caused by damaging or cutting root system. Provide subsequent maintenance during Contract period as recommended by arborist.
- 3.4.3. Pruning Standards: Prune trees according to ANSI A300 (Part 1), as recommended by arborist report.
- 3.4.4. Adjust pruning requirements per arborist's recommendations.
- 3.4.5. Cut branches with sharp pruning instruments; do not break or chop.
- 3.4.6. Modify below to specific project requirements.
- 3.4.7. Chip removed tree branches and dispose of or spread over areas identified by District.

#### **3.5. TREE REPAIR AND REPLACEMENT**

- 3.5.1. Promptly repair trees damaged by construction operations within 24 hours. Treat damaged trunks, limbs, and roots according to arborist's written instructions.
- 3.5.2. Remove and replace trees indicated to remain that die or are damaged during construction operations or that are incapable of restoring to normal growth pattern.
  - 3.5.2.1. Provide new trees of 6-inch (150-mm) caliper size and of a when damaged trees more than 6 inches (150 mm) in caliper size, measured 12 inches (300 mm) above grade, are required to be replaced. Plant and maintain new trees as specified in Contract Documents.
- 3.5.3. Where recommended by arborist report, aerate surface soil, compacted during construction, 10 feet (3 m) beyond drip line and no closer than 36 inches (900 mm) to tree trunk. Drill 2-inch (50-mm) diameter holes a minimum of 12 inches (300 mm) deep at 24 inches (600 mm) o.c. Backfill holes with an equal mix of augered soil and sand.

**3.6. DISPOSAL OF WASTE MATERIALS**

3.6.1. Burning is not permitted.

3.6.2. Disposal: Remove excess excavated material and displaced trees from Site.

**END OF DOCUMENT**

**DOCUMENT 01 57 10**

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP) – CONSTRUCTION**

**CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SOME OR ALL OF THE PRDS AND CONTRACTOR SHALL FOLLOW THE REQUIREMENTS HEREIN.**

**1. GENERAL**

**1.15. RELATED DOCUMENTS AND PROVISION**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.15.1. General Conditions;
- 1.15.2. Special Conditions (if any);
- 1.15.3. Supplemental Conditions (if any);
- 1.15.4. Site Standards;
- 1.15.5. Collaborative For High Performance Schools (CHPS) -- Special Environmental.

**1.16.** The Clean Water Act and Porter Cologne Water Quality Act prohibit the discharge of any water containing pollutants from certain construction sites unless a National Pollutant Discharge Elimination System permit is first obtained and followed. The National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction Storm Water Permit) Order No. 2009-0009-DWQ as amended by Order No. 2010-0014-DWQ (NPDES No. CAS000002) issued by the California State Water Resources Control Board (State Water Board) authorizes the discharge of storm water and certain non-storm water from construction sites if certain conditions and measures are taken. The District has determined that the construction of this Project requires enrollment in the Construction Storm Water Permit.

**2. SUBMITTALS**

**2.1. GENERAL**

All submittals shall be made in a form conducive for the District to electronically upload the approved submittals to the Storm water Multi-Application Reporting and Tracking System (SMARTS).

**2.2. RISK ASSESSMENT**

- 2.2.1. Concurrent with the Submittal Schedule as indicated in the General Conditions, Contractor shall prepare and submit a proposed "Risk Assessment" as set forth in the Construction Storm Water Permit.
- 2.2.2. The District's Qualified SWPPP Developer ("QSD") will review the Contractor's proposed Risk Assessment for compliance with the Construction Storm Water Permit. If changes to the proposed Risk Assessment are required to comply with the Construction Storm

Water Permit, the District QSD will identify such changes to the Contractor.

- 2.2.3. Contractor shall make the changes specified by the District's QSD and shall submit the revised Risk Assessment to the District within seven (7) days of receipt of the changes identified by the District's QSD. If the changes had been acceptably made, the District's QSD will approve the Risk Assessment and provide the Contractor with a copy within seven (7) days of receipt of the revised Risk Assessment.

## **2.3. SITE MAPS**

- 2.3.1. Concurrent with the Submittal Schedule as indicated in the General Conditions, Contractor shall prepare and submit proposed "Site Maps" as described in Attachment B of the Construction Storm Water Permit.
- 2.3.2. The District's QSD will review the Contractor's proposed Site Maps for compliance with the Construction Storm Water Permit. If changes to the proposed Site Maps are required to comply with the Construction Storm Water Permit, the District QSD will identify such changes to the Contractor.
- 2.3.3. Contractor shall make the changes specified by the District's QSD and shall submit the revised Site Maps to the District within seven (7) days of receipt of the changes identified by the District's QSD. If the changes had been acceptably made, the District's QSD will approve the Site Maps and provide the Contractor with a copy within seven (7) days of receipt of the revised SWPPP.

## **2.4. SWPPP**

- 2.4.1. Concurrent with the Submittal Schedule as indicated in the General Conditions, Contractor shall prepare and submit to the District a proposed SWPPP for the Work.
- 2.4.2. The District's QSD will review the Contractor's proposed SWPPP for compliance with the Construction Storm Water Permit. If changes to the proposed SWPPP are required to comply with the Construction Storm Water Permit, the District QSD will identify such changes to the Contractor.
- 2.4.3. Contractor shall make the changes specified by the District's QSD and shall submit the revised SWPPP to the District within seven (7) days of receipt of the changes identified by the District's QSD. If the changes had been acceptably made, the District's QSD will approve the SWPPP and provide the Contractor with a copy within seven (7) days of receipt of the revised SWPPP.

## **2.5. RAIN EVENT ACTION PLAN (REAP) – CONTRACTOR'S OBLIGATIONS TO PREPARE**

- 2.5.1. A Rain Event Action Plan (REAP) is a written document, specific for each rain event. A REAP should be designed so that when implemented it protects all exposed portions of the site within 48 hours of any likely rain.
- 2.5.2. The General Permit requires Risk Level 2 and 3 dischargers to develop and implement a REAP designed to protect all exposed portions of their sites within 48 hours prior to any likely precipitation event. The REAP requirement is designed to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment

control measures that are intended to reduce the amount of sediment and other pollutants generated from the active site. A REAP must be developed when there is likely a forecast of 50% or greater probability of precipitation in the Project area. (The National Oceanic and Atmospheric Administration (NOAA) defines a chance of precipitation as a probability of precipitation of 30% to 50% chance of producing precipitation in the project area. The NOAA defines the probability of precipitation as the likelihood of occurrence (expressed as a percent) of a measurable amount (0.01 inch or more) of liquid precipitation (or the water equivalent of frozen precipitation) during a specified period of time at any given point in the forecast area). Forecasts are normally issued for 12-hour time periods.

- 2.5.3. Contractor shall prepare and submit to the District a proposed REAP for the Work.
- 2.5.4. The District's QSD will review the Contractor's proposed REAP for compliance with the Construction Storm Water Permit. If changes to the proposed REAP are required to comply with the Construction Storm Water Permit, the District QSD will identify such changes to the Contractor.
- 2.5.5. Contractor shall make the changes specified by the District's QSD and shall submit the revised REAP to the District within seven (7) days of receipt of the changes identified by the District's QSD. If the changes had been acceptably made, the District's QSD will approve the REAP and provide the Contractor with a copy within seven (7) days of receipt of the revised REAP.

## **2.6. ACTIVE TREATMENT SYSTEM (ATS)**

- 2.6.1. If Contractor determines that Site requires an ATS under the Construction Storm Water Permit, concurrent with the Submittal Schedule as indicated in the General Conditions, Contractor shall prepare and submit to the District a proposed ATS for the Work.
- 2.6.2. The District's QSD will review the Contractor's proposed ATS for compliance with the Construction Storm Water Permit. If changes to the proposed ATS are required to comply with the Construction Storm Water Permit, the District QSD will identify such changes to the Contractor.
- 2.6.3. Contractor shall make the changes specified by the District's QSD and shall submit the revised ATS to the District within seven (7) days of receipt of the changes identified by the District's QSD. If the changes had been acceptably made, the District's QSD will approve the ATS and provide the Contractor with a copy within seven (7) days of receipt of the revised ATS.

## **2.7. RECORDS**

All electronic and hardcopy records required by the Construction Storm Water Permit shall be submitted to the District within seven (7) days of Completion of the Project.

## **3. PERMIT REGISTRATION DOCUMENTS**

Prior to any activities on Site that disturb the Site's surface, the Permit Registration Documents (PRDs) required by the Construction Storm Water Permit must be filed with the Regional Water Quality Control Board. The District shall file the PRDs with the Regional Water Quality Control Board to activate coverage under the Construction

Storm Water Permit.

#### **4. IMPLEMENTATION REQUIREMENTS**

- 4.1.** Contractor shall not conduct any activities that may affect the Site's construction runoff water quality until the District provides Contractor with the Waste Discharger Identification Number (WDID) assigned to the Project by the State Water Board.
- 4.2.** Contractor shall keep a copy of the approved SWPPP at the job site. The SWPPP shall be made available when requested by a representative of the Regional Water Quality Control Board, State Water Resources Control Board, United States Environmental Protection Agency, or the local storm water management agency. Requests from the public shall be directed to the District for response.
- 4.3.** Contractor shall designate in writing to the District a Qualified SWPPP Practitioner (QSP) who shall be responsible for implementing the SWPPP, REAP (if applicable), ATS (if applicable), conducting non-storm water and storm water visual observations, and for ensuring that all best management practices (BMPs) required by the SWPPP and General Permit are properly implemented and maintained.
- 4.4.** All measures required by the SWPPP shall be implemented concurrent with the commencement of construction. Pollution practices and devices shall be followed or installed as early in the construction schedule as possible with frequent upgrading of devices as construction progresses.
- 4.5.** Contractor shall ensure that all measures are properly maintained and repaired to protect the water quality of discharges.

#### **5. INSPECTION, SAMPLING, ANALYSIS, AND RECORD KEEPING REQUIREMENTS**

The Contractor's QSP shall conduct all required visual observations, sampling, analysis, reporting, and record keeping required by the SWPPP and the Construction Storm Water Permit.

#### **6. REPORTING REQUIREMENTS**

Contractor shall prepare and provide all the reports, which include, but are not limited to the Annual Report and any NEL Violation Reports or NAL Exceedance Reports, all of which are required by the SWPPP and the Construction Storm Water Permit.

#### **7. ANNUAL REPORT**

By August 1 of each year (defined as July 1 to June 30) that had at least one continuous three (3) month period coverage under the General Permit, Contractor shall complete and submit to the District an Annual Report, as required by the General Permit. If the Project is complete prior to August 1, Contractor shall submit the report prior to acceptance of the Project.

#### **8. COMPLETION OF WORK**

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

- 8.2.** At Completion of Work, Contractor shall inspect installed SWPPP devices, and present the currently implemented SWPPP with all backup records to the District.

**9. NOTICE OF TERMINATION (NOT)**

A Notice of Termination (NOT) must be submitted by the Contractor to the District for electronic submittal by the Legally Responsible Person via SMARTS to terminate coverage under the General Permit. The NOT must include a final Site Map and representative photographs of the Project Site that demonstrate final stabilization has been achieved. The NOT shall be submitted to the District on or before the Contractor submits its final application for payment. If the Regional Water Board rejects the NOT for any reason, the Contractor shall revise the NOT as many times as necessary to obtain the Regional Water Board's approval. The Regional Water Board will consider a construction site complete when the conditions of Section II.D of the General Permit have been met.

**10. QUALITY ASSURANCE**

- 10.1.** Before performing any of the obligations indicated herein, the Contractor's QSP shall meet the training and certification requirements in the Construction Storm Water Permit.
- 10.2.** Contractor shall perform the Work in strict compliance with the approved SWPPP, REAP, ATS, and the Construction Storm Water Permit.
- 10.3.** Contractor shall conduct at least a one-hour training session on the requirements of the SWPPP for each employee before an employee conducts any Work on the Site. Contractor shall maintain documentation of this employee training at the Site for review by the District or any regulatory agency.

**11. PERFORMANCE REQUIREMENTS**

- 11.1.** The SWPPP is a minimum requirement. Revisions and modifications to the SWPPP are acceptable only if they maintain levels of protection equal to or greater than originally specified.
- 11.2.** Read and be thoroughly familiar with all of the requirements of the SWPPP.
- 11.3.** Inspect and monitor all work and storage areas for compliance with the SWPPP prior to any anticipated rain.
- 11.4.** Complete any and all corrective measures as may be directed by the regulatory agency.
- 11.5. Penalties:** Contractor shall pay any fees and any penalties that may be imposed by a regulatory agency for non-compliance with the SWPPP during the course of Work.
- 11.6. Costs:** Contractor shall pay all costs associated with the implementation of the requirements of the SWPPP in order to maintain compliance with the Permit. This includes installation of all Housekeeping BMPs, General Site and Material Management BMPs, Inspection requirements, maintenance requirements, and all other requirements specified in the SWPPP.

**12. MATERIALS**

All temporary and permanent storm water pollution prevention facilities, equipment, and materials as required by or as necessary to comply with the SWPPP as described in the BMP Handbook.



**END OF DOCUMENT**

**DOCUMENT 01 60 00**

**MATERIALS AND EQUIPMENT**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions.
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any); and
- 1.1.4. Imported Materials Certification.

**1.2. MATERIALS AND EQUIPMENT**

- 1.2.1. Only items approved by the District and/or Architect shall be used.
- 1.2.2. Contractor shall submit lists of Products and other Product information in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.

**1.3. MATERIALS AND EQUIPMENT COLORS**

- 1.3.1. The Contractor shall comply with all schedule(s) of colors provided by the District and/or Architect.
- 1.3.2. No individual color selections will be made until after approval of all pertinent materials and equipment and after receipt of appropriate samples in accordance with the Contract Documents, including, without limitation, the provisions regarding the submittals.
- 1.3.3. Contractor shall request priority in writing for any item requiring advance ordering to maintain the approved Construction Schedule.

**1.4. DELIVERY, STORAGE, AND HANDLING**

- 1.4.1. Contractor shall deliver manufactured materials in original packages, containers, or bundles (with seals unbroken), bearing name or identification mark of manufacturer. District may inspect materials prior to Contractor unloading the delivered materials. District may reject any materials that do not conform to the Contract Documents.
- 1.4.2. Contractor shall deliver fabrications in as large assemblies as practicable; where specified as shop-primed or shop-finished, package or crate as required to preserve such priming or finish intact and free from abrasion.

- 1.4.3. Contractor shall store materials in such a manner as necessary to properly protect them from damage. Materials or equipment damaged by handling, weather, dirt, or from any other cause will not be accepted.
- 1.4.4. Materials that have been warehoused for long periods of time, stored or transported in improper environment, improperly packaged, inadequately labeled, poorly protected, excessively shipped, deviated from normal distribution pattern, or reassembled are not acceptable.
- 1.4.5. Contractor shall store materials so as to cause no obstructions of sidewalks, roadways, or underground services. Contractor shall protect materials and equipment furnished pursuant to the Contract Documents.
- 1.4.6. Contractor may store materials on Site with prior written approval by District; all materials shall remain under Contractor's control and Contractor shall remain liable for any damage to the materials. Should the Project Site not have storage area available, the Contractor shall provide for off-site storage at no cost to District.
- 1.4.7. When any room in Project is used as a shop or storeroom, Contractor shall be responsible for any repairs, patching, or cleaning necessary due to that use. Location of storage space shall be subject to prior written approval by District.

## **2. PRODUCTS**

### **2.1. MANUFACTURERS**

- 2.1.1. Manufacturers listed in various sections of the Contract Documents are names of those manufacturers that are believed to be capable of supplying one or more of the items specified therein.
- 2.1.2. The listing of a manufacturer does not imply that every product of that manufacturer is acceptable or as meeting the requirements of the Contract Documents.

### **2.2. FACILITIES AND EQUIPMENT**

Contractor shall provide, install, maintain, and operate a complete and adequate facility for handling, execution, disposal, and distribution of materials and equipment as required for proper and timely performance of Work.

### **2.3. MATERIALS REFERENCE STANDARDS**

Where materials are specified solely by reference to "standard specifications" or other general reference, and if requested by District, Contractor shall submit for review data on actual materials proposed to be incorporated into Work, listing name and address of vendor, manufacturer, or producer, and trade or brand names of those materials, and data substantiating compliance with standard specifications.

## **3. EXECUTION**

### **3.1. WORKMANSHIP**

- 3.1.1. Where not more specifically described in any other Contract Documents, workmanship shall conform to methods and operations of best standards and accepted practices of trade or trades involved and shall include items of fabrication, construction, or installation regularly furnished or required for completion (including finish and for successful operation, as intended).
- 3.1.2. Work shall be executed by tradespersons skilled in their respective field of work. When completed, parts shall have been durably and substantially built and present a neat appearance.

### **3.2. COORDINATION**

- 3.2.1. Contractor shall coordinate installation of materials and equipment so as to not interfere with installation of other Work. Adjustment or rework because of Contractor's failure to coordinate will be at no additional cost to District.
- 3.2.2. Contractor shall examine in-place materials and equipment for readiness, completeness, fitness to be concealed or to receive Work, and compliance with Contract Documents. Concealing or covering work constitutes acceptance of additional cost which will result should in-place materials and equipment be found unsuitable for receiving other work or otherwise deviating from the requirements of the Contract Documents.

### **3.3. COMPLETENESS**

Contractor shall provide all portions of the Work, unless clearly stated otherwise, installed complete and operational with all elements, accessories, anchorages, utility connections, etc., in a manner to ensure well-balanced performance, in accordance with manufacturer's recommendations and in accordance with Contract Documents. For example, electric water coolers require water, electricity, and drain services; roof drains require drain systems; sinks fit within countertop, etc. Terms such as "installed complete," "operable condition," "for use intended," "connected to all utilities," "terminate with proper cap," "adequately anchored," "patch and refinish," and "to match similar" should be assumed to apply in all cases, except where completeness of functional or operable condition is specifically stated as not required.

### **3.4. APPROVED INSTALLER OR APPLICATOR**

Contractor shall ensure that all installations are only performed by a manufacturer's approved installer or applicator.

### **3.5. MANUFACTURER'S RECOMMENDATIONS**

All installations shall be in accordance with manufacturer's published recommendations and specific written directions of manufacturer's representative. Should the Contract Documents differ from recommendations of manufacturer or directions of manufacturer's representative, Contractor shall analyze differences, make recommendations to the District and the Architect in writing, and shall not proceed until interpretation or clarification has been issued by the District and/or the Architect.

**END OF DOCUMENT**

**DOCUMENT 01 66 10**

**DELIVERY, STORAGE AND HANDLING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Site Access, Conditions and Requirements; and
- 1.1.2. Special Conditions.

**1.2. PRODUCTS**

- 1.2.1. Products are as defined in the General Conditions.
- 1.2.2. Contractor shall not use and/or reuse materials and/or equipment removed from existing Premises, except as specifically permitted by the Contract Documents.
- 1.2.3. Contractor shall provide interchangeable components of the same manufacturer, for similar components.

**1.3. TRANSPORTATION AND HANDLING**

- 1.3.1. Contractor shall transport and handle Products in accordance with manufacturer's instructions.
- 1.3.2. Contractor shall promptly inspect shipments to confirm that Products comply with Contract requirements, are of correct quantity, and are undamaged.
- 1.3.3. Contractor shall provide equipment and personnel to properly handle Products to prevent soiling, disfigurement, or damage.

**1.4. STORAGE AND PROTECTION**

- 1.4.1. Contractor shall store and protect Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Contractor shall store sensitive Products in weather-tight, climate controlled enclosures.
- 1.4.2. Contractor shall place fabricated Products that are stored outside, on above-ground sloped supports.
- 1.4.3. Contractor shall provide off-site storage and protection for Products when Site does not permit on-site storage or protection.

- 1.4.4. Contractor shall cover Products subject to deterioration with impervious sheet covering and provide ventilation to avoid condensation.
- 1.4.5. Contractor shall store loose granular materials on solid flat surfaces in a well-drained area and prevent mixing with foreign matter.
- 1.4.6. Contractor shall provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- 1.4.7. Contractor shall arrange storage of Products to permit access for inspection and periodically inspect to assure Products are undamaged and are maintained under specified conditions.

**END OF DOCUMENT**

**DOCUMENT 01 73 00**

**EXECUTION**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Coordination and Project Meetings;
- 1.1.5. Submittals;
- 1.1.6. Materials and Equipment;
- 1.1.7. Cutting and Patching;
- 1.1.8. Contract Closeout and Final Cleaning; and
- 1.1.9. General Commissioning Requirements.

**1.2. SUMMARY**

- 1.2.1. This Document includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1.2.1.1. Construction layout;
  - 1.2.1.2. Field engineering and surveying;
  - 1.2.1.3. General installation of products;
  - 1.2.1.4. Owner furnished, Contractor installed items;
  - 1.2.1.5. Coordination of District-installed products;
  - 1.2.1.6. Progress cleaning;
  - 1.2.1.7. Staring and adjusting;
  - 1.2.1.8. Protection of installed construction; and
  - 1.2.1.9. Correction of the Work.

### **1.3. SUBMITTALS**

- 1.3.1. Qualification Data: For land surveyor or professional engineer.
- 1.3.2. Certificates: Submit certificate signed by land surveyor or professional engineer certifying that location and elevation of improvements comply with requirements.
- 1.3.3. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept the materials as classified, for hazardous waste disposal.
- 1.3.4. Certified Surveys: Submit electronic files and three (3) paper copies signed by land surveyor or professional engineer.
- 1.3.5. Final Property Survey: Submit electronic files and three (3) paper copies showing the Work performed and record survey data.

## **2. EXECUTION**

### **2.1. EXAMINATION**

- 2.1.1. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning Site Work, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
  - 2.1.1.1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  - 2.1.1.2. Furnish location data for Work related to Project that must be performed by public utilities serving the Project Site.

### **2.2. PREPARATION**

- 2.2.1. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- 2.2.2. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- 2.2.3. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- 2.2.4. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to



District per requirements of Document "Requests for Information." Include a detailed description of problem encountered, together with recommendations for any necessary changes to the Contract Documents.

## **2.3. CONSTRUCTION LAYOUT**

- 2.3.1. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify District and its consultant promptly.
- 2.3.2. General: Engage a land surveyor or professional engineer to lay out the Work using accepted surveying practices.
  - 2.3.2.1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2.3.2.2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 2.3.2.3. Inform installers of lines and levels to which they must comply.
  - 2.3.2.4. Check the location, level and plumb, of every major element as the Work progresses.
  - 2.3.2.5. Notify District and its consultant when deviations from required lines and levels exceed allowable tolerances.
  - 2.3.2.6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- 2.3.3. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- 2.3.4. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- 2.3.5. Record Log: Maintain a log of layout control Work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by District and its consultant.

## **2.4. FIELD ENGINEERING**

- 2.4.1. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
  - 2.4.1.1. Do not change or relocate existing benchmarks or control points without prior written approval of District and its consultant. Report lost or destroyed

permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to District and its consultant before proceeding.

2.4.1.2. Require surveyor to replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

2.4.2. Benchmarks: Establish and maintain a minimum of two (2) permanent benchmarks on Project Site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.

2.4.2.1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

2.4.2.2. Where the actual location or elevation of layout points cannot be marked, provide temporary reference points sufficient to locate the Work.

2.4.2.3. Remove temporary reference points when no longer needed. Restore marked construction to its original condition.

2.4.3. Records: Contractor shall maintain a complete, accurate log of all control and survey Work as it progresses. On request of District or Architect, Contractor shall submit documentation to verify accuracy of field engineering Work at no additional cost to the District.

2.4.4. Certified Survey: On completion of foundation walls, major site improvements, and other Work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

2.4.5. Final Property Survey: Prepare and submit a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor or professional engineer, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey and are in conformance with Contract Documents.

2.4.5.1. Show boundary lines, monuments, streets, site improvements and utilities, existing improvements and significant vegetation, adjoining properties, acreage, grade contours, and the distance and bearing from a Site corner to a legal point.

2.4.6. Compliance with Laws: Contractor is responsible for meeting all applicable codes, OSHA, safety, and shoring requirements.

2.4.7. Nonconforming Work: Contractor is responsible for any re-surveying required by correction of nonconforming Work.

## **2.5. INSTALLATION**

2.5.1. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

- 2.5.1.1. Make vertical Work plumb and make horizontal Work level.
- 2.5.1.2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- 2.5.1.3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
- 2.5.1.4. Maintain minimum headroom clearance of 7 feet in spaces without a suspended ceiling.
- 2.5.2. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- 2.5.3. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Completion.
- 2.5.4. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- 2.5.5. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels where possible.
- 2.5.6. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- 2.5.7. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 2.5.7.1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by District.
  - 2.5.7.2. Allow for building movement, including thermal expansion and contraction.
  - 2.5.7.3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project Site in time for installation.
- 2.5.8. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- 2.5.9. Hazardous Materials: Use products, cleaners, and installation materials that are not classed as hazardous per the MSDS sheets for the products where possible. If hazardous materials are necessary, inform District where and when they will be used no less than 48 hours before use. Take all recommended precautions of the materials' manufacturers to ensure safe use and clean-up.

## **2.6. DISTRICT-INSTALLED PRODUCTS**

- 2.6.1. Site Access: Provide access to Project Site for District's construction forces.
- 2.6.2. Coordination: Coordinate construction and operations of the Work with work performed by District's construction forces.
  - 2.6.2.1. Construction Schedule: Inform District of Contractor's preferred schedule for District's portion of the Work. Adjust Construction Schedule based on a mutually agreeable timetable. Notify District if changes to schedule are required due to differences in actual construction progress.
  - 2.6.2.2. Preinstallation Conferences: Include District's construction forces at preinstallation conferences covering portions of the Work that are to receive District's work. Attend preinstallation conferences conducted by District's construction forces if portions of the Work depend on District's construction.

## **2.7. PROGRESS CLEANING**

- 2.7.1. General: Clean Project Site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  - 2.7.1.1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2.7.1.2. Do not hold materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 degrees F.
  - 2.7.1.3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations. Remove hazardous and unsanitary waste materials daily.
- 2.7.2. Site: Maintain Project Site free of waste materials and debris.
- 2.7.3. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 2.7.3.1. Remove liquid spills promptly.
  - 2.7.3.2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- 2.7.4. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- 2.7.5. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

- 2.7.6. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Completion.
- 2.7.7. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- 2.7.8. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Completion.
- 2.7.9. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- 2.7.10. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

## **2.8. STARTING AND ADJUSTING**

- 2.8.1. Start equipment and operating components to confirm proper operation. Replace or repair malfunctioning units and retest.
- 2.8.2. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- 2.8.3. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- 2.8.4. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Document "Quality Requirements."

## **2.9. PROTECTION OF INSTALLED CONSTRUCTION**

- 2.9.1. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Completion.
- 2.9.2. Comply with manufacturer's written instruction for temperature and relative humidity unless otherwise addressed in the construction planning, sequences, and instructions.

## **2.10. CORRECTION OF THE WORK**

- 2.10.1. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Document "Cutting and Patching."
  - 2.10.1.1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

- 2.10.2. Restore permanent facilities used during construction to their specified condition.
- 2.10.3. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- 2.10.4. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- 2.10.5. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

**END OF DOCUMENT**

**DOCUMENT 01 73 10**

**CUTTING AND PATCHING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Inspector, Inspections, and Tests, Integration of Work, Nonconforming Work, and Correction of Work, and Uncovering Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Hazardous Materials Procedures and Requirements;
- 1.1.5. Hazardous Materials Certification;
- 1.1.6. Lead-Based Materials Certification; and
- 1.1.7. Imported Materials Certification.

**1.2. CUTTING AND PATCHING**

- 1.2.1. Contractor shall be responsible for all cutting, fitting, and patching, including associated excavation and backfill, required to complete the Work or to:
  - 1.2.1.1. Make several parts fit together properly.
  - 1.2.1.2. Uncover portions of Work to provide for installation of ill-timed Work.
  - 1.2.1.3. Remove and replace defective Work.
  - 1.2.1.4. Remove and replace Work not conforming to requirements of Contract Documents.
  - 1.2.1.5. Remove Samples of installed Work as specified for testing.
  - 1.2.1.6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.
  - 1.2.1.7. Attaching new materials to existing remodeling areas – including painting (or other finishes) to match existing conditions.
- 1.2.2. In addition to Contract requirements, upon written instructions from District, Contractor shall uncover Work to provide for observations of covered Work in accordance with the

Contract Documents, remove samples of installed materials for testing as directed by District, and remove Work to provide for alteration of existing Work.

- 1.2.3. Contractor shall not cut or alter Work, or any part of it, in such a way that endangers or compromises the integrity of the Work, the Project, or Work of others.
- 1.2.4. Contractor shall not cut and patch operating elements or safety related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety. Operating elements include the following:
  - 1.2.4.1. Primary operational systems and equipment.
  - 1.2.4.2. Air or smoke barriers.
  - 1.2.4.3. Fire-suppression systems.
  - 1.2.4.4. Mechanical systems piping and ducts.
  - 1.2.4.5. Control systems.
  - 1.2.4.6. Communication systems.
  - 1.2.4.7. Conveying systems.
  - 1.2.4.8. Electrical wiring systems.
- 1.2.5. Contractor shall not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing capacity to perform as intended, or that results in increased maintenance or decreased operational life of safety. Miscellaneous elements include the following:
  - 1.2.5.1. Water, moisture or vapor barriers.
  - 1.2.5.2. Membranes and flashings.
  - 1.2.5.3. Exterior curtain-wall construction.
  - 1.2.5.4. Equipment supports.
  - 1.2.5.5. Piping, ductwork, vessels and equipment.
  - 1.2.5.6. Noise and vibration control elements and systems.
  - 1.2.5.7. Shoring, bracing and sheeting.

### **1.3. REQUEST TO CUT, ALTER, PATCH OR EXCAVATE**

- 1.3.1. Contractor shall submit written notice to District pursuant to the applicable notice provisions of the Contract Documents, requesting consent to proceed with the cutting or alteration ("Request") at least ten (10) days prior to any cutting or alterations that



may affect the structural safety of the Project, or Work of others, including the following:

- 1.3.1.1. The Work of the District or other trades.
- 1.3.1.2. Structural value or integrity of any element of the Project.
- 1.3.1.3. Integrity or effectiveness of weather-exposed or weather-resistant elements or systems.
- 1.3.1.4. Efficiency, operational life, maintenance or safety of operational elements.
- 1.3.1.5. Visual qualities of sight-exposed elements.

1.3.2. Contractor's Request shall also include:

- 1.3.2.1. Identification of the Project.
- 1.3.2.2. Description of affected Work.
- 1.3.2.3. Necessity for cutting, alterations, or excavations.
- 1.3.2.4. Impacts of that Work on the District, other trades, or structural or weatherproof integrity of the Project.
- 1.3.2.5. Description of proposed Work:
  - 1.3.2.5.1. Scope of cutting, patching, alterations, or excavations.
  - 1.3.2.5.2. Trades that will execute Work.
  - 1.3.2.5.3. Products proposed to be used.
  - 1.3.2.5.4. Extent of refinishing to be done.
- 1.3.2.6. Alternates to cutting and patching.
- 1.3.2.7. Cost proposal, when applicable.
- 1.3.2.8. The scheduled date the Work is to be performed and the duration of time to complete the Work.
- 1.3.2.9. Written permission of other trades whose Work will be affected.

**1.4. QUALITY ASSURANCE**

- 1.4.1. Contractor shall ensure that cutting, fitting, and patching shall achieve security, strength, weather protection, appearance for aesthetic match, efficiency, operational life, maintenance, safety of operational elements, and the continuity of existing fire ratings.

- 1.4.2. Contractor shall ensure that cutting, fitting, and patching shall successfully duplicate undisturbed adjacent profiles, materials, textures, finishes, and colors, and that materials shall match existing construction. Where there is dispute as to whether duplication is successful or has been achieved to a reasonable degree, the District's decision shall be final.

## **1.5. PAYMENT FOR COSTS**

- 1.5.1. Costs caused by ill-timed or defective Work or Work not conforming to Contract Documents, including costs for additional services of the District or its consultants including but not limited to the Architect, inspector(s), engineers, and agents, will be paid by Contractor and/or deducted from the Contract Price by the District.
- 1.5.2. Contractor shall provide written cost proposals prior to proceeding with cutting and patching. District shall only pay for cost of Work if it is part of the Contract Price or if a change has been made to the Contract in compliance with the provisions of the General Conditions. Cost of Work performed upon instructions from the District, other than defective or nonconforming Work, will be paid by District on approval of written Change Order in accordance with the Contract Documents.

## **2. PRODUCTS**

### **2.1. MATERIALS**

- 2.1.1. Contractor shall provide for replacement and restoration of Work removed. Contractor shall comply with the Contract Documents and with the industry standard(s), for the type of Work, and the Specification requirements for each specific product involved. If not specified, Contractor shall recommend a product of a manufacturer or appropriate trade association for approval by the District.
- 2.1.2. Materials to be cut and patched include those damaged by the performance of the Work.

## **3. EXECUTION**

### **3.1. INSPECTION**

- 3.1.1. Contractor shall inspect existing conditions of the Site and the Work, including elements subject to movement or damage during cutting and patching, excavating and backfilling. After uncovering Work, Contractor shall inspect conditions affecting installation of new products.
- 3.1.2. Contractor shall report unsatisfactory or questionable conditions in writing to District as indicated in the General Conditions and shall proceed with Work as indicated in the General Conditions by District.

### **3.2. PREPARATION**

- 3.2.1. Contractor shall provide shoring, bracing and supports as required to maintain structural integrity for all portions of the Project, including all requirements of the Project.

- 3.2.2. Contractor shall provide devices and methods to protect other portions of Project from damage.
- 3.2.3. Contractor shall, provide all necessary protection from weather and extremes of temperature and humidity for the Project, including without limitation any work that may be exposed by cutting and patching Work. Contractor shall keep excavations free from water.

### **3.3. ERECTION, INSTALLATION AND APPLICATION**

- 3.3.1. With respect to performance, Contractor shall ensure its Subcontractors:
  - 3.3.1.1. Execute fitting and adjustment of products to provide finished installation to comply with and match specified tolerances and finishes.
  - 3.3.1.2. Execute cutting and demolition by methods that will prevent damage to other Work, and provide proper surfaces to receive installation of repairs and new Work.
  - 3.3.1.3. Execute cutting, demolition excavating, and backfilling by methods that will prevent damage to other Work and damage from settlement.
  - 3.3.1.4. Contractor shall use original installer or fabricator to perform cutting and patching for:
    - 3.3.1.5. Weather-exposed surfaces and moisture-resistant elements such as roofing, sheet metal, sealants, waterproofing, and other trades.
    - 3.3.1.6. Sight-exposed finished surfaces.
- 3.3.2. Contractor shall ensure its Subcontractors execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes as shown or specified in the Contract Documents including, without limitation, the Drawings and Specifications.
- 3.3.3. Subcontractors shall fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces. Contractor shall conform to all Code requirements for penetrations or the Drawings and Specifications, whichever calls for a higher quality or more thorough requirement. Contractor shall maintain integrity of both rated and non-rated fire walls, ceilings, floors, etc.
- 3.3.4. Contractor's Subcontractors shall restore Work which has been cut or removed and install new products to provide completed Work in accordance with requirements of the Contract Documents and as required to match surrounding areas and surfaces.
- 3.3.5. Contractor's Subcontractors shall refinish all continuous surfaces to nearest intersection as necessary to match the existing finish to any new finish.

**END OF DOCUMENT**

**DOCUMENT 01 77 00**

**CONTRACT CLOSEOUT AND FINAL CLEANING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions including, without limitation, Documents on Work and Completion of Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Operation and Maintenance Data;
- 1.1.6. Warranties;
- 1.1.7. Record Documents;
- 1.1.8. Demonstration and Training; and
- 1.1.9. General Commissioning Requirements.

**1.2. PRELIMINARY PROCEDURES**

- 1.2.1. Before requesting inspection for determining date of Completion, complete the following. List items below that are incomplete in request.
  - 1.2.1.1. Prepare a list of items to be completed and corrected ("Punch List"), the value of items on the list, and reasons why the Work is not complete.
  - 1.2.1.2. Advise District of pending insurance changeover requirements.
  - 1.2.1.3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 1.2.1.4. Obtain and submit releases permitting District unrestricted use of the Work and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases, if required.
  - 1.2.1.5. Prepare and submit Project Record Documents, operation and maintenance manuals, Completion construction photograph prints and electronic files, damage or settlement surveys, property surveys, and similar final record information.

- 1.2.1.6. Deliver tools, spare parts, extra materials, and similar items to location designated by District. Label with manufacturer's name and model number where applicable.
- 1.2.1.7. Make final changeover of permanent locks and deliver keys to District. Advise District's personnel of changeover in security provisions.
- 1.2.1.8. Complete startup testing of systems.
- 1.2.1.9. Submit test/adjust/balance records.
- 1.2.1.10. Terminate and remove temporary facilities from Project Site, along with mockups, construction tools, and similar elements.
- 1.2.1.11. Advise District of changeover in heat and other utilities.
- 1.2.1.12. Submit changeover information related to District's occupancy, use, operation, and maintenance.
- 1.2.1.13. Complete final cleaning requirements, including touch-up painting.
- 1.2.1.14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

### **1.3. RECORD DOCUMENTS AND SHOP DRAWINGS**

- 1.3.1. Contractor shall legibly mark each item to record actual construction, including:
  - 1.3.1.1. Measured depths of foundation in relation to finish floor datum.
  - 1.3.1.2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permit surface improvements.
  - 1.3.1.3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 1.3.1.4. Field changes of dimension and detail.
  - 1.3.1.5. Details not on original Contract Drawings
  - 1.3.1.6. Changes made by modification(s).
  - 1.3.1.7. References to related Shop Drawings and modifications.
  - 1.3.1.8. Contractor will provide one set of Record Drawings to District.
  - 1.3.1.9. Contractor shall submit all required documents to District and/or Architect prior to or with its final Application for Payment.

### **1.4. COMPLETION**

- 1.4.1. Preliminary Procedures: Before requesting inspection for determining date of Completion, complete the following:

1.4.1.1. Submit a final Application for Payment according to the Contract Documents.

1.4.1.2. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

1.4.1.3. Submit pest-control final inspection report and warranty.

1.4.1.4. Instruction of District Personnel:

1.4.1.4.1. Before final inspection, at agreed upon times, Contractor shall instruct District's designated personnel in operation, adjustment, and maintenance of products, equipment, and systems.

1.4.1.4.2. For equipment requiring seasonal operation, Contractor shall perform instructions for other seasons within six (6) months.

1.4.1.4.3. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.4.1.4.4. Contractor shall prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.4.1.4.5. Contractor shall use operation and maintenance manuals as basis for instruction. Contractor shall review contents of manual with personnel in detail to explain all aspects of operation and maintenance.

1.4.2. Inspection: Submit a written request for inspection.

1.4.3. **LIST OF INCOMPLETE ITEMS (PUNCH LIST)** Contractor shall notify District and Architect when Contractor considers the Work complete. Upon notification, District and Architect will prepare a list of minor items to be completed or corrected ("Punch List").

1.4.4. Contractor and/or its Subcontractors shall proceed promptly to complete and correct items on the Punch List. Failure to include an item on Punch List does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

1.4.5. Contractor shall comply with Punch List procedures as provided herein and in the Contract Documents, and maintain the presence of a Project Superintendent and Project Manager until the Punch List is complete to ensure proper and timely completion of the Punch List. Under no circumstances shall Contractor demobilize its forces prior to completion of the Punch List. Upon receipt of Contractor's written notice that all of the Punch List items have been fully completed and the Work is ready for final inspection and acceptance, District and Architect will inspect the Work and shall submit to Contractor a final inspection report noting the Work, if any, required in order to reach Completion in accordance with the Contract Documents. Absent unusual

circumstances, this report shall consist of the Punch List items not yet satisfactorily completed and any additional Punch List items not originally included.

- 1.4.6. Upon Contractor's completion of all items on the Punch List and any other uncompleted portions of the Work, the Contractor shall notify the District and Architect, who shall again inspect such Work. If the District and Architect find the Work complete and acceptable under the Contract Documents, the District will notify Contractor, who shall then jointly submit to the Architect and District its final Application for Payment.
- 1.4.7. **Costs of Multiple Inspections.** More than two (2) requests of District to make a final inspection shall be considered an additional service of District, the Architect and/or the Inspector, and all subsequent costs will be invoiced to Contractor and withheld from remaining payments, if funds are available.
- 1.4.8. Punch List shall be deemed complete only upon the District's determination that all items on the Punch List, and all updates to the Punch List, are complete.

## **1.5. WARRANTIES**

- 1.5.1. Submittal Time: Submit written warranties on request of District for designated portions of the Work where commencement of warranties other than date of Completion is indicated.
- 1.5.2. Organize warranty documents into an orderly sequence as required by the Division 01 Document "Warranties."

## **2. PRODUCTS**

### **2.1. MATERIALS**

- 2.1.1. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

## **3. EXECUTION**

### **3.1. FINAL CLEANING**

- 3.1.1. Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations. Contractor shall use cleaning methods and procedures that reduce the overall impact on human health and the natural environment by reducing the amount of disposed waste, pollution and environmental degradation. If Project is subject to LEED certification, Contractor shall ensure compliance with the applicable LEED requirements for final cleaning of the Site.
- 3.1.2. Contractor shall employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program.
  - 3.1.2.1. Complete the following cleaning operations before requesting final inspection:

- 3.1.2.1.1. Clean Project Site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- 3.1.2.1.2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
- 3.1.2.1.3. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- 3.1.2.1.4. Remove tools, construction equipment, machinery, and surplus material from Project Site.
- 3.1.2.1.5. Remove snow and ice to provide safe access to building.
- 3.1.2.1.6. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- 3.1.2.1.7. Clean all surfaces and other work in accordance with recommendations of the manufacturer.
- 3.1.2.1.8. Remove spots, mortar, plaster, soil, and paint from ceramic tile, stone, and other finish materials.
- 3.1.2.1.9. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- 3.1.2.1.10. Sweep concrete floors broom clean in unoccupied spaces.
- 3.1.2.1.11. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
- 3.1.2.1.12. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- 3.1.2.1.13. Remove labels that are not permanent.
- 3.1.2.1.14. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
  - 3.1.2.1.14.1. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.



- 3.1.2.1.15. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
  - 3.1.2.1.16. Replace parts subject to unusual operating conditions.
  - 3.1.2.1.17. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - 3.1.2.1.18. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
  - 3.1.2.1.19. Clean ducts, blowers, and coils if units were operated without filters during construction.
  - 3.1.2.1.20. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
  - 3.1.2.1.21. Leave Project Site clean and ready for occupancy.
- 3.1.3. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests.
  - 3.1.4. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on District's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project Site and dispose of lawfully.

**END OF DOCUMENT**

**DOCUMENT 01 78 23**

**OPERATION AND MAINTENANCE DATA**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Completion of the Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Contract Closeout and Final Cleaning;
- 1.1.6. Warranties;
- 1.1.7. Record Documents;
- 1.1.8. General Commissioning Requirements.

**1.2. QUALITY ASSURANCE**

- 1.2.1. Contractor shall prepare instructions and data by personnel experienced in maintenance and operation of described products.

**1.3. FORMAT**

- 1.3.1. Contractor shall prepare data in the form of an instructional manual entitled "OPERATIONS AND MAINTENANCE MANUAL & INSTRUCTIONS" ("Manual").
- 1.3.2. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size. When multiple binders are used, Contractor shall correlate data into related consistent groupings.
- 1.3.3. Cover: Contractor shall identify each binder with typed or printed title "OPERATION AND MAINTENANCE MANUAL & INSTRUCTIONS"; and shall list title of Project and identify subject matter of contents.
- 1.3.4. Contractor shall arrange content by systems process flow under section numbers and sequence of the Table of Contents of the Contract Documents.
- 1.3.5. Contractor shall provide tabbed fly leaf for each separate Product and system, with typed description of Product and major component parts of equipment.
- 1.3.6. Text: The content shall include Manufacturer's printed data, or typewritten data on 24 pound paper.

- 1.3.7. Drawings: Contractor shall provide with reinforced punched binder tab and shall bind in with text; folding larger drawings to size of text pages.

#### **1.4. CONTENTS, EACH VOLUME**

- 1.4.1. Table of Contents: Contractor shall provide title of Project; names, addresses, and telephone numbers of the Architect, any engineers, subconsultants, Subcontractor(s), and Contractor with name of responsible parties; and schedule of Products and systems, indexed to content of the volume.
- 1.4.2. For Each Product or System: Contractor shall list names, addresses, and telephone numbers of Subcontractor(s) and suppliers, including local source of supplies and replacement parts.
- 1.4.3. Product Data: Contractor shall mark each sheet to clearly identify specific Products and component parts, and data applicable to installation. Delete inapplicable information.
- 1.4.4. Drawings: Contractor shall supplement Product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Contractor shall not use Project Record Documents as maintenance drawings.
- 1.4.5. Text: The Contractor shall include any and all information as required to supplement Product data. Contractor shall provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

#### **1.5. MANUAL FOR MATERIALS AND FINISHES**

- 1.5.1. Building Products, Applied Materials, and Finishes: Contractor shall include Product data, with catalog number, size, composition, and color and texture designations. Contractor shall provide information for re-ordering custom manufactured Products.
- 1.5.2. Instructions for Care and Maintenance: Contractor shall include Manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- 1.5.3. Moisture Protection and Weather Exposed Products: Contractor shall include Product data listing applicable reference standards, chemical composition, and details of installation. Contractor shall provide recommendations for inspections, maintenance, and repair.
- 1.5.4. Additional Requirements: Contractor shall include all additional requirements as specified in the Specifications.
- 1.5.5. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

#### **1.6. MANUAL FOR EQUIPMENT AND SYSTEMS**

- 1.6.1. Each Item of Equipment and Each System: Contractor shall include description of unit or system, and component parts and identify function, normal operating characteristics, and limiting conditions. Contractor shall include performance curves, with engineering data and tests, and complete nomenclature, and commercial number of replaceable parts.
- 1.6.2. Panelboard Circuit Directories: Contractor shall provide electrical service characteristics, controls, and communications.

- 1.6.3. Contractor shall include color coded wiring diagrams as installed.
- 1.6.4. Operating Procedures: Contractor shall include start-up, break-in, and routine normal operating instructions and sequences. Contractor shall include regulation, control, stopping, shut-down, and emergency instructions. Contractor shall include summer, winter, and any special operating instructions.
- 1.6.5. Maintenance Requirements: Contractor shall include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- 1.6.6. Contractor shall provide servicing and lubrication schedule, and list of lubricants required.
- 1.6.7. Contractor shall include manufacturer's printed operation and maintenance instructions.
- 1.6.8. Contractor shall include sequence of operation by controls manufacturer.
- 1.6.9. Contractor shall provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- 1.6.10. Contractor shall provide control diagrams by controls manufacturer as installed.
- 1.6.11. Contractor shall provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- 1.6.12. Contractor shall provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- 1.6.13. Contractor shall provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- 1.6.14. Additional Requirements: Contractor shall include all additional requirements as specified in Specification(s).
- 1.6.15. Contractor shall provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

## **1.7. SUBMITTAL**

- 1.7.1. Concurrent with the Schedule of Submittals as indicated in the General Conditions, Contractor shall submit to the District for review two (2) copies of a preliminary draft of proposed formats and outlines of the contents of the Manual.
- 1.7.2. For equipment, or component parts of equipment put into service during construction and to be operated by District, Contractor shall submit draft content for that portion of the Manual within ten (10) days after acceptance of that equipment or component.
- 1.7.3. On or before the Contractor submits its final application for payment, Contractor shall submit two (2) copies of a complete Manual in final form. The District will provide comments to Contractor and Contractor must revise the content of the Manual as required by District prior to District's approval of Contractor's final Application for Payment.

- 1.7.4. Contractor must submit two (2) copies of revised Manual in final form within ten (10) days after receiving District's comments. Failure to do so will be a basis for the District withholding funds sufficient to protect itself for Contractor's failure to provide a final Manual to the District.

**END OF DOCUMENT**

**DOCUMENT 01 78 36**

**WARRANTIES**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Warranty/Guarantee/Indemnity;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Contract Closeout and Final Cleaning;
- 1.1.6. Operation and Maintenance Data;
- 1.1.7. Record Documents;
- 1.1.8. General Commissioning Requirements.

**1.2. FORMAT**

- 1.2.1. Binders: Contractor shall use commercial quality, 8-1/2 by 11 inch, three-side rings, with durable plastic covers; two inch maximum ring size.
- 1.2.2. Cover: Contractor shall identify each binder with typed or printed title "WARRANTIES" and shall list the title of Project.
- 1.2.3. Table of Contents: Contractor shall provide the title of Project; name, address, and telephone number of Contractor and equipment supplier, and name of responsible principal. Contractor shall identify each item with the number and title of the specific Specification, document, provision, or section in which the name of the Product or Work item is specified.
- 1.2.4. Contractor shall separate each Warranty with index tab sheets keyed to the Table of Contents listing, providing full information and using separate typed sheets as necessary. Contractor shall list each applicable and/or responsible Subcontractor(s), supplier(s), and/or manufacturer(s), with name, address, and telephone number of each responsible principal(s).
- 1.2.5. In addition to all Warranty documentation and information required herein, Contractor shall provide its Guarantee as required by the Contract Documents.

**1.3. PREPARATION**

- 1.3.1. Contractor shall obtain Warranties, executed in duplicate by each applicable and/or responsible Subcontractor(s), supplier(s), and manufacturer(s), within ten (10) days after completion of the applicable item or Work. Except for items put into use with District's permission, Contractor shall leave date of beginning of time of Warranty until the date of Completion is determined.
- 1.3.2. Contractor shall verify that Warranties.
- 1.3.3. are in proper form, contain full information, and are notarized, when required.
- 1.3.4. Contractor shall co-execute submittals when required.
- 1.3.5. Contractor shall retain warranties until time specified for submittal.

#### **1.4. TIME OF SUBMITTALS**

- 1.4.1. Schedule of Warranties. Contractor shall provide District with a Schedule of Warranties at least fourteen (14) days prior to submitting its other required submittals indicated herein. This will provide District the opportunity to review the anticipated Warranties and make any comments, suggestions or revisions the District may require.
- 1.4.2. For equipment or component parts of equipment put into service during construction with District's permission, Contractor shall submit a draft Warranty for that equipment or component within ten (10) days after acceptance of that equipment or component.
- 1.4.3. On or before the Contractor submits its final application for payment, Contractor shall submit all Warranties and related documents in final form. The District shall indicate any Warranty-related Work that is being performed and incomplete at the time Contractor submits its final application for payment. District will provide comments to Contractor and Contractor must revise the content of the Warranties as required by District prior to District's approval of Contractor's final Application for Payment.
- 1.4.4. For items of Work that are not completed until after the date of Completion, Contractor shall provide an updated Warranty for those item(s) of Work within ten (10) days after acceptance, listing the date of acceptance as start of the Warranty period.

**END OF DOCUMENT**

**DOCUMENT 01 78 39**

**RECORD DOCUMENTS**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Documents on Work and Completion of Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Contract Closeout and Final Cleaning;
- 1.1.6. Operation and Maintenance Data;
- 1.1.7. Warranties;
- 1.1.8. General Commissioning Requirements.

**2. RECORD DOCUMENTS OR DRAWINGS**

**2.1. GENERAL**

- 2.1.1. "Record Documents" and "Record Drawings" may also be referred to in the Contract Documents as "As-Built Drawings."
- 2.1.2. As indicated in the Contract Documents, District will provide Contractor with one set of reproducible plans of the original Drawings.
- 2.1.3. Contractor shall maintain at each Project Site one (1) set of marked-up Drawings and shall transfer all changes and information to those marked-up Drawings, as often as required in the Contract Documents, but in no case less than once each month. Contractor shall submit to the Project Inspector one set of reproducible vellums of the Project Record Documents ("As-Built") showing all changes incorporated into the Work since the preceding monthly submittal. The As-Built shall be available at the Project Site. The Contractor shall submit reproducible vellums at the conclusion of the Project following review of the blue-line prints.
- 2.1.4. Label and date each Record Document "RECORD DOCUMENT" in legibly printed letters.
- 2.1.5. All deviations in construction, including but not limited to pipe and conduit locations and deviations caused, without limitation, by Change Orders, Construction Directives, RFI's, and Addenda shall be accurately and legibly recorded by Contractor.



- 2.1.6. Locations and changes shall be done by Contractor in a neat and legible manner and, where applicable, indicated by drawing a "cloud" around the changed or additional information.

## **2.2. RECORD DOCUMENT INFORMATION**

- 2.2.1. Contractor shall record the following information:
  - 2.2.1.1. Locations of Work buried under or outside each building, including, without limitation, all utilities, plumbing and electrical lines, and conduits.
  - 2.2.1.2. Actual numbering of each electrical circuit.
  - 2.2.1.3. Locations of significant Work concealed inside each building whose general locations are changed from those shown on the Drawings.
  - 2.2.1.4. Locations of all items, not necessarily concealed, which vary from the Contract Documents.
  - 2.2.1.5. Installed location of all cathodic protection anodes.
  - 2.2.1.6. Deviations from the sizes, locations, and other features of installations shown in the Contract Documents.
  - 2.2.1.7. Locations of underground work, points of connection with existing utilities, changes in direction, valves, manholes, catch basins, capped stubouts, invert elevations, etc.
  - 2.2.1.8. Sufficient information to locate Work concealed in each building with reasonable ease and accuracy.
- 2.2.2. In some instances, this information may be recorded by dimension. In other instances, it may be recorded in relation to the spaces in the building near which it was installed.
- 2.2.3. Contractor shall provide additional Drawings as necessary for clarification.
- 2.2.4. Contractor shall provide in an electronic format as indicated in the Contract Documents, a copy of the Drawings, made from final Shop Drawings marked "No Exceptions Taken" or "Approved as Noted."
  - 2.2.4.1. With the District's prior approval, Contractor may provide these reproducible Drawings in hard copy.

## **3. RECORD MATERIALS LOG**

- 3.1.1. Materials Log shall be submitted prior to Completion.
- 3.1.2. Preparation: Mark Material Log to indicate the actual product installation where installation varies from that indicated in original Material Log.

- 3.1.3. Give particular attention to information on concealed materials and installations that cannot be readily identified and recorded later.
- 3.1.4. Mark copy with the proprietary name and characteristics of products, materials, and equipment furnished, including substitutions and product options selected.
- 3.1.5. Record the name of the manufacturer, supplier, installer, and other information necessary to provide a record of selections made.
- 3.1.6. The working copy of Materials Log shall be consistently maintained throughout construction, and shall be accessible at Project Site.

#### **4. MAINTENANCE OF RECORD DOCUMENTS**

- 4.1. Contractor shall store Record Documents apart from documents used for construction as follows:
  - 4.1.1. Provide files and racks for storage of Record Documents.
  - 4.1.2. Maintain Record Documents in a clean, dry, legible condition and in good order.
- 4.2. Contractor shall not use Record Documents for construction purposes.

**END OF DOCUMENT**

**DOCUMENT 01 91 00**

**COMMISSIONING**

**1. GENERAL**

**1.1. RELATED DOCUMENTS AND PROVISIONS**

Contractor shall review all Contract Documents for applicable provisions related to the provisions in this document, including without limitation:

- 1.1.1. General Conditions, including, without limitation, Documents on Work and Completion of Work;
- 1.1.2. Special Conditions (if any);
- 1.1.3. Supplemental Conditions (if any);
- 1.1.4. Submittals;
- 1.1.5. Collaborative For High Performance Schools (CHPS) -- Special Environmental Requirements;
- 1.1.6. Contract Closeout and Final Cleaning;
- 1.1.7. Operation and Maintenance Data;
- 1.1.8. Warranties;
- 1.1.9. Record Documents; and

**1.2. SUMMARY**

- 1.2.1. Commissioning is a process for validating and documenting that the facility and its systems are constructed and perform in conformity with the Contract Documents.
- 1.2.2. The objective of the commissioning process is to verify that the performance of the facility and its systems meet or exceed the design intent.
- 1.2.3. Commissioning includes special facility start-up processes used to bring the facility to a fully operational state, free of deficiencies in an efficient and timely manner.
- 1.2.4. Training on related systems and equipment operation and maintenance shall be scheduled to commence only after start-up is complete and systems are verified to be 100% complete and functional.

**1.3. DESCRIPTION**

The following applies to all Contract Documents:

- 1.3.1. **Contractor Startup:** Sub-phase of Contractor's work ending with Acceptance of Work, during which Contractor performs a pre-planned program of activities including starting, testing, inspecting, adjusting balancing, correcting deficiencies and other similar activities.
  - 1.3.1.1. The District, Construction Manager and Architect and the Inspector shall be present to observe, inspect and identify deficiencies in building systems operations.
- 1.3.2. The completion of startup means the entire Construction Project including startup and fine tuning has been performed to the requirements of the Contract Documents and is verified in writing by the District, Construction Manager and Architect.
- 1.3.3. **Fine Tuning:** Fine tuning is the responsibility of Contractors after District occupancy and ending one (1) year after District occupancy. During this time the Contractor is responsible for optimizing systems and correcting deficiencies arising under normal operating conditions.
  - 1.3.3.1. Includes a period after occupancy where systems are optimized under "live" operating conditions and any outstanding construction deficiencies are corrected.
  - 1.3.3.2. Fine Tuning shall extend from date of District occupancy to one year after occupancy.

#### 1.4. DEFINITION OF TERMS

- 1.4.1. **Contractor's Pre-Commissioning Checklists:** Includes installation and start-up items as specified to be completed by the appropriate contractors prior to operational verification through the functional testing process.
- 1.4.2. **Installation Verification Process:** Includes the on-site inspection and review of related system components for conformance to Contract Documents. The Contractor shall verify systems readiness for functional testing procedures prior to the start of functional testing. Deficiencies will be documented by the Inspector for future resolution.
- 1.4.3. **Functional Performance Testing Process:** Includes the documented testing of system parameters, under actual or simulated operating conditions. Final performance commissioning of systems will begin only after the appropriate Contractor certifies that systems are 100% complete and ready for functional testing. The Contractor will be required to schedule, coordinate and perform device tests, calibration and functional performance test procedures.
- 1.4.4. **Deficiencies and Resolutions List:** Includes a list of noted deficiencies discovered as a result of the commissioning process. This list also includes the current disposition of issues, and the date of final resolution as confirmed by the Construction Manager and Inspector. Deficiencies are defined as those issues where products execution or performance does not satisfy the Project Contract Documents and/or the design intent.

#### 1.5. COMMISSIONING SCHEDULE

- 1.5.1. Provide schedules for Contractor Start-Up work.
- 1.5.2. Incorporate in overall construction schedule.
- 1.5.3. Contractor's activities, which will be performed as specified under Fine Tuning, shall be completed within one (1) year from date of occupancy by the District.

**1.6. CONTRACTOR RESPONSIBILITIES**

- 1.6.1. Provide utility services required for the commissioning process.
- 1.6.2. Contractor is responsible for construction means, methods, job safety, and/or management function related to commissioning on the Project Site.
- 1.6.3. Contractor shall assign representatives with expertise and authority to act on behalf of Contractor and schedule the representatives to participate in and perform commissioning team activities including, but not limited to, the following:
  - 1.6.3.1. Participate in design and construction-phase coordination meetings.
  - 1.6.3.2. Participate in maintenance orientation and inspection.
  - 1.6.3.3. Participate in operation and maintenance training sessions.
  - 1.6.3.4. Participate in final review.
  - 1.6.3.5. Certify that Work is complete and systems are operational according to the Contract Documents, including calibration of instrumentation and controls.
  - 1.6.3.6. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, recommend corrective action.
  - 1.6.3.7. Review and comment on final commissioning documentation.
- 1.6.4. Contractor shall integrate all commissioning activities into Contractor's Construction Schedule.
- 1.6.5. Contractor's Subcontractors shall assign representatives with expertise and authority to act on behalf of subcontractors and schedule the representatives to participate in and perform commissioning team activities including, but not limited to, the following:
  - 1.6.5.1. Participate in design and construction-phase coordination meetings.
  - 1.6.5.2. Participate in maintenance orientation and inspection.
  - 1.6.5.3. Participate in procedures meeting for testing.
  - 1.6.5.4. Participate in final review.
  - 1.6.5.5. Provide schedule for operation and maintenance data submittals, equipment startup, and testing to Commissioning Authority for incorporation into the

commissioning plan. Update schedule on a weekly basis throughout the construction period.

- 1.6.5.6. Provide information to the Commissioning Authority for developing construction phase commissioning plan.
- 1.6.5.7. Participate in training sessions for District's operation and maintenance personnel.
- 1.6.5.8. Provide updated Project Record Documents to Commissioning Authority on a daily basis.
- 1.6.5.9. Gather and submit operation and maintenance data for systems, subsystems, and equipment to the Commissioning Authority, as specified in Division 01 Document "Operation and Maintenance Data."
- 1.6.5.10. Provide technicians who are familiar with the construction and operation of installed systems, who shall execute the test procedures developed by the Commissioning Authority, and who shall participate in testing of installed systems, subsystems, and equipment.

## **1.7. SUBMITTALS**

- 1.7.1. Submit Draft and Final Contractor Start-up Forms as described in this Document. Submit Draft Report for Construction Manager and Architect's review and comment prior to Final Submission. Submit Final Report not later than twenty weeks before scheduled date of Acceptance of Work.
- 1.7.2. Prepare and submit one copy of report form to be used in preparation of system reports for:
  - 1.7.2.1. Food Service Equipment.
  - 1.7.2.2. Gymnasium Equipment and Scoreboards
  - 1.7.2.3. Laboratory Fume Hoods
  - 1.7.2.4. Elevators
  - 1.7.2.5. Each mechanical system specified in Division 15.
  - 1.7.2.6. Each Electrical system specified in Division 16.
- 1.7.3. Each System Report shall be submitted including the following:
  - 1.7.3.1. Project Name
  - 1.7.3.2. Name of System
  - 1.7.3.3. Index of report's content

- 1.7.3.4. Adjacent to list of equipment, columns to indicate status of equipment operation, to date and to sign off equipment start-up.
- 1.7.3.5. Space to record equipment and operational problems which cannot be corrected with scheduled Contractor Start-Up program and which may delay Acceptance of Work.
- 1.7.3.6. Manufacturer's equipment start-up reports.
- 1.7.3.7. Systems' testing, balancing, and adjusting reports.
- 1.7.3.8. Equipment Report Forms shall include the following: Project name, name of equipment, starting and testing procedures to be performed and observations and test results to be recorded.

## 1.8. QUALITY ASSURANCE

- 1.8.1. Training Instructor Qualifications: Contractor shall provide factory-authorized service representatives, experienced in training, operation, and maintenance procedures for installed systems, subsystems, and equipment.
- 1.8.2. Test Equipment Calibration: Comply with test equipment manufacturer's calibration procedures and intervals. Recalibrate test instruments (per NIST requirements if applicable) immediately whenever instruments have been repaired following damage or dropping. Affix calibration tags to test instruments. Instruments shall have been calibrated within six months prior to use.

## 1.9. EQUIPMENT & SYSTEM SCHEDULE

- 1.9.1. The following equipment shall be commissioned in this Project:

System	Equipment	Req'd by CHPS
HVAC System	Chillers	X
	Boilers	X
	Pumps	X
	Cooling towers	X
	Variable frequency drives	X
	Air handlers	X
	Packaged AC units	X
	Terminal units for Office areas	X
	Unit heaters	X
	Heat exchangers	X
	Exhaust fans	X
	Supply fans	X
	Return fans	X
Building Management System	Sequences of Operation, Monitored Points, and Alarms	X
	Metering/Monitoring Devices and Equipment	X
	Software Commissioning, GUI presentation	

	commissioning, system access performance criteria, software tools/source code commissioning, instrument data sheets, middleware commissioning, Internet Protocol commissioning	
Electrical System	Sweep or scheduled lighting controls	X
	Daylight dimming controls	X
	Lighting occupancy sensors	X
	Electrical grounding	
Plumbing System	Domestic water heaters	X
Security Alarm Systems	Security cameras and monitoring system personal duress alarm system; Intercom system; Paging System.	
Security Electronics	Security plumbing fixture water management system.	
	Door Controls.	
	Fire alarm system.	
	Distributed radio antenna system.	
	Access control system.	
Fire/Life Safety Systems	All devices	
	Alarm drivers	
	HVAC/Fire System Integration	
	Event Notifying and Reporting Systems	
Communication System		

#### 1.10. SYSTEM FAILURES

After a second failure of a system to successfully meet the criteria as set for in the functional performance testing process, the Contractor shall reimburse the District for cost associated with any additional retesting required due to uncorrected deficiencies. Costs shall include salary, benefits, overhead, travel costs and per diem lodging costs if applicable.

**END OF DOCUMENT**



## SECTION 024119 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Demolition and removal of selected portions of building or structure.
  - 2. Demolition and removal of selected site elements.
  - 3. Salvage of existing items to be reused or recycled.

#### 1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.
- B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.
- E. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

#### 1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

#### 1.5 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site.
  - 1. Inspect and discuss condition of construction to be selectively demolished.

2. Review structural load limitations of existing structure.
3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.

#### 1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For refrigerant recovery technician.
- B. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Selective Demolition Activities: Indicate the following:
  1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
  2. Interruption of utility services. Indicate how long utility services will be interrupted.
  3. Coordination for shutoff, capping, and continuation of utility services.
  4. Use of elevator and stairs.
  5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- D. Predemolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by demolition operations. Comply with Section 013233 "Photographic Documentation." Submit before Work begins.
- E. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- F. Warranties: Documentation indicating that existing warranties are still in effect after completion of selective demolition.

#### 1.7 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.

#### 1.8 QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

## 1.9 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - 1. Hazardous materials will be removed by Owner before start of the Work.
  - 2. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
  - 1. Maintain fire-protection facilities in service during selective demolition operations.

## 1.10 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties.
- B. Notify warrantor on completion of selective demolition, and obtain documentation verifying that existing system has been inspected and warranty remains in effect. Submit documentation at Project closeout.

## 1.11 COORDINATION

- A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

- B. Standards: Comply with ASSE A10.6 and NFPA 241.
- C. Comply with CFC Chapter 33 Fire Safety during construction and demolition.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- C. Perform a survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.
  - 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- D. Verify that hazardous materials have been remediated before proceeding with building demolition operations.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or video.
  - 1. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.
  - 2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

#### 3.2 PREPARATION

- A. Refrigerant: Before starting demolition, remove refrigerant from mechanical equipment according to 40 CFR 82 and regulations of authorities having jurisdiction.

#### 3.3 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
1. Arrange to shut off utilities with utility companies.
  2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
  3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.
    - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
    - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
    - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
    - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
    - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
    - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
    - g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

### 3.4 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
  2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
  3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
  4. Cover and protect furniture, furnishings, and equipment that have not been removed.
  5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
1. Strengthen or add new supports when required during progress of selective demolition.

- C. Remove temporary barricades and protections where hazards no longer exist.

### 3.5 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
5. Maintain fire watch during and for at least two hours after flame-cutting operations.
6. Maintain adequate ventilation when using cutting torches.
7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
10. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."

- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

- C. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

- D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.

4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

### 3.6 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, and then remove concrete between saw cuts.
- B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.
- C. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.

### 3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove demolition waste materials from Project site and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."
  1. Do not allow demolished materials to accumulate on-site.
  2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.

### 3.8 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

## SECTION 03 1000 - CONCRETE FORMING AND ACCESSORIES

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section

#### 1.2 SUMMARY

- A. Section Includes: All labor, materials and equipment and all operations required to complete all formwork as indicated on the drawings; to produce shapes and configurations as shown, as required; and as specified herein, including:
  - 1. Forms, shores, bracing, removal and other operations as necessary for all cast-in-place concrete and masonry placed.
  - 2. Setting and securing anchor bolts and other metal items embedded in concrete into formwork, using materials and layouts furnished and delivered to jobsite as specified under other sections.
- B. Related Sections:
  - 1. Pertinent Sections of Division 03 specifying concrete construction.
  - 2. Pertinent Sections of other Divisions specifying work to be embedded in concrete or work penetrating concrete foundations and formwork.

#### 1.3 REFERENCES

- A. California Code of Regulations, Title 24, latest adopted edition (herein noted as CBC): Chapter 19A Concrete.
- B. American Concrete Institute (ACI) 347 "Recommended Practice for Concrete Formwork".
- C. American Plywood Association (APA) "Concrete Forming Guide".
- D. West Coast Lumberman Inspection Bureau (WCLIB) "Standard Grading Rules for West Coast Lumber".
- E. ACI SP-066 "ACI Detailing Manual".
- F. ACI 301 "Specifications for Structural Concrete".
- G. Concrete Reinforcing Steel Institute (CRSI) "Manual of Standard Practice".



#### 1.4 DESIGN REQUIREMENTS

- A. Design, engineer, and construct formwork, shoring and bracing to conform to design and code requirements, resist imposed loads; resultant concrete to conform to required shape, line and dimension.

#### 1.5 ACTION SUBMITTALS

- A. Limitation of review: Structural Engineer's review will be required only where specifically requested for general architectural applications and features only. Contractor is responsible for structural stability, load-resisting characteristics and sufficiency of form work design.

#### 1.6 QUALITY ASSURANCE

- A. General: All form materials shall be new at start of work. Produce high quality concrete construction. Minimize defects due to joints, deflection of forms, roughness of forms, nonconforming materials, concrete or workmanship.
- B. Reuse of Forms: Plywood forms may be reused, if thoroughly cleaned of all dirt, mortar, and foreign materials, and undamaged at edges and contact face. Reuse shall be subject to permission from the Architect without exception, and issued in writing. Reuse of any panel which will produce a blemish on exposed concrete, will not be permitted.

### PART 2 – PRODUCTS

#### 2.1 MATERIALS

- A. Form Materials:
  - 1. Non-Exposed Surface Formwork Facing: Forms for concrete which is not exposed to view, may be of plywood as specified for exposed surfaces, or square edge 1x nominal Douglas Fir, Construction Grade, S4S.
  - 2. Exposed Surface Formwork Facing:
    - a. Forms for all exterior and interior concrete flat surfaces unless otherwise specified as board formed shall be new Douglas Fir Plywood (APA) ply, 5/8-inch, B-B Plyform, Class 1, Exterior Type, oiled and edged and edge-sealed conforming to U.S. Product Standard PS 1 in large sheet sizes to achieve joint patterns shown.
    - b. All exposed concrete edges shall be chamfered 3/4" minimum or as noted on the drawings.
  - 3. Exposed Surface Formwork - Special Pattern Form Liner:

- a. Forms for all exterior and interior concrete flat surfaces indicated shall be as designated by Architect.
- B. Earth Forms: Allowed, subject to soil standing in excavations without ravel or caving.
- C. Form Release Agent: Spray-on compound, not affecting color, bond or subsequent treatment of concrete surfaces. Maximum VOC content shall comply with local requirements and California Green Building Code.
- D. Accessories: Types recommended by manufacturers or referenced standards to suit conditions indicated;
  - 1. Anchors, spacers, void in-fill materials: sized to resist imposed loads.
  - 2. Form Ties: Prefabricated rod, flat band, or wire snap ties with 1" break-back or threaded internal disconnecting type with external holding devices of adequate bearing area. Ties shall permit tightening and spreading of forms and leave no metal closer than 1" to surface.
- E. Corner Chamfers and Rustications: Filleted, wood strip or foam type; sizes and shapes as detailed, or 3/4 x 3/4 inch size minimum if not detailed; maximum possible lengths.
- F. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

### PART 3 – EXECUTION

#### 3.1 EXAMINATION

- A. Inspect the substrate and the conditions under which concrete formwork is to be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected. Commencement of work indicates acceptance of substrates and conditions.
- B. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

#### 3.2 EARTH FORMS

- A. If natural soil or compacted fill can be accurately cut and maintained, foundations and grade beams may be poured against earth without forming. Provide positive protection of trench top corners.
- B. Maintain earth forms free of water and foreign materials.

#### 3.3 ERECTION – FORMWORK

- A. General: Construct formwork in accordance with calculations, and recommendations of Section 401 of ACI 347. Construct forms to the sizes, shapes, lines and dimensions shown, and as required to obtain accurate alignment, location, grades, level and plumb work in finished structure. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required. Use selected materials to obtain required finishes.
  - 1. Construct cambers specified in concrete members and slabs in the formwork.
  - 2. Schedule the work and notify other trades in ample time so that provisions for their work in the formwork can be made without delaying progress of the project. Install all sleeves, pipes, etc. for building services systems, or other work. Secure information about and provide for all openings, offsets, recessed nailing blocks, channel chases, anchors, ties, inserts, etc. in the formwork before concrete placement.
  - 3. Deflection: Formwork and concrete with excessive deflection after concrete placement will be rejected. Excessive deflection is that which will produce visible and noticeable waves in the finished concrete.
  - 4. Measure formwork for elevated structural slabs, columns, wall elevations points of maximum camber and submit in writing to the Architect/Engineer prior to placing concrete.
- B. Formwork Construction: Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301. Uniform, substantial and sufficiently tight to prevent leakage of concrete paste, readily removable without impact, shock or damage to cast-in-place concrete surfaces and adjacent materials. Tie, brace, shore, and support to insure stability against pressures from any source, without failure of any component part and without excessive deflection. Solidly butt joints and provide backup material at joints as required to prevent leakage and fins.
- C. Provide all openings, offsets, inserts, anchorages, blocking, and other features of the work as shown or required. See INSERTS, EMBEDDED PARTS, AND OPENINGS for detailed requirements.
- D. Warped, checked, or scuffed forms will be rejected.
- E. Maintain membranes, reinforcing and other work free of damage; protect with plywood runway boards or other positive, durable means.
- F. Align joints and make watertight. Keep form joints to a minimum.
- G. Provide fillet and chamfer strips on external corners of exposed locations and as indicated to form patterns in finished work. Extend patterns around corners and into alcoves, on backs of columns and similar locations not otherwise shown.
  - 1. Produce beveled, smooth, solid, unbroken lines, except as otherwise indicated to conform to patterns.

2. Form corners and chamfers with 3/4 inch x 3/4 inch strips, unless otherwise indicated, accurately formed and surfaced to produce uniformly straight lines and tight edge joints. Extend terminal edges to required limit and miter chamfer at changes in direction.
- H. Unexposed corners may be formed either square or chamfered.
- I. Ties and Spreaders: Arrange in a pattern acceptable to the Architect when exposed. Snap-ties may be used except at joints between pours where threaded internal disconnecting type shall be used.
- J. Coordinate this section with other sections of work that require attachment of components to formwork.
- K. Reglets and Rebates: Accurately locate, size, and form all reglets and rebates required to receive work of other trades, including flashing, frames, and equipment.

### 3.4 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
- C. Do not allow excess form coating material to accumulate in the forms or to come into contact with reinforcement or surfaces which will be bonded to fresh concrete.
- D. Coat steel forms with a non-staining, rust-preventative form oil or otherwise protect against rusting. Rust-stained steel formwork will be rejected.
- E. Leave no residue or stain on the face of the concrete, nor affect bonding of subsequent finishes or work specified in other sections.

### 3.5 INSERTS, EMBEDDED PARTS, AND OPENINGS

- A. Provide formed openings where required for items to be embedded in passing through concrete work.
  1. Provide openings in concrete formwork to accommodate work of other sections including those under separate contracts (if any). Size and location of openings, recesses and chases shall be in accordance with the section requiring such items. Accurately place and securely support items to be built into forms.
- B. Construction Joints: Construct and locate generally as indicated on Drawings and only at locations approved by Structural Engineer, so as not to impair the strength of the structure. Form keys in all cold joints shown or required.

- C. Locate and set in place items that will be cast directly into concrete.
- D. Rough Hardware and Miscellaneous Metal: Set inserts, sleeves, bolts, anchors, angles, and other items to be embedded in concrete. Set embedded bolts and sleeves for equipment to template and approved shop drawings prepared by trades supplying equipment.
- E. Coordinate with work of other sections in forming and placing openings, slots, reglets, recesses, sleeves, bolts, anchors, other inserts, and components of other work.
- F. Wood Inserts and Nailers: Provide approved preservative-treated lumber. Set all required nailing blocks, grounds, and other inserts as required to produce results shown. Wood plugs shall not be used.
- G. Install accessories in accordance with manufacturer's instructions, so they are straight, level, and plumb. Ensure items are not disturbed during concrete placement.
- H. Piping: Do not embed piping in structural concrete unless locations specifically approved by Structural Engineer.
- I. Conduit: Place conduit below slabs-on-grade and only as specifically detailed on structural drawings. Minimum clear distance between conduits shall be 3 diameters. Location shall be subject to Engineer's written approval and shall not impair the strength of the structure.
- J. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection. Locate openings at bottom of forms to allow flushing water to drain.
  - 1. Provide openings for the introduction of vibrators at intervals necessary for proper placement.
  - 2. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.
- K. Install Form Liner inserts in accordance with manufacturer's recommendations, to produce patterns and textures indicated.
- L. Install waterstops in accordance with manufacturer's recommendations to provide continuous waterproof barrier.

### 3.6 FORM CLEANING

- A. Clean forms as erection proceeds, remove foreign matter within forms.
- B. Clean formed cavities of debris prior to placing concrete.
  - 1. Remove all dirt, chips, sawdust, rubbish, water and foreign materials detrimental to concrete.

2. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.

### 3.7 FOOTINGS

- A. Verify elevations and provide final excavation required for footings prior to placing of concrete.

### 3.8 EQUIPMENT BASES

- A. Form concrete bases for all mechanical and electrical equipment in accordance with approved shop details furnished by other sections.
- B. Sizes and locations as indicated and as required to produce results shown.
- C. Provide coved base for all equipment bases placed on concrete slabs.

### 3.9 FORMWORK TOLERANCES

- A. Construct formwork to maintain tolerances required by ACI 301.

### 3.10 FIELD QUALITY CONTROL

- A. Inspect erected formwork, shoring, and bracing to ensure that work is in accordance with formwork design, and to verify that supports, fastenings, wedges, ties, and items are secure.
- B. Do not reuse wood formwork more than 2 times for concrete surfaces to be exposed to view. Do not patch formwork.
- C. Clean and repair surfaces to be re-used in the work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable. Apply new form coating compound material to concrete contact surfaces as specified for new formwork.
- D. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close all joints. Align and secure joints to avoid offsets.

### 3.11 FORM REMOVAL

- A. Do not loosen or remove forms before minimum curing period has elapsed without employment of appropriate alternate curing methods, approved by the Architect in writing.

- B. Remove forms without damage to the concrete using means to insure complete safety of the structure and without damage to exposed beams, columns, wall edges, chamfers and inserts. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finish concrete surfaces scheduled for exposure to view.
- C. Do not remove forms until the concrete has hardened sufficiently to permit safe removal and the concrete has attained sufficient strength to safely support imposed loads. The minimum elapsed time for removal of forms after concrete has been placed shall be as follows:
  - 1. Columns and Walls: 7 days, provided members are not subjected to overhead loads.
  - 2. Footings: 7 days minimum. If backfilled immediately, side forms may be removed 24 hours after concrete is placed.
- D. Durations listed above are minimums and are subject to extension at the sole judgment of the Architect/Engineer.
- E. Reshoring: Reshore members where and if required by Formwork Design Engineer.
- F. Do not subject concrete to superimposed loads (structure or construction) until it has attained full specified design strength, nor for a period of at least 14 days after placing.
- G. Store removed forms to prevent damage to form materials or to fresh concrete. Discard damaged forms.

### 3.12 CLEANING

- A. Remove excess material and debris associated with this work from the job site.

END OF SECTION 03 1000

## SECTION 03 2000 - CONCRETE REINFORCING

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Reinforcing steel work for all concrete and masonry work as indicated on the drawings and specified herein.
  - 2. Coordinate this work with other work affected by these operations, such as forms, electrical work, mechanical work, structural steel, masonry and concrete.
- B. Related Sections:
  - 1. Pertinent Sections of Division 01 specifying Quality Control and Testing Laboratory services.
  - 2. Pertinent Sections of Divisions 03 specifying concrete construction.
  - 3. Pertinent Sections of other Divisions specifying work to be embedded in concrete or work penetrating concrete work.

#### 1.3 REFERENCE STANDARDS

- A. California Code of Regulations, Title 24, latest adopted edition (herein noted as CBC) Chapter 19A Concrete.
- B. American Concrete Institute (ACI) 301 “Specifications for Structural Concrete for Buildings”.
- C. ACI 318 “Building Code Requirements for Reinforced Concrete and Commentary”.
- D. ACI SP-066 “ACI Detailing Manual”.
- E. American Society for Testing and Materials (ASTM) A185 “Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete”.
- F. ASTM A615 “Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement”.



- G. ASTM A706 "Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement".
- H. American Welding Society (AWS) D1.4 – "Structural Welding Code for Reinforcing Steel".
- I. Concrete Reinforcing Steel Institute (CRSI) "Manual of Standard Practice".

#### 1.4 ACTION SUBMITTALS

- A. Submit in accordance with pertinent sections of Division 01 specifying submittal procedures. Submit for review prior to fabrication.
- B. Limitation of Review: Structural Engineer's review will be for general conformance with design intent as indicated in the Contract Documents and does not relieve Contractor of full responsibility for conformance with the Contract Documents. The General Contractor shall review and approve shop drawings prior to submittal to the Architect/Engineer.
- C. Shop Drawings: Show complete fabrication and placing details of all reinforcing steel. Comply with requirements of ACI SP-66. Include:
  - 1. Bar sizes and schedules;
  - 2. Shapes of bent bars, layout and spacing of bars, location of splices.
  - 3. Stirrup spacing, arrangements and assemblies,
  - 4. References to Contract Document detail numbers and designations.
  - 5. Wall elevations corresponding to elevations shown in Contract Documents.
- D. Product Data: Submit manufacturer's product data, specifications, location and installation instructions for proprietary materials and reinforcement accessories. Provide samples of these items upon request.
- E. Certificates: Submit all certifications of physical and chemical properties of steel for each heat number as manufactured, including location of material in structure as specified below in Article titled QUALITY ASSURANCE. All materials supplied shall be tagged with heat numbers matching submitted Mill Test Report analyses.
- F. Samples: Provide to the Owner's Testing laboratory as specified in Article SOURCE QUALITY CONTROL.

#### 1.5 QUALITY ASSURANCE

- A. Perform work of this Section in accordance with CRSI DA4, CRSI P1, ACI 301, and ACI 318.
- B. Requirements of Regulatory Agencies, refer to pertinent Sections of Division 01 and CBC.

- C. Certification and Identification of Materials and Uses: Provide Owner's Testing Agency with access to fabrication plant to facilitate inspection of reinforcement. Provide notification of commencement and duration of shop fabrication in sufficient time to allow inspection and all material identification/test information listed below.
  - 1. Provide manufacturer's Mill Test Reports for all materials. Include chemical and physical properties of the material for each heat number manufactured. Tag all fabricated materials with heat number.
  - 2. Provide letter certifying all materials supplied are from heat numbers covered by supplied mill certificates. Include in letter the physical location of each grade of reinforcing and/or heat number in the project (i.e. foundations, walls, etc.).
  - 3. Unidentified Material Tests: Where identification of materials by heat number to mill tests cannot be made, Owner's Testing Agency shall test unidentified materials as described below.
- D. Testing and Inspection: Tests and Inspections required by Independent Testing Agency are specified below in Articles SOURCE QUALITY CONTROL and FIELD QUALITY CONTROL. Duties and limitations of Independent Testing Agency, test costs and test reports in conformance with pertinent Sections of Division 01.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Comply with pertinent requirements of Division 01.
- B. Deliver reinforcement to project site in bundles marked with durable tags indicating heat number, mill, bar size and length, proposed location in the structure and other information corresponding with markings shown on placement diagrams.
- C. Handle and store materials above ground to prevent damage, contamination or accumulation of dirt or rust.

## PART 2 – PRODUCTS

### 2.1 MATERIALS

- A. Reinforcing Steel: Deformed billet steel bars, ASTM A706 Grade 60 or ASTM A615 Grade 60.
  - 1. Exception: Bars #3 and smaller shall be Grade 40 minimum, unless otherwise noted on the drawings.
  - 2. Welded reinforcement shall be ASTM A706, or A615 meeting carbon requirements of AWS D1.4. Welding shall conform with AWS D1.4.
  - 3. All reinforcement to be unfinished.
  - 4. ASTM A615 reinforcement at special structural concrete walls, concrete coupling beams, and special concrete moment frames shall have maximum yield

stress of 78,000 psi and the tensile strength shall be greater than 125% of the actual yield strength. Test ASTM A615 reinforcement for conformance to these criteria prior to fabrication and/or installation.

- B. Welded Wire Reinforcement: ASTM A185.
- C. Tie Wire: No. 16 AWG or heavier, black annealed.
- D. Concrete Blocks: Slab-on-grade conditions only, as required to support reinforcing bars in position.
- E. Reinforcing Supports: Plastic or galvanized steel chairs, bolsters, bar supports, or spacers sized and shaped for adequate support of reinforcement and construction loads imposed during concrete placement, meeting ACI and CRSI standards.
  - 1. For use over formwork: Galvanized wire bar type supports complying with CRSI recommendations. Provide plastic tips where exposed to view or weather after removal of formwork. Do not use wood, brick, or other unacceptable materials.
  - 2. For slabs on grade: Supports with sand plates or horizontal runners where base material will not support chair legs.
- F. Reinforcement Splice Couplers: For use only where specified on drawings. Submit other locations proposed for use to Engineer for review. "L-Series Bar Lock" Coupler Systems for Splicing Reinforcement Bars, UES ER-0319, by Dayton-Superior Corporation.

## 2.2 FABRICATION

- A. Fabricate concrete reinforcing in accordance with CRSI (DA4), unless specifically shown otherwise. Details not specifically shown or indicated shall conform to SP-066 and specified codes and standards.
  - 1. Accurately shop-fabricate to shapes, bends, sizes, gauges and lengths indicated or otherwise required.
  - 2. Bend bars once only. Discard bars improperly bent due to fabricating or other errors and provide new material; do not re-bend or straighten unless specifically indicated. Rebending of reinforcement in the field is not allowed.
  - 3. Do not bend reinforcement in a manner that will injure or weaken the material or the embedding concrete.
  - 4. Do not heat reinforcement for bending. Heat-bent materials will be rejected.
- B. Unacceptable materials: Reinforcement with any of the following defects will not be permitted in the work.
  - 1. Bar lengths, depths and bends exceeding specified fabrication tolerances.
  - 2. Bends or kinks not indicated on Drawings or final shop drawings.
  - 3. Bars with reduced cross-section due to rusting or other cause.

- C. Tag reinforcement with durable identification to facilitate sorting and placing.

### 2.3 SOURCE QUALITY CONTROL

- A. The Testing Agency, as specified in the Article QUALITY ASSURANCE, will perform the following:
  - 1. Sampling and Tests of Reinforcing Bars per CBC 1910A.2.
  - 2. Material Testing:
    - a. Identified Steel: When samples are taken from bundled steel identified by heat number, matched with accompanying mill analyses as delivered from the mill, Owner's Testing Agency will perform one tensile test and one bend test per each ten tons or fraction thereof for each required size of reinforcing steel.
    - b. Unidentified Steel: When identification of materials by heat number matched to accompanying mill analyses cannot be made, perform one tensile test and one bend test per each two and one-half tons or fraction thereof for each required size of reinforcing steel. Tests of unidentified steel shall be performed by the Owner's Testing Agency and costs for these tests shall be paid by the Contractor by deductive change order.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Inspect the conditions under which concrete reinforcement is to be placed. Do not proceed with the work until unsatisfactory conditions have been corrected.
- B. Coordinate with work of other sections to avoid conflicts or interference. Bring conflicts between reinforcement and other elements to Architect's attention. Resolve conflicts before concrete is placed.
- C. Notify Architect, Structural Engineer, and Authority Having Jurisdiction for review of steel placement not less than 48 hours before placing concrete.

### 3.2 PLACEMENT

- A. General: Comply with the specified codes and standards, and Concrete Reinforcing Steel Institute recommended practice for "Placing Reinforcing Bars", for details and methods of reinforcement placement and supports, and as herein specified.
- B. Clean bars free of substances which are detrimental to bonding. Maintain reinforcement clean until embedded in concrete.

- C. Place reinforcement to obtain the minimum coverages for concrete protection. Do not deviate from required position. Maintain required distance, spacing and clearance between bars, forms, and ground.
- D. Location and Support: Provide metal chairs, runners, bolsters, spacers and hangers, as required.
- E. Provide additional steel reinforcement as necessary or as directed, to act as spreaders or separators to maintain proper positioning.
- F. Tying and Attachment: Securely tie at all intersections and supports with wire. Prevent dislocation or movement during placement of concrete. Direct twisted ends of wire ties away from exposed concrete surfaces.
- G. Separate reinforcing from pipes or conduits with approved non-metallic separators. Do not use wood or steel form stakes or reinforcement used as stakes as support for reinforcement.
- H. Accommodate placement of formed openings required by other sections.
- I. Obstructions:
  - 1. Where obstructions, block-outs, or penetrations (conduits, raceways, ductwork) prevent continuous placement of reinforcement as indicated, provide additional reinforcing as detailed and as directed by the Structural Engineer to supplement the indicated reinforcement around the obstruction.
  - 2. Place additional trim bars, ties, stirrups, or other elements as detailed and as directed at all opening, sleeves, pipes or other penetrations through structural elements.
- J. Welded Wire Reinforcement: Reinforce slabs with 6"x 6"-W1.4 x W1.4 welded wire reinforcement reinforcing, unless otherwise noted on drawings.
  - 1. Provide flat sheets only, no rolls. Straighten, cut to required size, and lay out flat in place.
  - 2. Securely wire-tie reinforcement to other reinforcement at frequent intervals.
  - 3. Extend reinforcement over supporting beams and walls, and to within 1 inch of edge of slabs, construction joints, and expansion joints.
  - 4. Support reinforcement in mid-depth of slab.
  - 5. Lift reinforcement at intervals as slab concrete is placed, ensure proper embedment

### 3.3 REINFORCING SPACING AND COVERAGE

- A. Spacing: Do not space bars closer than four (4) diameters of the largest of two adjacent bars, except at bar laps, which shall be placed such that a minimum of 2 bar diameters is clear between bars.

- B. Where reinforcing in members is placed in two layers, the distance between layers shall not be less than four bar diameters of the largest bar and the bars in the upper layers shall be placed directly above those in the bottom layer, unless otherwise detailed or dimensioned.
- C. Coverage of bars (including stirrups and columns ties) shall be as follows, unless otherwise shown:
  - 1. Footings and Mat Foundation: 3 inches to any soil face, 2 inches to top.
  - 2. Slabs (on grade): 2 inches to grade face, 1-1/2 inches to top face.
  - 3. Walls: 1-1/2 inches clear to form and 2 inches clear to form at soil face.

### 3.4 DOWELS, SPLICES, OFFSETS AND BENDS

- A. Provide standard reinforcement splices at splices, corners, and intersections by lapping ends, placing bars in contact, and tightly tying with wire at each end. Comply with details shown on structural drawings and requirements of ACI 318.
- B. Provide minimum 1-1/2 inch clearance between sets of splices. Stagger splices in horizontal bars so that adjacent splices will be 4 feet apart.
- C. Laps of welded wire reinforcement shall be at least two times the spacing of the members in the direction lapped but not less than twelve inches.
- D. Splices of reinforcement shall not be made at points of maximum stress. Provide splice lengths as noted on the structural drawings, with sufficient lap to transfer the stress between bars by bond and shear.
- E. Spacing:
  - 1. Space bars minimum distance specified and all lapped bars 2 bar diameters (minimum) clear of the next bar.
  - 2. Stagger splices of adjacent bars where possible and where required to maintain bar clearance.
  - 3. Beam or slab top bars shall be spliced mid-span of column support and bottom bars spliced at column supports.
  - 4. Request Architect/Engineer review prior to placement for all splices not shown on the drawings.
- F. Reinforcement Couplers: Install at all locations indicated. Install couplers in accordance with manufacturer's recommendations.

### 3.5 WELDING

- A. No reinforcing shall be welded unless specifically indicated or without prior approval of the Structural Engineer and the Authority Having Jurisdiction.

- B. Only when so approved for use as noted above, all welding shall conform to AWS D1.4, ACI 318 Section 26.6.4, and CBC 1903A.8 and the following;
  - 1. All welding performed by certified welders.
  - 2. All reinforcement requires preheat prior to welding. All preheat and welding shall be continuously inspected by the Testing Agency.

### 3.6 MISPLACED REINFORCEMENT

- A. Notify Architect/Engineer immediately if reinforcing bars are known to be misplaced after concrete has been placed.
- B. Perform no correction or cutting without specific direction. Do not bend or kink misplaced bars.
- C. Correct misplaced reinforcing only as directed in writing by the Architect/Engineer. Bear all costs of redesign, new, or additional reinforcing required because of misplaced bars at Contractor's expense.

### 3.7 FIELD QUALITY CONTROL

- A. The Testing Agency as specified in the Article QUALITY ASSURANCE, will inspect the work for conformance to contract documents before concrete placement.
  - 1. Inspection: Provide inspection and verification of installed reinforcement. Confirm that the surface of the rebar is free of form release oil or other coatings.
  - 2. Inspect all preheat and welding activities for steel reinforcement, when these occur.
  - 3. Exception: Non-structural patios, driveways, and sidewalks do not require special inspection.

### 3.8 CLEANING

- A. Remove excess material and debris associated with this work from the job site.

END OF SECTION 03 2000

## SECTION 03 3000 - CAST-IN-PLACE CONCRETE

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section

#### 1.2 SUMMARY

- A. Section Includes: Provide all labor, materials, equipment and services to complete all concrete work required, including, but not limited to, the following:
  - 1. Foundations, slabs-on-grade and walls.
  - 2. Installation of all bolts, inserts, sleeves, connections, etc. in the concrete.
  - 3. Joint devices associated with concrete work.
  - 4. Miscellaneous concrete elements, including, but not limited to: equipment pads, light pole bases, flagpole bases, thrust blocks, and manholes.
  - 5. Concrete curing.
  - 6. Coordination with other sections:
    - a. Make all preparations and do all work necessary to receive or adjoin other work. Install all bolts and anchors, including those furnished by other sections, into formwork and provide all required blocking.
    - b. Install all accessories embedded in the concrete and provide all holes, blockouts and similar provisions necessary for the work of other sections. Provide all patching or cutting made necessary by failure or delay in complying with this requirement at the Contractor's expense.
    - c. Coordinate with other sections for the accurate location of embedded accessories.
- B. Related Sections:
  - 1. Pertinent Sections of Division 01 specifying Quality Control and Testing Laboratory services.
  - 2. Pertinent Sections of Division 03 specifying concrete construction.
  - 3. Pertinent Sections of other Divisions specifying work to be embedded in concrete or work penetrating concrete.
  - 4. Pertinent sections of other Divisions specifying floor finishes and sealants applied to concrete substrates.

#### 1.3 REFERENCES

- A. California Code of Regulations, Title 24, latest adopted edition (herein noted as CBC) Chapter 19A Concrete.



- B. American Concrete Institute (ACI) 211.1 “Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete”; ACI 211.2 “Standard Practice for Selecting Proportions for Lightweight Concrete”.
- C. ACI 301 “Specifications for Structural Concrete”.
- D. ACI 302.1R “Guide for Concrete Floor and Slab Construction”.
- E. ACI 304R “Guide for Measuring, Mixing, Transporting, and Placing Concrete”.
- F. ACI 305R “Hot Weather Concreting”.
- G. ACI 306R “Cold Weather Concreting”.
- H. ACI 308 “Standard Practice for Curing Concrete”.
- I. ACI 318 “Building Code Requirements for Reinforced Concrete and Commentary”.

#### 1.4 ACTION SUBMITTALS

- A. Submit in accordance with pertinent sections of Division 01 specifying submittal procedures. The General Contractor shall review and approve shop drawings prior to submittal to the Architect/Engineer. Submittals that do not meet these requirements will be returned for correction without review. Submit for review prior to fabrication.
- B. Limitation of Review: Structural Engineer's review will be for general conformance with design intent as indicated in the Contract Documents and does not relieve Contractor of full responsibility for conformance with the Contract Documents.
- C. Product Data: Submit manufacturers' data on manufactured products and other concrete related materials such as bond breakers, cure/sealer, admixtures, etc. Demonstrate compliance with specified characteristics. Provide samples of items upon request. Submit material certificates for concrete aggregates and cementitious materials. Certificates shall show compliance to applicable ASTM's, the CBC, and additional requirements stated herein.
- D. Mix Designs: Submit Mix Designs for each structural concrete type required for work per requirements of articles CONCRETE MIXES and QUALITY ASSURANCE. Resubmit revised designs for review if original designs are adjusted or changed for any reason. Non-Structural mixes need not be submitted for review by Structural Engineer.
- E. Shop Drawings: Proposed location of construction and cold joints. Proposed location of all slab construction/dowel joints, control joints, and blockouts.
- F. Manufacturer's Installation Instructions: Indicate installation procedures and interface required with adjacent construction for concrete accessories.

- G. Batch Plant Certificates: Include with delivery of each load of concrete. Provide Certificates to the Testing Agency and the Architect/Engineer as separate submittals. Concrete delivered to the site without such certificate shall be rejected and returned to the plant. Each certificate shall include all information specified in Article SOURCE QUALITY CONTROL below.
- H. Engineering Analysis: Prepared by a California-licensed Civil or Structural Engineer, justifying construction-imposed loads on slabs, beams, and walls which exceed those allowed by CBC for the specified use.
  - 1. 2000 lbs maximum allowable construction load without analysis.
  - 2. 10,000 lbs maximum allowable construction load with analysis.
- I. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.
- J. Sample Warranty: For Concure Systems Admixture warranty. LIFETIME

#### 1.5 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Concrete construction verification and inspection to conform to CBC 1705A.3.
- C. Common Sourcing: Provide each of the following materials from a single source for entire project.
  - 1. Cement.
  - 2. Fly ash.
  - 3. Aggregate.
- D. Follow recommendations of ACI 305R when concreting during hot weather. Follow recommendations of ACI 306R when concreting during cold weather.
- E. Services by the Independent Testing Agency (includes "Special" Inspections) as specified in this Section and as follows:
  - 1. Perform tests and inspections specified below in articles SOURCE QUALITY CONTROL and FIELD QUALITY CONTROL. Duties and limitations of Independent Testing Agency, test costs and reports to be in conformance with pertinent Sections of Division 01.
- F. Contractor shall bear the entire cost of remediation, removal, and/or replacement of concrete determined defective or non-conforming, including Architect/Engineer fees for redesign.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Materials specified by brand name shall be delivered in unbroken packages bearing manufacturer's label and shall be brand specified or an approved equal.
- B. Delivery, Handling and Storage of other materials shall conform to the applicable sections of the current editions of the various reference standards listed in this Section.
- C. Protect materials from weather or other damage. Sort to prevent inclusion of foreign materials.
- D. Specific Requirements:
  - 1. Cement: Protect against dampness, contamination, and warehouse set. Store in weather tight enclosures.
  - 2. Aggregates: Prevent excessive segregation, or contamination with other materials or other sizes of aggregates. Use only one supply source for each aggregate stock pile.
  - 3. Admixtures:
    - a. Store to prevent contamination, evaporation, or damage.
    - b. Protect liquid admixtures from freezing and extreme temperature ranges.
    - c. Agitate emulsions prior to use.

## 1.7 ENVIRONMENTAL REQUIREMENTS

- A. Cold Weather (Freezing or near-freezing temperatures) per ACI 306R:
  - 1. Heat concrete materials before mixing, as necessary to deposit concrete at a temperature of at least 50°F but not more than 90°F.
  - 2. Do not place concrete during freezing, near-freezing weather, snow, rain or sleet unless protection from moisture and/or cold is provided.
  - 3. Protect from freezing and maintain at a temperature of at least 50°F for not less than seven days after placing. Take special precautions to protect transit-mixed concrete.
  - 4. No salts, chemical protection or admixture are permitted without written approval of Architect/Engineer.
  - 5. Contractor shall maintain an air temperature log for the first 7 days after placement with entry intervals not to exceed 8 hours.
- B. Hot Weather per ACI 305R:
  - 1. Cool concrete materials before mixing, or add ice in lieu of mix water as necessary to deposit concrete at a temperature below 85°F.
  - 2. Do not place concrete in hot/windy weather without Architect/ Engineer review of procedures.
  - 3. Provide sunshades and/or wind breakers to protect flat work during finishing and immediate curing operations. Do not place flatwork concrete at air temperature exceeding 90°F.

4. Provide modified mix designs, adding retarders to improve initial set times and applying evaporation reducers during hot/windy weather for review by Independent Testing Agency prior to use.

## 1.8 MOCK-UP

- A. Construct and erect mock-up panel for architectural concrete surfaces indicated to receive special treatment or finish, as result of formwork.
  1. Panel Size: Sufficient to illustrate full range of treatment.
  2. Number of Panels: 2.
  3. Locate as indicated on drawings.
- B. If requested by Architect / Engineer, cast concrete against mock-up panel. Obtain acceptance of resulting surface finish prior to erecting formwork.
- C. Accepted mock-up panel is considered basis of quality for the finished work. Keep mock-up exposed to view for duration of concrete work.
- D. Mock-up may remain as part of the Work.

## 1.9 SCHEDULING AND SEQUENCING

- A. Organize the work and employ shop and field crew(s) of sufficient size to minimize inspections by the Testing Agency.
- B. Provide schedule and sequence information to Testing Agency in writing upon request. Update information as work progresses.

## 1.10 WARRANTY

- A. Standard Concure Systems Admixture Warranty: Manufacturer's standard warranty, applicable regardless of vapor emissions (CC/Rh) test results, executed by an authorized company official, in which manufacturer agrees to completely repair or replace all floor finishes that are completely or partially damaged as a result of failure of admixture within specified warranty period.
  1. Failures include, but are not limited to, the following:
    - a. Moisture related failures.
  2. Warranty Period: LIFETIME from date of Substantial Completion.

## PART 2 – PRODUCTS

### 2.1 FORMWORK

- A. Comply with requirements of Section 03 1000.

## 2.2 REINFORCEMENT

- A. Comply with requirements of Section 03 2000.

## 2.3 MATERIALS

- A. General Requirements: All materials shall be new and best of their class or kind. All materials found defective, unsuitable, or not as specified, will be condemned and promptly removed from the premises.
- B. Cementitious Materials:
1. Portland Cement: ASTM C150, Type II, low alkali conforming to CBC 1903A.1.
  2. Fly Ash (Pozzolan): ASTM C618, Class F.
- C. Concrete Aggregates:
1. Coarse and Fine Aggregates: ASTM C33; Stone aggregate and sand. Specific source aggregate and/or sand or shrinkage characteristics as required for class of concrete specified.
  2. Lightweight aggregate: ASTM C330 and C332.
  3. Source shall remain constant throughout the duration of the job. The exact portions of the fine aggregates and coarse aggregates to be used in the mix shall be determined by the mix design.
  4. Aggregates shall be tested for alkali reactivity per CBC section 1903A.5. Where test results exceed allowable limits, additional testing of mitigation procedures shall be provided, as outlined per CBC section 1903A.5.
- D. Water: Potable, clean, from domestic source.
- E. Admixtures: All admixtures shall be used in strict accordance with the manufacturer's recommendations. Admixtures containing calcium chlorides or other accelerators shall not be used without the approval of the Architect/Engineer and the Owner's Testing Laboratory.
1. Mid Range Water Reducing Admixtures: ASTM C494 Type A, "MasterPolyHeed" (formerly "PolyHeed") series by BASF, "WRDA" series by W.R. Grace, or equal.
  2. High Range Water-Reducing Admixtures: ASTM C494 Type F, "MasterRheoBuild 1000" (formerly "RheoBuild 1000") or "MasterGlenium" (formerly "Glenium") series by BASF or equal.
  3. Water Reducing Admixture and Retarder: ASTM C494 Type B or D, "MasterPozzolith" (formerly "Pozzolith") series or "MasterSet DELVO" (formerly "DELVO") series by BASF, "Plastiflow-R" by Nox-crete, or equal.
  4. Air Entraining Admixtures: ASTM C260, product suit condition by BASF or equal.
  5. Viscosity Modifiers: ASTM C494 Type S.

6. Concure Systems Admixture vapor emissions control and waterproofing admixture, NO SUBSTITUTIONS, as manufactured by Concure Systems, Phoenix, AZ, (480) 820-7171, [email@concuresystems.com](mailto:email@concuresystems.com)
- F. Curing Materials:
  1. 2100 Cure and Seal by Concure Systems (480) 820-7171
- G. Related Materials:
  1. Concure Systems Crack Fill Binder
- H. Slurry: Same proportion of cement to fine aggregates used in the regular concrete mix (i.e. only coarse aggregate omitted); well mixed with water to produce a thick consistency.
- I. High Strength Grout: See section 05 1100 for requirements.
- J. Dry Pack: Dry pack (used only for cosmetic concrete repairs) shall consist of:
  1. One part cement to 2-1/2 parts fine aggregate (screen out all materials retained on No.4 sieve), mixed with a minimum amount of water, added in small amounts.
  2. Mix to consistency such that a ball of the mixture compressed in the hand will retain its shape, showing finger marks, but without showing any surface water.

## 2.4 ACCESSORIES

- A. Bonding Agent: ASTM C881, Type II Grade 2 Class B or C. Do not allow epoxy to set before placing fresh concrete.
  1. "MasterEmaco ADH 326" (formerly "Concresive Liquid LPL") by BASF;
  2. "Rezi-Weld 1000" by W.R. Meadows.
- B. Chemical Hardener: Fluorosilicate solution designed for densification of cured concrete slabs. "MasterKure HD 300 WB" (formerly "Lapidolith") by BASF, "LIQUI-HARD" W.R. Meadows Co, or equal.
- C. Moisture-Retaining Cover: ASTM C171, type 1, one of the following;
  1. Regular Curing Paper, Type I, reinforced waterproof: Fortifiber Corporation "Orange Label Sisalkraft", "Pabcotite" paper, or equal.
  2. Polyethylene Film: ASTM D 2103, 4 mil thick, clear or white color.
  3. White-burlap-polyethylene sheet, weighing not less than 10 oz/per linear yd.

- D. Liquid Curing Compound: ASTM C 309, Type 1, Class B, clear or translucent, 25% minimum solids, water base acrylic cure/sealer which will not discolor concrete and compatible with bonding of finishes specified in related sections. W.R. Meadows Co. "Vocomp 25" or equal. Maximum VOC content shall comply with local requirements and California Green Building Code.
- E. Under Slab Water Vapor Retarder: Vapor retarder sheet to be ASTM E1745 Class A; 15 mil, single ply extruded polyolefin; permeance no greater than 0.01 U.S. Perms per ASTM E154, ASTM E96 procedure B or ASTM F1249.
  - 1. "Stego Wrap Vapor Barrier (15mil)" by Stego Industries LLC.
  - 2. "Vaporguard" by Reef Industries.
  - 3. Approved Equal.
- F. Evaporation Reducer: "MasterKure ER 50" (formerly Confilm), by BASF.
- G. Permeability Reducer: Use only where specifically referred to.
  - 1. Admixture Type: Xypex Chemical Corporation "XYPEX Admix C-500". Dosage: 2-3% of cement content by weight; 15 lb/cu. yd. max. or BASF "MasterLife 300D" (formerly "Rheomac 300D"). Dosage: 2% of cement content by mass.
  - 2. Surface-Applied Type: Xypex Chemical Corporation "XYPEX Concentrate. Brush application: 1.25-1.50lb/sq. yd., 5 parts powder to 2 parts water. BASF "MasterSeal 500" (formerly "Tegraproof"). Slurry coat: one part water to 2.25-2.5 parts powder by volume.
  - 3. Approved equal.

## 2.5 JOINT DEVICES AND MATERIALS

- A. Waterstops: Resilient type, meeting Corps of Engineers CRD-C 572. Consult manufacturer for appropriate product for specific use. Submit for review. Install per manufacturers recommendation. Provide W. R. Meadows "Seal Tight" PVC waterstop, Sika "Greenstreak" PVC waterstop, or approved equal.
- B. Expansion Joint Filler: ASTM D1751, Nonextruding, resilient asphalt impregnated fiberboard or felt, 3/8 inch thick and 4 inches deep; tongue and groove profile.
  - 1. Products: "Servicised Products", W.R. Meadows, Inc., "National Expansion Joint Company", "Celotex Corporation", or equal.
- C. Joint Filler: ASTM D944, Compressible asphalt mastic with felt facers, 1/4 inch thick and 4 inches deep.
- D. Slab Joint Sealant: Compatible with floor finishes specified in related sections.

## 2.6 CONCRETE MIXES

### A. General requirements for mix design and submittal of structural class concrete:

1. Provide Contractor submittals to Architect/Engineer not less than 15 days before placing concrete.
2. Contractor shall review mix designs and proposed placing requirements prior to submittal for compatibility to ensure that the concrete as designed can be placed in accordance with the drawings and specifications.
3. Changes or revisions require re-submittal: All variations to approved mix designs, including changing type and/or quantity of admixtures shall be resubmitted to the Architect/Engineer for review prior to use.
4. Mix design(s) for all structural classes of concrete to be prepared by qualified person experienced in mix design. Allow for time necessary to do trial batch testing when required.
5. Preparer to provide backup data and certify in writing that mix design meets:
  - a. Requirements of the specifications for concrete durability and quality;
  - b. Requirements of the California Building Code and ACI 318 Section 26.4, including break histories, trial batching test results, and/or a mix designed by a California Registered Civil Engineer per ACI 318 Section 26.4.3.1(b) and bearing the Engineer's seal & signature.
6. Clearly note on mix designs with specified maximum WCR if design permits addition of water on site, or clearly identify in the mix design that no water is to be added on site.
7. Deviations: Clearly indicate proposed deviations, and provide written explanation explaining how the deviating mix design(s) will provide equivalent or better concrete product(s) than those specified.
8. Include adjustments to reviewed mix designs to account for weather conditions and similar factors.

### B. Proportioning - General: The following provisions apply to all mix designs:

1. Proportion concrete mixes to produce concrete of required average strength (as defined by ACI 318 Section 19.2.1). Select slump, aggregate sizes, shrinkage, and consistency that will allow thorough compaction without excessive puddling, spading, or vibration, and without permitting the materials to segregate, or allow free water to collect on the surface.
2. Select aggregate size and type to produce dense, uniform concrete with low to moderate shrinkage, free from rock pockets, honeycomb and other irregularities.
3. Mix designs may include water reducing and retarding admixtures to meet or exceed minimum set times (time required to place and finish) and to minimize Water Cement Ratios (WCR). Minimum and maximum criteria presented in this section are guidelines and do not represent a specific mix design.
4. Cement Content: Minimum cement content indicates minimum sacks of cementitious material. Increasing cement content to increase early strengths or to achieve specified WCR while maintaining water content is discouraged in order to minimize effects of shrinkage.



- a. Substitution of fly ash for Portland cement on an equivalent weight basis up to 25% replacement is permitted, except at high early strength concrete. Replacement in excess of 25% is not permitted unless part of a specified mix design that has been submitted for review.
    - b. Such substitution requests may be denied by the Engineer.
  5. Water Content: Mix designs with a specified maximum Water Cement Ratio (WCR) may be designed with a lower WCR than specified in order to allow addition of water at the site.
  6. Concrete Strength: Establish required average strength for each type of concrete on the basis of field experience or trial mixtures, as specified in ACI 301 and this section.
    - a. For trial mixtures method, employ independent testing agency acceptable to Architect/Engineer for preparing and reporting proposed mix designs.
  7. Placement Options: Mix designs may, at the Contractor's option, be designed for either pump or conventional placement with aggregate size, slumps, etc. to be maintained as specified in this section.
- C. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations and this section.
- D. Admixtures:
1. Use Concure Systems admixture and compatible accessory products by Concure. NO SUBSTITUTIONS.

E. Mix Design Minimum Requirements:

Concrete Class	Coarse Aggregate Size (Inches) & Fine Aggregate <sup>3</sup>	Maximum WCR or Maximum Nominal Slump & Tolerance (Inches) <sup>1,2</sup>	Minimum 28-Day Design Strength	Minimum Cement Sacks/per yd <sup>4</sup>
<b>NON-STRUCTURAL</b>				
1) Lean Concrete (use only where specified)	---	---	---	3.0
<b>STRUCTURAL</b>				
2) Foundations	1" x #4	WCR = .45	5000	6.1

Note: For concrete flatwork specifications see Increment 1 specification section 32 13 13.

1. The tolerance is the maximum deviation allowable without rejection. The mix design shall be based on the nominal value specified and is without water reducing mixtures. Slump to be measured at the end of the hose.
2. The maximum water cement ratio (WCR) is limited at time of placement as noted. No water is to be added on site such that the specified WCR or maximum slump is exceeded without approval of the testing laboratory and the Architect/Engineer. Workability is to be achieved utilizing an acceptable mid range to high range water reducing admixture.
3. Gradation of aggregate is per ACI 318 section 26.4.1.2 and ASTM C33.
4. Minimum cement content includes all cementitious materials.

2.7 MIXING CONCRETE

- A. Batch final proportions in accordance with approved mix designs. All adjustments to approved proportions, for whatever reason, shall be reviewed by the Architect/Engineer prior to use.
- B. Batch and mix concrete in accordance with ASTM C94, at an established plant. Site mixed concrete will be rejected.
- C. Provide batch and transit equipment adequate for the work. Operate as necessary to provide concrete complying with specified requirements.
- D. Place mixed concrete in forms within 1-1/2 hours from the time of introduction of cement and water into mixer or 300 revolutions of the drum whichever comes first. Use of, re-mixing, and/or tempering mixed concrete older than 1 hour will not be permitted.
- E. Do not add water at the site to concrete mixes with a maximum specified WCR unless the water content at batch time provides for a WCR less than specified and this provision, including the quantity of water which may be added at the site, is specifically noted on the mix design and certification by the mix preparer. See ASTM C94 for additional requirements.

2.8 SOURCE QUALITY CONTROL

A. Services by independent Testing Agency:

1. Where aggregate alkali reactivity testing (and, when applicable, mitigation testing) per the MATERIALS section is not available, the Testing Agency shall perform this testing to verify materials conformance to CBC section 1903A.5.
2. Batch Plant inspection at automated plants to occur at commencement of concrete work each day (first truck). Batch Plant inspection at non-automated plants and when accuracy is questionable shall be continuous. Additionally, water cement ratio (WCR) is to be verified where a WCR is specified herein. The computed WCR is to be written on the Batch Plant Certificate to be taken to the job site prior to the truck leaving the plant. See requirements of CBC 1705A.3.3.
3. Batch Plant Certificates: Obtain the weighmaster's Batch Plant Certificate at arrival of truck at the site. If no batch plant certificate is provided, recommend to the General Contractor that the truckload of concrete be rejected or note in daily log, along with the location of the load of concrete in the structure if the load is not rejected. See requirements of CBC 1705A.3.3.
  - a. Laboratory's inspector shall obtain for each transit mixer Batch Plant Certificates to verify mix design quantities and condition upon delivery to the site.
  - b. Certificates to include: Date, time, ingredient quantities, water added at plant and on job, total mixer revolutions at time of placement, and time of departure.
  - c. Concrete with specified water cement ratio: Add no water on site unless mix design and batch records each show additional water may be added. See ASTM C94 for additional requirements.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify lines, levels, and dimensions before proceeding with work of this section.
- B. Verify work of other sections is complete and tested as required before proceeding.

3.2 PREPARATION

A. Observation, Inspection and Testing:

1. Architect/Engineer: Notify not less than 2 working days before each concrete placement, for observation and review of reinforcing, forms, and other work prior to placement of concrete.
2. Testing Agency: Notify not less than 24 hours before each placement for inspection and testing.

- B. Placement Records: Contractor shall maintain records of time, temperature and date of concrete placement including mix design and location in the structure. Retain records until completion of the contract. Make available for review by Testing Agency and Architect/Engineer.
- C. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.
- D. Verify location, position and inclusion of all embedded and concealed items.
- E. Verify installation of vapor retarder under interior slabs on grade, as specified in related section, is complete.
- F. Cleaning and Preparation:
  - 1. Remove loose dirt, mud, standing water, and foreign matter from excavations and cavities.
  - 2. Close cleanout and inspection ports securely.
  - 3. Thoroughly clean reinforcement and other embedded items free from loose rust and foreign matter. Maintain reinforcing securely in place. Do not place concrete on hot reinforcing.
  - 4. Dampen form materials and substrates on which concrete is to be placed at least 1 hour in advance of placing concrete; repeat wetting as necessary to keep surfaces damp. Do not saturate. Do not place concrete on saturated material.
    - a. Thoroughly wet wood forms (except coated plywood), bottom and sides of trenches, adjacent concrete or masonry and reinforcement.
    - b. Concrete slabs on base rock, dampen rock.
    - c. Concrete slabs on vapor retarder, do not wet vapor retarder.
  - 5. Verify that metal forms are clean and free of rust before applying release agent.
  - 6. Thoroughly clean metal decking. Do not place concrete on wet deck surface.
  - 7. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
- G. Drill holes in existing concrete at locations where new concrete is doweled to existing work. Insert steel dowels and prepare connections as detailed.
- H. Do not overcut at existing concrete work to remain. Contractor is responsible for repair/replacement of overcut concrete to the Owner's satisfaction.

### 3.3 PIPES AND CONDUITS IN CONCRETE

- A. Slabs-on-Grade:
  - 1. No pipe or conduit exceeding 1 inch outside diameter shall be embedded within the specified slab thickness except as specifically detailed.
  - 2. Do not stack or abut pipes, maintain 3 inches minimum clearance.
- B. Sleeving and Wrapping:

1. Foundations: Sleeve or wrap all individual pipe penetrations, minimum 1-1/2 inches clear to reinforcing all around.
    - a. Sleeves: PVC. Provide 1 inch minimum clear all around O.D. pipe to I.D. sleeve, UNO at ends, fill void space with mastic or plastic bituminous cement.
    - b. Wrapped Vertical Pipes: Provide 1/8 inch nominal sheet foam with three wraps minimum, UNO.
    - c. Wrapped Horizontal Pipes: Provide 1/8 inch nominal sheet foam with eight wraps minimum, UNO.
    - d. Underground Fire Lines 4" and Larger: At sleeves provide 2 inch minimum clear all around O.D. pipe to I.D. sleeve. At wrapped pipes, provide 1/8 inch nominal sheet foam with sixteen wraps minimum.
  2. Slabs or Curbs: Wrap pipes as described above.
- C. Space groups of pipes/conduits at least 3 sleeve diameters apart, do not interrupt specified concrete and reinforcement.
1. Provide block-outs as detailed when grouping of pipes/conduits in foundation or other structural member prevents spacing as described. Notify Architect/Engineer for review of any conditions not conforming to details.
  2. Center pipe/conduit penetrations in the depth and/or thickness of foundations.
  3. Maximum size of pipe/conduit penetrations shall not exceed the least dimension of concrete divided by 3.
- D. Do not embed pipes/conduits in concrete slabs on metal deck.
- E. Provide the following at pipes/conduits detailed to be embedded in a concrete beam, wall or column:
1. Place as near as possible to center of member with reinforcing as specified on each side.
  2. Where reinforcing is located near or at center of member, place pipe or conduit 1 inch minimum clear from reinforcing and provide #3 at 12 inches on center perpendicular to the pipe/conduit. Reinforcing to extend 12 inches minimum past pipe/conduit each side.
  3. Maintain 3/4 inch clear minimum from added reinforcing to face of concrete where not exposed to weather and 1-1/2 inches clear where exposed to weather.
  4. Space embedded items (groups of pipe/conduit, junction boxes or other elements) minimum 3 inches apart.
  5. Provide reinforcing in walls, beams, columns as detailed for groups of pipe/conduit. Provide minimum replacement reinforcement of same size and number for interrupted or displaced reinforcement for the full height, length, width of the wall, beam, and/or column on each side of the "effective opening."

### 3.4 CONCRETE PLACEMENT

- A. Transporting:

1. Provide clean, well-maintained equipment of sufficient quantity and capacity to execute the work and produce concrete of quality specified.
  2. Handle and transport concrete from mixer to final deposit location as rapidly as practicable. Prevent separation or loss of ingredients.
- B. Perform concrete placement by methods which will not puncture, damage or disturb vapor retarder membrane. Repair all damage to vapor retarder membrane before covering.
- C. Placement - General: Placement, once started, shall be carried on as a continuous operation until section of approved size and shape is completed. Provide construction joints as detailed on the drawings. Engineer's written approval required for all deviations.
1. Deposition:
    - a. Deposit concrete to maintain an approximately horizontal plastic surface until the completion of the unit placement.
    - b. Deposit as neatly as practicable in final position, minimize re-handling or flow.
    - c. Do not drop concrete freely where reinforcing bars, embeds, or obstructions occur that may cause segregation. Provide spouts, elephant trunks, or other means to prevent segregation during placement.
  2. Depth: Layered placement in columns and walls shall not exceed ten feet vertical depth.
    - a. Place concrete in minimum 32-inch horizontal lifts.
    - b. Schedule placement to ensure that concrete will not take initial set before placement of next lift.
    - c. No horizontal cold joints are allowed in columns or walls.
  3. Progress Cleaning: Remove all concrete spilled on forms or reinforcing steel in portions of structure not immediately concreted. Remove completely before concrete sets.
  4. Interruptions: Shut down placement operations and dispose of all remaining mixed concrete and concrete in hoppers or mixers following all interruption in placement longer than 60 minutes.
    - a. If such interruption occurs, provide new or relocate existing construction joints as directed by Engineer.
    - b. Cut concrete back to the designated line, cleaning forms and reinforcing as herein specified.
    - c. Prepare for resumption of placement as for new unit when reason for interruption is resolved.
- D. Placement - Elevated Structural Systems: Place as noted for "General" above and as follows:
1. Metal Decking and Structural Steel Beam Systems that are not to be shored: Locate screed lines on primary structural members. Review proposed screed line locations and expected structural deflections with the Architect/Engineer prior to placement of concrete.

2. Place screed lines to match camber of primary girders made of material other than concrete. Locate screeds to provide the minimum specified thickness of concrete at all locations.
3. Compensate for deflection of intermediate structural members and decking by placement of additional concrete.
4. Adjust embedded items to compensate for camber and deflection. Maintain locations within specified tolerances.

E. Consolidation:

1. Consolidate all concrete thoroughly during placement with high-speed mechanical vibrators and other suitable tools. Perform manual spading and tamping to work around reinforcement, embedded fixtures, and into corners of formwork as required to obtain thorough compaction.
  - a. Provide vibrators with sufficient amplitude for adequate consolidation.
  - b. Use mechanical vibrators at each point of concrete placement.
  - c. Keep additional spare vibrators, in addition to those required for use, at the site for standby service in case of equipment failure.
2. Consolidate each layer of concrete as placed.
  - a. Insert vibrators vertically at points 18 to 30 inches apart; work into top area of previously placed layer to reconsolidate, slowly withdraw vibrator to surface.
  - b. Avoid contact of vibrator heads with formwork surfaces.
  - c. Systematically double back and reconsolidate wherever possible. Consolidate as required to provide concrete of maximum density with minimized honeycomb.

F. Unacceptable Materials:

1. Do not place concrete that has started to set or stiffen. Dispose of these materials.
2. Do not add water on site to concrete except as specified in the approved mix design, see PART 2 above.

G. Protection of installed work:

1. Do not introduce any foreign material into any specified drainage, piping or duct systems.
2. Contractor shall bear all costs of work required to repair or clean affected work as a result of failure to comply with this requirement.

### 3.5 CONCRETE JOINTS

A. Structural Joints (Construction/Cold Joints):

1. Locate joints only where shown, or as approved.

2. Review Required: Joints not indicated on the plans shall be located to meet the minimum requirements below, shall not impair the strength of the structure and shall be submitted to Architect/Engineer for review prior to placement of concrete.
    - a. Indicate proposed location(s) of construction/cold/expansion joints on shop drawing submittals for review prior to placing concrete.
  3. Clean and roughen all surfaces of previously placed concrete at construction joints by washing and sandblasting to expose aggregate to 1/4 inch amplitude.
  4. Slabs-On-Grade: Maximum Length of continuous placement shall not exceed 60 feet without special review by the Architect/Engineer. Alternate or stagger placement sections.
  5. Foundations, Beams, Elevated Slabs and Joists: Maximum Length of continuous placement shall not exceed 200 foot increments. Provide “keyed” shut-off locations made up with form boards. Extend reinforcing one lap length or more through shut-off.
    - a. All reinforcement shall be continuous through construction/cold joint, lapping to adjacent reinforcing in future placement.
    - b. Construction Joints in Elevated Slabs: Review all proposed locations with Architect/Engineer.
    - c. Construction Joints in Slabs on Metal Decking: Review all proposed locations with Architect/Engineer. Do not locate closer than 24 inches to faces of girder or beam.
  6. Horizontal Construction Joints: Place 2 inch slurry (specified concrete mix less coarse aggregate) at beginning of pour at the bottom of walls unless a prior review of a mock-up section demonstrates that segregation of aggregate will not occur.
- B. Expansion/Construction Joints (Dowel Joints and Control Joints):
1. Interior and Exterior Floor Slabs-on-Grade:
    - a. Expansion/Construction Joints: Provide dowel joints or control joints at a maximum dimension (in feet) of three times the slab thickness (in inches) in each direction unless noted otherwise (15'-0" maximum). Install joints to match slab level and in straight lines. Locate joints at all reentrant corners including blockouts.
    - b. Proportions: Install joints to divide slab into rectangular areas with long dimensions less than 1.5 times short dimension.
  2. Exterior Concrete Paving (walkways, patios) and other non-structural concrete flatwork at grade:
    - a. Expansion/ construction joints: Provide a 2 inch deep troweled groove or asphalt impregnated joint material embedded 50 percent of the slab depth at 12 feet on center, maximum.
    - b. Proportions: Place no section with a length larger than two times width. Additionally, place joints at all inside corners and at all intersections with other work.
- C. Joint Types:



1. Dowel Joint: A keyed joint with smooth dowels passing through to allow unrestricted movement due to contraction and expansion. Joints are as specified on the drawings.
2. Control Joint(s): Shrinkage crack control joints may be of the following types when shown on the drawings. Install joints in a straight line between end points with edges finished appropriate to type. Depth shall be 25% of the slab thickness, unless noted otherwise. Fill joints with sealant as shown on the drawings or as required by related sections.
  - a. 1/4 inch wide troweled joint.
  - b. Keyed joint: Only at locations where concealed by other finishes.
  - c. Masonite Strip, 1/8 inch: Only at locations where concealed by other finishes.
  - d. Saw Cut, 1/8 inch: Must be performed within eight hours of completion of finishing. Do not make saw cuts if aggregate separates from cement paste during cutting operation. Prevent marring of surface finish. Fill with flexible sealant.

### 3.6 VAPOR RETARDER

- A. Vapor Retarder Installation: Install as specified in PART 2, ASTM E1643, and per manufacturer's recommendations including taping and lapping of seams, sealing of penetrations, and repair of damage. Do not extend vapor retarder below footings.

### 3.7 FLATWORK

- A. General Requirements for All Concrete Formed & Finished Flat:
  1. Edge Forms and Screeds: Set accurately to produce indicated design elevations and contours in the finished surface, edge forms sufficiently strong to support screed type proposed.
  2. Jointing: Located and detailed as indicated.
  3. Consolidation: Concrete in slabs shall be thoroughly consolidated.
- B. Flatwork Schedule:
  1. Exterior Slabs-On-Grade: Place concrete directly over sub-base as indicated.
    - a. Sub-Base: Clean free-draining, crushed base rock, 6 inch minimum thickness, thoroughly compacted.
  2. Interior Slabs-On-Grade:
    - a. Sub-Base: Clean free-draining, crushed base rock, 6 inch minimum thickness, thoroughly compacted.
    - b. Vapor Retarder: Install over sub-base.

### 3.8 FORMED SURFACES

- A. Form all concrete members level and plumb, except as specifically indicated. Comply with tolerances specified in ACI 318 Section 26.11, ACI 301 Section 2, and this specification, except that maximum permissible deviation is 1/4 inch end-to-end for any single member.
- B. Cambers: Provide all cambers indicated in the formwork construction. Set screeds to produce specified cambers in the finished concrete.

### 3.9 CONCRETE FINISHES

- A. Flatwork Finishing:
  - 1. Perform with experienced operators.
  - 2. Finish surfaces monolithically. Establish uniform slopes or level grades as indicated. Maintain full design thickness.
  - 3. In areas with floor drains, maintain design floor elevation at walls; slope surfaces uniformly to drains as indicated on drawings.
  - 4. Flatwork Finish Types:
    - a. Wood Float Finish: Surfaces to receive quarry tile, ceramic tile, or cementitious terrazzo with full bed setting system, or wood frame for raised finished floors.
    - b. Steel Trowel Finish: Surfaces to receive carpeting, resilient flooring, seamless flooring, thin set terrazzo, thin set tile or similar finishes specified in related sections. Trowel twice, minimum.
    - c. Broom Texture Finish: Exterior surfaces as indicated or for which no other finish is indicated. Finish as for steel trowel finish, except immediately following first troweling, (depending on conditions of concrete and nature of finish required) provide uniform surfaces texture using a medium or coarse fiber broom.
- B. Other Concrete: Provide as required to achieve appearance indicated on structural and architectural drawings and related sections.
  - 1. Repair surface defects, including tie holes, immediately after removing formwork.
  - 2. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
  - 3. Exposed Form Finish: Finish concrete to match forms. Rub down or chip off and smooth fins or other raised areas 1/4 inch or more in height. Provide finish as follows:
    - a. Smooth Rubbed Finish: Wet concrete and rub with carborundum brick or other abrasive, not more than 24 hours after form removal.
    - b. Grout Cleaned Finish: Wet areas to be cleaned and apply grout mixture by brush or spray; scrub immediately to remove excess grout. After drying, rub vigorously with clean burlap, and keep moist for 36 hours.

- c. Cork Floated Finish: Immediately after form removal, apply grout with trowel or firm rubber float; compress grout with low-speed grinder, and apply final texture with cork float.
4. Intermediate joint and score marks and edges: Tool smooth and flush unless otherwise indicated or as directed by the Architect.
5. Use steel tools of standard patterns and as required to achieve details shown or specified. All exposed corners not specified to be chamfered shall have radiused edges.

### 3.10 TOLERANCES

- A. Minimum Flatwork Tolerances: Measure flatness of slabs within 48 hours after slab installation in accordance with ACI 302.1R and ASTM E1155 and to achieve the following FF and FL tolerances:
  1. Exterior surfaces: 1/8 inch minimum per foot where sloped to drain. Level otherwise. FF20 and FL15.
  2. Interior surfaces not otherwise shown or required: Level throughout. FF25 and FL20
  3. Interior surfaces required to be sloped for drainage: 1/8 inch in 10 ft.
  4. Finish concrete to achieve the following tolerances:
    - a. Under Glazed Tile on Setting Bed: FF30 and FL20.
    - b. Under Resilient Finishes: FF35 and FL25.
    - c. Flooring manufacturer and pertinent section of Division 9.
- B. Formed Surface Tolerances:
  1. Permanently Exposed Joints and Surfaces: Provide maximum differential height within two feet of, and across construction joints of 1/16 inch.
  2. Vertical Elevations: Elevation of surfaces shall be as shown or approved.

### 3.11 SEPARATE FLOOR TOPPINGS

- A. Prior to placing floor topping, roughen substrate concrete surface and remove deleterious material. Broom and vacuum clean.
- B. Place required dividers, edge strips, reinforcing, and other items to be cast in.
- C. Apply bonding agent to substrate in accordance with manufacturer's instructions.
- D. Apply sand and cement slurry coat on base course, immediately prior to placing toppings.
- E. Place concrete floor toppings to required lines and levels. Place topping in checkerboard panels not to exceed 20 feet in either direction.
- F. Screed toppings level, maintaining surface tolerances per above.

### 3.12 CONCRETE CURING

- A. Curing - General: Cure in accordance with ACI 308. Maintain concrete water content for proper hydration and minimize temperature variations. Begin curing immediately following finishing.
- B. Protection During Curing: Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. The General Contractor is responsible for the protection of the finished slab from damage.
  - 1. Avoid foot traffic on concrete for minimum of 24-hours after placement.
  - 2. Protect concrete from sun and rain.
  - 3. Maintain concrete temperature at or above 50 degrees F. during the first 7 days after placement. See Article ENVIRONMENTAL REQUIREMENTS.
  - 4. Do not subject concrete to design loads until concrete is completely cured, and until concrete has attained its full specified 28-day compressive strength or until 21 days after placement, whichever is longer.
  - 5. Protect concrete during and after curing from damage during subsequent building construction operations. See Article PROTECTION.
- C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
  - 1. Normal concrete: Not less than 7 days.
  - 2. High early strength concrete: Not less than 4 days.
- D. Begin curing immediately following finishing.
- E. Surfaces Not in Contact with Forms:
  - 1. Start initial curing as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than 3 days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
  - 2. Begin final curing after initial curing but before surface is dry.
    - a. Moisture-retaining cover: Seal in place with waterproof tape or adhesive.
    - b. Curing compound: Apply in two coats at right angles, using application rate recommended by manufacturer.
- F. Flatwork on Grade: Cure by one of the following methods:
  - 1. Water Cure (Ponding): Maintain 100 percent coverage of water over floor slab areas, continuously for minimum 7 calendar days.
  - 2. Spraying: Spray water over floor slab areas and maintain wet for 7 days.
  - 3. Moisture-Retaining Film or Paper: Lap strips not less than 6 inches and seal with waterproof tape or adhesive; extend beyond slab or paving perimeters minimum 6 inches and secure at edges; maintain in place for minimum 7 days.

4. Absorptive Moisture-Retaining Covering: Saturate burlap-polyethylene and place burlap-side down over floor slab areas, lapping ends and sides and extend beyond slab or paving perimeters 6 inches minimum; maintain in place for minimum 7 days.
  5. Liquid Membrane-forming Curing Compound: Provide only when subsequent concrete treatments or finish flooring specified in related sections will not be affected by cure/sealer. Apply curing compound in accordance with manufacturer's instructions at the maximum recommended application rate in two coats, with second coat applied at right angles to first.
- G. Elevated Flatwork: Cure by one of the following methods.
1. Moisture-Retaining Sheet: As specified for Flatwork on Grade above.
  2. Water Cure: As specified above for minimum 14 days.
  3. Apply Membrane Curing Compound as specified above after initial curing period.
- H. Flatwork on Metal Decking: Moisture-Retaining Sheet method as specified above.
- I. Formed Concrete Members: Cure by moist curing with forms in place for full curing period.
1. Protect free-standing elements from temperature extremes.
  2. Maintain forms tight for minimum 7 days. Maintain exposed surfaces continuously damp and completely covered by sheet materials thereafter.
  3. Maintain all shoring in place. Refer to related sections specifying formwork.
  4. Membrane Curing Compound: Apply compound in accordance with manufacturer's instructions in one coat.
- J. Foundations: Apply curing compound immediately after floating.

### 3.13 CONCRETE HARDENER

- A. Apply hardener to all floor slabs not receiving other finishes after 30 days minimum curing. Clean slabs of non-compatible cure/sealers or other foreign material(s) and apply in strict accordance with the manufacturer's directions.

### 3.14 GROUTING AND DRY PACK

- A. Set steel plates on concrete or masonry with high strength grout bed, completely fill all voids; thoroughly compact in place. See Section 05 05 1100.
- B. Bolts or inserts dry packed or grouted in place shall cure for minimum 7 days before tensioning.

### 3.15 FIELD QUALITY CONTROL

- A. Testing and Inspections by Independent Testing Agency: Provided verification and inspection of concrete per CBC Table 1705A.3. Provide written reports for to Engineer, Architect, Contractor and Building Official for the following tests and inspections:
- B. Testing & Inspection: Provide periodic inspection of reinforcing steel. Provide continuous inspection during placement of structural class concrete, 3000 psi or more. Non-structural class concrete with a design strength of 2500 psi or less to have periodic inspection on a 150 cubic yard basis as required to assure conformance.
  - 1. Provide periodic inspection of bolts in concrete prior to and during placement where so noted on the construction documents.
  - 2. Structural Concrete Cylinder Tests: Perform in accordance with ASTM C31.
    - a. Take four standard 6 inch x 12 inch (or five 4 inch x 8 inch) cylinder specimens on the site, of each class of concrete as specified in PART 2, not less than once a day or for each 50 cubic yards or 2000 sq ft or fraction thereof placed each day.
    - b. Record the location of each concrete batch in the building in a log and also note on each specimen.
    - c. Perform standard compression test of cylinders in accordance with ASTM C39, one at 7 days and two (three for 4x8 cylinders) at 28 days.
    - d. Hold fourth (fifth) cylinder untested until specified concrete strengths are attained.
  - 3. Structural Concrete Slump Test and Air Tests: Perform in accordance with ASTM D143 and C231 or C173 at the time of taking test cylinders, and/or at one-hour intervals during concrete placing.
  - 4. Measure and record concrete temperature upon arrival of transit mixers and when taking specimens. Note weather conditions and temperature.
  - 5. Propose adjustments to reviewed mix designs for Architect / Engineer review to account for variations in site or weather conditions, or other factors as appropriate.
  - 6. Water Vapor Transmission Tests: Floors receiving floor finishes specified in related sections will be tested prior to installation of flooring systems. Refer to sections specifying floor finishes for related requirements.
- C. Services by Contractor:
  - 1. Rejection of Concrete Materials: Do not use the following without prior written approval of the Architect/Engineer;
    - a. Materials without batch plant certificates.
    - b. Materials not conforming to the requirements of these specifications.

### 3.16 ADJUSTING

- A. Inspect all concrete surfaces immediately upon formwork removal. Notify Architect/Engineer of identified minor defects. Repair all minor defects as directed.

- B. Surface and Finish Defects: Repair as directed by the Architect/Engineer, at no added expense to the Owner. Repairs include all necessary materials; reinforcement grouts, dry pack, admixtures, epoxy and aggregates to perform required repair.
1. Repair minor defective surface defects by use of drypack and surface grinding. Specific written approval of Architect/Engineer is required. Submit proposed patching mixture and methods for approval prior to commencing work.
  2. Slabs-on-Grade, Elevated Slabs and on Slabs on Metal Deck: Review for "curled" slab edges and shrinkage cracks prior to installation of other floor finishes. Grind curled edges flush, fill cracks of 1/16 inch and greater with cementitious grout.
  3. Grind high spots, fins or protrusions caused by formwork; Fill-in pour joints, voids, rock pockets, tie holes and other void not impairing structural strength. Provide surfaces flush with surrounding concrete.

### 3.17 DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not conforming to required compressive strength, lines, details, dimensions, tolerances, finishes or specified requirements; as determined by the Architect/Engineer.
- B. Repair or replacement of defective concrete will be determined by the Architect/Engineer who may order additional testing and inspection at his option. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
- C. Specific Defects:
1. "Low-Strength"; Concrete Not Meeting Specified Compressive Strength after 28 days:
    - a. Concrete with less than 25% Fly Ash as cementitious material: Test remaining cylinder(s) at 56 days. If strength requirements are met, concrete strength is acceptable.
    - b. Concrete with 25% or more Fly Ash as cementitious material: Test remaining cylinder(s) at 70 days. If strength requirements are met, concrete strength is acceptable.
  2. Excessive Shrinkage, Cracking, Crazing or Curling; Defective Finish: Remove and replace if repair to acceptable condition is not feasible.
  3. Lines, Details, Dimensions, Tolerances: Remove and replace if repair to acceptable condition is not feasible.
  4. Slab sections not meeting specified tolerances for trueness/flatness or lines/levels: Remove and replace unless otherwise directed by the Architect/Engineer. Minimum area for removal: Fifteen square feet area unless directed otherwise by the Architect/Engineer.
  5. Defective work affecting the strength of the structure or the appearance: Complete removal and replacement of defective concrete, as directed by the Architect/Engineer.

### 3.18 CLEANING

- A. Maintain site free of debris and rubbish. Remove all materials and apparatus from the premises and streets at completion of work. Remove all drippings; leave the entire work clean and free of debris.
- B. Slabs to Receive Floor Finishes Specified in other sections: Remove non-compatible cure/sealers or other foreign material(s) which may affect bonding of subsequent finishes. Leave in condition to receive work of related sections.

### 3.19 PROTECTION

- A. Protect completed work from damage until project is complete and accepted by Owner.
- B. Construction Loads: Submit engineering analysis for equipment loads (including all carried loads) specified in article submittals.
- C. Keep finished areas free from all equipment traffic for a minimum of 4 additional days following attainment of design strength and completion of curing.
- D. Protection of Drainage Systems:
  - 1. Care shall be taken not to introduce any foreign material into any specified drainage, piping or duct system.
  - 2. Cost of work to repair or clean drainage system as a result of failure to comply with this requirement will be back charged to the contractor.
- E. Cover traffic areas with plywood sheets or other protective devices; maintain protection in place and in good repair for as long as necessary to protect against damage by subsequent construction operations.

END OF SECTION 03 3000



## SECTION 05 1100 - STRUCTURAL AND MISCELLANEOUS STEEL

### PART 1 – GENERAL

#### 1.1 SUMMARY

- A. Section Includes: All labor, materials, equipment and operations required to complete structural and miscellaneous metals in shapes and configurations indicated; including:
  - 1. Anchor bolts and steel inserts embedded in concrete or masonry, installed by related sections.
  - 2. Fabricated steel items embedded in concrete or masonry installed by related sections.
  - 3. Supervision of anchor bolt setting, leveling and elevations to insure required fit of steel work.
  - 4. Shop priming and field touch-up, galvanizing.
- B. Related Sections:
  - 1. Pertinent sections of Division 01 specifying Quality Control and Testing Agency services.
  - 2. Pertinent Sections of other Divisions specifying concrete reinforcement, formwork, concrete, structural and miscellaneous metal fabrications, steel joists, metal decking, cold-formed metal framing, rough carpentry.

#### 1.2 REFERENCES

- A. California Code of Regulations, Title 24, latest adopted edition (herein noted as CBC): Chapter 22A Steel.
- B. American Institute of Steel Construction (AISC) 303 “Code of Standard Practice for Steel Buildings and Bridges”.
- C. AISC 360 “Specification for Structural Steel Buildings”.
- D. American Welding Society (AWS) D1.1 “Structural Welding Code - Steel”.
- E. Underwriters Laboratories (UL) FRD “Fire Resistance Directory”.

#### 1.3 SUBMITTALS

- A. Submit in accordance with pertinent sections of Division 01 specifying submittal procedures. The General Contractor shall review and approve shop drawings prior to submittal to the Architect/Engineer. Submittals that do not meet these requirements will be returned for correction without review.

- B. Limitation of Review: Structural Engineer's review will be for general conformance with design intent as indicated in the Contract Documents and does not relieve Contractor of full responsibility for conformance with the Contract Documents.
- C. Product Data: Submit manufacturer's product data, specifications, location and installation instructions for proprietary materials and reinforcement accessories. Provide samples of these items upon request.
- D. Certifications:
  - 1. Steel Materials: Submit the following for identified materials.
    - a. Manufacturer's Mill Certificate: Certify that products meet or exceed specified requirements.
    - b. Mill Test Reports: Indicate structural strength, destructive test analysis, and non-destructive test analysis.
    - c. Contractor's affidavit certifying that all identified steel materials provided are of the grades specified and match the certificates supplied.
  - 2. Welders Certificates: Certify welders employed on the Work, verifying AWS qualification per AWS D1.1.
- E. Samples: Provide samples to the Testing Agency as specified in Article SOURCE QUALITY CONTROL, at no additional costs.

#### 1.4 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies, refer to pertinent sections of Division 01 and CBC Chapter 17A.
- B. All tests shall be performed by a recognized testing agency as specified in pertinent sections of Division 01.
- C. Certification and Identification of Materials and Uses: Provide Testing Agency with access to fabrication plant to facilitate inspection of steel. Provide notification of commencement and duration of shop fabrication in sufficient time to allow inspection and all material identification/test information listed below.
  - 1. Test all steel as required by ASTM A6.
  - 2. Provide manufacturer's Mill Test Reports for all materials. Include chemical and physical properties of the material for each heat number manufactured. Tag all fabricated materials with heat number.
  - 3. Provide letter certifying all materials supplied are from heat numbers covered by supplied mill certificates. Include in letter the physical location of each material type and/or heat number in the project (i.e. walls, braced frames etc.).
  - 4. Unidentified Material Tests: Where identification of materials by heat number or mill tests cannot be made, Owner's Testing Agency shall test unidentified materials.
  - 5. Provide all certification, verifications, and other test data required to substantiate specified material properties at no additional cost to the Owner.

- D. Testing and Inspection: Tests and Inspections performed by Independent Testing Agency are specified below in Articles SOURCE QUALITY CONTROL and FIELD QUALITY CONTROL. Duties and limitations of Independent Testing Agency, test costs and test reports in conformance with pertinent sections of Division 01.
- E. The following standards are the minimum level of quality required. Provide higher quality work as specifically indicated in the Contract Documents.
  - 1. Workmanship and details of structural steel work shall conform to the CBC and AISC 360.
  - 2. The quality of materials and the fabrication of all welded connections shall conform to AWS D1.1.
  - 3. Comply with Section 10 of AISC 303 for architecturally exposed structural steel.
- F. The Testing Agency will review all submittals and testing of materials.
- G. All re-inspections made necessary by non-conforming work shall be at the Contractor's expense.

#### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to project site in bundles marked with durable tags indicating heat number, mill, member size and length, proposed location in the structure and other information corresponding with markings shown on placement diagrams.
- B. Handle and store materials above ground to prevent damage, contamination or accumulation of dirt or rust.

#### 1.6 SCHEDULING AND SEQUENCING

- A. Organize the work and employ shop and field crew(s) of sufficient size to minimize inspections by the Testing Agency.
- B. Provide schedule and sequence information to Testing Agency in writing upon request. Update information as work progresses.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Bolts, Nuts, and Washers: ASTM A307 Grade A machine bolts with ASTM A563 Grade A nuts and ASTM F844 washers to match. See FINISHES section for galvanization, where required.
- B. Anchor Bolts/Rods, Nuts, and Washers: ASTM F1554 Gr. 36 or 55 with ASTM A563 Grade A nuts, and ASTM F436 Type 1 washers. Grade DH nuts where Grade 105 rod is specified. No upset thread allowed.

- C. Arc-Welding Electrodes: AWS Standards E70 or equivalent, except no E70T-4 allowed.
- D. Other Welding Materials: AWS D1.1; type required for materials being welded.
- E. Deformed Bar Anchors: ASTM A496.

## 2.2 ACCESSORIES

- A. High Strength Grout: ASTM C1107, non-shrink, premixed compound consisting of aggregate, cement, and water reducing plasticizing agents. Minimum compressive strength  $f'_c = 7000$  psi at 28 days. Non-metallic where exposed to view. BASF "MasterFlow 928" or equivalent.
- B. Building Structural Steel Primers: Comply with local VOC limitations of authorities having jurisdiction and the California Green Building Code. Verify compatibility with finish coats specified in other sections. Follow manufacturers printed instructions. Apply one coat unless otherwise directed.
  - 1. Type A: Self-Crosslinking Hydrophobic Acrylic passing 2000 hours ASTM D4585 and 7000 hours ASTM D5894. "Series 115 Uni-Bond DF" by Tnemec (2.0 to 4.0 mils DFT).
  - 2. Type B: Organic Zinc-Rich Urethane passing 50,000 hours ASTM B117 and 15000 hours ASTM G85. "Series 90-97 Tnemec-Zinc" by Tnemec (2.5 to 3.5 mils DFT) or "Series 94-H2O Hydro-Zinc" by Tnemec (2.5 to 3.5 mils DFT).
  - 3. Type C: MIO-Zinc Filled Urethane passing 10,000 hours ASTM B117 and 5000 hours ASTM D4585. "Series 394 PerimePrime" by Tnemec (2.5 to 3.5 mils DFT).
- C. Galvanizing: ASTM A153 and A123.
- D. Touch-Up Primer for Galvanized Surfaces: Type B primer.

## 2.3 FABRICATION

- A. Shop fabricate to greatest extent possible.
- B. Continuously seal joined members by continuous welds. Grind welds smooth where exposed to view and where noted on drawings.
- C. Fabricate connections for bolt, nut, and washer connectors.
- D. Protect all materials, before and after fabrication, from rust, corrosion, dirt, grease, and other foreign matter.
- E. Fabricate framing members free from twists or bends. Form holes, cut and sheared edges neatly without kinks, burrs, or warped edges.

- F. Exposed Steel: Straight, smooth, free of nicks, scars or dents.
- G. Gas Cutting: Gas cutting of holes in a member shall not be permitted.
- H. Splicing of members: Members requiring splicing due to length requirements may be spliced using full penetration butt welds when such welds and procedures are inspected and certified by the Testing Agency, in conformance with AWS and AISC standards. The location of splices shall be approved by the Architect/Engineer in writing prior to fabrication.
- I. Welding: Welding of structural steel connections shall be performed by qualified welders in accordance with AWS Standards. All weld sizes shall match those shown on the drawings.
  - 1. Preparation: Clean all surfaces free of rust, paint and all foreign matter. Remove paint or scale by brushing, chipping or hammering as required. Chip clean and wire brush burned or flame cut edges before welding. Space and alternate welds, clamping as necessary to prevent warp or misalignment.
  - 2. Sequence Welding: When welds enclose, or partially enclose, the perimeter or portion of the surface of a member, make weld bead in sequence, or staggered. Minimize internal stresses. Weld groups of members occurring in a single line in staggered sequence to minimize distortion of the structural frame.
  - 3. Faulty and Defective Welding: Welds failing to meet AWS standards and the Contract Documents shall be rejected and remade at Contractor expense. All welds showing cracks, slag inclusion, lack of fusion, bad undercut or other defects, ascertained by visual or other means of inspection shall be removed and replaced with conforming work.
  - 4. Minimum Weld Strengths: All welds shall match the minimum weld sizes recommended by AISC. Details of fabrication not specifically shown shall match similar details which are specifically shown. All bevel and groove welds shall be full penetration unless size is noted otherwise.
  - 5. Threaded studs, headed studs, and deformed bar anchors shall be full-fusion welded conforming to AWS D1.1.
- J. Grinding: Grind smooth the following structural steel and connections;
  - 1. Exposed cut ends of structural and fabricated shapes.
  - 2. All welds exposed to view.
  - 3. Mitered and fit-up corners and intersections.
- K. Back-Up Bars: Required for all complete penetration welds.
- L. Bolt Holes: Edge, end distances and spacing shall conform to dimensions shown on the drawings, and as follows;
  - 1. Round: Size indicated and 1/16 inch maximum oversize
  - 2. Slotted: At locations specifically noted on the drawings, provide size indicated and 1/16 inch by 1/4 inch oversize slotted in direction perpendicular to applied

- loads.
3. Holes in base plates for anchor bolts may be 1/8 inch oversize.

## 2.4 FINISHES

- A. Steel exposed to inclement atmospheric conditions or weather (such as coastal moisture or seasonal rain) shall be sufficiently primed or otherwise protected against corrosion. If condition of steel is suspect due to weathering/corrosion, Contractor shall bear cost of inspection to determine if excessive corrosion is present and if steel member(s) requires repair or replacement. Contractor shall bear cost of repair or replacement.
- B. Prepare and finish structural and miscellaneous steel component surfaces as follows, unless a higher standard-of-care is determined necessary per item A:
1. Unpainted, interior, dry exposure surfaces need not be primed.
  2. Finished painted, interior, dry exposure surfaces:
    - a. Surface Preparation: SSPC-SP2 Hand-Tool and/or SP3 Power-Tool Cleaning. Apply Primer Type A. Field touchup with same primer.
    - b. Where jobsite exposure is expected to exceed 6 months, SSPC-SP6 / NACE No. 3 Commercial Blast-Cleaning is required. Apply Primer Type B or C. Field touchup with same primer.
  3. Finish painted surfaces with exterior exposure, interior exposure subject to wet conditions or fumes, or surfaces to receive high performance finish coatings (for example epoxy or urethane coatings).
    - a. Surface Preparation: SSPC-SP6 / NACE No. 3 Commercial Blast-Cleaning to create a dense, uniform angular surface profile of 2.0 mils minimum. For severe (immersion) exposure, SSPC-SP10 / NACE No. 2 Near-White Blast-Cleaning is required.
    - b. Apply Primer Type B. Field touchup with same primer.
  4. Surfaces to be fire proofed need not be primed unless required by the fireproofing manufacturer or if jobsite exposure is expected to be inclement per item A. Where unprimed steel is to receive fireproofing, prepare steel surface as required by fireproofing manufacturer. If fireproofed surfaces are to be primed, provide primer as follows:
    - a. Surface Preparation: SSPC-SP3 Power-Tool Cleaning.
    - b. Apply Primer Type C. Field touchup with same primer.
  5. Exterior exposed (unpainted) surfaces and as otherwise indicated to receive galvanizing:
    - a. Galvanize per ASTM A123 Class 55 minimum. Passivation agents are not permitted on galvanized metal that is to be painted. Provide vent holes per ASTM A385 at closed sections (such as HSS). Submit proposed location of vent holes for review by Engineer.
    - b. Connection hardware shall be hot-dip galvanized per ASTM A153 or F2329. Mating bolts and nuts shall receive the same zinc-coating process.
    - c. Repair all uncoated, damaged, or altered galvanized surfaces per ASTM A780.

- C. Do not prime the following surfaces unless otherwise indicated:
  - 1. Connections to be field welded.
  - 2. Steel in contact with concrete.
  - 3. Surfaces to receive welded metal decking.
- D. Do not cover up work with finish materials until inspection is complete and work is approved by the Testing Agency.

## 2.5 SOURCE QUALITY CONTROL

- A. An independent Testing Agency will perform source quality control tests and submit reports, as specified in pertinent sections of Division 01.
- B. Steel Materials Testing:
  - 1. No testing is required for materials identified in accordance with CBC 2203A.1 (heat number, grade stencil, etc.).
  - 2. Unidentified steel- General: Test all structural shapes. In addition, test to verify  $F_y$  and  $F_u$  values when engineering requirements exceed  $F_y = 25$  ksi for design.
- C. Shop Welding Inspection:
  - 1. Testing Agency shall inspect and certify all structural welds, unless the fabricating shop has been accredited in conformance with CBC requirements. Submit certification to the Architect/Engineer for review and the Building Official for approval.
  - 2. Welder Qualifications: Welding inspector shall verify that all the welders are properly qualified prior to steel fabrication and state the qualifications of each welder in the welding inspection report.
  - 3. Welding Inspection: Continuous inspection required unless otherwise noted below. Comply with requirements of AWS D1.1.
    - a. Welding Inspector shall check all welds, materials, equipment and procedures.
    - b. Welding Inspector shall provide reports certifying the welding is as required and has been done in conformity with the plans, specifications and codes.
    - c. Welding Inspector shall use radiographic, ultrasonic, magnetic particle, or any other necessary aid to visual inspection to assure adequacy of welds. Ultrasonic Testing (UT) shall be required for all complete joint penetration (CJP) welds of material 5/16 inch thick or greater.
  - 4. Periodic Inspection Acceptable:
    - a. Single pass fillet welds not exceeding 5/16 inch.
- D. Bolts, Nuts, and Washers: Provide samples to Testing Agency for required testing, at no additional cost.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that conditions are appropriate for erection of structural steel and that the work may properly proceed.

### 3.2 ERECTION

- A. Erect structural steel in compliance with AISC 303.
- B. Framing:
  - 1. Erect all structural steel true and plumb.
  - 2. Verify proper final alignment prior to making final connections.
- C. Field Connections:
  - 1. Workmanship of field bolted and welded connections shall conform in all respects to methods and tolerances specified for fabrication.
  - 2. Field weld components indicated on shop drawings. Sequence field welds to minimize built-up stress and distortion of the structural frame. Verify sequence with Engineer. Coordinate field welding schedule with Testing Laboratory.
- D. Templates: Provide bolt setting templates for all anchor bolts. Provide instructions for the setting of anchors and bearing plates, verify these items are set correctly as work progresses.
- E. Bolting:
  - 1. Inspect mating surfaces to insure that bolt head and nut will have full bearing and that metal plies will mate flush between bolts.
  - 2. Install bolts in matching holes. Do not distort metal or enlarge holes by drifting during assembly. Remake mismatched components to achieve tolerances indicated.
  - 3. Holes mismatched in excess of 1/8 inch will be rejected.
  - 4. Holes mismatched less than 1/8 inch may be reamed to the next larger size bolt.
  - 5. Do not enlarge holes by flame cutting or air/arc ("plasma") cutting.
  - 6. Provide flat washer(s) at over-size holes.
  - 7. Provide washer at bolt head and nut where connected part is less than 1/4 inch thick.
  - 8. Provide ASTM F436 beveled washers when the slope of the surfaces of parts in contact with the bolt head or nut is greater than 1:20.
  - 9. Do not install bolts with damaged threads.
  - 10. Threads shall commence outside of the shear plane.
  - 11. Machine Bolts (MB): Install and tighten to a snug condition (ST) such that laminated surfaces bear fully on one another, using an impact wrench or "full effort" of an installer using a standard spud wrench.



- F. Supports, Shoring and Bracing: Allow for erection loads and provide sufficient temporary bracing to maintain structure in safe condition, plumb, and in true alignment until completion of erection and installation of permanent bracing. Conform to requirements of all applicable laws and governing safety regulations. Resist imposed loads, including those of stored materials and equipment.
1. Provide all temporary supports, shoring and bracing necessary to achieve work of tolerances indicated.
  2. Provide all necessary temporary flooring, planking and scaffolding required for erection of steel, and support of erection machinery.
  3. Construction Loading: Do not overload the structure or temporary supports with stored materials, equipment or other loads.
  4. Maintain temporary bracing and shoring until work is complete, and longer as required to ensure stability and safety of structure.
- G. Do not make final connections until structure is aligned to meet specified tolerances.

### 3.3 FIELD QUALITY CONTROL

- A. The independent Testing Agency will perform field quality control tests, as specified in pertinent sections of Division 01.

### 3.4 ADJUSTING

- A. Touch-up damaged finishes with compatible specified primer.
- B. Replace defective or damaged work with conforming work. Replace all defective work at Contractor's expense.
- C. Straighten materials by means that will not injure the materials.
- D. Replace defective or damaged work which cannot be corrected in the field with new work, or return defective items to the shop for repair.
- E. Architect/Engineer shall review all proposals for the repair or replacement of damaged, defective, or missing work.
- F. Pay expenses incurred by Owner for Architect/Engineer's costs for (re-)design and obtaining approvals of Authorities Having Jurisdiction (AHJ) necessitated by incomplete, inefficiently scheduled, improperly performed, defective or nonconforming work, as specified in pertinent sections of Division 01.
- G. Pay expenses due to re-testing and re-inspection necessitated by incomplete, inefficiently scheduled, improperly performed, defective or nonconforming work, as specified in pertinent sections of Division 01.

### 3.5 CLEANING AND PROTECTION

- A. Clean all surfaces upon completion of erection; leave free of grime and dirt. Remove unused materials, tools, equipment and debris from the premises and leave surfaces broomed clean.
- B. Protect work from damage by subsequent operations.

END OF SECTION

**SECTION 33 41 11  
SITE STORM DRAINAGE**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section includes storm drainage system piping and appurtenances from a point 5 feet outside the building to the point of disposal.
  - 1. Storm Drainage piping, fittings, and accessories.
  - 2. Connection of drainage system to City system.
  - 3. Catch basins, paved area drainage, and site surface drainage.

**1.2 SUBMITTALS**

- A. Product data for drainage piping specialties.
- B. Shop drawings for precast concrete storm drainage manholes and catch basins, including frames, covers, and grates.

**1.3 QUALITY ASSURANCE**

- A. Environmental Compliance: Comply with applicable portions of local environmental agency regulations pertaining to storm drainage systems.
- B. Utility Compliance: Comply with the standard specifications for Public Works construction regulations and standards pertaining to storm drainage systems.

**1.4 PROJECT CONDITIONS**

- A. Site Information: Verify that storm drainage system piping may be installed in compliance with original design and referenced standards.
  - 1. Locate existing storm drainage system piping and structures that are to be abandoned and closed.
  - 2. Locate off-site connection points for storm drainage and verify that the connections as shown on the plans will work.

**1.5 SEQUENCING AND SCHEDULING**

- A. Coordinate with interior building storm drainage piping.
- B. Coordinate with other utility work.

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS**

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include but are not limited to the following:
  - 1. Drop Inlets:
    - a. Cooks Concrete Products, Inc

- b. Jensen Precast
- c. North Valley Precast
- d. Nyloplast

## 2.2 PIPE AND FITTINGS

- A. General: Provide pipe and pipe fitting materials compatible with each other. Where more than one type of materials or products is indicated, selection is Installer's option.
- B. PVC (Polyvinyl Chloride) Pipe and Fittings: ASTM D 3034, SDR 35, for solvent cement or elastomeric gasket joints.
  - 1. Solvent Cement: ASTM D 2564.
  - 2. Gaskets: ASTM F 477, elastomeric seal.
- C. High-density Polyethylene Pipe and Fittings (HDPE): AASHTO M252, AASHTO M294, AASHTO M96, ASTM F405, ASTM 667, ASTM F810.
- D. Acrylonitrile-Butadiene-Styrene (ABS) Pipe: ASTM D 2680, SDR 35, for solvent cement sealed joint end.

## 2.3 DRAIN INLETS

- A. Precast Concrete Drain Inlets: shall be as shown on drawings. All inlets within pavement areas shall have an H-20 traffic rating.
- B. Drain Inlet Frames and Grates: All inlet grates shall be galvanized steel grates meeting the requirements of both ADA foot traffic and H-20 vehicle rating. Submittal approval required prior to installation.

## 2.4 CONCRETE AND REINFORCEMENT

- A. Concrete: Portland cement mix, 3,000 psi.
  - 1. Cement: ASTM C 150, Type II.
  - 2. Fine Aggregate: ASTM C 33, sand.
  - 3. Coarse Aggregate: ASTM C 33, crushed gravel.
  - 4. Water: Potable.
- B. Reinforcement: Steel conforming to the following:
  - 1. Fabric: ASTM A 185, welded wire fabric, plain.
  - 2. Reinforcement Bars: ASTM A 615, Grade 60, deformed.

## PART 3 PART 3 - EXECUTION

### 3.1 PREPARATION OF FOUNDATION FOR BURIED STORM DRAINAGE SYSTEMS

- A. Grade trench bottom to provide a smooth, firm, stable, and rock-free foundation, throughout the length of the pipe.
- B. Remove unstable, soft, and unsuitable materials at the surface upon which pipes are to be laid, and backfill with clean sand or pea gravel to indicated level.

- C. Shape bottom of trench to fit bottom of pipe. Fill unevenness with tamped sand backfill. Dig bell holes at each pipe joint to relieve the bells of all loads and to ensure continuous bearing of the pipe barrel on the foundation.

### 3.2 INSTALLATION, GENERAL

- A. General Locations and Arrangements: Drawings (plans and details) indicate the general location and arrangement of the underground storm drainage system piping. Location and arrangement of piping layout take into account many design considerations. Install the piping as indicated, to the extent practical. Notify the Architect if deviation is required.
- B. Install piping beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings in accordance with manufacturer's recommendations for use of lubricants, cements, and other installation requirements. Maintain swab or drag in line and pull past each joint as it is completed.
- C. Use manholes or catch basins for changes in direction, except where a fitting is indicated. Use fittings for branch connections, except where direct tap into existing storm drain pipe is indicated.
- D. Use proper size increasers, reducers, and couplings, where different size or material of pipes and fittings are connected. Reduction of the size of piping in the direction of flow is prohibited.
- E. Install piping pitched down in direction of flow, at minimum slope indicated. Begin installation at the downstream end and lay pipe continuously up gradient.
- F. Extend storm drainage system piping to connect to building storm drains, of sizes and in locations indicated.
- G. Adjust to final finished grades all drop inlets, manholes, cleanouts and appurtenances new or existing to provide smooth connections.
- H. Backfill & Bedding per spec section 31 23 16 Trenching.

### 3.3 PIPE AND TUBE JOINT CONSTRUCTION AND INSTALLATION

- A. Join and install PVC pipe as follows:
  - 1. Solvent cement joint pipe and fittings, joining with solvent cement in accordance with ASTM D 2855 and ASTM F 402.
  - 2. Pipe and gasketed fittings, joining with elastomeric seals in accordance with ASTM D 3212.
  - 3. Installation in accordance with ASTM D 2321.
- B. Join concrete pipe and fittings with rubber gaskets in accordance with ASTM C 443 and install piping in accordance with applicable provisions of ACPA "Concrete Pipe Installation Manual."
- C. Join different types of pipe with standard manufactured couplings and fittings per manufacturer's specifications.

### 3.4 DROP INLETS

- A. Construct drop inlets to sizes and shapes indicated on plans.
- B. Set frames and grates to elevations indicated on plans.

### 3.5 INSTALLATION OF IDENTIFICATION

- A. Install continuous plastic underground warning tape during back-filling of trench for Storm Drain piping. Tape shall be 2" wide minimum with metallic toning core, locate 8 inches below finished grade, directly over piping with imprinted side up. Terminate toning wire at each drop inlet.

### 3.6 FIELD QUALITY CONTROL

- A. Testing: Perform testing of completed piping in accordance with the local city requirements.
- B. Cleaning: Clear interior of piping and structures of dirt and other superfluous material as work progresses. Maintain swab or drag in piping and pull past each joint as it is completed.
  - 1. In large, accessible piping, brushes and brooms may be used for cleaning.
  - 2. Place plugs in ends of uncompleted pipe at end of day or whenever work stops.
  - 3. Flush piping between manholes to remove collected debris.
- C. Interior Inspection: Inspect piping to determine whether line displacement or other damage has occurred.
  - 1. Make inspections after pipe between manholes and manhole locations has been installed and approximately 2 feet of backfill is in place, and again at completion of project.
  - 2. If inspection indicates poor alignment, debris, displaced pipe, infiltration, or other defects, correct such defects and re-inspect.

END OF SECTION