Addendum No. 1

June 27, 2017
Shade Structure Installation at Dunsmore Elementary School
Bid No. 157-17/18

This addendum supersedes, supplements and has precedence over all portions of the bidding documents with which it differs. Acknowledge receipt of this Addendum in the space provided on the Proposal Acknowledgement Form. Failure to do so may subject the Bidder to disqualification.

I. Bid Open Date Changed

Changed to Monday, July 3, 2017, at 2:00 PM

Same Location: 223 N. Jackson Street, Room 305, Glendale, CA 91206

II. Questions:

1) Concrete footings: Sheet # PD2.0: the plans is directing us to use detail # 1 on the same sheet but the detail # 1 is crossed and there is a different detail # 2 for the same purpose. Which one we are going to use. Please advise.

   Response: ***Based on the attached filled out coversheet (PD1.0), the selected foundation option in step #6 was drilled pier so detail 2 is the correct foundation type.***

2) Sheet # PD2.0: Detail # 3: showing column base plate and anchor bolts on top of the foundation while detail # 2 in the same sheet is showing the same in the bottom of the foundation, which detail is correct and how we are going to perform this installation. Please advise.

   Response: ***Detail #3 is only applicable if the spread pad foundation option was selected. Detail #2 has a base plate welded to the bottom of the column for bearing on the concrete pad in the bottom of the excavated hole, no anchor bolts are required.***

3) Sheet AS-2: Detail 8 is only for the demolition of the main entrance that we should widen, and Detail # 10 shows the new work but did not show what we are going to do with the existing rain water gutter in the ground, the question here : Are we going to extend this ground rain water gutter and what type of detail can you provide us with in order to quantify the work associated with this portion of the scope.

   Response: ***Yes, provide drain to match the existing. Provide a submittal for review and comment.***

One more page to follow…

END OF ADDENDUM

2014A

DESIGN VALUES:

DESCRIPTION	DESIGN VALUES
DEAD AND LIVE LOADS	
ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME)	VARIES
ALLOWABLE SOIL PRESSURE	
DL+LL (CONCRETE FOOTING)	2000 PSF
DL+LL+SEISMIC (CONCRETE FOOTING)	2000 PSF
ROOF SNOW LOAD	
GROUND SNOW LOAD, Pg, FROM COUNTY	10 PSF
RISK CATEGORY	[X] II [ ] III
ROOF SNOW LOAD: [ ] FLAT, Pf OR [ ] LOW-SLOPE, Pm OR [X] SLOPED, Ps	10 PSF
SNOW ROOF SLOPE FACTOR, Cs	1.0
SNOW EXPOSURE FACTOR, Ce	1.2
SNOW LOAD IMPORTANCE FACTOR, Is	[X] 1.0 [ ] 1.1
THERMAL FACTOR, Ct	[ ] 1.0 [X] 1.2
FLOOD DESIGN	
FLOOD HAZARD AREA: [ ] YES [X] NO	
WIND DESIGN	
BASIC WIND SPEED (3 SECOND GUST), Vult	110 MPH
RISK CATEGORY	[X] II [ ] III
EXPOSURE CATEGORY	[X] C [ ] D
TOPOGRAPHIC FACTOR, Kzt (1 MINIMUM)	1.0
INTERNAL PRESSURE COEFFICIENT, GCpi (IF APPLICABLE)	0.0
SEISMIC DESIGN	
LATERAL FORCE-RESISTING SYSTEM	STEEL ORDINARY CANTILEVER COLUMN SYSTEMS
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE
SEISMIC DESIGN CATEGORY (SDC)	E
SEISMIC IMPORTANCE FACTOR, Ie	[X] 1.0 [ ] 1.25
DESIGN BASE SHEAR, V	Cs x W
SEISMIC RESPONSE COEFFICIENT, Cs	LOAD SCENARIO = { 1, 2, 3, 4 } Cs = { 0.80, 0.80, 1.07, 1.28 }
RESPONSE MODIFICATION FACTOR, R	1.25
SITE CLASS	[X] D [ ] E
REDUNDANCY FACTOR, p	1.3
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Ss - USED TO DETERMINE Cs (WITH CAP PER CBC 1616A.1.12)	LOAD SCENARIO = { 1, 2, 3, 4 } Ss (MAX) = { 1.875, 1.875, 2.500, 3.000 }
MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Ss - USED TO DETERMINE OTHER PARAMETERS AND NON-STRUCTURAL COMPONENT ANHORAGE (NO CAP)	3.00
SHORT-PERIOD SITE COEFFICIENT, Fa	1.0
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Sds - USED TO DETERMINE Cs (WITH CAP PER CBC 1616.1.12)	LOAD SCENARIO = { 1, 2, 3, 4} Sds (MAX) = { 1.00, 1.00, 1.33, 1.60 }
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, Sds - USED TO DETERMINE OTHER PARAMETERS AND NON-STRUCTURAL COMPONENTS ANCHORAGE (NO CAP)	2.00
MAPPED SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, S1	1.07
LONG-PERIOD SITE COEFFICIENT, Fv	1.5
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1 SECOND PERIOD, Sd1	1.07
HORIZONTAL OR VERTICAL IRREGULARITIES TYPE(S)	NONE

ARCHITECTURAL REQUIREMENTS:

DESCRIPTION	DESIGN VALUES
TYPE OF CONSTRUCTION	VB
OCCUPANCY CLASSIFICATION	A3
NUMBER OF STORIES	1
FIRE HAZARD SEVERITY ZONE	VERY HIGH
FIRE SPRINKLER SYSTEM	NOT BY POLIGON

POLIGON ASSUMES ANY OCCUPANT LOAD CALCULATIONS ARE BASED ON 15 SQ FT/ PERSON. PROJECT ARCHITECT MAY ADJUST OCCUPANT LOAD AS PERMITTED BY THE BUILDING CDE.

RELATED BUILDING CODES AND STANDARDS:

TITLE 24 CODES:

2013 California Administrative Code (CAC)..........................(Part 1, Title 24, CCR)
2013 California Building Code (CBC), Volumes 1 and 2 (Part 2, Title 24, CCR)
(2012 International Building Code with 2013 California amendments)
2013 California Electrical Code ....(Part 3, Title 24, CCR)
(2011 National Electrical Code with 2013 California amendments)
2013 California Mechanical Code (CMC) ....(Part 4, Title 24, CCR)
(2012 Uniform Mechanical Code with 2013 California amendments)
2013 California Plumbing Code (CPC) ....(Part 5, Title 24, CCR)
(2012 Uniform Plumbing Code with 2013 California amendments)
2013 California Energy Code ....(Part 6, Title 24, CCR)
(Effective July 1, 2014)
2013 California Fire Code (CFC) ....(Part 9, Title 24, CCR)
(2012 International Fire Code with 2010 California Amendments)
2013 California Green Building Standards Code...................(Part 11, Title 24, CCR)
(Effective January 1, 2014)
2013 California Referenced Standards Code ....(Part 12, Title 24, CCR)

NFPA 13 - 2013
NFPA 72 - 2013

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:

2013 CBC, CHAPTER **35**
2013 CFC, CHAPTER **45**

SCOPE OF WORK NARRATIVE:

THESE DRAWINGS ILLUSTRATE THE FABRICATION AND INSTALLATION REQUIREMENTS FOR A FREE-STANDING PREFABRICATED STEEL SHADE STRUCTURE. THE ENTIRE STRUCTURAL SYSTEM IS COMPRISED OF TUBULAR STEEL MEMBERS SUPPORTED ON CONCRETE FOUNDATIONS. THE FLEXIBILITY INCLUDED HEREIN ALLOWS THIS STRUCTURE TO COMPLY WITH A WIDE VARIETY OF PROJECT SITES AND LOADING REQUIREMENTS.

GENERAL:

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. ASTM DESIGNATIONS AND ALL STANDARDS REFER TO THE LATEST AMENDMENTS.
7. 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.
8. 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.
9. 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.
10. THE SCHOOL DISTRICT'S INSPECTOR OF RECORD SHALL INSPECT AND APPROVE THE ERECTED FRAME PRIOR TO ROOF INSTALLATION.
11. 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 REQUIRMENTS.
12. 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.
13. VIEWS AND DETAILS ARE NOT DRAWN TO SCALE (UNLESS NOTED OTHERWISE). DO NOT SCALE THESE DRAWINGS.
14. OTHER SITE SPECIFIC ITEMS MAY BE REQUIRED.

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFIATION MANUAL REFERENCED BY THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.
2. PIPE SECTIONS SHALL CONFORM TO ASTM A53, Fy = 35 ksi, GRADE B OR A501 UNLESS NOTED OTHERWISE.
3. STRUCTURAL TUBING (HSS SHAPES) SHALL CONFORM TO ASTM A500, GRADE B (OR HIGHER), Fy = 46 KSI.
4. IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESSES CAN BE INCREASED BEYOND WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
5. ALL CHANNELS, ANGLES, AND MISC. STEEL SHALL CONFORM TO ASTM A36, Fy = 36 KSI.
6. ALL COLD FORM STEEL SHALL CONFORM TO ASTM A653, CS = TYPE B, Fy = 50 KSI.
7. STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2203A.1.
8. ROOF DECK SHALL HAVE KYNAR 5000 METAL COATING.
9. ROOF DECK SHALL CONFORM TO ATSM A792, Fy = 50 KSI.
10. 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).
11. SS ROOF SCREWS MEET ASTM A510 WITH A HEAD DIMENSION OF 0.437" (OUTSIDE DIAMETER).

WELDING:

1. 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 AS REQUIRED BY DSA.
2. 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 @ (O° F).
3. ALL WELDING SHALL BE DONE IN THE SHOP WITH REQUIRED INSPECTION, PRE-APPROVED BY DSA, TO INSURE PROPER MATERIAL ID AND WELDING.
4. WELD FILLER METAL MANUFACTURER SHALL PROVIDE WRITTEN CERTIFICATION OF COMPLIANCE WITH CODE AND SPECIFICATIONS.

BOLTING:

1. ALL BOLTS SHOWN ON THESE DRAWINGS ARE ASTM A325 HIGH STRENGTH BOLTS (UNO), TYPE 3.
2. HIGH STRENGTH BOLTS SHALL BE SAMPLED AND TESTED IN COMPLANCE WITH CBC 2213A.1.
3. 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.
4. ANCHOR BOLTS (HEAVY HEX HEAD, ASTM F1554, GRADE 55) SHALL BE HOT DIPPED GALVANIZED PER ASTM F2329. ANCHOR BOLTS MAY BE HEADED OR THREADED WITH A NUT THAT IS PREVENTED FROM ROTATING.
5. HIGH STRENGTH NUTS SHALL CONFORM TO ASTM A563.
6. HIGH STRENGTH WASHERS SHALL CONFORM TO ASTM F436.
7. 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 PER 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.
   - A. PRETENSIONED JOINTS (IDENTIFIED ON THE FRAME CONNECTION DETAILS WITH A "PJ REQUIRED") MUST BE INSTALLED AND INSPECTED TO MEET ONE OF FOLLOWING REQUIREMENTS:
     1. TURN-OF-NUT PRETENSIONING
     2. CALIBRATED WRENCH PRENTENSIONING
     3. DIRECT-TENSION-INDICATOR PRETENSIONING (CONTRACTOR RESPONSIBLE FOR PURCHASE OF REQUIRED WASHERS)
   - B. 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:

3. ALLOWABLE SOIL PRESSURES ASSUME CLASS 4 SOIL CLASSIFICATION PER CBC TABLE 1806A.
2. A GEOTECHNICAL REPORT / LETTER IS REQUIRED AT THE OVER-THE-COUNTER APPOINTMENT FOR EACH PROJECT.
3. FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D1557-70. FLOODING NOT PERMITTED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, ETC. NECCESSARY TO SUPPORT CUT AND/OR FILL BANKS DURING EXCAVATION, AND FORMING AND PLACEMENT OF CONCRETE.

CONCRETE:

1. MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)

STRENGTH f'c (28 DAYS)	W/C RATIO (NON-AIR ENTRAINED)	W/C RATIO (AIR ENTRAINED)	SLUMP (± 1")	UNIT WEIGHT (NORMAL WEIGHT)
5000 PSI	0.63	0.55	3"	150 PCF

2. CHANGES TO THE MIX DESIGN MUST BE APPROVED BY THE ENGINEER OR ARCHITECT OF RECORD AND DSA
3. AGGREGATES SHALL CONFORM TO ASTM C33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN .005. MAX AGGREGATE SIZE = 1".
4. CEMENT SHALL CONFORM TO ASTM C150 (TYPE V) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
5. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE DAYS AFTER PLACEMENT. ALTERNATE METHODS WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.
6. CONCRETE SHALL NOT FREE FALL MORE THAN FIVE FEET.
7. CONCRETE SHALL BE PROPORTIONED PER ACI 318-11 5.2.
8. CONCRETE SHALL BE TESTED PER CBC 1905A.1.2, 1913A.1, 1705A.3, AND ACI 318-11 5.6.

REINFORCING STEEL:

1. 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)
2. DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL CONFORM THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES."
3. MIN. COVER FOR CAST-IN-PLACE CONCRETE SHALL BE AS FOLLOWS:
   - A. CAST AGAINST EARTH.. 3"
   - B. CAST AGAINST FORM BELOW GRADE..................... 2"
   - C. FORMED SLABS (#11 BAR & SMALLER).................... 3/4"
   - D. SLABS ON GRADE (FROM TOP OF SLAB).................. 1"
   - E. COLUMNS AND BEAMS (MAIN BARS)...................... 2"
   - F. WALLS EXPOSED TO WEATHER (#6-#18 BARS)......... 2"
     (#5 & SMALLER)......... 11/2"
   - G. NOT EXPOSED TO WEATHER (#11 & SMALLER)........ 3/4"
4. BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
5. REINFORCING SHALL BE LAP SPLICED 45 BAR DIA. MINIMUM IN CONCRETE AND MUST COMPLY WITH ACI 318-11.
6. PRIOR TO PLACING OF CONCRETE, REINFORCING STEEL AND EMBEDDED ITEMS SHALL BE WELL SECURED IN POSITION.
7. WELDING OF REINFORCING IS NOT ALLOWED
8. REINFORCING STEEL SHALL BE SAMPLED AND TESTED PER CBC 1913A.2.

POWDER COATED AND EPOXY PRIMED FINISH:

1. ENTIRE POWDER COATING PROCESS COMPLETED IN SAME FACILITY AS STEEL FABRICATION.
2. 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).
3. PARTS PRETREATED IN A 3 STAGE IRON PHOSPHATE WASHER (OR EQUAL).
4. EPOXY PRIMER POWDER COAT APPLIED TO PARTS FOR SUPERIOR CORROSION PROTECTION.
5. TOP POWDER COAT OF SUPER DURABLE TGIC (COLOR SELECTED FROM MANUFACTURER'S STANDARD OPTIONS OR CUSTOM COLOR).
6. SAMPLE PRODUCTION PARTS TESTED TO MEET THE FOLLOWING CRITERIA:
   - A. SALT SPRAY RESISTANCE PER ASTM B 117/ ASTM D 1654
     1. 10000 HOURS WITH NO CREEP FROM SCRIBE LINE AND RATING OF 10
   - B. HUMIDITY RESISTANCE PER ASTM D2247-02
     1. 5000 HOURS WITH NO LOSS OF ADHESION OR BLISTERING
   - C. COLOR/UV RESISTANCE PER ASTM G154-04
     1. 2000 HOURS EXPOSURE ALTERNATE CYCLES WITH NO CHALKING, 75% COLOR RETENTION, AND COLOR VARIATION MAXIMUM 3.0 E VARIATION CIE FORMULA (BEFORE AND AFTER 2000 HOURS EXPOSURE

ABBREVIATIONS:

ACI	AMERICAN CONCRETE INSTITUTE	MR	MULTI-RIB ROOF PANEL (MCELROY)
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	NTS	NOT TO SCALE
ASM	ASSEMBLY (INTERNAL REFERENCE)	NO	NUMBER
ASTM	AMERICAN SOCIETY FOR TESTING AND MAT'LS	OC	ON CENTER
AWS	AMERICAN WELDING SOCIETY	OSHA	OCCUPATIONAL HEALTH AND SAFETY ADM.
CBC	CALIFORNIA BUILDING CODE	PCF	POUNDS PER CUBIC FOOT
CJP	COMPLETE JOINT PENETRATION	PD	POLIGON DRAWING
CLR	CLEAR	PJ	PRETENSIONED JOINT
DEG	DEGREE	PLCS	PLACES
DIA	DIAMETER	PLT	PLATE
DIM	DIMENSION	PSF	POUNDS PER SQUARE FOOT
DSA	DIVISION OF THE STATE ARCHITECT	PSI	POUNDS PER SQUARE INCH
EQ	EQUAL	QTY	QUANTITY
FT	FEET	REF	REFERENCE
GA	GAGE	RH	RIGHT HAND
IN	INCHES	SQ	SQUARE
KSI	KIPS PER SQUARE INCH	SS	STANDING SEAM ROOF PANEL (MCELROY)
LH	LEFT HAND	TYP	TYPICAL
MAX	MAXIMUM	UNO	UNLESS NOTED OTHERWISE
MIN	MINIMUM	USGS	U.S. GEOLOGICAL SURVEY
MISC	MISCELLANEOUS	W/	WITH
MPH	MILES PER HOUR		

INSTRUCTIONS FOR ARCHITECTS SUBMITTING THESE PRE-CHECKED DRAWINGS TO DSA:

BEFORE SUBMITTING THESE PRE-CHECKED DRAWINGS FOR YOUR PROJECT, FOLLOW THE STEPS BELOW TO PROPERLY DEFINE THE APPROVED OPTIONS:
THE POLIGON ENGINEERING DEPARTMENT IS AVAILABLE TO HELP YOU COMPLETE THESE STEPS (616-399-1963).

STEP 1: SELECT FRAME DIMENSIONS FOR YOUR PROJECT
- STRUCTURES UP TO 20' WIDE USE THE "RAM 20" BASE FRAME
- STRUCTURES UP TO 30' WIDE USE THE "RAM 30" BASE FRAME
- THE 20' AND 30' WIDTHS ARE SUGGESTED BECAUSE THEY ARE THE MOST ECONOMICAL
- MAXIMUM WIDTH IS 30'; (SEE 'ARCHITECTURAL VIEWS' SHEET FOR REFERENCE)
- THE 44', 64', AND 84' LENGTHS ARE SUGGESTED BECAUSE THEY ARE THE MOST COMMON (20' BAYS ARE MOST ECONOMICAL)
- FRAME WIDTHS AND LENGTHS ASSUME 2' OVERHANGS (UNO BY ARCHITECT - 2' MAX DIMENSION)

STEP 2: SELECT ROOF DECK FOR YOUR PROJECT
- "MR" REPRESENTS MCELROY METAL "MULTI-RIB" ROOF DECK
- "SS" REPRESENTS MCELROY METAL "MEDALLION-LOK" 16" STANDING SEAM ROOF DECK

STEP 3: IDENTIFY THE Ss ACCELERATION (g) FOR YOUR PROJECT
- Ss VALUE DETERMINES THE REQUIRED SEISMIC DESIGN FORCES
- Ss VALUE DEPENDS ON THE PROJECTS GEOGRAPHICAL LOCATION (VALUES RANGE FROM 0.00 TO 3.73)
  - FIND Ss VALUES FOR YOUR PROJECT ON THE USGS WEBSITE (SEARCH INTERNET FOR "USGS SEISMIC DESIGN MAPS")
- THIS PC IS NOT APPROVED FOR Ss VALUES GREATER THAN 3.00 (CONTACT POLIGON FOR ADDITIONAL OPTIONS)

STEP 4: IDENTIFY THE Ss REGION FOR YOUR PROJECT
- THE REGIONS ARE DEPENDANT ON THE Ss VALUE DETERMINED IN STEP 3
- REFERENCE DSA BU 14-01 FOR A MAP OF VARIOUS Ss REGIONS
- THE Ss REGION DICTATES THE MAXIMUM DEAD LOAD PERMITTED ON THE FRAME (SEE TABLE TO THE RIGHT)

STEP 5: IDENTIFY THE ROOF DEAD LOAD FOR YOUR PROJECT
- THE ROOF DECK DEAD LOAD WILL ALWAYS BE INCLUDED
- THE COLLATERAL LOAD REPRESENTS ADDITIONAL LOAD THAT CAN BE SUPPORTED BY THE FRAME
- BE SURE THE TOTAL ROOF DEAD LOAD FOR YOUR PROJECT IS LESS THAN OR EQUAL TO THE MAX DEAD LOAD SHOWN IN STEP 4

STEP 6: IDENTIFY THE FOUNDATION REQUIREMENTS FOR YOUR PROJECT
- REFERENCE THE Ss REGION (STEP 4) AND THE TOTAL ROOF DEAD (STEP 5)
- IDENTIFY **A SINGLE** LOAD SCENARIO
  - E.G. A PROJECT IN THE WHITE Ss REGION WITH A 4 PSF ROOF DEAD LOAD IS LOAD SCENARIO 2
  - LOAD SCENARIOS HAVE NO IMPACT ON FRAME DESIGN OR COST (BUT DO AFFECT FOUNDATION SIZE)
- SELECT **EITHER** SPREAD PAD OR DRILLED PIER FOUNDATION
  - FOUNDATION TYPE IMPACTS STEEL FABRICATION (COLUMN LENGTH) AND CONSTRUCTION (TIMING, SEQUENCE, COST, ETC.)
  - POLIGON CAN REVIEW THE SITE-SPECIFIC SOILS REPORT TO EVALUATE THE POSSIBILITY OF SMALLER FOUNDATIONS

STEP 1 — FRAME DIMENSIONS

	SUGGESTED			OTHER	
FRAME WIDTH	[X] 20'	[ ] 30'		[ ]	(30' MAX)
FRAME LENGTH	[ ] 44'	[ ] 64'	[ ] 84'	[X] 40'-0"	(NO MAX)

STEP 2 — ROOF DECK

ROOF DECK TYPE	[ ] MR	[X] SS

STEP 3 — Ss ACCELERATION (g)

2.697

STEP 4 — Ss REGIONS[1]

		Ss REGIONS	MAX DEAD LOAD
DESCRIPTION	[ ] WHITE	0.000 < Ss <= 1.875	5 PSF
	[ ] BLUE	1.875 < Ss <= 2.500	3.5 PSF
	[X] GREEN	2.500 < Ss <= 2.750	2 PSF
	[ ] YELLOW	2.750 < Ss <= 3.000	2 PSF

[1] REFERENCE DSA BU 14-01 FOR A MAP OF VARIOUS Ss REGIONS

STEP 5 — TOTAL ROOF DEAD LOAD

	DEAD LOAD	EXAMPLES
ROOF DECK	1.8 PSF	MR = 1.2 PSF ; SS = 1.8 PSF (SEE STEP 2)
COLLATERAL[1]	___ . ___ PSF	LIGHTING, FIRE SUPPRESSION, PV PANELS, ETC.
TOTAL[2]	___ . ___ PSF	ADD ROOF DECK AND COLLATERAL LOADS

[1] PROVIDE DSA WITH EVIDENCE THAT THE COLLATERAL LOAD FOR YOUR PROJECT MEETS THESE REQUIREMENTS
[2] MAY NOT EXCEED REQUIREMENTS LISTED IN STEP 6 BELOW

STEP 6 — FOUNDATION REQUIREMENTS

Ss REGION	DEAD LOAD (DL)	LOAD SCENARIO	SPREAD PAD	DRILLED PIER
WHITE	DL <= 2 PSF	[ ] LOAD SCENARIO 1	[ ]	[X]
	2 PSF < DL <= 5 PSF	[ ] LOAD SCENARIO 2		
BLUE	DL <= 3.5 PSF	[ ] LOAD SCENARIO 3		
GREEN	DL <= 2 PSF	[X] LOAD SCENARIO 4		
YELLOW	DL <= 2 PSF	[ ] LOAD SCENARIO 4		

STEP 7: SELECT MISCELLANEOUS OPTIONS FOR YOUR PROJECT
- MAXIMUM CLEAR HEIGHT IS 10'-0"; (SEE 'ARCHITECTURAL VIEWS' SHEET FOR REFERENCE)
- MARK UP PC DRAWINGS WITH SIZE AND LOCATION OF CUTOUTS BEFORE SUBMITTING TO DSA

STEP 8: SELECT APPLICABLE SHEET INDEX FOR YOUR PROJECT
- REFERENCE THE BASE FRAME (STEP1) AND THE ROOF DECK TYPE (STEP 2)
- IDENTIFY THE APPLICABLE SHEET INDEX

STEP 9: INCLUDE APPLICABLE SHEETS WITH YOUR DSA SUBMITTAL
- EXCLUDE 'MISC DESIGN OPTIONS' SHEET FOR PROJECTS WITHOUT ELECTRICAL CUTOUTS OR GUTTERS

STEP 10: IDENTIFY PROJECT NAME AND SCHOOL DISTRICT

PROJECT NAME: Dunsmore Elementary School

SCHOOL DISTRICT: Glendale Unified School District

STEP 7 — MISCELLANEOUS

	DESIGN OPTIONS	
CLEAR HEIGHT	[X] 10'-0"	[ ] (10' MAX)
ELECTRICAL CUTOUTS	[ ] YES	[X] NO
GUTTERS	[X] YES	[ ] NO

STEP 8 — SHEET INDEX

BASE FRAME	RAM 20		RAM 30	
ROOF DECK	MR	SS	MR	SS
SELECT ONE	[ ]	[X]	[ ]	[ ]
GENERAL NOTES	PD1.0	PD1.0	PD1.0	PD1.0
SPECIAL INSPECTIONS	PD1.1	PD1.1	PD1.1	PD1.1
FOUNDATION PLAN	PD2.0	PD2.0	PD2.1	PD2.1
FRAMING PLAN	PD3.0	PD3.0	PD3.1	PD3.1
FRAME CONNECTION DETAILS	PD4.0	PD4.0	PD4.1	PD4.1
SECTION DETAILS	PD5.0	PD5.0	PD5.1	PD5.1
PLATE DETAILS	PD6.0 - PD6.1		PD6.2 - PD6.3	
ARCHITECTURAL VIEWS	PD7.0	PD7.0	PD7.1	PD7.1
ROOF CONNECTION DETAILS	PD8.0	PD8.1	PD8.0	PD8.1
MISC DESIGN OPTIONS	PD9.0	PD9.0	PD9.0	PD9.0

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REGISTERED PROFESSIONAL ENGINEER
No. S4378
Exp. 3/31/16
STRUCTURAL
STATE OF CALIFORNIA

TEAM DRIVEN SOLUTIONS FOR THE BUILT ENVIRONMENT
CARLTON Engineering Inc.

poligon

STATE APPROVALS

PRE-CHECK (PC) DOCUMENT
CODE: 2013 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.

GENERAL NOTES
HIP ROOF (RAM)
PC DRAWINGS

DRAWN BY: JMD
CHECKED BY: CE
POLIGON #: 51458

PD1.0