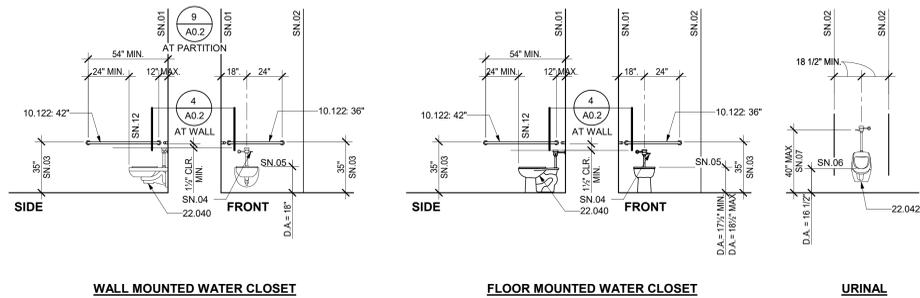
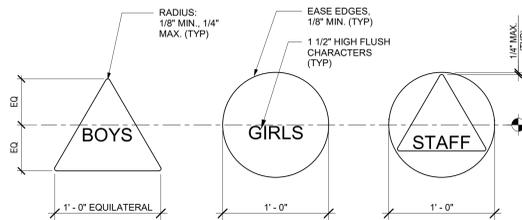


9 TYPICAL GRAB BAR AT PARTITIONS  
3/8" = 1'-0"

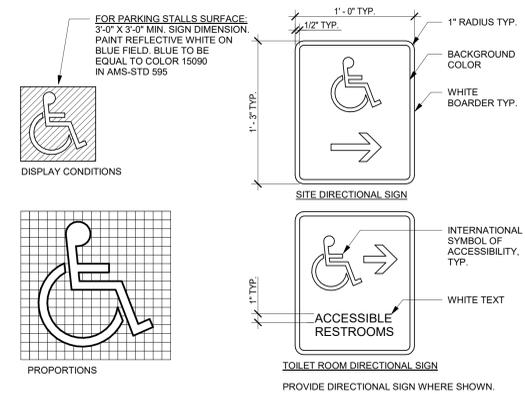


6 TYPICAL MOUNTING HEIGHTS AND DETAILS  
1/4" = 1'-0"

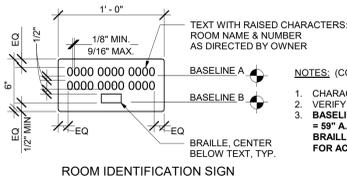
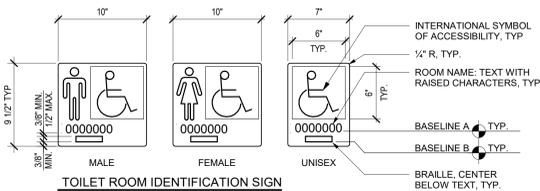


NOTE:  
1. TEXT ON DOOR SYMBOL TO BE AS INDICATED ON DRAWINGS

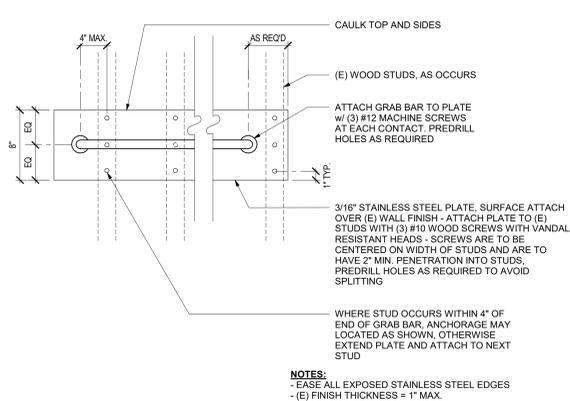
7 TOILET ROOM DOOR SYMBOLS  
1 1/2" = 1'-0"



3 SYMBOL OF ACCESSIBILITY  
NOT TO SCALE



8 IDENTIFICATION SIGNS  
1 1/2" = 1'-0"



4 GRAB BAR - STAINLESS STEEL PLATE  
1 1/2" = 1'-0"

GENERAL NOTES

- TYPICAL MOUNTING HEIGHTS AND DETAILS APPLY TO ENTIRE PROJECT, WHETHER REFERENCED OR NOT, UNLESS OTHERWISE NOTED.
- ALL DISABLED ACCESSIBLE DIMENSIONS ARE MAXIMUM DIMENSIONS UNLESS OTHERWISE NOTED.
- HEIGHTS ARE MEASURED FROM FINISH FLOOR, UNLESS OTHERWISE NOTED.

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 02-119975 INC.  
REVIEWED FOR  
SS  FLS  ACS   
DATE: 04/04/2022

SHEET NOTES

- SN 01 TO FACE OF FINISH  
SN 02 FACE OF OBJECTS OR WALLS  
SN 03 TOP OF GRAB BAR  
SN 04 AT ACCESSIBLE WATER CLOSETS, FLUSH CONTROL HANDLE SHALL BE MOUNTED ON THE WIDE SIDE OF THE TOILET ENCLOSURE  
SN 05 TOP OF SEAT  
SN 06 LIP HEIGHT  
SN 07 FLUSH HANDLE HEIGHT  
SN 08 TO CENTERLINE CONTROL  
SN 09 PROVIDE AT ALL TOILET ROOM DOORS  
SN 10 CENTERLINE OF SYMBOL  
SN 11 CENTERLINE OF SIGN  
SN 12 FRONT EDGE OF WATER CLOSET.

KEYNOTES

- 10.043 SIGNAGE: TOILET ROOM IDENTIFICATION  
10.051 SIGNAGE: TOILET ROOM DOOR SYMBOL  
10.122 TOILET ACCESSORY: GRAB BAR  
10.144 TOILET ACCESSORY: SOAP DISPENSER  
22.040 WATER CLOSET  
22.042 URINAL



SHADE STRUCTURE AT SEQUOIA  
ELEMENTARY SCHOOL  
SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA

Revision

TYPICAL MOUNTING HEIGHTS AND DETAILS

PROJECT NO. 21-1504.05  
DATE: 3/3/22  
SHEET A0.2



**EXISTING TOPOGRAPHY**

- = PROPERTY LINE
- - - = CENTERLINE
- - - = EASEMENT
- ⊙ = PROPERTY CORNER FOUND AS NOTED
- ⊙ = PROPERTY CORNER NOTHING FOUND OR SET
- △123 = TEMPORARY BENCHMARK (SEE TBM LIST FOR INFO)
- = SWALE OR DRAINAGE FLOW
- = DRAINAGE FLOW
- = FENCE (TYPE NOTED)
- ⊙ = TREE (SIZE/TYPE INDICATED)
- 100 = SLOPE
- = CONTOUR
- = CONCRETE SURFACE
- = EDGE OF ASPHALT
- = EDGE OF BUILDING
- = SIGN
- = POST OR BOLLARD
- 99.99 = GROUND ELEVATION
- 99.99 = HARD SURFACE ELEVATION

**EXISTING UTILITIES**

- 12"SD = STORM DRAIN LINE (SIZE & DIRECTION OF FLOW)
- 12"SD = STORM DRAIN LINE (RECORD INFORMATION)
- 12"SD = STORM DRAIN LINE (UNDERGROUND LOCATING)
- ⊙ = STORM DRAIN MANHOLE
- = STORM DRAIN CLEANOUT
- = DROP INLET
- = AREA DRAIN
- = RAIN WATER LEADER
- DS = DOWNSPOUT
- 12"SS = SANITARY SEWER LINE (SIZE & DIRECTION OF FLOW)
- 12"SS = SANITARY SEWER LINE (RECORD INFORMATION)
- 12"SS = SANITARY SEWER LINE (UNDERGROUND LOCATING)
- ⊙ = SANITARY SEWER MANHOLE
- = SANITARY SEWER CLEANOUT
- W— = WATER LINE (SIZE INDICATED)
- W— = WATER LINE (RECORD INFORMATION)
- W— = WATER LINE (UNDERGROUND LOCATING)
- ⊙ = WATER MANHOLE
- = WATER VALVE
- ⊙ = WATER METER
- ⊙ = WATER BOX
- = IRRIGATION CONTROL VALVE
- ⊙ = FIRE HYDRANT
- ⊙ = BACKFLOW PREVENTER
- ⊙ = SPRINKLER
- ⊙ = HOSE BIBB
- OH—E— = OVERHEAD ELECTRIC LINE
- E— = UNDERGROUND ELECTRIC LINE
- E— = UNDERGROUND ELECTRIC LINE (RECORD INFORMATION)
- E— = UNDERGROUND ELECTRIC LINE (UNDERGROUND LOCATING)
- ⊙ = ELECTRIC MANHOLE
- = UTILITY POLE (WITH GUY WIRE)
- ⊙ = ELECTRIC METER
- ⊙ = ELECTRIC BOX
- ⊙ = STREET LIGHTING BOX
- ⊙ OR ⊙ = LIGHT STANDARD
- ⊙ = SIGNAL LIGHT
- ⊙ = FLOOD LIGHT
- ⊙ = ELECTRICAL OUTLET
- G— = GAS LINE (SIZE INDICATED)
- G— = GAS LINE (RECORD INFORMATION)
- G— = GAS LINE (UNDERGROUND LOCATING)
- ⊙ = GAS MANHOLE
- ⊙ = GAS VALVE
- ⊙ = GAS METER
- T— = TELEPHONE LINE
- T— = TELEPHONE LINE (RECORD INFORMATION)
- T— = TELEPHONE LINE (UNDERGROUND LOCATING)
- ⊙ = STORM DRAIN BOX
- ⊙ = TRAFFIC SIGNAL BOX

**CIVIL ABBREVIATIONS AND LEGEND**

**ABBREVIATIONS**

- NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.
- AB AGGREGATE BASE
  - AC ASPHALTIC CONCRETE
  - AD AREA DRAIN
  - APN ASSESSOR'S PARCEL NUMBER
  - ARV AIR RESTRICTING VALVE
  - ASB AGGREGATE SUB-BASE
  - BO BLOW-OFF VALVE
  - BV BUTTERFLY VALVE
  - BW BACK OF WALK
  - C/L CENTERLINE
  - CB CATCH BASIN
  - CL CLASS
  - CM CORRUGATED METAL PIPE
  - CMV CABLE TELEVISION
  - CO CLEANOUT
  - COMM COMMUNICATION
  - CONC CONCRETE
  - CONST. CONSTRUCT
  - CR CURB RETURN
  - CS CONCRETE SURFACE
  - DC DOUBLE CHECK VALVE
  - DDC DOUBLE DETECTOR CHECK VALVE
  - DG DECOMPOSED GRANITE
  - DJ DROP INLET
  - DIA DIAMETER
  - DIP DUCTILE IRON PIPE
  - DWG DRAWING
  - EW EASEMENT
  - E ELECTRIC
  - EP EDGE OF PAVEMENT
  - ESMT EASEMENT
  - EX EXISTING
  - FS FIRE SERVICE LINE
  - FDC FIRE DEPARTMENT CONNECTION
  - FL FLOWLINE
  - FM SANITARY SEWER FORCE MAIN
  - FF FINISHED FLOOR ELEVATION
  - FH FIRE HYDRANT
  - GR GRATE ELEVATION
  - GRD GRADE ELEVATION
  - GV GATE VALVE
  - HB HOSE BIBB
  - HBD HEADER BOARD
  - HDPE HIGH DENSITY POLYETHYLENE PIPE
  - HP HIGH POINT
  - NW PIPE INVERT ELEVATION
  - JP JOINT UTILITY POLE
  - LF LINEAL FEET
  - LIP LIP OF GUTTER
  - LT LEFT
  - MS MOWSTRIP
  - NTS NOT TO SCALE
  - CH OVERHEAD
  - PCC PORTLAND CEMENT CONCRETE
  - PD PLANTER DRAIN
  - PV POST INDICATOR VALVE
  - PL PROPERTY LINE
  - P POWER POLE
  - PUE PUBLIC UTILITY EASEMENT
  - PVC POLYVINYL CHLORIDE
  - RCP REINFORCED CONCRETE PIPE
  - R RADIUS
  - RIM MANHOLE RIM ELEVATION (SOLID COVER)
  - RP REDUCED PRESSURE BACKFLOW PREVENTER
  - RT RIGHT OF WAY
  - SCH SCHEDULE
  - SD STORM DRAIN
  - SDMH STORM DRAIN MANHOLE
  - SG SUBGRADE ELEVATION
  - SS SANITARY SEWER
  - SSMH SANITARY SEWER MANHOLE
  - STD STANDARD
  - S/W SIDEWALK
  - TELEPHONE TELEPHONE
  - TC TOP OF CURB
  - TD TRENCH DRAIN
  - TRW TRENCH DRAIN CATCH BASIN
  - TP TELEPHONE POLE
  - TR TOP OF RAMP ELEVATION
  - TRW TOP OF RETAINING WALL
  - TSW TOP OF SEAT WALL
  - TW TOP OF WALK ELEVATION
  - U UTILITY
  - UG UNDERGROUND
  - UN UNLESS OTHERWISE NOTED
  - VCP VITRIFIED CLAY PIPE
  - W WATER
  - W/W WITH
  - W/O WITHOUT
  - WV WATER VALVE

**LEGEND**

**PROPOSED GRADING & DRAINAGE SYMBOLS:**

- NOTE: NOT ALL SYMBOLS MAY BE USED ON THESE PLANS.
- 8"SD STORM DRAIN LINE (SIZE AND FLOW SHOWN)
  - STORM DRAIN MANHOLE (SDMH)
  - CATCH BASIN (CB)
  - DROP INLET (DI)
  - AREA DRAIN (AD)
  - PLANTER DRAIN (PD) OR FLOOR DRAIN (FD)
  - STORM DRAIN CLEANOUT
  - 99.99 ELEVATION
  - FF=100.00 FINISHED FLOOR ELEVATION
  - PAD=99.33 BUILDING PAD ELEVATION
  - CONCRETE SIDEWALK
  - GRADED DIRECTION FOR DRAINAGE FLOW
  - SWALE
  - SLOPE
  - ⊙ TREE TO BE REMOVED
  - ⊙ RETAINING WALL

**PROPOSED SANITARY SEWER SYMBOLS:**

- 8"SS SANITARY SEWER LINE (SIZE AND FLOW SHOWN)
- SANITARY SEWER MANHOLE (SSMH)
- SEWER CLEANOUT FLUSHER BRANCH

**PROPOSED WATER SYMBOLS:**

- 8" W WATER LINE & SIZE
- 8" FS FIRE LINE & SIZE
- 8" DW DOMESTIC WATER LINE & SIZE
- 8" RW RECLAIMED WATER LINE & SIZE
- 8" IRR IRRIGATION SERVICE LINE & SIZE
- 8" NP NON POTABLE WATER LINE & SIZE
- 8" SP FIRE SPRINKLER SERVICE LINE & SIZE
- M GATE VALVE
- FH FIRE HYDRANT ASSEMBLY
- FDC FIRE DEPARTMENT CONNECTION
- DC DETECTOR CHECK VALVE
- RP REDUCED PRESSURE BACKFLOW PREVENTER
- BV BUTTERFLY VALVE
- 1" AIR RELEASE VALVE + SIZE
- 1" BLOW-OFF VALVE + SIZE
- PIV POST INDICATOR VALVE

**DEMOLITION GENERAL NOTES**

- IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING GRADING OPERATIONS THE GEOTECHNICAL ENGINEER AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
- NO BURNING OR BLASTING SHALL BE PERMITTED.
- ADDITIONAL DEMOLITION INFORMATION MAY BE SHOWN ON THE GRADING, DRAINAGE, AND UTILITY PLANS, AND THOSE PLANS PREPARED BY OTHER DISCIPLINES FOR THIS PROJECT.
- ALL DEMOLISHED ITEMS SHALL BE DISPOSED OF OFFSITE AT A SUITABLE, LEGAL, DUMP SITE OR OTHER FACILITY.
- ALL DISPOSED OF MATERIALS SHALL BE RECYCLED IF POSSIBLE.
- THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN IN THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF UNDERGROUND SERVICE ALERT (USA) TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING TOLL FREE 1-800-227-2600, OR 811.
- THE SCHOOL DISTRICT SHALL HAVE SALVAGE RIGHTS TO ANY DEMOLISHED ITEMS SHOWN HEREON. THE CONTRACTOR SHALL GIVE THE DISTRICT NOTICE 7 DAYS PRIOR TO THE START OF DEMOLITION. THE DISTRICT SHALL MOVE ANY RETAINED ITEMS OUT OF THE CONTRACTORS WORK AREA, UNLESS ANOTHER ARRANGEMENT IS MADE WITH THE CONTRACTOR. ANY REMAINING ITEMS BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. ANY ITEMS NOT SHOWN FOR REMOVAL SHALL REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION TO A REASONABLE EXTENT.
- EXISTING UTILITY STRUCTURES IN AREAS OF NEW PAVING SHALL BE REMOVED AND REPLACED WITH NEW BOX/COVER AT NEW GRADE UNLESS SPECIFICALLY NOTED OTHERWISE.
- ITEMS OUTSIDE THE LIMITS OF DEMOLITION SHALL REMAIN AND BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
- EXISTING UTILITY STRUCTURES AND PIPING NOT SHOWN ON DEMOLITION PLAN TO BE REMOVED SHALL REMAIN AND BE PROTECTED.

**UTILITY VERIFICATION NOTE**

PRIOR TO THE START OF CONSTRUCTION, VERIFY AND POTHOLE ALL UTILITY POINTS OF CONNECTION FOR LOCATION, DEPTH, AND SIZE. IF CONFLICT IS FOUND, CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION.

**IRRIGATION DEMOLITION NOTE**

WITHIN LANDSCAPE AREAS TO BE DEMOLISHED THERE MAY BE EXISTING IRRIGATION LINES NOT SHOWN ON THIS PLAN. CONTRACTOR SHALL REMOVE LATERAL LINES AND HEADS ENCOUNTERED. MAIN LINES AND CONTROL WIRES MAY ONLY BE REMOVED PROVIDED THAT ROUTING IS KNOWN AND REMOVAL WILL NOT DEACTIVATE AN IRRIGATION SYSTEMS INTENDED TO REMAIN. IF CONFLICT IS FOUND, CONTACT THE ENGINEER FOR DIRECTION.

**GENERAL NOTES**

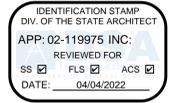
- THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF UNDERGROUND SERVICE ALERT (USA) TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK BY CALLING TOLL FREE 1-800-227-2600, OR 811.
- WARREN CONSULTING ENGINEERS, INC. (WCE) ASSUMES NO RESPONSIBILITY FOR ERRORS IN PHYSICAL LOCATION OF IMPROVEMENTS, HORIZONTAL OR VERTICAL. IN ADDITION, ANY SUCH ERRORS IN PHYSICAL LOCATION MAY AFFECT THE INTENDED DESIGN OF SUCH IMPROVEMENTS AND WCE CANNOT BE HELD RESPONSIBLE FOR SUCH CONDITIONS WHICH ARE A RESULT OF ERRORS IN SURVEYING, OR IMPROPER CONSTRUCTION.
- IF SUBSURFACE CULTURAL RESOURCES, REMAINS, AND/OR ARTIFACTS ARE UNCOVERED DURING PROJECT CONSTRUCTION, ALL WORK IN THE VICINITY SHALL BE STOPPED UNTIL SUCH ITEMS CAN BE ASSESSED BY AN APPROPRIATE MEMBER OF THE COUNTY ENVIRONMENTAL IMPACT SECTION STAFF.
- CONTRACTOR AGREES THAT HE/SHE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY FOR ALL EXCAVATIONS OF 5 FEET OR MORE IN DEPTH.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ALL NECESSARY PRE-BID AND PRE-CONSTRUCTION SITE INSPECTION, AND/OR OBSERVATIONS ON THE SITE TO PRE-DETERMINE ALL HIS/HER MEANS AND METHODS NECESSARY TO COMPLETE THE IMPROVEMENTS SHOWN ON THESE PLANS AND PER THE PROJECT SPECIFICATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE, AND INCLUDE IN HIS/HER CONTRACT, ALL MEANS AND METHODS NECESSARY TO PERFORM A COMPLETE AND ACCEPTABLE JOB.
- WHERE IMPROVEMENTS LIE WITHIN AN EXISTING DEVELOPED AREA, CONTRACTOR SHALL USE CAUTION WHEN ACCESSING THE SITE THROUGH THESE EXISTING IMPROVEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ANY SUCH EXISTING IMPROVEMENTS OUTSIDE THE PROJECT BOUNDARY, OR EXISTING IMPROVEMENTS WITHIN THE BOUNDARY WHICH ARE TO REMAIN. PROPER PRECAUTIONS SHALL BE PROVIDED AND MAINTAINED THROUGHOUT CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP DETAILED RECORDS OF MINOR CHANGES OR ADJUSTMENTS MADE DURING CONSTRUCTION (WHICH WERE NOT FORMALLY ISSUED). UPON PROJECT COMPLETION, THESE RECORDS AND/OR INFORMATION SHALL BE PROVIDED TO THE OWNER AND WARREN CONSULTING ENGINEERS, INC. UNLESS AN OFFICIAL "AS-BUILT" SET OF PLANS IS A REQUIREMENT OF THE CONTRACT. IF "AS-BUILT" PLANS ARE A REQUIREMENT OF THE CONTRACT, REFER TO SPECIFICATIONS FOR "AS-BUILT" DELIVERABLE REQUIREMENTS.
- IN VEHICULAR PATHWAYS, EXISTING ASPHALTIC AND/OR CONCRETE SURFACES SHALL BE CUT TO A NEAT AND STRAIGHT LINE, PARALLEL OR PERPENDICULAR TO THE VEHICULAR TRAVELED PATH. THIS IS TYPICALLY THE ROADWAY CENTERLINE, BUT MAY VARY. THAT SAWCUT EDGE SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION SO A CLEAR PATCH BAG, IF EDGE IS DAMAGED, A NEW SAW CUT WILL BE REQUIRED. THE EXPOSED EDGE SHALL BE "TACKED" WITH EMULSION PRIOR TO PAVING.
- NO BURNING OR BLASTING SHALL BE ALLOWED ONSITE UNLESS SPECIFICALLY ADDRESSED ON PLANS, OR SPECIFICALLY APPROVED AND COORDINATED WITH THE ARCHITECT, ENGINEER, AND LOCAL AGENCY OR OTHER ADMINISTRATIVE AUTHORITY.
- SUBGRADE AND RESULTING FINISHED GRADE SHALL BE CONSTRUCTED SMOOTH AND UNIFORM BETWEEN SPOT ELEVATIONS, CONTOURS OR OTHER STRUCTURE ELEVATIONS SHOWN ON GRADING OR OTHER PLANS. NO MOUNDS, RUTS, DEPRESSIONS OR OTHER GRADING DEFICIENCIES WILL BE ALLOWED UNLESS SPECIFICALLY SHOWN ON PLANS.
- ON NEW WATER SYSTEMS, SERVICE LATERALS SHALL BE MADE USING APPROPRIATE "TEE" AND "WYE" FITTINGS. SADDLE TAPS WILL ONLY BE ALLOWED WHEN MAKING CONNECTIONS TO EXISTING WATER MAINS.
- CURING COMPOUND SHALL BE APPLIED IN A CONTINUOUS SOLID WET FLOWING COAT. ANY "SPOTTY" APPLICATIONS SHALL BE RECOATED IMMEDIATELY. APPLICATION SHALL BE INSPECTED BY PROJECT INSPECTOR DURING APPLICATION.
- EMBEDMENT OF FEATURES IN CONCRETE PAVING, CURBS, OR WALLS, SUCH AS SQUARE OR ROUND TUBING, POSTS, OR COLUMNS, STEEL BOLTED PLATES, OR OTHER STRUCTURES, SHALL REQUIRE ADDITIONAL SCORE OR EXPANSION JOINTS TO PREVENT UNCONTROLLED CRACKING. THOSE ADDITIONAL JOINTS MAY OR MAY NOT BE SPECIFICALLY SHOWN ON PLANS BUT SHALL BE PROVIDED BY THE CONTRACTOR.
- EMBEDMENT OF FEATURES IN CONCRETE PAVING, CURBS, OR WALLS, SUCH AS SQUARE OR ROUND TUBING, POSTS, OR COLUMNS, STEEL BOLTED PLATES, OR OTHER STRUCTURES, SHALL REQUIRE ADDITIONAL SCORE OR EXPANSION JOINTS TO ALLOW FOR SUCH STRUCTURE. THAT REBAR ADJUSTMENT MAY NOT BE SPECIFICALLY SHOWN ON PLANS.
- NO MORE THAN 1 GALLON OF WATER PER YARD OF CONCRETE CAN BE ADDED TO THE TRUCK AFTER ARRIVAL TO PROJECT SITE. THE ADDITION OF WATER CAN ONLY BE ADDED UNDER THE SUPERVISION OF THE CONCRETE INSPECTOR OR LABORATORY TECHNICIAN.
- WHEN PUMPING CONCRETE FOR PLACEMENT, ABSOLUTELY NO WATER IS TO BE ADDED TO PUMP HOPPER. ANY WATER ADDED TO HOPPER WILL BE REASON FOR CONCRETE REJECTION AT THE CONTRACTORS EXPENSE.
- ALL CONTRACTION/CONSTRUCTION JOINTS "CJ" SHALL BE 1/4 THE SLAB THICKNESS DEEP, BUT NO LESS THAN 1" FOR CONTROLLING OF CRACKING. CONTRACTOR SHALL EXERCISE CAUTION WHEN FINAL TROWELING OF CONCRETE SO AS NOT TO FILL IN THESE JOINTS WITH CONCRETE CREAM. ANY CRACKS OUTSIDE OF JOINTS WHICH WERE CONSTRUCTED LESS THAN 1" DEEP, SHALL BE CAUSE FOR CONCRETE SLAB(S) TO BE REMOVED AND REPLACE AT CONTRACTORS EXPENSE.
- ANY SCORED BOARDS SET WITHIN CONCRETE SLABS SHALL BE AN "OVERHEAD SCREED" SO THERE IS NO INTERFERENCE WITH THE PLACEMENT AND ALIGNMENT OF SLAB REINFORCING.
- 3-1/2" FELT JOINTS WILL NOT BE ACCEPTED. PROVIDE A FULL 4" FELT JOINT FOR 4" SLAB CONSTRUCTION, AND A 6" FELT JOINT FOR A 6" SLAB CONSTRUCTION.
- SHOULD ANY SHRINKAGE CRACKS OCCUR OUTSIDE OF EITHER THE EXPANSION JOINTS OR CRACK CONTROL JOINTS, THEN THE CONCRETE SLAB SHALL BE SAWCUT AT THE NEAREST JOINTS ON EACH SIDE OF THE CRACK AND THE CONCRETE SECTION SHALL BE, REMOVED AND REPLACED. NEW CONCRETE SHALL BE DOWELED INTO EXISTING CONCRETE PER DRAWING DETAIL.
- ALL AREAS DISTURBED BY GRADING OPERATIONS WHETHER SHOWN ON THE DRAWINGS OR NOT SHALL BE HYDRO SEEDED UNLESS OTHERWISE NOTED. HYDRO SEEDING SHALL CONFORM TO LOCAL CITY/COUNTY STANDARDS.
- REPAIR OR PATCHING OF GALVANIZED METALS, SUCH AS AFTER WELDING GALVANIZED COMPONENTS, SHALL BE MADE USING A ZINC COMPOSITION "HOT STICK" APPLICATION PER ASTM A 780-01. GALVANIZING PAINTS WILL NOT BE ALLOWED.

**GENERAL PAVING SURFACE NOTES:**

- PROVIDE EQUIVALENT OF MEDIUM BROOM FINISH AT SLOPES UP TO 5.99%. TYPICAL PROVIDE EQUIVALENT OF HEAVY BROOM FINISH AT SLOPES 6% AND GREATER. REFER TO SPECIFICATIONS.
- ALL NEW PEDESTRIAN WALKWAYS (NON-RAMP) SHALL BE SLOPED NO GREATER THAN 2.0%, AND NO LESS THAN 0.75% IN ANY DIRECTION, UNLESS SPECIFICALLY LABELED OTHERWISE. ALL CONCRETE SHALL MEET THE FOLLOWING SLOPE REQUIREMENTS:
  - NO GREATER THAN 5% SLOPE IN THE DIRECTION OF TRAVEL.
  - NO GREATER THAN 2% SLOPE CROSSING THE DIRECTION OF TRAVEL.
  - NO GREATER THAN 2% SLOPE IN ANY DIRECTION IN COURTYARD OR PLAZA AREAS.

**CIVIL SHEET INDEX**

- C0.1 CIVIL GENERAL NOTES AND ABBREVIATIONS
- C1.1 DEMOLITION PLAN
- C2.1 GRADING, DRAINAGE AND PAVING PLAN
- C3.1 DETAILS AND SECTIONS



**SHADE STRUCTURE AT SEQUOIA ELEMENTARY SCHOOL**  
**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT**  
**SACRAMENTO, CA**

A.P.N. 060-0240-012  
 BENCHMARK NO. CO. B.M. 21-53 ELEV. 52.03  
 FOUND 3/8" METAL DISC STAMPED "CO. B.M. 21-53" LOCATED IN TOP OF VERTICAL CURB IN CHISELED SQUARE ABOVE D.I. SOUTH SIDE OF KIEFER BLVD. APPROX. 40' WEST OF CONCRETE WALK TO ENTRANCE TO ROSEMONT FIRST BAPTIST CHURCH AND 0.10 MILE EAST OF MANLOWE RD.

**TBM LIST**

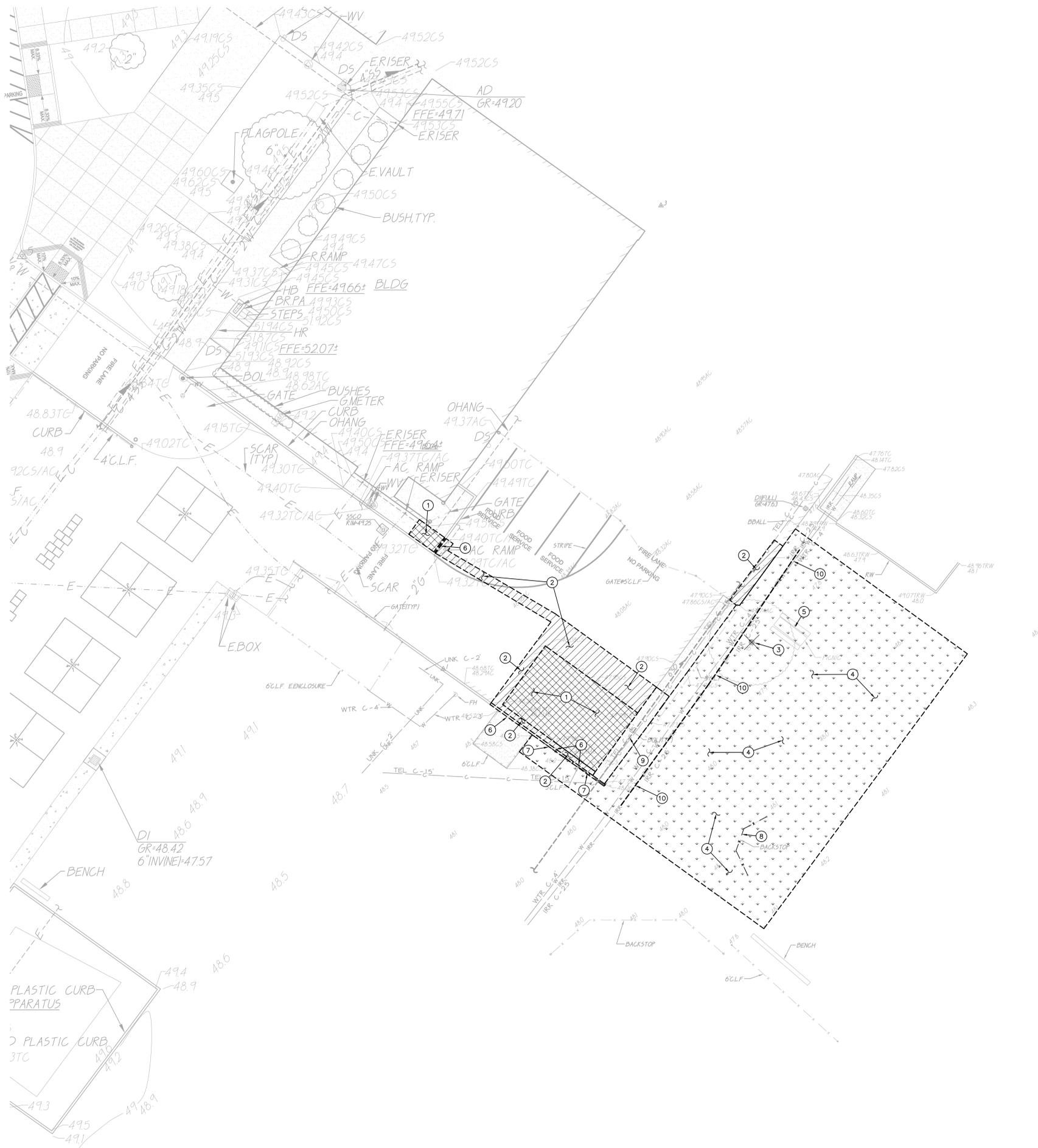
NUMBER	DESCRIPTION	NORTHING	EASTING	ELEV
1	CPS CHISELED "+"	4785.90	5392.83	48.79
2	CPS PK+WASHER	5013.76	5552.23	48.70
3	CPS CHISELED "+"	4894.67	5443.45	49.44
4	CPS CHISELED "+"	4719.71	5218.18	49.14
5	CPS CHISELED "+"	4882.88	5294.81	48.61
6	CPS CHISELED "+"	5045.53	5138.24	47.98

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**CIVIL GENERAL NOTES AND ABBREVIATIONS**

PROJECT NO. 21-1504.06  
 DATE: 3/3/22  
 SHEET

**C0.1**



- DEMOLITION NOTES**
1. SAWCUT, REMOVE AND DISPOSE OF EXISTING CONCRETE PAVING AND ASSOCIATED AGGREGATE BASE. SAWCUT SHALL BE A NEAT STRAIGHT LINE, MAINTAIN CLEAN, STRAIGHT CUT EDGE UNTIL NEW PAVING IS PLACED.
  2. SAWCUT, REMOVE AND DISPOSE OF EXISTING ASPHALT PAVING AND ASSOCIATED AGGREGATE BASE. SAWCUT SHALL BE A NEAT STRAIGHT LINE, MAINTAIN CLEAN, STRAIGHT CUT EDGE UNTIL NEW PAVING IS PLACED.
  3. REMOVE AND DISPOSE OF EXISTING TREE, TRUNK AND ASSOCIATED ROOTS.
  4. REMOVE AND DISPOSE OF EXISTING LANDSCAPING, TURF AND ASSOCIATED IRRIGATION PIPING/SPRINKLERS WITHIN AREAS OF WORK. CUT AND CAP ANY MAINLINES NEAR WHERE THEY ENTER THE BOUNDARY OF THE PROJECT. MARK ALL CAPPED LINES WITH AN IRRIGATION VALVE BOX. ALL EXISTING IRRIGATION AREAS OUTSIDE THE PROJECT WORK AREA SHALL BE PRESERVED AND OPERATIONAL. INTEGRITY SHALL BE MAINTAINED WITH PROPER SPRINKLER COVERAGE TO TURF AREAS TO REMAIN.
  5. REMOVE AND DISPOSE OF EXISTING CONCRETE PAD AND BENCH.
  6. REMOVE AND DISPOSE OF EXISTING CONCRETE CURB TO EXTENT SHOWN.
  7. REMOVE AND DISPOSE OF EXISTING CHAIN LINK FENCE TO EXTENT SHOWN.
  8. REMOVE AND DISPOSE OF EXISTING BACKSTOP.
  9. REMOVE AND DISPOSE OF EXISTING CONCRETE VALLEY GUTTER TO EXTENT SHOWN.
  10. REMOVE AND DISPOSE OF EXISTING IRRIGATION PIPE TO EXTENT SHOWN.

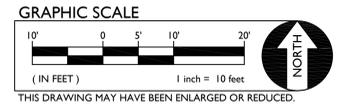
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 APP: 02-119975 INC.  
 REVIEWED FOR  
 SS  FLS  ACS   
 DATE: 04/04/2022



**SHADE STRUCTURE AT SEQUOIA  
 ELEMENTARY SCHOOL**  
 SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
 SACRAMENTO, CA

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**DEMOLITION PLAN**



PROJECT NO. 21-1504.05  
 DATE: 3/3/22  
 SHEET **C1.1**



**SUBGRADE PREPARATION**

1. FOLLOWING SITE DEMOLITION ACTIVITIES:  
 EXCAVATE DOWN TO ROUGH SUBGRADE ELEVATION, SCARIFY THE EXISTING SOILS TO A MINIMUM DEPTH OF 12 INCHES, MOISTURE CONDITION TO AT LEAST 2 PERCENT ABOVE THE OPTIMUM. MOISTURE AND COMPACT TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY DETERMINED BY THE ASTM D1557 TEST METHOD. UPPER 12 INCHES OF SUBGRADE SUPPORTING ASPHALT PAVEMENT SHALL BE COMPACTED TO 95 PERCENT.

**CONSTRUCTION NOTES**

1. MATCH EXISTING GRADE/ELEVATION.
2. CONSTRUCT CONCRETE SIDEWALK PER (1) C3.1  
 PLACE 5" PCC WITH #4 REBAR AT 24" O.C.E.W. OVER 12" CL2 AGGREGATE BASE ON COMPACTED SUBGRADE.
3. CONSTRUCT CONCRETE SIDEWALK PER (1) C3.1  
 PLACE 6" PCC WITH #4 REBAR AT 24" O.C.E.W. OVER 16" CL2 AGGREGATE BASE ON COMPACTED SUBGRADE.
4. DOWEL INTO EXISTING CONCRETE PER (1) C3.1
5. PLACE 3" AC OVER 16" AB ON COMPACTED SUBGRADE.
6. CONSTRUCT CONCRETE CURB PER (2) C3.1
7. PLACE SOD IN ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES THAT ARE NOT TO RECEIVE PAVEMENT. PROVIDE NEW SPRINKLER HEADS AND PIPING AS REQUIRED TO ACHIEVE PROPER COVERAGE.
8. PLACE 6" STORM DRAIN PER (3) C3.1
9. CONSTRUCT DROP INLET PER (4) C3.1
10. CONNECT TO EXISTING STORM DRAIN. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
11. REFER TO ELECTRICAL PLANS FOR CONDUIT PLACEMENT AND DETAILING. PATCH BACK PAVING PER DETAIL (5) C3.1
12. CONSTRUCT CONCRETE VALLEY GUTTER PER (6) C3.1
13. CONSTRUCT FLUSH CONCRETE CURB PER (9) C3.1
14. CONSTRUCT AREA DRAIN PER (8) C3.1
15. PLACE IRRIGATION PIPE. SIZE TO MATCH EXISTING LINE (7) C3.1 SIZE
16. CONNECT TO EXISTING IRRIGATION PIPE. PROVIDE ALL FITTINGS NECESSARY TO MAKE CONNECTION.
17. PLACE 2-SACK CONCRETE SLURRY FROM TOP OF EXISTING ELECTRICAL CONDUIT TO 6" MIN. ABOVE PIPE, EXTENDING 6" ON EITHER SIDE OF PIPE.
18. CONSTRUCT TRASH ENCLOSURE WALL PER (10) A1.1.1

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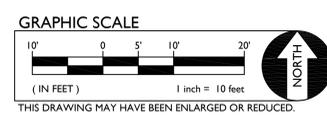


**WCE**  
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 1117 WINDFIELD WAY, SUITE 110  
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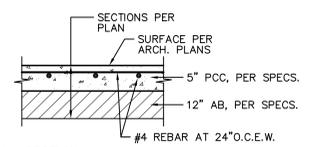
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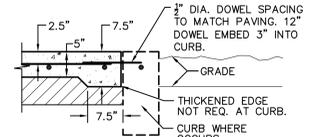
**GRADING, DRAINAGE  
 AND  
 PAVING PLAN**



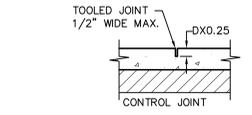
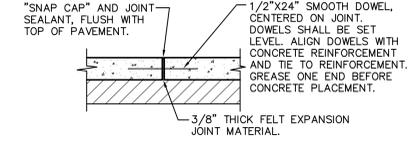
PROJECT NO. 21-1504.05  
 DATE: 3/3/22  
 SHEET **C2.1**



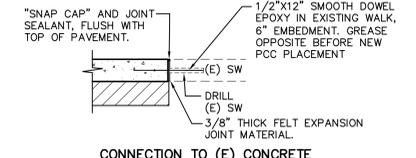
**TYPICAL SECTION**



**TYPICAL THICKENED EDGE**



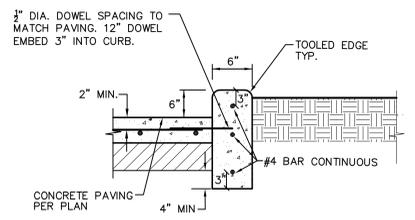
**TYPICAL JOINTS**



**CONNECTION TO (E) CONCRETE**

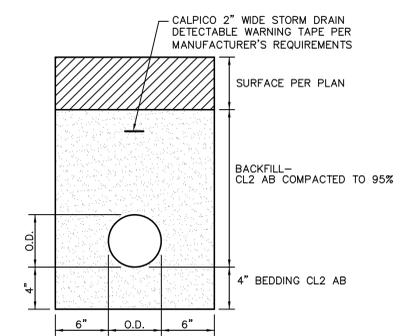
- NOTES:  
 1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 20 FEET O.C. MIN.  
 2. PROVIDE CONTROL JOINTS AT 10 FEET O.C. MIN.  
 3. EXPANSION OR CONTROL JOINTS SHALL NOT EXCEED 1/2" IN SURFACE WIDTH.

**1 CONCRETE SIDEWALK**  
 NO SCALE

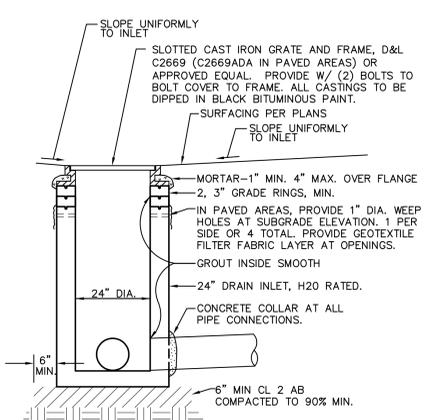


- NOTES:  
 1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 60 FEET O.C. MAXIMUM PROVIDE CONTROL JOINTS AT 10 FEET O.C. MAXIMUM, EXCEPT WHEN PLACING ADJACENT TO CONCRETE WALKS THE EXPANSION JOINTS SHALL ALIGN WITH THE EXPANSION JOINTS SHOWN FOR THE CONCRETE WALKS.  
 2. AT E.J. USE 1/2" X 24" SMOOTH DOWELS, ALIGN WITH REBAR, GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT.

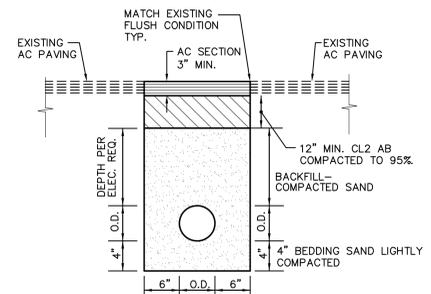
**2 CONCRETE CURB**  
 NO SCALE



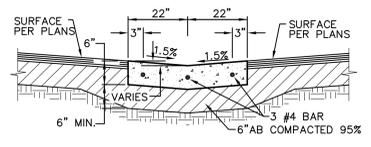
**3 STORM DRAIN TRENCH**  
 NO SCALE



**4 DROP INLET**  
 NO SCALE

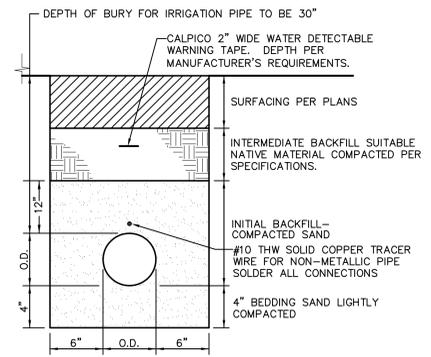


**5 ASPHALT PATCH AT TRENCH**  
 NO SCALE

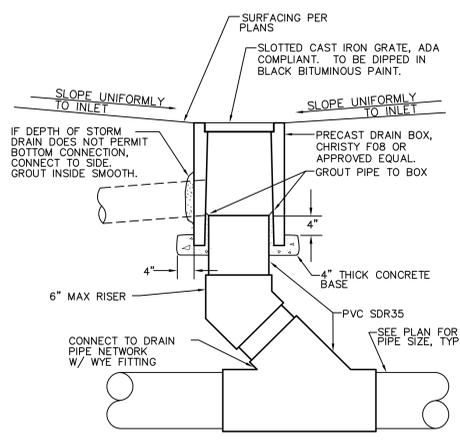


- NOTES:  
 1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 60 FEET O.C. SEAL E.J. WITH APPROVED JOINT SEALANT. PROVIDE CONTROL JOINTS AT 10 FEET O.C.  
 2. AT E.J. USE 1/2" X 24" SMOOTH DOWELS, ALIGN WITH REBAR, GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT.

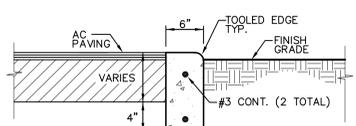
**6 CONCRETE VALLEY GUTTER**  
 NO SCALE



**7 WATER TRENCH**  
 NO SCALE

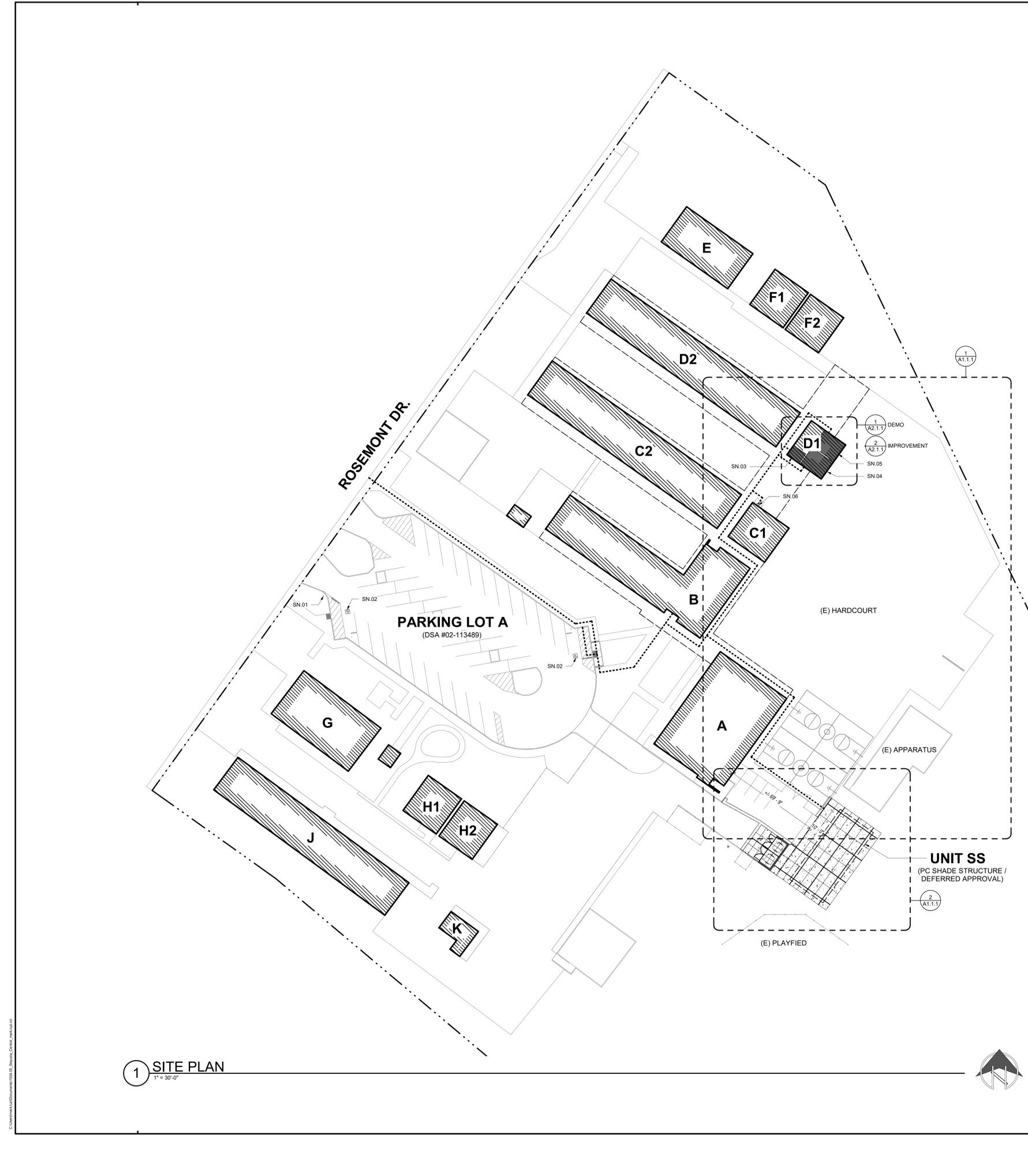


**8 AREA DRAIN**  
 NO SCALE



**9 FLUSH CONCRETE CURB**  
 NO SCALE

- NOTES:  
 1. PROVIDE FELT EXPANSION JOINTS (E.J.) AT 60 FEET O.C. PROVIDE CONTROL JOINTS AT 10 FEET O.C., EXCEPT WHEN PLACING ADJACENT TO CONCRETE WALKS THE EXPANSION JOINTS SHALL ALIGN WITH THE EXPANSION JOINTS SHOWN FOR THE CONCRETE WALKS.  
 2. AT E.J. USE 1/2" X 24" SMOOTH DOWELS, ALIGN WITH REBAR, GREASE 1/2 THE LENGTH BEFORE CONCRETE PLACEMENT.



PROPOSED SHADE STRUCTURE						
UNIT	DESCRIPTION	OCCUPANCY	CONSTRUCTION TYPE	ALLOWABLE AREA (TABLE 506.2)	ACTUAL AREA	OCCUPANCY CALCULATION
SS	SHADE STRUCTURE	A-3	V-B NON-SPRINKLERED	6,000 S.F.	1,920 S.F.	1,920 S.F. / 15 NET = 128 OCC.

EXISTING BUILDING DESIGNATIONS				
UNIT	DESCRIPTION	DSA APPLICATION #	AREA (SF)	NOTES
A	MULTIPURPOSE	14113	5,027	OCCUPANCY: A-3 CONSTRUCTION: V-B
B	ADMINISTRATION	14113	5,450	
C1-C2	CLASSROOMS / TOILET ROOMS	14113, 02-102135	6,324	
D1-D2	CLASSROOMS / TOILET ROOMS	14113, THIS APPLICATION	6,262	
E	RELOCATABLE CLASSROOMS	-	960 EACH	
F1-F2	RELOCATABLE CLASSROOMS	-	960 EACH	
G	RELOCATABLE CLASSROOMS	02-104649	960 EACH	
H1-H2	RELOCATABLE CLASSROOMS	51735	960 EACH	
J	RELOCATABLE CLASSROOMS	28948, 15050	960 EACH	
K	TOILET ROOMS	02-102135	447	

**EXISTING PATH OF TRAVEL (POT): ARCHITECT STATEMENT**

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE IN CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE 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 NON-COMPLIANT

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 NON-COMPLIANT 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 SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NON-COMPLYING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT TO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

**ACCESSIBLE PARKING STALL CALCULATION**

TOTAL PARKING STALL COUNT:	44 STALLS
ACCESSIBLE PARKING STALLS:	(TABLE 11B-208.2)
REQUIRED ACCESSIBLE STALLS:	2 (26-50 TOTAL STALLS)
REQUIRED VAN ACCESSIBLE STALLS:	1 (1-6 ACCESSIBLE STALLS)
ACCESSIBLE STALLS PROVIDED:	2 VAN

**LEGEND**

- PROPERTY LINE
- ASSUMED PROPERTY LINE
- UNIT DESIGNATION
- PC SHADE STRUCTURE / DEFERRED APPROVAL
- UNIT DESIGNATION
- EXISTING BUILDINGS
- EXPANSION JOINT
- CONCRETE WALK / PAVING
- CONTROL JOINT
- ASPHALT CONCRETE PAVING
- ACCESSIBLE PATH OF TRAVEL

- SITE WALKWAYS SHALL PROVIDE A BARRIER-FREE P.O.T. ABRUPT CHANGES IN LEVEL ALONG ANY P.O.T. ARE ALLOWED UP TO 1/2" ONLY. ABRUPT CHANGES IN ELEVATION UP TO 1/4" ARE ALLOWED TO HAVE A VERTICAL TRANSITION. ABRUPT CHANGES IN ELEVATION BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:1. UNIT VERTICAL TO 2 UNITS HORIZONTAL.
- WALKWAYS SHALL BE FREE OF GRATINGS WHEREVER POSSIBLE. GRATINGS WHICH OCCUR WITHIN THE P.O.T. SHALL HAVE OPENINGS WHICH DO NOT EXCEED 1/2" IN THE DIRECTION OF TRAVEL PER CBC SECTION 11B-302.3.
- AN ABRUPT DROP-OFF CHANGE IN ELEVATION AT THE EDGE OF ANY WALK INTO AN ADJACENT PLANTER SHALL NOT EXCEED 4".
- SLOPES IN THE DIRECTION OF THE P.O.T. GREATER THAN 1:1 UNIT VERTICAL TO 20 UNITS HORIZONTAL SHALL BE CONSIDERED A RAMP AND WILL REQUIRE HANDRAILS ON BOTH SIDES PER CBC SECTION 11B-506. SLOPES IN THE DIRECTION OF THE P.O.T. ALONG WALKWAYS SHALL NOT EXCEED 5%. CROSS SLOPES IN THE P.O.T. ALONG WALKWAYS SHALL NOT EXCEED 2%.
- ALL WALKWAYS WITHIN THE P.O.T. SHALL BE A MINIMUM OF 48" IN WIDTH. SURFACES WITH A SLOPE OF 5% OR LESS SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT PROVIDED BY A LIGHT BROOM FINISH. SURFACES WITH A SLOPE OF MORE THAN 5% SHALL BE AT LEAST AS SLIP-RESISTANT AS THAT PROVIDED BY A MEDIUM BROOM FINISH.
- OBJECTS PROTRUDING INTO THE P.O.T. SHALL NOT REDUCE THE CLEAR WIDTH OR MANEUVERING SPACE WITHIN THE P.O.T. PER CBC SECTION 11B-307.
- PASSING SPACES (11B-403.5.3) OF 60" X 60" MIN. ARE LOCATED NOT MORE THAN 200' APART. WALKS WITH CONTINUOUS GRADIENTS SHALL HAVE 60" IN LENGTH LEVEL RESTING AREAS (11B-403.7) NOT MORE THAN 400' APART. P.O.T. SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MIN (11B-307.4) AND FREE OF PROTRUDING OBJECTS (11B-307) GREATER THAN 4" PROJECTION FROM WALL ABOVE 27" AND LESS THAN 80". OBJECTS PROTRUDING INTO THE P.O.T. SHALL NOT REDUCE THE CLEAR WIDTH OR MANEUVERING SPACE REQUIRED FOR ACCESSIBLE ROUTES (11B-307.5).

- SHEET NOTES**
- SN.01 (E) PARKING LOT ENTRANCE SIGN PER DSA #02-113489
  - SN.02 (E) ACCESSIBLE PARKING STALL PER DSA #02-113489
  - SN.03 (E) ACCESSIBLE STAFF TOILET ROOM UPGRADED PER THIS APPLICATION
  - SN.04 (E) ACCESSIBLE GIRL'S TOILET ROOM UPGRADED PER THIS APPLICATION
  - SN.05 (E) ACCESSIBLE BOY'S TOILET ROOM UPGRADED PER THIS APPLICATION
  - SN.06 (E) ACCESSIBLE DRINKING FOUNTAIN REVIEWED AND VERIFIED PER THIS APPLICATION. SEE 2/A1.1.0



2 (E) DRINKING FOUNTAIN  
1/2" = 1'-0"

1 SITE PLAN  
1" = 30'-0"

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C-11648  
R. GRAY  
RENEWAL DATE  
STATE OF CALIFORNIA

**SHADE STRUCTURE AT SEQUOIA  
ELEMENTARY SCHOOL**

**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA**

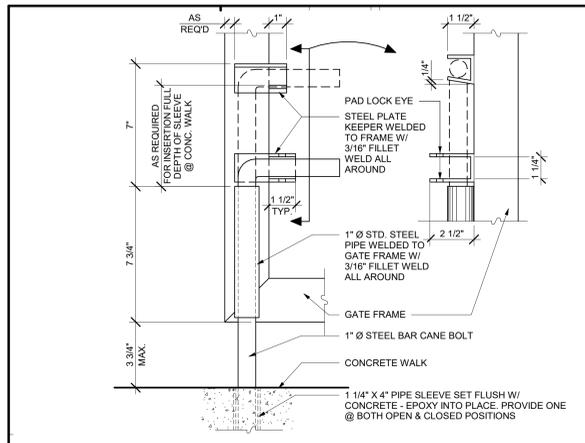
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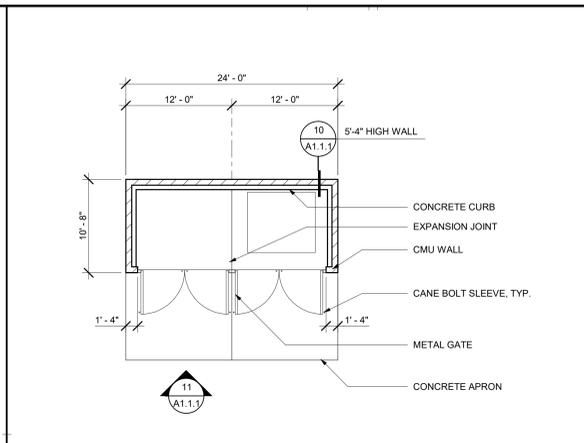
**SITE PLAN AND CODE  
INFORMATION**

PROJECT NO. 21-1504.05  
DATE: 3/3/22  
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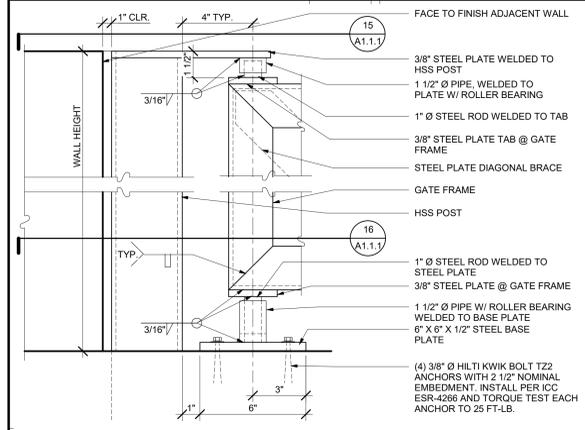
**A1.1.0**



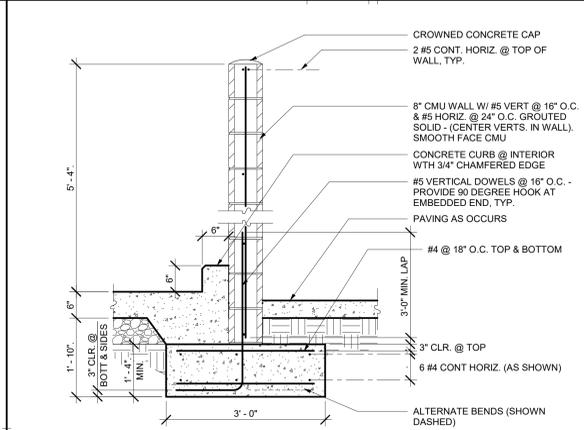
**13 CANE BOLT ASSEMBLY**  
3" = 1'-0" 05116



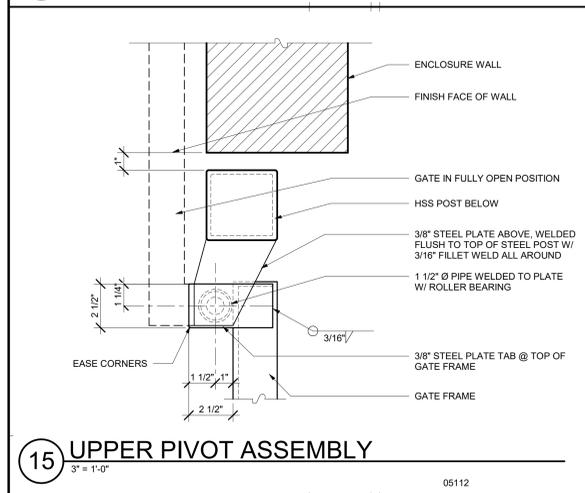
**9 TRASH ENCLOSURE**  
1/8" = 1'-0" 04202



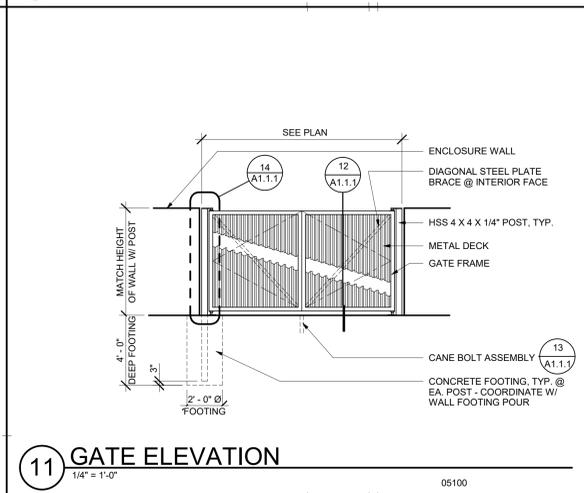
**14 GATE PIVOT ASSEMBLY**  
3" = 1'-0" 05111



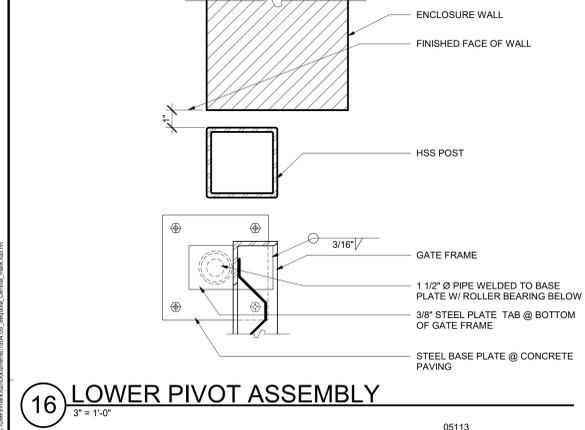
**10 TRASH ENCLOSURE WALL**  
3/4" = 1'-0" 04212



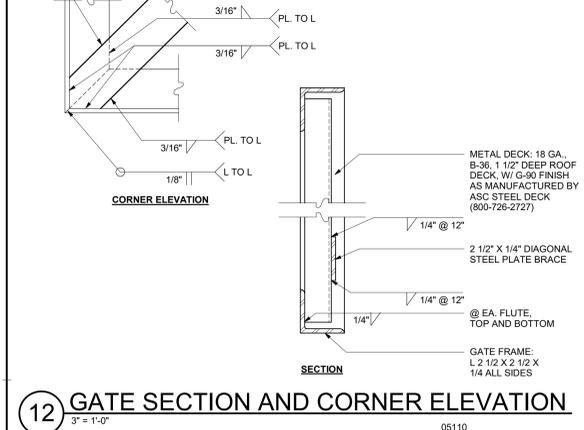
**15 UPPER PIVOT ASSEMBLY**  
3" = 1'-0" 05112



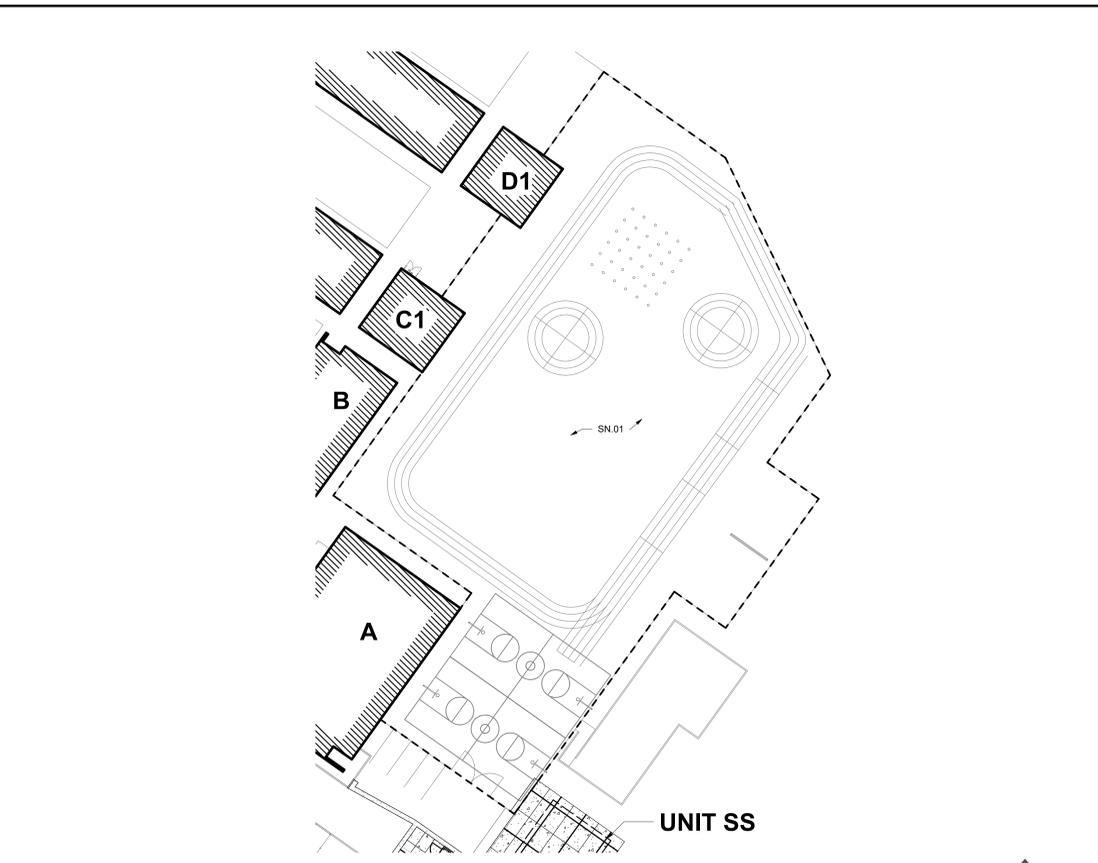
**11 GATE ELEVATION**  
1/4" = 1'-0" 05100



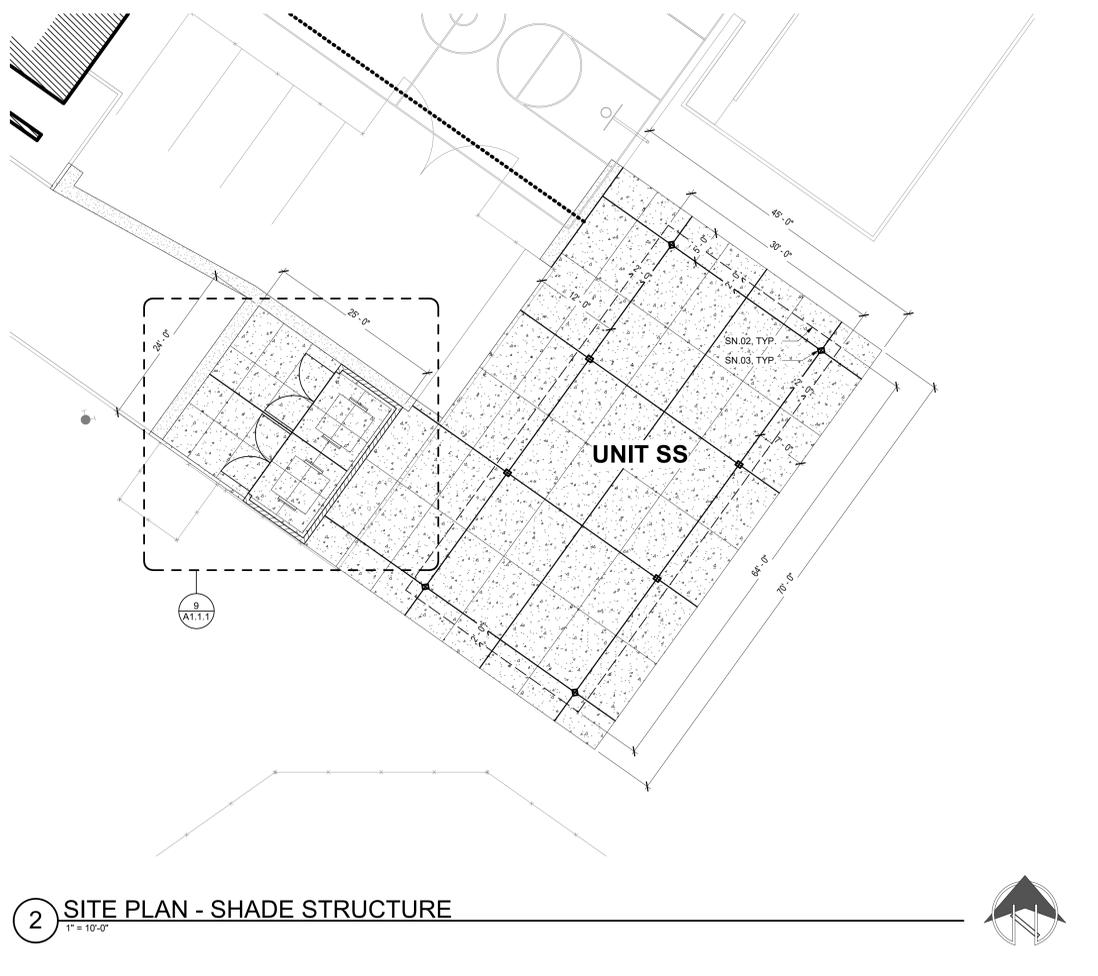
**16 LOWER PIVOT ASSEMBLY**  
3" = 1'-0" 05113



**12 GATE SECTION AND CORNER ELEVATION**  
3" = 1'-0" 05110



**1 ENLARGED SITE PLAN - HARDCOURT STRIPING**  
1" = 30'-0"



**2 SITE PLAN - SHADE STRUCTURE**  
1" = 10'-0"

**LEGEND**

- PROPERTY LINE
- - - - ASSUMED PROPERTY LINE
- [Symbol] UNIT DESIGNATION
- [Symbol] PC SHADE STRUCTURE / DEFERRED APPROVAL
- [Symbol] UNIT DESIGNATION
- [Symbol] EXISTING BUILDINGS
- [Symbol] EXPANSION JOINT
- [Symbol] CONCRETE WALK / PAVING
- [Symbol] CONTROL JOINT
- [Symbol] ASPHALT CONCRETE PAVING

**GENERAL NOTES**

- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXTENT OF CRACK REPAIR AT (E) HARDCOURT.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING (E) STRIPING CONDITIONS AND VERIFYING EXACT LAYOUT TO BE RESTRIPE WITH DISTRICT.

**SHEET NOTES**

- SN 01 ALTERNATE 1: (E) HARDCOURT SHALL RECEIVE CRACK REPAIRS AND 2 COATS OF SEAL COAT. (E) STRIPING IS TO BE RESTRIPE OVER SEAL COAT. EXTENTS SHOWN DASHED
- SN 02 ROOF OVERHANG ABOVE, PER PC SHADE STRUCTURE / DEFERRED APPROVAL. CONTRACTOR IS RESPONSIBLE FOR FIELD CUTTING METAL ROOF PANELS FOR INSTALLATION.
- SN 03 HSS COLUMN AND FOOTING, PER PC SHADE STRUCTURE / DEFERRED APPROVAL.

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**SHADE STRUCTURE AT SEQUOIA ELEMENTARY SCHOOL**

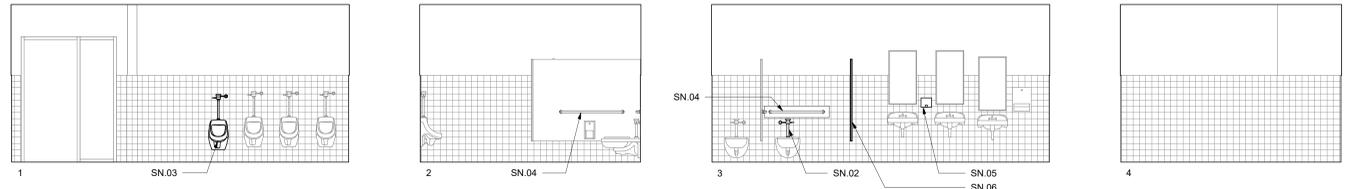
**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT**  
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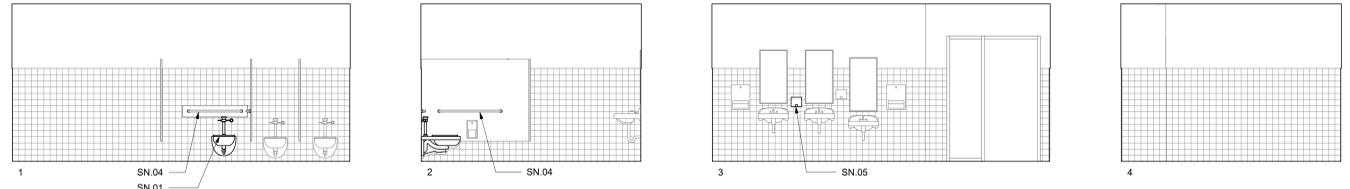
**PARTIAL SITE PLAN AND DETAILS**

PROJECT NO. 21-1504.05  
DATE: 3/3/22  
SHEET **A11.1**



**D101 - BOYS**  
1/4" = 1'-0"

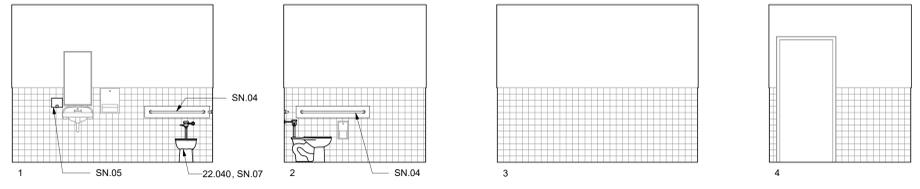
ADULT HEIGHT



**D102 - GIRLS**  
1/4" = 1'-0"

ADULT HEIGHT

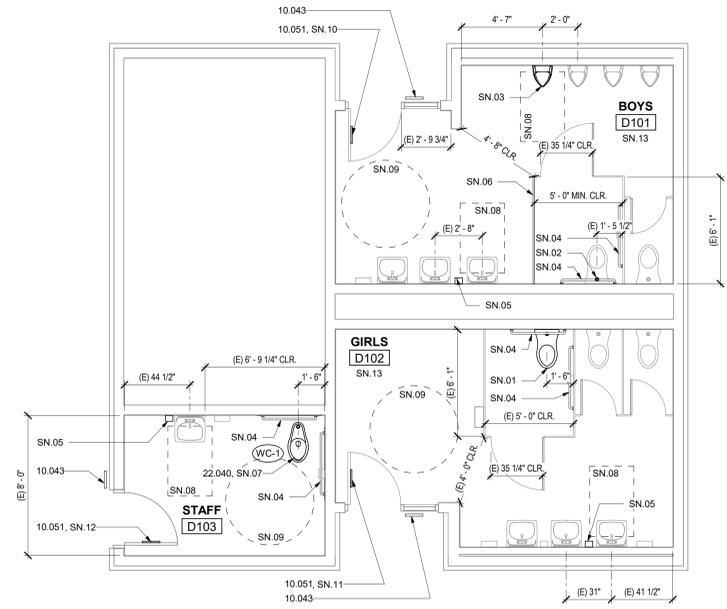
PLUMBING FIXTURE SCHEDULE - BASIS OF DESIGN				UTILITY CONNECTIONS						
SYMBOL	FIXTURE	DESCRIPTION	NOTES	VENT	WASTE		COLD WATER		HOT WATER	
					BRANCH	OUTLET	BRANCH	OUTLET	BRANCH	OUTLET
WC-1 (ADA)	WATER CLOSET FLUSH VALVE FLOOR MTD	"KOHLER" HIGHCLIFF ULTRA, MODEL K-96057, OR EQUAL, VITREOUS CHINA, ELONGATED, 1-1/2" TOP SPUD, 12" ROUGH-IN, 16-5/8" RIM HEIGHT, 1.28 GPF. FLUSH VALVE: "SLOAN" ROYAL OPTIMA 111-1.28	SEAT: "CHURCH" 295S5CT OR EQUAL, SELF-SUSTAINING, CONCEALED CHECK HINGES, ONE PIECE SS POST HINGES, WHITE COLOR.  MOUNT FLUSH HANDLE ON WIDE SIDE OF WATER CLOSET ENCLOSURE.	2"	4"	4"	1-1/4"	1"	-	-



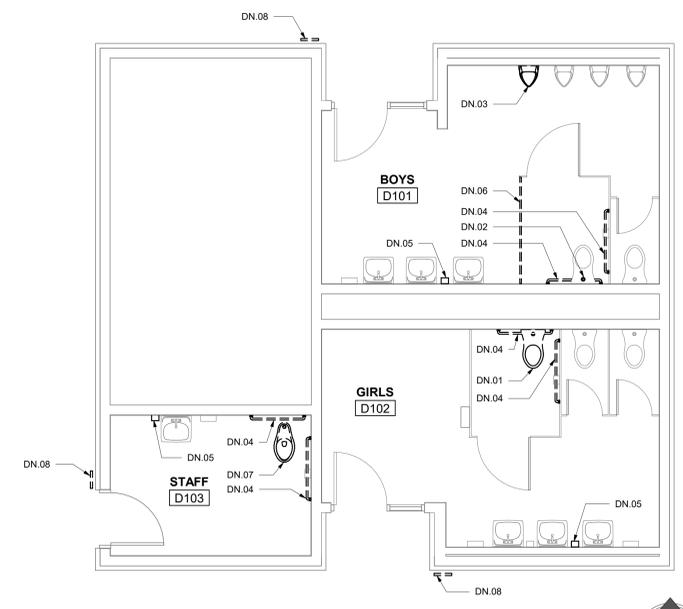
**D103 - STAFF**  
1/4" = 1'-0"

ADULT HEIGHT

**3 PLUMBING FIXTURE SCHEDULE**  
NOT TO SCALE



**2 ENLARGED TOILET ROOMS - IMPROVEMENT**  
1/4" = 1'-0"



**1 ENLARGED TOILET ROOMS - DEMOLITION**  
1/4" = 1'-0"



**LEGEND**



CONSECUTIVE NUMBERING CONVENTION FOR INTERIOR ELEVATIONS AND ROOM FINISHES.

**GENERAL NOTES**

- FOR MOUNTING HEIGHTS, LOCATIONS, AND DETAILS, INCLUDING THOSE FOR DISABLED ACCESSIBILITY, REFER TO SHEET A0.2
- PROTECT ALL ADJACENT SURFACES, ITEMS AND FINISHES NOT NOTED TO BE DEMOLISHED.
- EQUIPMENT/FIXTURES NOTED AS "SALVAGED FOR REINSTALLATION" WILL BE REMOVED AND STORED BY THE CONTRACTOR PRIOR TO START OF DEMOLITION. THESE EQUIPMENT/FIXTURES SHALL BE REINSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT.
- REMOVE ALL ITEMS SCHEDULED TO BE REMOVED, INCLUDING MOUNTING HARDWARE.
- DEMO AND REPAIR WALL FINISH AS NECESSARY TO PERFORM FIXTURE AND EQUIPMENT WORK AS NOTED. ADJACENT FINISHES TO BE VERIFIED BY CONTRACTOR.

**DEMOLITION NOTES**

- DN.01 REMOVE (E) WALL-MOUNTED WATER CLOSET AND SALVAGE FOR REINSTALLATION
- DN.02 REMOVE (E) FLUSH VALVE AT (E) WATER CLOSET
- DN.03 REMOVE (E) URINAL AND SALVAGE FOR REINSTALLATION
- DN.04 REMOVE (E) GRAB BARS AND SALVAGE FOR REINSTALLATION
- DN.05 REMOVE (E) SOAP DISPENSER AND SALVAGE FOR REINSTALLATION
- DN.06 REMOVE (E) TOILET PARTITION AND SALVAGE FOR REINSTALLATION
- DN.07 REMOVE (E) FLOOR-MOUNTED WATER CLOSET
- DN.08 REMOVE (E) TOILET ROOM I.D. SIGN

**SHEET NOTES**

- SN.01 REINSTALL (E) SALVAGED WALL-MOUNTED WATER CLOSET TO COMPLY WITH A0.2. ADJUST (E) WATER CARRIER AS REQUIRED FOR RECONNECTION TO WATER CLOSET. RECONNECT TO (E) WATER LINE, WASTE LINE AND VENT.
- SN.02 PROVIDE NEW FLUSH VALVE AT (E) WATER CLOSET TO COMPLY WITH A0.2
- SN.03 REINSTALL (E) SALVAGED URINAL TO COMPLY WITH A0.2. ADJUST (E) WATER CARRIER AS REQUIRED FOR RECONNECTION TO URINAL. RECONNECT TO (E) WATER LINE, WASTE LINE AND VENT.
- SN.04 REINSTALL (E) SALVAGED GRAB BARS TO COMPLY WITH A0.2
- SN.05 REINSTALL (E) SALVAGED SOAP DISPENSER TO COMPLY WITH A0.2
- SN.06 REINSTALL (E) SALVAGED TOILET PARTITION
- SN.07 RECONNECT TO (E) WATER LINE, WASTE LINE AND VENT
- SN.08 30" X 48" CLEAR SPACE
- SN.09 80" DIA. TURNING CIRCLE
- SN.10 SIGN TO READ "BOYS"
- SN.11 SIGN TO READ "GIRLS"
- SN.12 SIGN TO READ "STAFF"
- SN.13 WRAP ALL EXPOSED PIPES WITH INSULATION

**KEYNOTES**

- 10.043 SIGNAGE: TOILET ROOM IDENTIFICATION
- 10.051 SIGNAGE: TOILET ROOM DOOR SYMBOL
- 22.040 WATER CLOSET

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
APP: 02-119975 INC.  
REVIEWED FOR:  
SS  FLS  ACS   
DATE: 04/04/2022

A studio of  
**irga**  
HMC Architects

REGISTERED ARCHITECT  
C-11648  
2019  
RENEWAL  
DATE  
STATE OF CALIFORNIA

SHADE STRUCTURE AT SEQUOIA  
ELEMENTARY SCHOOL  
  
SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA

Revision

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**TOILET ROOM  
DEMOLITION AND  
IMPROVEMENT PLANS  
AND INTERIOR  
ELEVATIONS**

**UNIT D1**  
PROJECT NO. 21-1504.05  
DATE: 3/3/22  
SHEET

**A2.1.1**

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**ABBREVIATION LIST**

Ø	AT
A	AMPERE
AC	ALTERNATING CURRENT
A/C	AIR CONDITIONING
AER	ARC ENERGY REDUCTION
AF	AMP FRAME
AFF	ABOVE FINISHED FLOOR
AIC	AMPERES INTERRUPTING CAPACITY
AT	AMP TRIP SETTING
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BD	BOARD
BFC	BELOW FINISHED CEILING
BRKR	BREAKER
BLDG	BUILDING
BPS	BOOSTER POWER SUPPLY
C	CONDUIT
C/B	CIRCUIT BREAKER
C/CI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CR	CIRCUIT
CLG	CEILING
CO	CONDUIT ONLY, WITH PULL LINE
CONT	CONTINUOUS
CU	COPPER
CWP	METALLIC COLD WATER PIPE
(D)	DEMOLISH
DC	DIRECT CURRENT
DISC	DISCONNECT
DP	DISTRIBUTION PANEL
(E)	EXISTING
E/W	EACH WITH
EA	EACH
EL	EVENING LIGHT
ELEC	ELECTRIC
EM	EMERGENCY
EQ	ELECTRICAL METALLIC TUBING
END	END OF LINE DEVICE
EQUIP	EQUIPMENT
(ER)	EXISTING RELOCATED
EW	ELECTRICAL WATER COOLER
EW	ELECTRIC WATER HEATER
(F)	FUTURE
FAFP	FIRE ALARM CONTROL PANEL
FAEP	FIRE ALARM EXTENDER PANEL
FATC	FIRE ALARM TERMINAL CABINET
FBO	FURNISHED BY OTHERS
FLUOR	FLUORESCENT
FT	FOOT
GA	GAUGE
GFCI	GROUND FAULT CIRCUIT INTERRUPT
GLZ	GENERAL LIGHTING ZONE
GND	GROUND
GP	METALLIC GAS PIPE
GYP	GYP-SUM
HID	HIGH INTENSITY DISCHARGE
HT	HORSE POWER
HT	HEIGHT
HZ	HERTZ
IMC	INTERMEDIATE METALLIC CONDUIT
IN	INCH
ISC	SHORT CIRCUIT CURRENT (RMS SYMMETRICAL)
ISO	ISOLATES
J-BOX	JUNCTION BOX
KMIL	THOUSAND CIRCULAR MILLS
KVA	KILO VOLT AMP
KW	KILOWATT
LC	LIGHTING CONTROL PANEL
LV	LOW VOLTAGE
MCM	METALLIC CIRCULAR MILLS
MECH	MECHANICAL
MDP	MAIN DISTRIBUTION PANEL
MH	METAL HALIDE
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MPOE	MAIN POINT OF ENTRY
MSB	MAIN SWITCHBOARD
(N)	NEW
NIC	NOT IN CONTRACT
NIES	NOT IN ELECTRICAL SECTION OF THESE PLANS & SPECS.
NL	NIGHT LIGHT
NO. #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OC/CI	OWNER FURNISHED, CONTRRACTOR INSTALLED
OF/CI	OWNER FURNISHED, OWNER INSTALLED
P	POLE
PB	PULL BOX
PFB	PROVISION FOR FUTURE BREAKER W/ MOUNTING HARDWARE
PDZ	PRIMARY DAYLIT ZONE
PFCT	PROVISION FOR FUTURE CURRENT TRANSFORMER
PH, Ø	PHASE
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PVC	POLYVINYL CHLORIDE CONDUIT
(R)	RELOCATE / RELOCATED
REQ'D	REQUIRED
RM	ROOM
RMC	RIGID METAL CONDUIT
(RR)	REMOVE AND REPLACE
SDZ	SECONDARY DAYLIT ZONE
SKZ	SKYLIGHT DAYLIT ZONE
SPEC	SPECIFICATION
STC	SIGNAL TERMINAL CABINET
SQ	SQUARE
SW	SWITCH
TEL	TELEPHONE
TGB	TELECOMMUNICATIONS GROUNDING
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UC	UNDERGROUND
UCON	UNLESS OTHERWISE NOTED
V	VOLTS
WP	WEATHERPROOF
WT	WEIGHT
W	WATT
W/	WITH
W/	WITH
XFRM	TRANSFORMER
&	AND

**GENERAL NOTES**

- PLANS ARE NOT FOR CONSTRUCTION UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INSTALL ANY EQUIPMENT, PIPING, ETC. UNTIL PLANS ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
- ALL WORK SHALL BE DONE AT SUCH TIME AND IN SUCH MANNER AS PRESCRIBED BY THE SCHOOL'S REPRESENTATIVE.
- PROTECT EXISTING EQUIPMENT AND FURNISHINGS FROM ANY DAMAGE DUE TO DUST, MOISTURE OR CONTACT WITH WORK CREW OR MATERIALS.
- THE SCHOOL SHALL BE NOTIFIED AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY POWER SHUTDOWN OF EXISTING PANELS OR SERVICE. SCHEDULE OF SHUTDOWNS SHALL BE AT CONVENIENCE OF THE SCHOOL. THE SCHOOL MAY, AT THEIR OPTION, HAVE A REPRESENTATIVE PRESENT DURING SHUTDOWN. ALL WORK REQUIRING SHUTDOWNS OF EXISTING PANELS OR SERVICE SHALL BE DONE BETWEEN 12:00 AM MIDNIGHT AND 6:00AM WEEKDAYS OR ON SATURDAY AND SUNDAY. REQUIRED SHUTDOWNS SHALL BE KEPT TO A MINIMUM.
- ADEQUATELY STRAP AND SUPPORT ALL CONDUIT WORK PER CEC. IN GENERAL, SUPPORT ALL CONDUIT WITHIN THREE FEET (3') OF OUTLET BOX, CABINET OR PANEL AND MAXIMUM TEN FEET (10') ON CENTER THEREAFTER.
- CORE BORE SHALL BE 1" DIAMETER LARGER THAN EACH CONDUIT. SPACE CONDUIT HOLES 3" APART. SEAL AROUND CONDUIT WITH NON-SHRINK, NON-METALLIC GROUT.
- ALL CONDUCTORS INSTALLED IN PANELBOARDS SHALL BE TRAINED, LACED, AND INSTALLED WITH PHASE TAPE ON ALL CONDUCTORS.
- LABEL DEVICES (I.E. RECEPTACLES, ETC.) ON EACH COVER PLATE IDENTIFYING CIRCUIT AND PANEL DEVICE IS CONNECTED TO.
- CLEAN ALL EXTERIOR AND INTERIOR SURFACES OF PANELS AND ALL MATERIAL AND METAL SHAVINGS FROM PANEL AND CABINET INTERIORS. ALL OPENINGS SHALL BE SEALED AND APPLY TOUCH-UP SPRAY PAINT WHERE NEEDED.
- FIELD COORDINATE DEVICE LOCATIONS PRIOR TO ROUGH-IN.
- CONTRACTOR WILL PROVIDE WARNING LABELS NOTING THE POTENTIAL FOR ELECTRIC ARC FLASH HAZARDS PER CEC 110.16. PROVIDE LABELS ON EQUIPMENT SUCH AS SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, MOTOR CONTROL CENTERS, MOTOR STARTER / CONTACTOR PANELS, DISCONNECTS, ETC.. PROVIDE WARNING LABELS BY BRADY, MODEL NO. 101517, OR EQUAL, ON ALL EQUIPMENT.
- INSTALLATION SHALL COMPLY WITH CEC 210.4 - EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. THEREFORE ANY CIRCUIT SHARING A COMMON NEUTRAL SHALL BE CAPABLE OF SIMULTANEOUS DISCONNECT OR DEDICATED NEUTRALS SHALL BE INSTALLED.
- SUPPORT ENCLOSURES, BOXES AND CONDUIT INSTALLATIONS PER CEC 314.23 (A) THROUGH (H).
- SEAL CONDUIT OPENINGS THROUGH WALLS AND CEILINGS. INSTALL ESCUTCHEON PLATES AT BUILDING INTERIOR, WHERE EQUIPMENT IS INSTALLED ON THE EXTERIOR WALL, STUB CONDUITS THROUGH WALL AND SEAL CONDUIT OPENINGS. THEN INSTALL EXTERIOR EQUIPMENT. ALSO, SEAL AROUND THE PERIMETER EDGE OF THE EQUIPMENT ENCLOSURE BETWEEN THE ENCLOSURE AND BUILDING.
- CONDUITS INSTALLED ON ROOF AND BUILDING EXTERIOR SHALL BE RIGID GALV. STEEL (HEAVY WALL) WITH THREADED FITTINGS. CONDUIT AND WALL TO BE PAINTED OUT TO MATCH EXTERIOR FINISH.
- SPLICES AND TERMINALS SHALL BE COMPRESSION TYPE OF SEAMLESS PURE COPPER, TIN PLATED, LONG BARREL (TERMINALS WITH TWO-HOLE PAD AND INSPECTION WINDOW WITH NEMA DRILLING), AS MANUFACTURED BY BURNDY TYPE YS, YAZ-ZN OR EQUAL. CLEAN ALL SURFACES AND INSTALL WITH OXIDE INHIBITING COMPOUND, BURNDY PENETROX-E OR EQUAL. APPLY COMPOUND BETWEEN BUS AND LUG PAD AND BETWEEN CONDUCTOR AND LUG BARREL. INSTALL COMPRESSION CONNECTORS WITH 360° CIRCUMFERENTIAL COMPRESSION DYE, BURNDY HYPRESS OR EQUAL. THE INDENTER OR OTHER TYPE TOOLS WILL NOT BE ACCEPTABLE.
- INSTALL "MECHANICALLY FASTENED PHENOLIC NAMEPLATE WITH WHITE LETTERING ON BLACK BACKGROUND ON ALL EQUIPMENT, INCLUDING PULL BOXES, WITH DESCRIPTION INDICATED ON DRAWINGS. NAMEPLATES SHALL READ EXACTLY AS DESCRIBED ON THE DRAWINGS. IN GENERAL, NAMEPLATE LETTERING SIZE SHALL BE 3/16" HIGH FOR ALL NAMEPLATES SERVING FEEDER AND BRANCH CIRCUIT BREAKERS. ON MAIN SERVICE PANEL, DISTRIBUTION PANELS AND ALL OTHER NAMEPLATES LETTERING SHALL BE 1/4" HIGH.
- ALL SWITCHBOARDS, SWITCHGEAR, PANELBOARDS, VFD'S, MOTORS, JUNCTION BOXES, PULL BOXES, DISCONNECT SWITCHES, ETC., SHALL BE MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATES PER CEC 408.4, FIELD IDENTIFICATION REQUIRED. (B) SOURCE OF SUPPLY.
- COORDINATE EQUIPMENT LOCATIONS, CONTROL AND POWER WIRING REQUIREMENTS AND CONNECT POINTS WITH ALL APPLICABLE DISCIPLINES.
- PROVIDE AND INSTALL FUSES PER UNIT NAMEPLATE DATA ON THE EQUIPMENT PROVIDED.
- A LAMINATED COPY OF THE FINAL RECORD ONE LINE DIAGRAM SHALL BE PLACED IN ELEC ROOM.
- PROVIDE WRING DEVICES AND COVER PLATES IN COLOR(S) SELECTED BY ARCHITECT. THE COLOR OF THE WRING DEVICE AND COVER PLATE SHALL BE THE SAME UNLESS SPECIFICALLY NOTED OTHERWISE.
- RECEPTACLE WEATHERPROOF COVERS SHALL BE LISTED "EXTRA DUTY", LOCKABLE, METAL, IN-USE TYPE.
- REINSTALL EXISTING ELECTRICAL INSTALLATIONS DISTURBED. CERTAIN EXISTING ELECTRICAL INSTALLATIONS MAY BE LOCATED IN WALLS, CEILINGS OR FLOORS THAT ARE TO BE REMOVED AND ARE ESSENTIAL FOR THE OPERATION OF OTHER REMAINING INSTALLATIONS. WHERE THIS CONDITIONS OCCURS, PROVIDE A NEW EXTENSION OF ORIGINAL CIRCUITS, RACEWAYS, EQUIPMENT AND OUTLETS TO RETAIN SERVICE CONTINUITY. INSTALLATIONS SHALL BE CONCEALED IN FINISHED AREAS.
- FOR ROOF PENETRATIONS, REFER TO ARCHITECTURAL PLANS FOR INSTALLATION REQUIREMENTS.
- FOR WALL PENETRATION INSTALLATIONS, REFER TO ARCHITECTURAL PLANS FOR REQUIREMENTS.
- PROVIDE "LOOK-ON" DEVICE FOR ALL CIRCUIT BREAKERS ON EMERGENCY DEDICATED CIRCUITS.
- DRAWINGS ARE TO BE CONSIDERED DIAGRAMMATIC. CONTRACTOR SHALL ACCEPT RESPONSIBILITY IN FAMILIARIZING THEMSELVES WITH ARCHITECTURAL AND STRUCTURAL CONDITIONS ALONG WITH INHERENT SPACE LIMITATIONS. WITH THAT UNDERSTANDING SHALL PROVIDE ALL ITEMS OF LABOR, MATERIALS AND TOOLS REQUIRED TO PROVIDE A COMPLETE INSTALLATION.
- MAINTAIN A MINIMUM OF 12" SEPARATION BETWEEN ANY CONDUIT AND (E) UTILITY CONDUIT.
- FOR INTERSECTING TRENCHED CONDUIT, MAINTAIN OR EXCEED THE MINIMUM CONDUIT DEPTH REQUIREMENTS.

**MEP COMPONENT ANCHORAGE NOTE**

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED AND BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30:

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/20 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- TEMPORARY, MOVEABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL, THAT DIRECTLY SUPPORTS THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL, THAT DIRECTLY SUPPORTS THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

**PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE**

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8 AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2019 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP  MD  PP  E  OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP  MD  PP  E  OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #\_\_\_\_\_

**SYMBOLS LIST**

- FUSED DISCONNECT SWITCH
- DUPLEX CONVENIENCE OUTLET
- DOUBLE DUPLEX CONVENIENCE OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DUPLEX OUTLET
- GROUND FAULT CIRCUIT INTERRUPTER DOUBLE DUPLEX OUTLET
- SPECIAL OUTLET TO MATCH CAP PROVIDED WITH MACHINE
- FLUSH FLOOR BOX OR "POKE-THRU" UNIT EQUIPPED WITH FLUSH OR PEDESTAL DUPLEX RECEPTACLE AND VOICE/DATA OUTLETS AS NOTED OR REFER TO SCHEDULE ON DRAWINGS.
- PLUGMOLD/WIREMOLD RECEPTACLE SYSTEM
- TRANSFORMER
- JUNCTION BOX, SIZE AS REQUIRED BY CODE
- FLEX CONNECTION TO FIXTURE
- PANELBOARD, RECESSED MOUNTED
- PANELBOARD, SURFACE MOUNTED
- MAIN SWITCHBOARD
- TERMINAL CABINET, RECESSED MOUNTED
- TERMINAL CABINET, SURFACE MOUNTED
- HOMERUN TO PANELBOARD OR RESPECTIVE TERMINAL
- CONDUIT RUN CONCEALED IN CEILING OR WALL, SEE SYMBOLS LIST NOTES
- CONDUIT RUN UNDERGROUND OR UNDER FLOOR
- EMERGENCY SYSTEM CONDUIT AND WIRES
- INSULATED GREEN GROUND CONDUCTOR
- INSULATED ISOLATED GROUND CONDUCTOR, GREEN WITH TRACER STRIPE
- CONDUIT RISER
- EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED  
WIREMOLD SURFACE RACEWAY(S) WITH OUTLETS AS SHOWN OR NOTED, SEE SURFACE RACEWAY SCHEDULE
- SYMBOLS REFERRING TO KEYED NOTES ON SAME SHEET
- MECHANICAL EQUIPMENT BY OTHERS, CONNECTED BY ELECTRICAL CONTRACTOR
- DETAIL DESIGNATION, "A-1" SIGNIFIES SHEET NUMBER
- (1)1-1/2" ← INDICATES SIZE OF CONDUIT = ONE AND ONE HALF INCH CONDUIT
- ← NUMBER WITHIN PARENTHESIS INDICATES QUANTITY OF CONDUITS

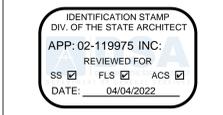
**SYMBOLS LIST NOTES:**

- MOUNT SWITCH BOXES AT +48" TO TOP OF BOX UNLESS OTHERWISE NOTED.
- MOUNT OUTLET BOXES AT +15" TO BOTTOM OF BOX UNLESS OTHERWISE NOTED.
- "A" ADJACENT TO OUTLET INDICATES OUTLET BOX TO BE MOUNTED ABOVE COUNTER, COORDINATE WITH COUNTER HEIGHT AND DEPTH PRIOR TO ROUGH IN. MOUNT OUTLET ABOVE COUNTERS AT:
  - +48" MAX TO TOP OF BOX WHERE BOX IS INSTALLED OVER BASE CABINET.
  - +44" MAX TO TOP OF BOX WITH OPEN COUNTERS WITH FORWARD APPROACH.
- OUTLET BOXES SHALL BE:
  1. WALL MOUNTED - 4" SQ. x 2-1/8" DEEP MINIMUM
  2. CEILING MOUNTED - 4" SQ. OR 4" OCT. x 2-1/8" DEEP MINIMUM
- OUTLET BOXES REQUIRING 1-1/4", 1-1/2" OR 2" CONDUITS SHALL BE 4-11/16" x 3-1/4" DEEP MINIMUM.
- FLUSH MOUNTED OUTLET BOXES SHALL UTILIZE TRIM RINGS. COORDINATE TRIM RING DEPTH WITH WALL FINISH PRIOR TO ROUGH-IN.
- NO CROSSBARS ON CONDUIT RUN INDICATES MINIMUM 1" CONDUIT. TWO #10 CU CONDUCTORS PLUS #10 CU GND. CROSSBARS INDICATE NUMBER OF #10 CU CONDUCTORS IN CONDUIT. CONDUCTOR SIZES OTHER THAN #10 NOTED ON DRAWINGS. INCREASE CONDUIT SIZE AS REQUIRED TO ACCOMMODATE C.E.C. WIRE FILL REQUIREMENTS. INCLUDE ADDITIONAL BOND WIRE IN ALL PVC AND FLEXIBLE CONDUIT. LONG CROSSBAR INDICATES NEUTRAL CONDUCTOR, SHORT CROSSBARS INDICATE PHASE CONDUCTORS.
- INCREASE BRANCH CIRCUIT CU CONDUCTOR SIZES AS REQUIRED BY THE 120V BRANCH CIRCUIT VOLT DROP CONDUCTOR LENGTH CHART BELOW. USE CONDUCTOR LENGTHS AS FIELD MEASURED, BASED UPON MEASURED FIELD ROUTING LENGTHS. INCREASE MINIMUM CONDUIT SIZE AS REQUIRED TO ACCOMMODATE A MAXIMUM 40% CONDUCTOR FILL OF THE BRANCH CIRCUIT CONDUCTORS. WHERE NECESSARY, PROVIDE A JUNCTION BOX AT ACCESSIBLE CEILING SPACE, TO CONVERT THE LAST 15 FEET OF CONDUCTORS TO #10 AWG TO ACCOMMODATE TERMINATION OF CONDUCTORS AT WIRING DEVICES, LIGHTING FIXTURES, CIRCUIT BREAKER, ETC.
- INSTALL CU GROUND CONDUCTOR IN ALL BRANCH CIRCUITS FOR LIGHT FIXTURES AND POWER DEVICES.

**120V BRANCH CIRCUIT VOLT DROP CONDUCTOR LENGTH CHART**

LOAD IN VOLT AMPERES	LENGTH OF CONDUCTOR WIRE SIZE IN (GAUGE)			
	#12	#10	#8	#6
1200VA	74	121	183	284
1560VA	57	93	141	218
1800VA	49	81	122	189
1920VA	46	76	115	178
2340VA	X	62	94	146
2880VA	X	51	76	118
3000VA	X	48	73	114
3900VA	X	X	56	87
4800VA	X	X	46	71

- NOTES
- THIS CHART IS FOR COPPER CONDUCTORS ONLY.
  - THIS CHART ASSUMES AN 80% POWER FACTOR AND STEEL RACEWAYS.
  - 2019 CALIFORNIA ENERGY CODE, 130.5(c) ALLOWS A MAXIMUM COMBINED VOLTAGE DROP OF 5%. THIS CHART ASSUMES A MAXIMUM DROP OF 3% FOR FEEDERS. THIS CHART PROVIDES THE MAXIMUM LENGTH OF CONDUCTORS FOR LESS THAN 2% VOLTAGE DROP ON A BRANCH CIRCUIT AT GIVEN VA LOAD.
  - USE WIRE SIZE FROM THIS CHART UNLESS LARGER CONDUCTOR SIZES ARE NOTED ON THE DRAWINGS.
  - FOR VA VALUES NOT SHOWN USE NEXT HIGHEST VALUE FROM THE CHART



PLOT DATE: 3/29/2022

SHADE STRUCTURE AT SEQUOIA ELEMENTARY SCHOOL  
SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
SACRAMENTO, CA

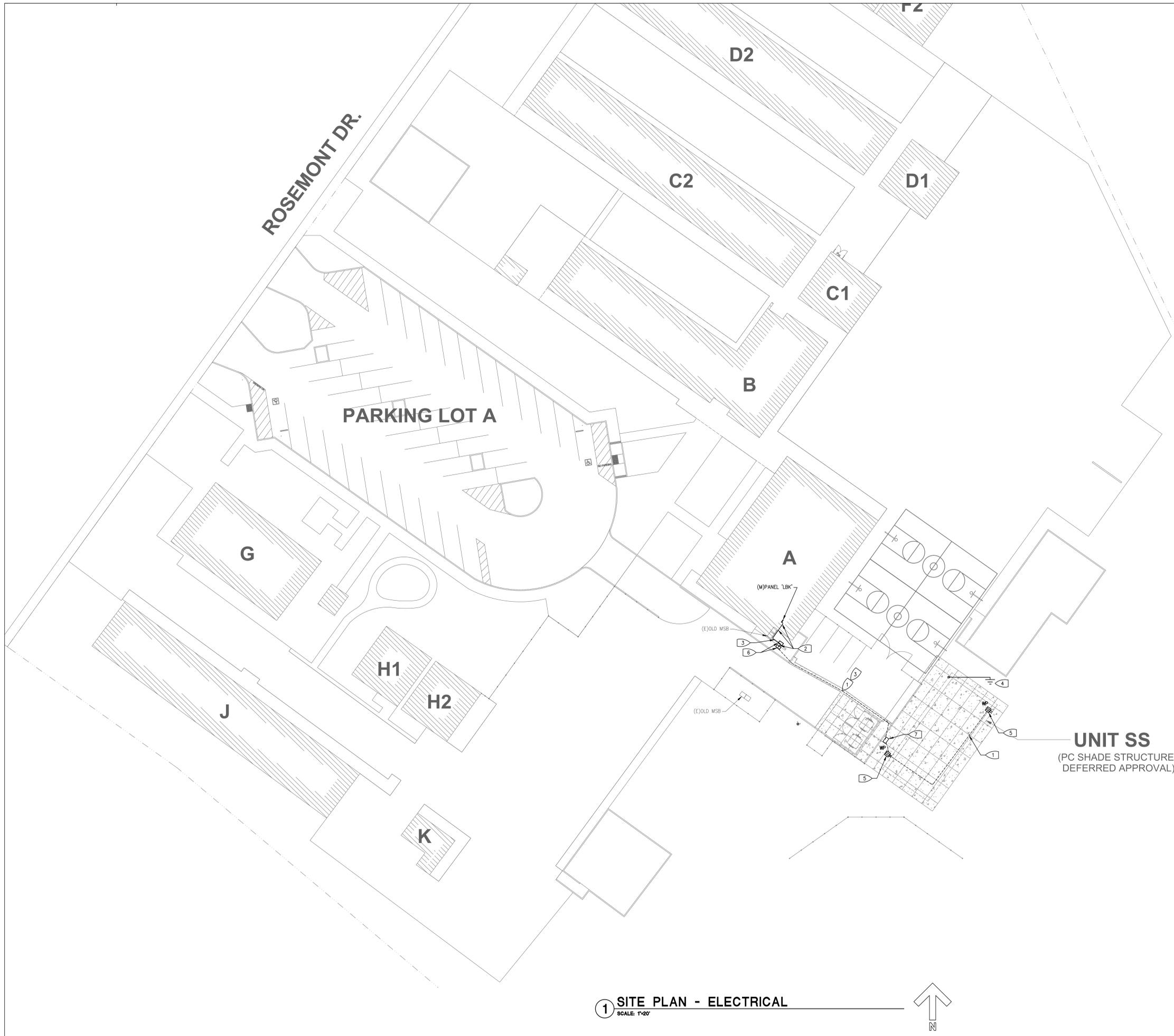
Revision

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**SYMBOLS, NOTES**

PROJECT NO. 21-1504.05  
DATE: 3/1/22  
SHEET

**E0.1**

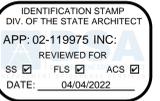


**SHEET NOTES:**

1. ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.
2. SEE ONE LINE DIAGRAM AND PANEL SCHEDULE ON SHEET **E2.1** FOR REFERENCE.

**KEYED NOTES:**

1. PROVIDE TRENCH FOR 24 INCH MINIMUM COVER. LOCATE AND PROTECT (E) UTILITIES, I.E. IRRIGATION, SEWER, DRAINAGE PIPES, ETC. SAW CUT AND PATCH BACK (E) CONCRETE/ASPHALT. PROVIDE SAND TO COVER CONDUIT TO SIX(6) INCHES, THEN ADD TRACER TAPE. COMPLETE BACKFILL TO GRADE WITH NATIVE SOIL. COMPACT IN SIX(6) LIFTS. FINISH TO MATCH EXISTING. SEE DETAIL **3/E3.1**.
2. CONDUIT TO PENETRATE WALL. PATCH BACK TO MATCH (E) BUILDING CONSTRUCTION.
3. PENETRATE WALL AND RUN HIGH ON WALL TO WRAP AROUND SOUTHEAST ALCOVE. PENETRATE WALL AND DROP CONDUIT TO BELOW CONCRETE/ASPHALT. TRENCH TO SHADE LOCATION, INTERCEPTING THE CHRISTY BOX ALONG THE WAY. PAINT EXPOSED CONDUIT TO MATCH (E) FINISH.
4. PROVIDE AT MINIMUM TWO(2) GROUND RODS, EACH 5/8" BY TEN(10) FEET LONG, CU, AT LEAST TEN(10) FEET APART. BOND TO METAL OF SHADE STRUCTURE. SEE DETAIL **5/E3.1**.
5. LOCKABLE, WEATHERPROOF RECEPTACLE TO HAVE A TWO-GANG BACK BOX WITH 1" THREADED PORT(S). MOUNT RECEPTACLES 36" ABOVE GRADE UNLESS SPECIFIED OTHERWISE. SEE DETAIL **4/E3.1**.
6. PROVIDE 8" BY 6" BY 4" NEMA 3R PULL BOX.
7. PROVIDE CHRISTY B1324 PULL BOX WITHIN FIVE(5) FT OF SHADE STRUCTURE. CHRISTY BOX TO HAVE HOLD DOWN BOLTS AND BE LABELED FOR POWER. SEE DETAIL **2/E3.1**.



PLOT DATE: 3/29/2022

**SHADE STRUCTURE AT SEQUOIA ELEMENTARY SCHOOL**  
**SACRAMENTO CITY UNIFIED SCHOOL DISTRICT**  
**SACRAMENTO, CA**

Revision

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**SITE PLAN - ELECTRICAL**

PROJECT NO. 21-1504.05  
 DATE: 3/1/22  
 SHEET

**E1.1**

**1 SITE PLAN - ELECTRICAL**  
 SCALE: 1"=20'

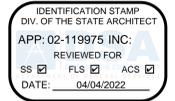


**SHEET NOTES:**

- ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., SHOWN ON PLANS ARE BASED ON AVAILABLE EXISTING DRAWINGS AND LIMITED SITE SURVEYS, AND SHOWN FOR CLARITY ONLY.

**KEYED NOTES:**

- MODIFIED PANEL SERVES EQUIPMENT BEING ADDED IN THIS PROJECT. SEE PANEL SCHEDULE ON THIS SHEET FOR REFERENCE.



PLOT DATE: 3/29/2022

SHADE STRUCTURE AT SEQUOIA ELEMENTARY SCHOOL  
 SACRAMENTO CITY UNIFIED SCHOOL DISTRICT  
 SACRAMENTO, CA

MODIFIED

PANEL:	MANF: EATON / CH	MAIN:	MLO	SERVICE:	MOUNTING:	ENCLOSURE:	10K AIG
TYPE: PRL1A	BUS:	225 AMP	120 /208 VOLT	SURFACE	WIDTH: 20.25"	100% NEUT.	
FEEDER RATINGS:	225 AMP	3 Ø 4W	DEPTH: 6"				

AØ	BØ	CØ	DIRECTORY	BRKR	CKT	CKT	BRKR	DIRECTORY	AØ	BØ	CØ
			MULTIPURPOSE RM LIGHTS	20/1	1	2	20/1	KITCHEN RECEP			
			MULTIPURPOSE RM LIGHTS	20/1	3	4	20/1	SPARE			
			MULTIPURPOSE RM LIGHTS	20/1	5	6	20/1	KITCHEN RECEP			
1600			WHEEL CHAIR LFT	20/1	7	8	20/1	KITCHEN RECEP			
			STAGE RECEP	20/1	9	10	20/1	KITCHEN RECEP			
			KITCHEN EXHAUST FANS	20/1	11	12	20/1	KITCHEN RECEP			
1387			WARMER FLOOR RECEP	20/1	13	14	20/1	KITCHEN + MP RECEP			
			FREEZER	20/2	15	16	20/1	KITCHEN + RESTRM RECEP			
				-	17	18	20/1	SPARE			
1600			OVEN FAN	20/1	19	20	20/1	STAGE SOUTH WALL RECEP			
			OVEN FAN	20/1	21	22	20/1	STAGE FLOOR BOX RECEP			
			STAGE RECEP	20/1	23	24	20/1	RECEP - SHADE STRUCT. [4]			3Ø
1602			GARBAGE DISPOSAL	20/3	25	26	20/1	MULTIPURPOSE RM RECEP			
				-	27	28	30/2	DRYER			2080
				-	29	30	-				2080
			STAGE RECEP	20/1	31	32	20/3	SPARE			
			SPARE	20/1	33	34	-				
			WALK-IN FAN AND LIGHT	20/1	35	36	-				
1602			WALK-IN COMPRESSOR	20/3	37	38	100/3	DISHWASHER + WATER HTR			8006
				-	39	40	-				8006
				-	41	42	-				8006

NEW LOAD		DEMAND READINGS			PEAK DEMAND @ 125% + (N) LOAD		TOTAL DEMAND LOAD	
AØ	BØ	VA	AMPS	AMPS	@125%	AMPS	VA	
		14410	120	16.6	20.8	141 A	18900 VA	
		16277	136	21.5	26.9	163 A	19502 VA	
		18237	152	7.5	9.4	161 A	19362 VA	

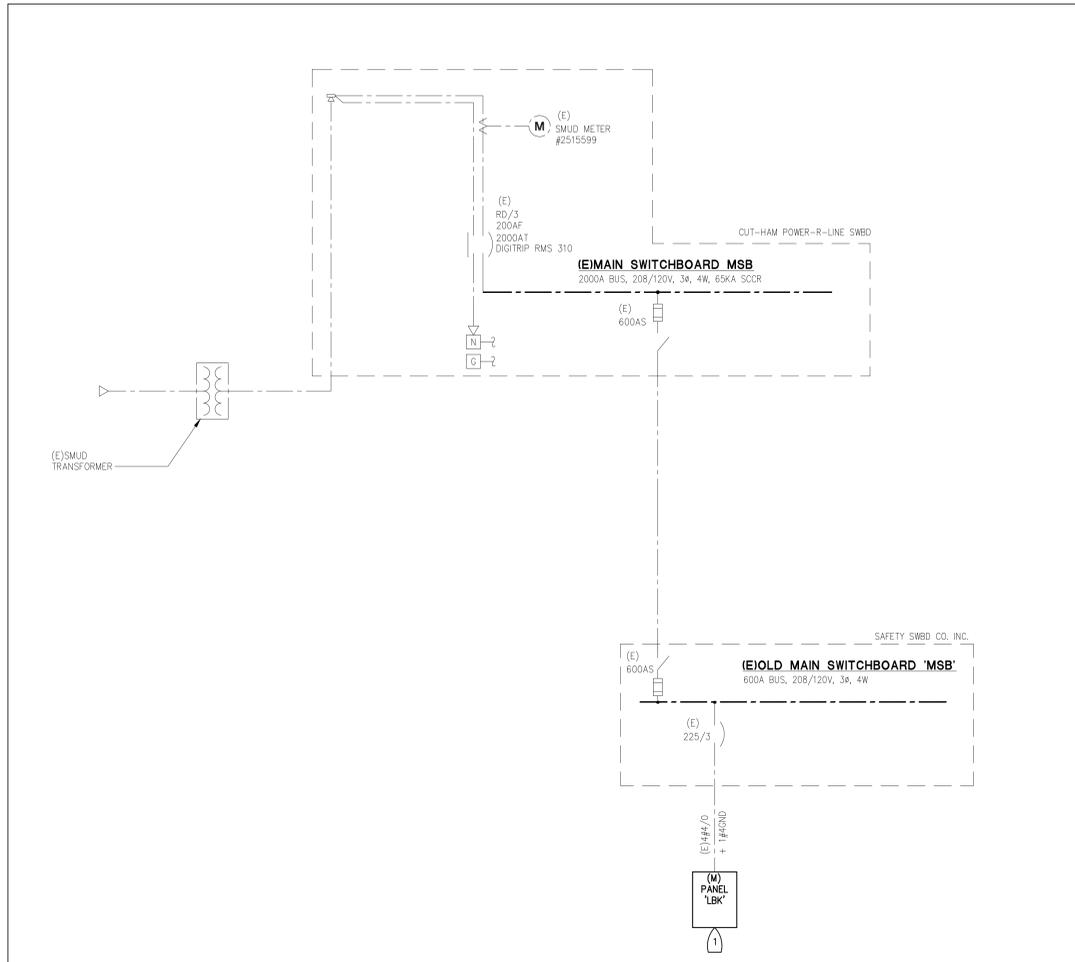
NOTES:  
 1. FEEDER CONDUCTORS CONSIST OF #4/0 + 1#4 GND CU  
 2. BRANCH BREAKERS ARE CUTLER HAMMER TYPE BA  
 3. PROVIDE TYPE-WRITTEN PANEL DIRECTORY  
 4. USE EXISTING 20 AMP, SINGLE-POLE SPARE BREAKER.

**Voltage Drop Calculations Copper**

Job Name: Sequoia Elementary School - Shade Structure Job #: 22.010  
 Date: 2/24/2022

VOLTAGE: 120 PHASE: 1 POWER FACTOR: 80% CONDUIT: Steel

FEEDER NUMBER	AMPS AT LOAD	KVA TOTAL	VOLTS AT LOAD	DISTANCE FEET	DISTANCE TOTAL	WIRES/ PHASE	LOAD/ WIRE	WIRE SIZE	WIRE FACTOR	VOLTS DROP	PERCENT VOLT DROP
RECEPT-1	3	0.4	119.22	131	131	1	3.00	10	1995	0.78	0.65%
RECEPT-2	2	0.2	118.99	74	205	1	1.50	10	1995	1.01	0.84%



**1 ONE LINE DIAGRAM**  
 SCALE: NONE

Revision

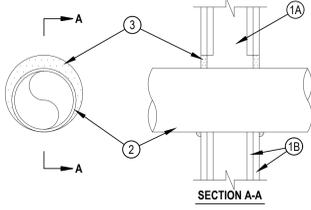
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**ONE LINE DIAGRAM**



System No. W-L-1054

Table with columns for ANSIIUL1479 (ASTM E814) and CAN/ULC S115, listing fire ratings (F, T, L, FTH) for various conditions.



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:



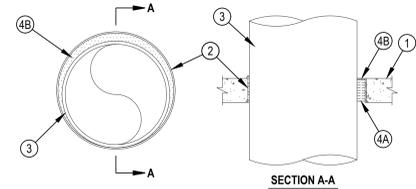
Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 23, 2015

7 WALL PENETRATION FIRESTOP SCALE: NONE



System No. C-AJ-1226

Table with columns for ANSIIUL1479 (ASTM E814) and CAN/ULC S115, listing fire ratings (F, T, L, FTH) for various conditions.

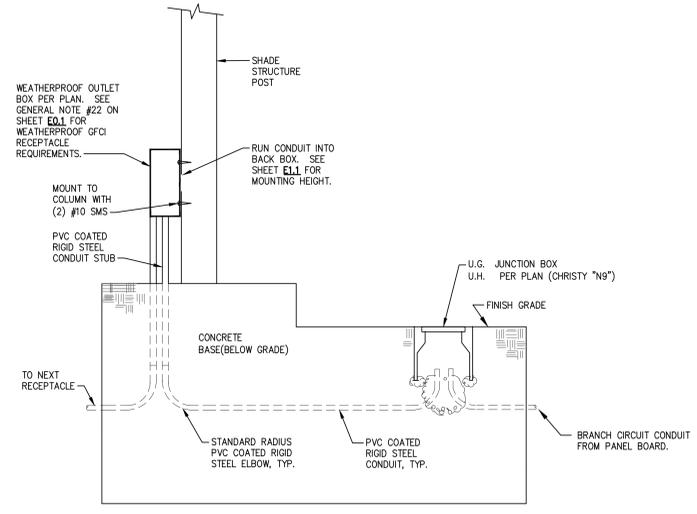


1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Blocks. Max diam of opening is 32 in. (813 mm).

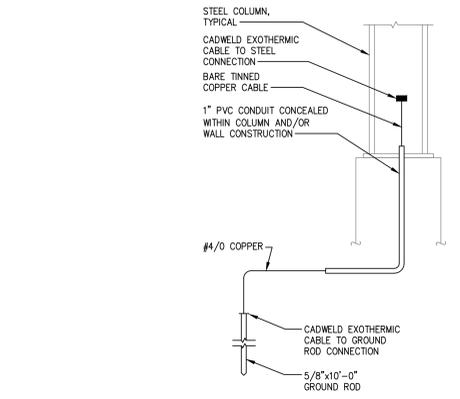


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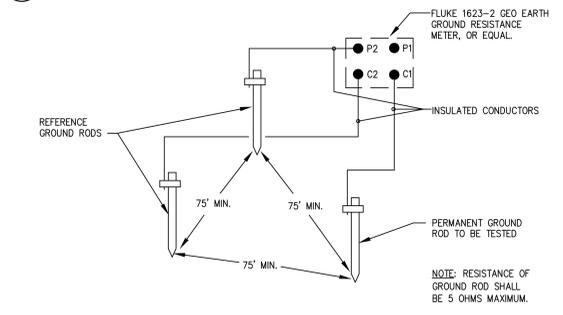
8 WALL PENETRATION FIRESTOP SCALE: NONE



4 CONDUIT STUB IN POST DETAIL SCALE: NONE



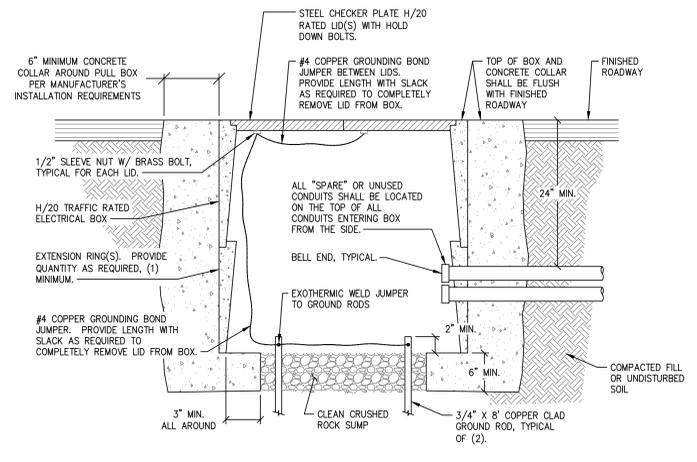
5 TYPICAL STEEL COLUMN & REBAR GROUNDING DETAIL SCALE: NONE



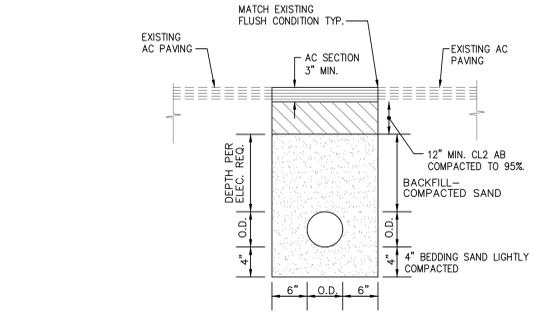
FALL OF POTENTIAL TEST METHOD NOTES: 1. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY OF 500KVA OR LESS: 10 OHMS. 2. POWER EQUIPMENT OR SYSTEMS WITH CAPACITY OF 500 TO 1000KVA: 5 OHMS.

6 METHOD OF TESTING GROUND RODS DETAIL SCALE: NONE

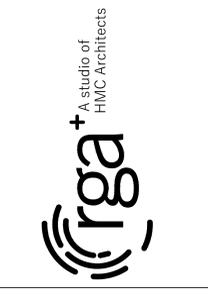
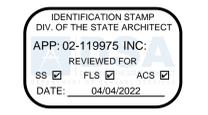
1 DETAIL REMOVED SCALE: NONE



2 TYPICAL H/20 TRAFFIC RATED PULL BOX SCALE: NONE



3 TYPICAL TRENCH DETAIL SCALE: NONE



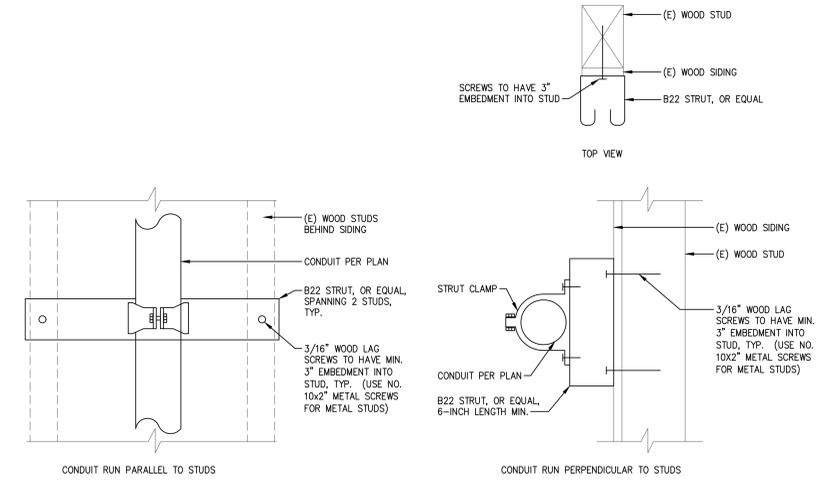
SHADE STRUCTURE AT SEQUOIA ELEMENTARY SCHOOL SACRAMENTO CITY UNIFIED SCHOOL DISTRICT SACRAMENTO, CA

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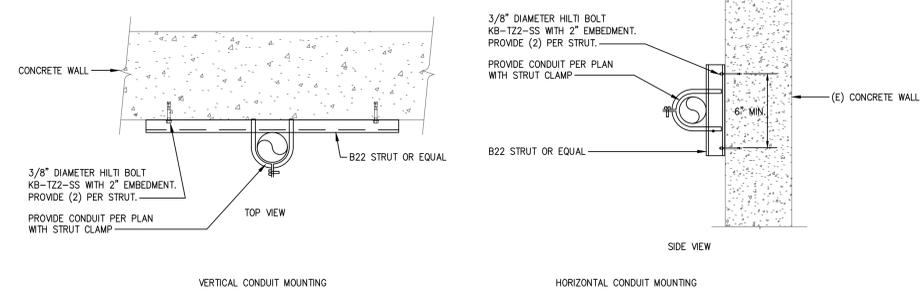
DETAILS

PROJECT NO. 21-1504.05 DATE: 3/1/22 SHEET E3.1



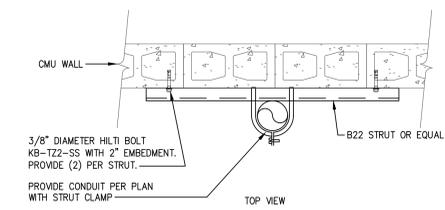
- NOTES:
1. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING TEN(10) FEET AND NOT MORE THAN THREE(3) FEET FROM THE OUTLET AND AT ANY POINT WHERE IT CHANGES DIRECTION.
  2. PERFORATED STRAP AND PLUMBER'S TAPE SHALL NOT BE PERMITTED.
  3. MAXIMUM CONDUIT AND CONDUCTOR WEIGHT IS 1.83LBS PER LINEAR FOOT.

1 CONDUIT MOUNTING DETAIL - STUD WALLS  
 SCALE: NONE



- NOTES:
1. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING TEN(10) FEET AND NOT MORE THAN THREE(3) FEET FROM THE OUTLET AND AT ANY POINT WHERE IT CHANGES DIRECTION.
  2. PERFORATED STRAP AND PLUMBER'S TAPE SHALL NOT BE PERMITTED.
  3. MAXIMUM CONDUIT AND CONDUCTOR WEIGHT IS 1.83LBS PER LINEAR FOOT.

2 CONDUIT MOUNTING DETAIL - CONCRETE WALLS  
 SCALE: NONE



- NOTES:
1. CONDUIT SHALL BE SUPPORTED AT INTERVALS NOT EXCEEDING TEN(10) FEET AND NOT MORE THAN THREE(3) FEET FROM THE OUTLET AND AT ANY POINT WHERE IT CHANGES DIRECTION.
  2. PERFORATED STRAP AND PLUMBER'S TAPE SHALL NOT BE PERMITTED.
  3. MAXIMUM CONDUIT AND CONDUCTOR WEIGHT IS 1.83LBS PER LINEAR FOOT.

3 CONDUIT MOUNTING DETAIL - CMU WALLS  
 SCALE: NONE

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DETAILS

DESIGN CRITERIA	
DESCRIPTION	DESIGN VALUES
<b>DEAD AND LIVE LOADS</b>	
ROOF LIVE LOAD	20 PSF
ROOF DEAD LOAD (SUPERIMPOSED ON FRAME)	5 PSF MAX
ROOF PANEL DEAD LOAD	M=1.1 PSF, G = 1.2 PSF, S = 1.3 PSF
COLLATERAL DEAD LOAD	M = 3.9 PSF, G = 3.8 PSF, S = 3.7 PSF
<b>ROOF SNOW LOAD</b>	
GROUND SNOW LOAD, P <sub>g</sub>	20 PSF
RISK CATEGORY	I
ROOF SNOW LOAD: SLOPED, P <sub>s</sub>	20 PSF
SITE APPLICATION DSA REVIEWER SHALL VERIFY THE STRUCTURE BE LOCATED AT LEAST 20 FEET FROM ADJACENT STRUCTURE	
SNOW LOAD SLOPE FACTOR, C <sub>s</sub>	1.0
SNOW EXPOSURE FACTOR, C <sub>e</sub>	1.0
SNOW LOAD IMPORTANCE FACTOR, I <sub>s</sub>	1.0
THERMAL FACTOR, C <sub>t</sub>	1.2
<b>WIND DESIGN</b>	
BASIC WIND SPEED (3 SECOND GUST), V <sub>ult</sub>	100 MPH
RISK CATEGORY	I
EXPOSURE CATEGORY	C
FACTORS: K <sub>d</sub> , K <sub>e</sub> , K <sub>z</sub>	0.85, 1.0, 0.85
I <sub>h</sub> = 0.00256 K <sub>d</sub> K <sub>e</sub> K <sub>z</sub> V <sup>2</sup> FOR ALL EAVE HEIGHTS (8', 10' & 12')	18.50 PSF
C <sub>mf</sub> PER ASCE FIGURE 27-4-5 ROOF ANGLE 18.43° - CLEAR / OBSTRUCTED	CASE A (1.1 / -1.2) CASE B (0.01 / -0.09)
C <sub>mf</sub> PER ASCE FIGURE 27-4-5 ROOF ANGLE 18.43° - CLEAR / OBSTRUCTED	CASE A (-0.17 / -1.09) CASE B (-0.96 / -1.65)
C <sub>mf</sub> PER ASCE FIGURE 27-4-7 PARALLEL TO RIDGE - CLEAR / OBSTRUCTED	CASE A (-0.6 / -0.9) CASE B (-0.5 / -0.5)
COMPONENTS & CLADDING - C <sub>u</sub> (PRESSURE/SUCTION) CLEAR / OBSTRUCTED	ZONE 3 - (2.29 / -2.11) / (1.0 / -3.0) ZONE 2 - (1.77 / -1.63) / (0.8 / -2.3) ZONE 1 - (1.15 / -1.05) / (0.5 / -1.5)
<b>SEISMIC DESIGN</b>	
LATERAL FORCE RESISTING SYSTEM	STEEL - ORDINARY CANTILEVER COLUMN
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
SEISMIC IMPORTANCE FACTOR, I <sub>e</sub>	1.0
SEISMIC SITE CLASS	D
MCE <sub>EL</sub> SPECTRAL RESPONSE ACCELERATION @ 0.2 s, S <sub>s</sub>	0.6
MCE <sub>EL</sub> SPECTRAL RESPONSE ACCELERATION @ 0.2 s, S <sub>1</sub>	0.90
SHORT PERIOD SITE COEFFICIENT, F <sub>a</sub>	1.20
LONG PERIOD COEFFICIENT, F <sub>v</sub>	1.70
FUNDAMENTAL PERIOD OF THE STRUCTURE, T	0.152 s
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, S <sub>DS</sub>	2.08
DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD, S <sub>DS</sub> - USED TO DETERMINE C <sub>s</sub> (WITH CAP PER ASCE-7 12.8.1.3)	2.08 * 0.70 = 1.456
DESIGN SPECTRAL RESPONSE ACCELERATION AT 1-4 PERIODS, S <sub>D1</sub>	1.02
SEISMIC DESIGN CATEGORY	E
RESPONSE MODIFICATION FACTOR, R	1.25
OVERSTRENGTH FACTOR, Q	1.25
REDUNDANCY FACTOR, ρ	1.0
HORIZONTAL OR VERTICAL IRREGULARITIES	NONE
SEISMIC RESPONSE COEFFICIENT, C <sub>s</sub> (20' WIDE, 30' WIDE, 40' WIDE)	1.16
DESIGN BASE SHEAR, V (20' WIDE, 30' WIDE, 40' WIDE)	12.73 PSF, 13.41 PSF, 14.65 PSF
ALLOWABLE SOIL BEARING FOR FOUNDATIONS	VARIES - SEE FOUNDATION CHARTS
FLOOD DESIGN - DESIGN IS ASSUMED TO NOT BE IN FLOOD HAZARD AREA	
IF PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED & SIGNED FROM A SOILS ENGINEER IS REQUIRED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED.	

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 VISIT 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 DISTRICT INSPECTOR ON RECORD SHALL INSPECT AND APPROVE THE ERCTED 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.

STRUCTURAL AND MISCELLANEOUS STEEL:

- ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERCTED IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL REFERENCED BY THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE.
- PIPE SECTIONS SHALL CONFORM TO ASTM A53, F<sub>y</sub> = 35 KSI, GRADE B OR A501 UNLESS NOTED OTHERWISE.
- STRUCTURAL TUBING (HSS SHAPES) SHALL CONFORM TO ASTM A-500, GRADE B (OR C), F<sub>y</sub> = 46 KSI (MIN).
- IF MATERIAL AVAILABILITY IS LIMITED, MEMBER THICKNESS CAN BE INCREASED ABOVE WHAT IS SHOWN IN THESE DRAWINGS (MAXIMUM INCREASE OF 1/8").
- ALL CHANNELS, ANGLES, AND MISC. STEEL SHALL CONFORM TO ASTM A-36, F<sub>y</sub> = 36 KSI.
- ALL PLATE STEEL SHALL CONFORM TO ASTM A-572, F<sub>y</sub> = 50 KSI.
- ALL COLD FORM STEEL SHALL CONFORM TO ASTM A-653, C<sub>s</sub> = TYPE B, F<sub>y</sub> = 50 KSI.
- STRUCTURAL STEEL AND DECK SHALL BE IDENTIFIED FOR CONFORMITY PER CBC 2202A.1.
- ALL ROOF DECKS SHALL HAVE KYNAR 500 METAL COATING.
- ALL ROOF DECKS SHALL CONFORM TO ASTM A-36, F<sub>y</sub> = 50 KSI.

STRUCTURAL SEPARATION

ALL DEFLECTIONS SHOWN ALSO INCLUDE THE P-Delta ROTATION PER IRC PC-7		DEFLECTIONS ARE FOR (1) STRUCTURE SOIL CLASS PER TABLE 1806A.2			
MAXIMUM DRIFT	Δ <sub>max</sub>	SIDE COLUMNS	Soil Class 5	Soil Class 4	Soil Class 3
20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.40	2.55	2.65	
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.25	2.35	2.45	
40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.20	2.25	2.30	
MINIMUM SEPARATION (S <sub>u</sub> = C <sub>s</sub> Δ <sub>max</sub> )	C <sub>s</sub> = 1.25				
20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	3.00	3.19	3.31	
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.81	2.94	3.06	
40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.75	2.81	2.75	
MAXIMUM DRIFT	Δ <sub>max</sub>	CORNER COLUMNS	Soil Class 5	Soil Class 4	Soil Class 3
20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.20	2.30	2.40	
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.30	2.45	2.50	
40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.40	2.55	2.65	
MINIMUM SEPARATION (S <sub>u</sub> = C <sub>s</sub> Δ <sub>max</sub> )	C <sub>s</sub> = 1.25				
20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.75	2.88	3.00	
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.88	3.06	3.13	
40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	3.00	3.19	3.31	
MAXIMUM DRIFT	Δ <sub>max</sub>	END COLUMNS	Soil Class 5	Soil Class 4	Soil Class 3
20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	1.80	1.70	1.75	
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.00	2.45	2.25	
40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.00	2.30	2.80	
MINIMUM SEPARATION (S <sub>u</sub> = C <sub>s</sub> Δ <sub>max</sub> )	C <sub>s</sub> = 1.25				
20' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.00	2.13	2.19	
30' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	2.50	3.06	2.81	
40' WIDE (8' EAVE HT, 10' EAVE HEIGHT, 12' EAVE HT)	(INCHES)	3.13	2.88	3.50	

ARCHITECTURAL REQUIREMENTS		
DESCRIPTION	DESIGN VAULES	
TYPE OF CONSTRUCTION	II-B	
OCCUPANCY CLASSIFICATION	A-3	
NUMBER OF STORES	1	
FIRE SPRINKLER SYSTEM	NOT BY CON/WEIGHT NOT INCLUDED IN DESIGN	

RELATED BUILDING CODES AND STANDARDS

- TITLE 24 CODES:
- 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC).....(PART 1, TITLE 24, CCR)
  - 2019 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1, AND 2.(PART 2, TITLE 24, CCR)
  - 2019 CALIFORNIA ELECTRICAL CODE.....(PART 3, TITLE 24, CCR)
  - 2019 CALIFORNIA MECHANICAL CODE (CMC).....(PART 4, TITLE 24, CCR)
  - 2019 CALIFORNIA PLUMBING CODE (CPC).....(PART 5, TITLE 24, CCR)
  - 2019 CALIFORNIA ENERGY CODE.....(PART 6, TITLE 24, CCR)
  - 2019 CALIFORNIA FIRE CODE (CFC).....(PART 9, TITLE 24, CCR)
  - 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE.....(PART 11, TITLE 24, CCR)
  - 2019 CALIFORNIA REFERENCE STANDARDS CODE.....(PART 12, TITLE 24, CCR)

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:  
 2019 CBC, CHAPTER 35  
 2019 CFC, CHAPTER 80

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 HOLLOW STRUCTURAL STEEL MEMBERS SUPPORTED BY CONCRETE FOUNDATIONS. THE FLEXIBILITY INCLUDED HEREIN ALLOWS THE STRUCTURE TO COMPLY WITH A WIDE VARIETY OF PROJECT SITES AND LOADING REQUIREMENTS.

NOTICE OF DISCLAIMER FOR STRUCTURAL ENGINEERING RESPONSIBILITY

- PER TITLE 24, PART 1, SECTION 4-316(e) OF THE CALIFORNIA CODE OF REGULATIONS, THIS NOTICE SHALL BE GIVEN TO DSA PRIOR TO THE APPROVAL OF PLANS AND SPECIFICATIONS.
- FOR THE SITE SPECIFIC PROJECT, J. R. MILLER & ASSOCIATES IS NOT THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE.
- FOR THE SITE SPECIFIC PROJECT, J. R. MILLER & ASSOCIATES' RESPONSIBILITY IS LIMITED TO THE PREPARATION OF THE PLANS AND SPECIFICATIONS FOR THE SHELTERS OF THIS PC ONLY.
- STRUCTURAL OBSERVATION OF CONSTRUCTION IS SPECIFICALLY EXCLUDED FROM J.R. MILLER & ASSOCIATES' 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 OBSERVATION OF CONSTRUCTION, REVIEW OF INSPECTION REPORTS, AND SIGNING OFF OF THE VERIFIED REPORT FOR COMPLETED WORK.
- J.R. MILLER & ASSOCIATES WILL BE RESPONSIBLE FOR RESPONDING TO QUESTIONS PERTAINING TO THE PLANS AND SPECIFICATIONS FOR THE SHELTERS OF THIS PC WHICH ARISE DURING PLAN REVIEW AND CONSTRUCTION.

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 AS REQUIRED BY DSA.
- 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 @ ( 0° 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 GRADE A325 HIGH STRENGTH BOLTS (UNO), WITH THE NUTS CONFORMING TO ASTM A-563.
- HIGH STRENGTH BOLTS SHALL BE VERIFIED AND INSPECTED PER CBC 1705A2.1.
- BEFORE ERCTING 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.
- HARDENED STEEL WASHERS SHALL CONFORM TO ASTM F-436.
- 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 ERCTING 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 341-16 J7; AISC 360-16 N5.6.

- APRENTENSIONED JOINTS MUST BE INSTALLED AND INSPECTED TO MEET ONE OF THE FOLLOWING REQUIREMENTS:
- TURN-OFF-NUT PRETENSIONING
  - CALIBRATED WRENCH PRETENSIONING
  - DIRECT-TENSION-INDICATOR PRETENSIONING (CONTRACTOR RESPONSIBLE FOR PURCHASE OF REQUIRED WASHERS)

FOUNDATIONS:

- ALLOWABLE SOIL PRESSURES ASSUME CLASS 5 SOIL CLASSIFICATION PER CBC TABLE 1806A, UNLESS NOTED OTHERWISE.
- PER CBC SECTION 1803A.2, GEOTECHNICAL REPORTS ARE NOT REQUIRED FOR ONE-STORY LIGHT-STEEL FRAME BUILDINGS OF TYPE II CONSTRUCTION AND 4,000 SQUARE FOOT OR LESS IN FLOOR AREA AND NOT LOCATED WITHIN EARTHQUAKE FAULT ZONERSON SEISMIC HAZARD ZONES AS SHOWN ON THE MOST RECENT MAPS PUBLISHED BY THE CGS. ALLOWABLE FOUNDATION AND LATERAL SOIL PRESSURE VALUES MAY BE DETERMINED FROM TABLE 1806A.2.
- FILL AND BACKFILL SHALL BE COMPACTED TO 95% OF MAX. DENSITY IN ACCORDANCE WITH ASTM TEST METHOD D-1557 OR AS RECOMMENDED BY THE GEO-TECH ENGINEER. 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.
- MINIMUM SETBACK FROM TOE OF SLOPE ON AN ASCENDING SLOPE SHALL BE 15 FEET AND MINIMUM SETBACK FROM TOE OF SLOPE ON A DESCENDING SLOPE SHALL BE 40 FEET.
- PER CBC SECTION 1803A.6, GEHAZARD REPORTS ARE NOT REQUIRED FOR ONE-STORY LIGHT-STEEL FRAME BUILDINGS OF TYPE II CONSTRUCTION AND 4,000 SQUARE FOOT OR LESS IN FLOOR AREA AND NOT LOCATED WITHIN EARTHQUAKE FAULT ZONERSON SEISMIC HAZARD ZONES AS SHOWN ON THE MOST RECENT MAPS PUBLISHED BY THE CGS.
- GEHAZARD REPORTS ARE TO COMPLY WITH DSA IR A-4 PER IR-7 SECTION 1.8
- SITE SPECIFIC GEOTECHNICAL REPORT IS REQUIRED AT THE TIME OF SITE APPLICATION IS USING OTHER THAN CLASS 5 SOIL, PER DSA IR PC-7
- LATERAL BEARING HAS BEEN INCREASED PER CBC 1806A.3.4 & HAS BEEN DESIGNED FOR P-DELTA EFFECTS

CONCRETE:

- MIX DESIGN REQUIREMENTS: (NORMAL WEIGHT CONCRETE)
- CONCRETE MIX DESIGN PARAMETERS ARE GOOD FOR EXPOSURE CATEGORIES F0, F1 & F2. THE AIR ENTRAINMENT FOR THESE CATEGORIES SHALL BE AS FOLLOWS: F0-0, F1-4.5, F2-6
- AGGREGATES SHALL CONFORM TO THE ASTM C-33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.05% MAX AGGREGATE SIZE = 1".
- CEMENT SHALL CONFORM TO ASTM C-150 (TYPE V) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 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.
- CONCRETE SHALL NOT FREE FALL MORE THAN FIVE FEET.
- CONCRETE DURABILITY SHALL BE PER CBC 190A.1 & ACI 318-14 CHAPTER 19.
- CONCRETE SHALL BE TESTED PER CBC 1903A, TABLE 1705A.3. AND ACI 318-14 SECTION 26.12.

STRENGTH F <sub>c</sub> (28 DAYS)	W/C RATIO (NON-AIR ENTRAINED)	W/C RATIO (AIR ENTRAINED)	SUMP (1")	UNIT WEIGHT (NORMAL WEIGHT)
4500 PSI	0.44	0.35	3"	150 PCF

STEP 10: IDENTIFY PROJECT NAME AND SCHOOL DISTRICT

PROJECT NAME: \_\_\_\_\_ SCHOOL DISTRICT: \_\_\_\_\_

STEP 1	FRAME DIMENSIONS	
	SUGGESTED	OTHER
FRAME WIDTH	[ ] 20' [X] 30' [ ] 40'	[ ] (40' MAX)
FRAME LENGTH	[ ] 44' [X] 64' [ ] 84' [ ] 104'	[ ] (NO MAX)

STEP 2	ROOF PANEL	
	ROOF PANEL TYPE	DESIGN OPTIONS
	[X] M [ ] G [ ] S	

STEP 3	PROJECT SITE - S <sub>u</sub> ACCELERATION (g)	
	S <sub>u</sub> REGION	EXAMPLES
	0.642	

STEP 4	S <sub>u</sub> REGION		MAX DEAD LOAD
	DESCRIPTION	S <sub>u</sub> REGIONS	
	X	0 < S <sub>u</sub> <= 2.14	5 PSF
		2.14 < S <sub>u</sub> <= 2.50	5 PSF
		2.50 < S <sub>u</sub> <= 2.75	5 PSF
		2.75 < S <sub>u</sub> <= 3.00	4 PSF
		S <sub>u</sub> > 3.73 MAX	3 PSF

STEP 5	TOTAL ROOF DEAD LOAD	
	DEAD LOAD	EXAMPLES
ROOF DECK	1.1 PSF	M=1.1PSF, G=1.2PSF, S=1.3PSF (SEE STEP 2)
COLLATERAL	0 PSF	LIGHTING, ETC
TOTAL	1.1 PSF	ADD ROOF DECK AND COLLATERAL LOADS (MAX 5 PSF)

CONSTRUCTION NOTES

- A DSA-CERTIFIED CLASS 3 PROJECT 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 DISTRICT (OWNER) 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 DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
- THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS ARE THAT ALL THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR, SHOULD ANY EXISTING CONDITIONS SUCH AS TERRORISM OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)
- GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES

REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DEFORMED STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A-615, AS FOLLOWS:  
 GR 60: (#4 BARS AND LARGER)  
 GR 40: (#3 BARS)
- DETAILING, FABRICATION, AND ERECTION OF REINFORCING BARS SHALL CONFORM TO THE ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCING CONCRETE STRUCTURES."
- 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"
- BARS SHALL BE CLEAN OF RUST, GREASE OR OTHER MATERIAL LIKELY TO IMPAIR BOND. BENDS SHALL BE MADE COLD.
- REINFORCING SHALL BE LAP SPLICED PER ACI 318-14 SECTION 25.5.
- 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 INSPECTED PER CBC 1705A.3.

POWDER-COAT FINISH SYSTEM:

- ALL BUILDINGS THAT HAVE A POWDER-COATED FINISH SHALL MEET THE FOLLOWING SPECIFICATIONS:
- THE STEEL FRAME SHALL BE SHOT-BLASTED TO A NEAR WHITE CONDITION PER SSPC-10 SPECIFICATIONS.
  - THE STEEL SHALL BE WASHED IN A ZINC PHOSPHATE IN AN ANTIMINE EIGHT STAGE ELECTRO DEPOSITION PRE-TREATMENT PROCESS.
  - IMMEDIATELY FOLLOWING PRE-TREATMENT THE STEEL SHALL BE TOTALLY IMMERSED IN A LIQUID EPOXY PRIMER(E-COAT) AND COATED TO A UNIFORM THICKNESS OF A MINIMUM OF 0.7 TO 0.9 MILS. THE E-COATING SHALL PROVIDE A MINIMUM OF 1000 HOURS OF SALT SPRAY CORROSION PROTECTION TO THE STEEL.
  - THE STEEL SHALL THEN HAVE A TIGC POLYESTER COLOR COAT APPLIED OVER THE E-COATING SURFACE.
  - THE COLOR COAT SHALL THEN HAVE A CLEAR TIGC COATING APPLIED TO SEAL IN THE COLOR COAT AND RESIST ULTRAVIOLET LIGHT, TO HELP PREVENT FADING.
  - THE FINISH THICKNESS OF THESE THREE APPLICATIONS SHALL BE A MINIMUM OF 8 TO 12 MILS.
  - ALL CARBON STEEL MEMBERS (COLUMNS, BEAMS, PLATES, ETC.) NOT POWDER-COATED SHALL BE PAINTED WITH PRIME COAT PER THE "AISC CODE OF STANDARD PRACTICE" AND THE "AISC SPECIFICATION SECTION M3(UNLESS NOTED OTHERWISE).

ABBREVIATIONS:			
ACI	AMERICAN CONCRETE INSTITUTE	MPH	MILES PER HOUR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	M	MULTI-RIB ROOF PANEL (MCELROY)
ASM	ASSEMBLY (INTERNAL REFERENCE)	NTS	NOT TO SCALE
ASTM	AMERICAN SOCIETY FOR TESTING AND MAT'LS	NO	NUMBER
AWS	AMERICAN WELDING SOCIETY	OC	ON CENTER
CBC	CALIFORNIA BUILDING CODE	OSHA	OCCUPATIONAL HEALTH AND SAFETY ADMIN
CJP	COMPLETE JOINT PENETRATION	PCF	POUNDS PER CUBIC FOOT
CLR	CLEAR	PJ	PRETENSIONED JOINT
DEG	DEGREE	PLCS	PLACES
DIA	DIAMETER	PLT	PLATE
DIM	DIMENSION	PSF	POUNDS PER SQUARE FOOT

2019 CBC

**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 (2019 CBC).

\*\*NOTE: Undefined section and table references found in this document are from the CBC, or California Building Code.

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required	GE – Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative. LOR – Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335. PI – Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA. SI – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.
Periodic – Indicates that a periodic special inspection is required	
Test – Indicates that a test is required	

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

7. CAST-IN-PLACE CONCRETE	Type	Performed By	Code References and Notes
<b>Material Verification and Testing:</b>			
<input type="checkbox"/> a. Verify use of required design mix.	Periodic	SI	Table 1705A.3 Item 5, 1910A.1.
<input checked="" type="checkbox"/> b. Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2; ACI 318-14 Section 26.6.1.2; DSA IR 17-10. (See Appendix for exemptions.)
<input checked="" type="checkbox"/> 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.
<input checked="" type="checkbox"/> d. Test concrete (f <sub>c</sub> ).	Test	LOR	1905A.1.15; ACI 318-14 Section 26.12.
<b>Inspection:</b>			
<input type="checkbox"/> e. Batch plant inspection.	See Notes	SI	Default of "Continuous" per 1705A.3.3. If approved by DSA, batch plant inspection may be reduced to "Periodic" subject to requirements in Section 1705A.3.3.1, or eliminated per 1705A.3.3.2. (See Appendix for exemptions.)
<input type="checkbox"/> f. Welding of reinforcing steel.	Provide special inspection per STEEL, Category 19.1(d) & (e) and/or 19.2(g) & (h) below.		

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum), 2019 CBC

23. ANCHOR BOLTS AND ANCHOR RODS:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> a. Anchor Bolts and Anchor Rods	Test	LOR	Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11.
<input type="checkbox"/> b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11.

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

Geotechnical Reports: Project has a geotechnical report, or CDs indicate soils special inspection is required by CE

1. GENERAL:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> a. Verify that: • Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations. • Foundation excavations are extended to proper depth and have reached proper material. • Materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	*By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)

2. SOIL COMPACTION AND FILL:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input type="checkbox"/> a. Perform classification and testing of fill materials.	Test	LOR*	*Under the supervision of the geotechnical engineer.
<input type="checkbox"/> 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. (Refer to specific items identified in the Appendix for exemptions where soils SI and testing may be conducted under the supervision of a geotechnical engineer or LOR's engineering manager. In such cases, the LOR Form DSA 291 shall satisfy the soil SI and test reporting requirements for the exempt items.)

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSE			
Material Verification and Testing:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> 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	SI	Table 1705A.2.1 Item 3a-3c; 2202A.1; AISI 100-16 Section A3.1 & A3.2; AISI 340-15 Section A3.8 & A4; AISI 320-15 Section A4.8 & A.6; *By special inspector or qualified technician when performed off-site.
<input checked="" type="checkbox"/> b. Test unidentified materials.	Test	LOR	2202A.1.
<input checked="" type="checkbox"/> c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
<b>Inspection:</b>			
<input checked="" type="checkbox"/> d. 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: RCSC 2			
Material Verification and Testing of High-Strength Bolts, Nuts and Washers:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> a. Verify identification markings and manufacturer's certificate of compliance conform to ASTM standards specified in the DSA-approved documents.	Periodic	SI	Table 1705A.2.1 Items 1a & 1b; 2202A.1; AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5.8 & 2.1; DSA IR 17-8 & DSA IR 17-9.

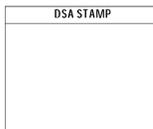
DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SIGNATURE), 2019 CBC

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: \_\_\_\_\_

Note: To facilitate DSA electronic mark-ups and identification stamp application, DSA recommends against using secured electronic or digital signatures.



DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

<input type="checkbox"/> c. Compaction testing.	Test	LOR*	* Under the supervision of the geotechnical engineer. (Refer to specific items identified in the Appendix for exemptions where soils testing may be conducted under the supervision of a geotechnical engineer or LOR's engineering manager. In such cases, the LOR Form DSA 291 shall satisfy the soil test reporting requirements for the exempt items.)
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4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> a. Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
<input type="checkbox"/> b. Verify 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 his or her qualified representative. (See Appendix for exemptions.)
<input type="checkbox"/> c. Confirm adequate end strat bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
<input checked="" type="checkbox"/> d. Concrete piers.	Provide tests and inspections per CONCRETE section below.		

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

<input checked="" type="checkbox"/> b. Test high-strength bolts, nuts and washers.	Test	LOR	Table 1705A.2.1 Item 1c; 2213A.1; RCSC 2014 Section 7.2; DSA IR 17-8.
<b>Inspection of High-Strength Bolt Installation:</b>			
<input type="checkbox"/> c. Bearing-type ("snug tight") connections.	Periodic	SI	Table 1705A.2.1 Item 2a; 1705A.2.6; 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.
<input checked="" type="checkbox"/> d. Pretensioned and slip-critical connections.	Periodic	SI	Table 1705A.2.1 Items 2b & 2c; 1705A.2.6; 2204A.2; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. * "Continuous" or "Periodic" depends on the tightening method used.

19. WELDI			
Verification of Materials, Equipment, Welders, etc.:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> 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.
<input checked="" type="checkbox"/> b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
<input checked="" type="checkbox"/> c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.

DSA 103-19: LIST OF REQUIRED VERIFIED REPORTS, CBC 2019

- Soils Testing and Inspection: Geotechnical Verified Report Form DSA 293
- Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
- Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
- High-Strength Bolt Installation Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (SOILS), 2019 CBC

5. RETAINING WALLS:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input type="checkbox"/> a. Placement, compaction and inspection of backfill.	Continuous	GE*	1705A.8.1. * By geotechnical engineer or his or her qualified representative. (See Section 2 above).
<input type="checkbox"/> b. Placement of soil reinforcement and/or drainage devices.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
<input type="checkbox"/> c. Segmental retaining walls, inspect placement of units, dowels, connectors, etc.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. See DSA IR 16-3.
<input type="checkbox"/> d. Concrete retaining walls.	Provide tests and inspections per CONCRETE section below.		
<input type="checkbox"/> e. Masonry retaining walls.	Provide tests and inspections per MASONRY section below.		

6. OTHER SOIL			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input type="checkbox"/> a. Soil Improvements	Test	GE*	Submit a comprehensive report documenting final soil improvements constructed, construction observation and the results of the confirmation testing and analysis to CCS for final acceptance. * By geotechnical engineer or his or her qualified representative.
<input type="checkbox"/> b. Inspection of Soil Improvements	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
<input type="checkbox"/> c.			

DSA 103-19: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Concrete), 2019 CBC

19.1 SHOP WELDING:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	Continuous	SI	Table 1705A.2.1 Items 5a.1-4; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
<input checked="" type="checkbox"/> b. Inspect single-pass fillet welds < 5/16", floor and roof deck welds.	Periodic	SI	1705A.2.2; Table 1705A.2.1 Items 5a.5 & 5a.6; AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
<input type="checkbox"/> c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
<input type="checkbox"/> d. Verification of reinforcing steel weldability other than ASTM A706.	Periodic	SI	1705A.3.1; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
<input type="checkbox"/> e. Inspect welding of reinforcing steel.	Continuous	SI	Table 1705A.2.1 Item 5b; 1705A.3.1; Table 1705A.3 Item 2; 1903A.8; AWS D1.4; DSA IR 17-3.

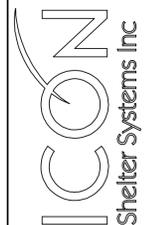
23. ANCHOR BOLTS AND ANCHOR RODS:			
Test or Special Inspection	Type	Performed By	Code References and Notes
<input checked="" type="checkbox"/> a. Anchor Bolts and Anchor Rods	Test	LOR	Sample and test anchor bolts and anchor rods not readily identifiable per procedures noted in DSA IR 17-11.
<input type="checkbox"/> b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in DSA IR 17-11.

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 SS  FLS  ACS  CG   
 DATE: 08/06/2021

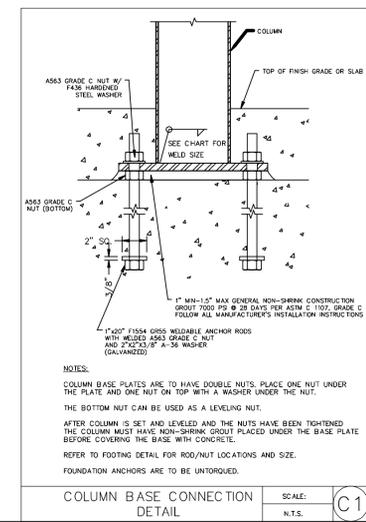
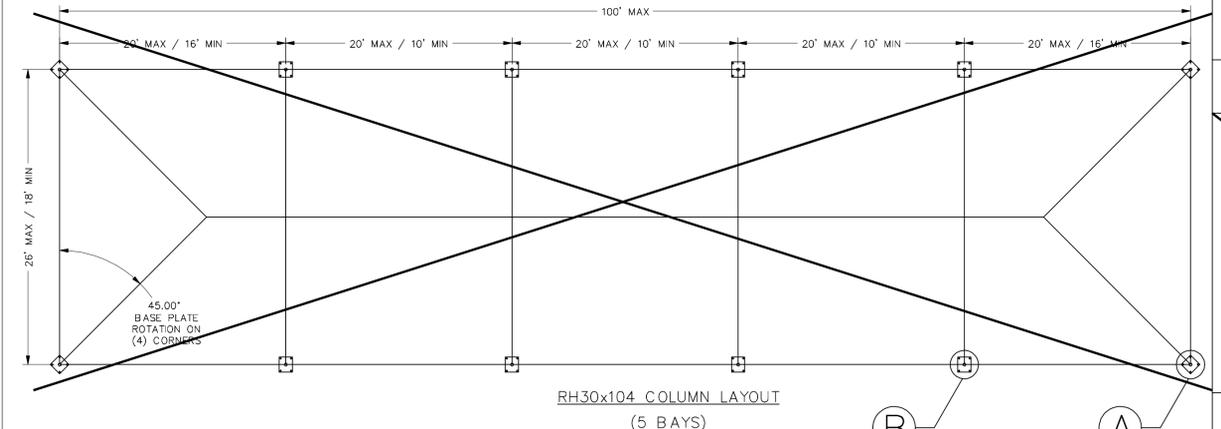
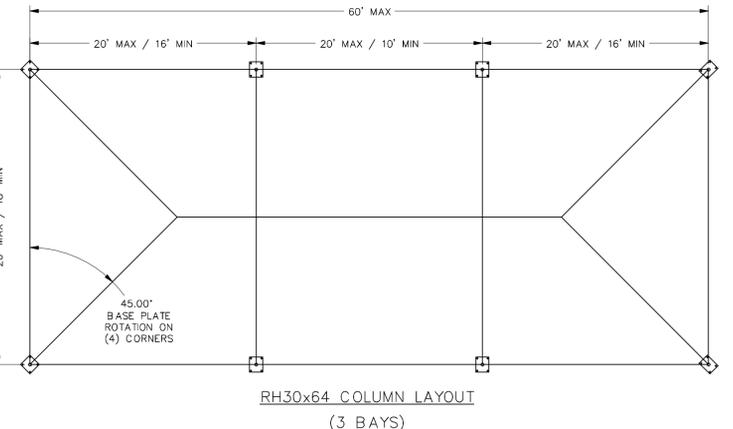
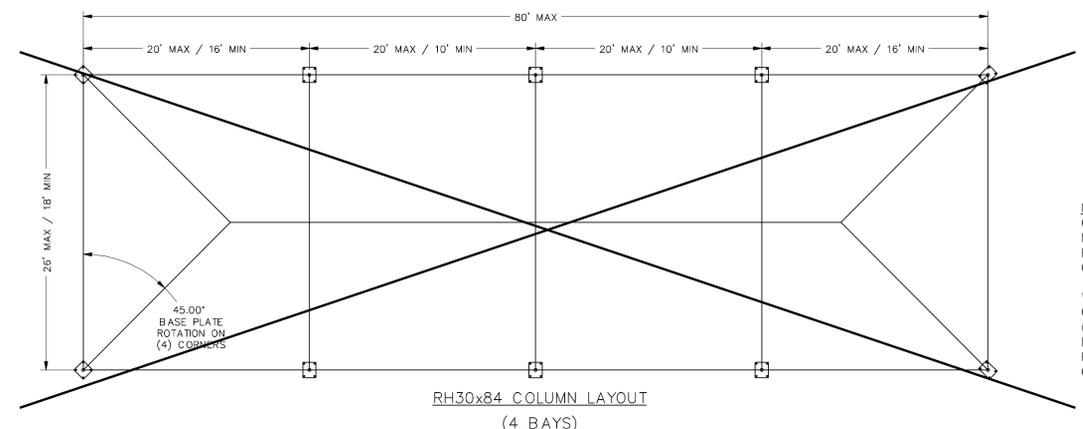
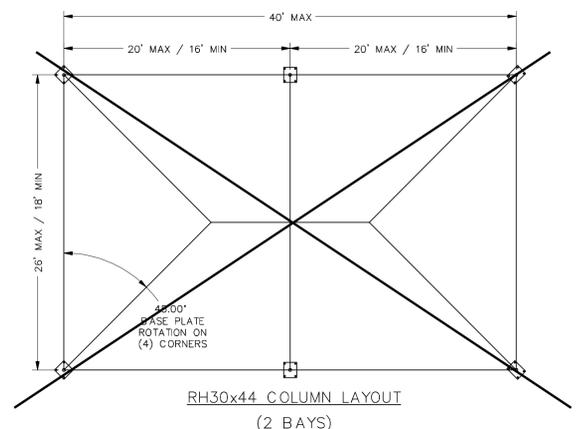
DSA 103



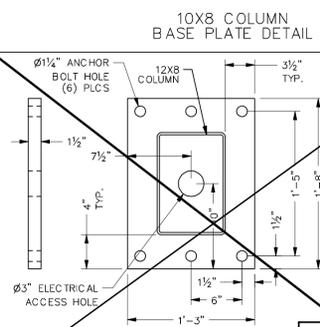
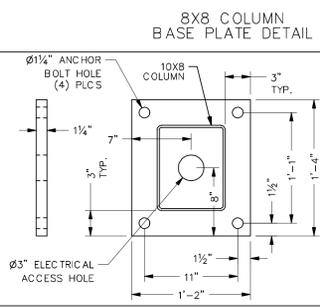
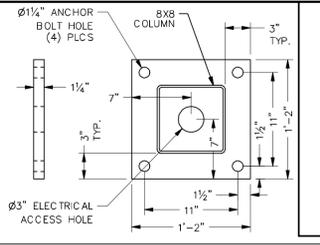
1455 LINCOLN AVE  
 HOLLAND MI, 49423  
 616.396.0919  
 800.748.0985  
 616.396.0944 FX

LS1.1

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 Code: 2019 CBC  
 A separate project application for construction is required.



BASE PLATE LOCATION	
DETAIL A	DETAIL B
8'	BP1
10'	BP1
12'	BP2



**NOTES:**  
 COLUMN SIZE AND LOCATION WILL VARY DEPENDING ON MODEL TYPE ORDERED, PLEASE REFER TO JOB SPECIFIC BILL OF MATERIALS AND INSTALLATION MANUAL FOR CORRECT PLACEMENT AND SIZE.  
 WHERE CONCRETE SLAB SPECIFIED PORTLAND CEMENT CONCRETE PAVING SHALL HAVE A MEDIUM SALTED (MEDIUM BROOM) FINISH ON ALL SURFACES SLOPED LESS THAN 6% AND SLIP RESISTANT (HEAVY BROOM FINISH) ON ALL SURFACES SLOPED GREATER THAN 6% CBC SECTION 1133B.7.1

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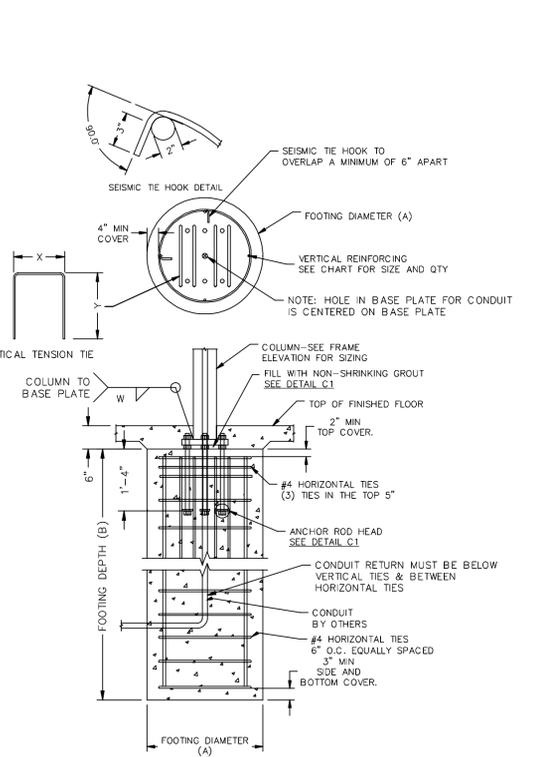
**JRMA ARCHITECTS ENGINEERS**  
 2700 SATURN ST IRRGA, CA 92621  
 T. 714.524.1870 F. 714.524.1875  
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**STATE OF CALIFORNIA**  
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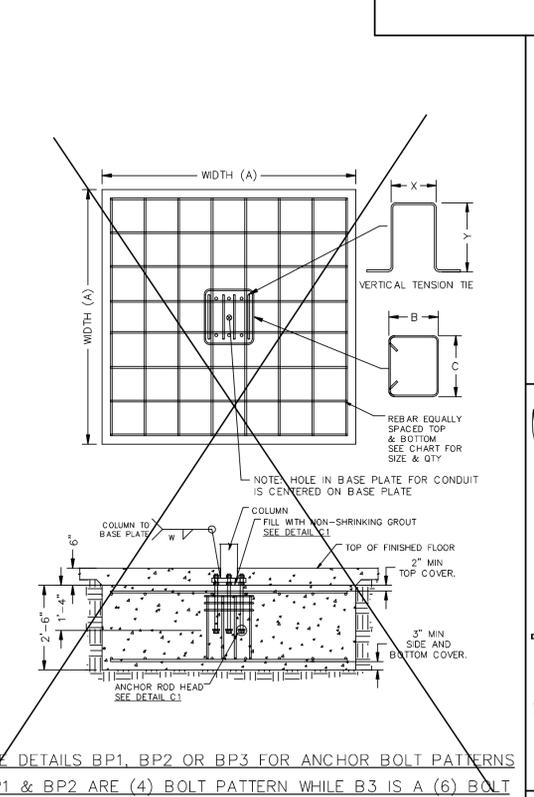
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 REVIEWED FOR  
 SS  FLS  ACS  CG   
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### 30' WIDE RECTANGULAR HIP

RH30 - PIER				
8' height - Corner Columns				
Soil Class	Vertical Rebar Qty	Vertical Rebar Size	Rebar Size	Weld
Soil Class 5 - 1500 psf Bearing	24	114	6	1/4
Soil Class 4 - 2000 psf Bearing	24	98	6	1/4
Soil Class 3 - 3000 psf Bearing	24	92	6	1/4
8' height - Side Columns				
Soil Class 5 - 1500 psf Bearing	36	144	12	6
Soil Class 4 - 2000 psf Bearing	30	132	8	6
Soil Class 3 - 3000 psf Bearing	30	118	8	6
10' height - Corner Columns				
Soil Class 5 - 1500 psf Bearing	24	120	6	1/4
Soil Class 4 - 2000 psf Bearing	24	102	6	1/4
Soil Class 3 - 3000 psf Bearing	24	92	6	1/4
10' height - Side Columns				
Soil Class 5 - 1500 psf Bearing	36	136	12	6
Soil Class 4 - 2000 psf Bearing	30	124	8	6
Soil Class 3 - 3000 psf Bearing	30	112	8	6
12' height - Corner Columns				
Soil Class 5 - 1500 psf Bearing	30	132	8	6
Soil Class 4 - 2000 psf Bearing	30	112	8	6
Soil Class 3 - 3000 psf Bearing	30	102	8	6
12' height - Side Columns				
Soil Class 5 - 1500 psf Bearing	36	140	12	6
Soil Class 4 - 2000 psf Bearing	36	120	12	6
Soil Class 3 - 3000 psf Bearing	36	108	12	6



RH30 - SPREAD												
8' height - Corner Columns												
Soil Class	Vertical Rebar Qty	Vertical Rebar Size	Rebar Size	Weld								
Soil Class 5 - 1500 psf Bearing	54	180	6	1/4								
Soil Class 4 - 2000 psf Bearing	56	168	6	1/4								
Soil Class 3 - 3000 psf Bearing	54	168	6	1/4								
8' height - Side Columns												
Soil Class 5 - 1500 psf Bearing	80	240	6	1/4								
Soil Class 4 - 2000 psf Bearing	72	216	6	1/4								
Soil Class 3 - 3000 psf Bearing	72	192	6	1/4								
10' height - Corner Columns												
Soil Class 5 - 1500 psf Bearing	66	198	6	1/4								
Soil Class 4 - 2000 psf Bearing	60	180	6	1/4								
Soil Class 3 - 3000 psf Bearing	60	168	6	1/4								
10' height - Side Columns												
Soil Class 5 - 1500 psf Bearing	96	288	6	1/4								
Soil Class 4 - 2000 psf Bearing	84	252	6	1/4								
Soil Class 3 - 3000 psf Bearing	84	216	6	1/4								
12' height - Corner Columns												
Soil Class 5 - 1500 psf Bearing	81	243	6	1/4								
Soil Class 4 - 2000 psf Bearing	72	216	6	1/4								
Soil Class 3 - 3000 psf Bearing	69	207	6	1/4								
12' height - Side Columns												
Soil Class 5 - 1500 psf Bearing	108	324	6	1/4								
Soil Class 4 - 2000 psf Bearing	96	288	6	1/4								
Soil Class 3 - 3000 psf Bearing	96	252	6	1/4								



SEE DETAILS BP1, BP2 OR BP3 FOR ANCHOR BOLT PATTERNS  
 BP1 & BP2 ARE (4) BOLT PATTERN WHILE B3 IS A (6) BOLT

SEE DETAILS BP1, BP2 OR BP3 FOR ANCHOR BOLT PATTERNS  
 BP1 & BP2 ARE (4) BOLT PATTERN WHILE B3 IS A (6) BOLT

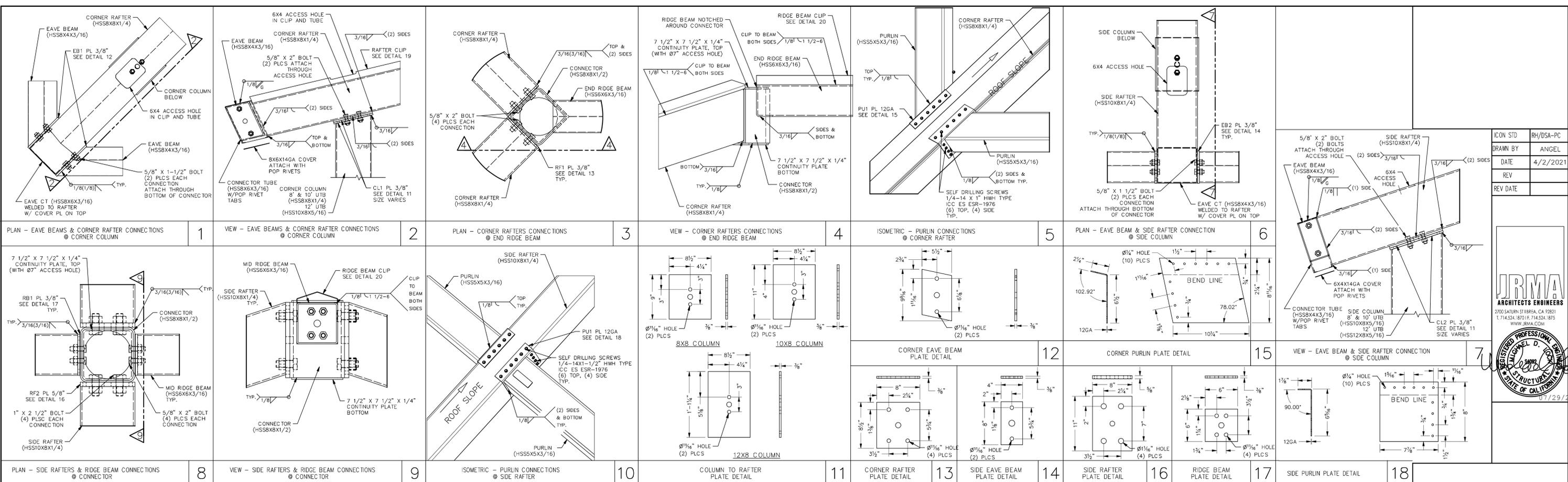
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 Code: 2019 CBC  
 A separate project application for construction is required.

30' WIDE RECTANGULAR HIP FOUNDATION PLAN

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LS3.0

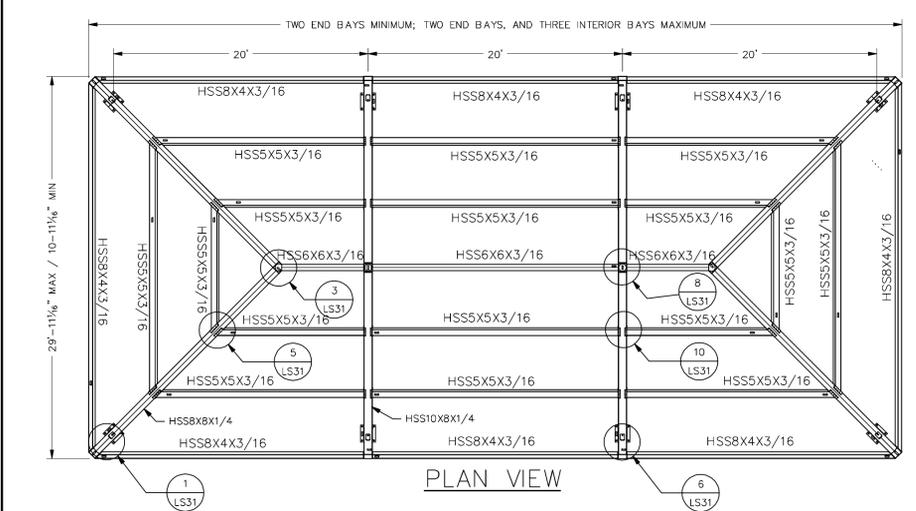
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 STATE OF CALIFORNIA



**MODEL DESIGNATION**

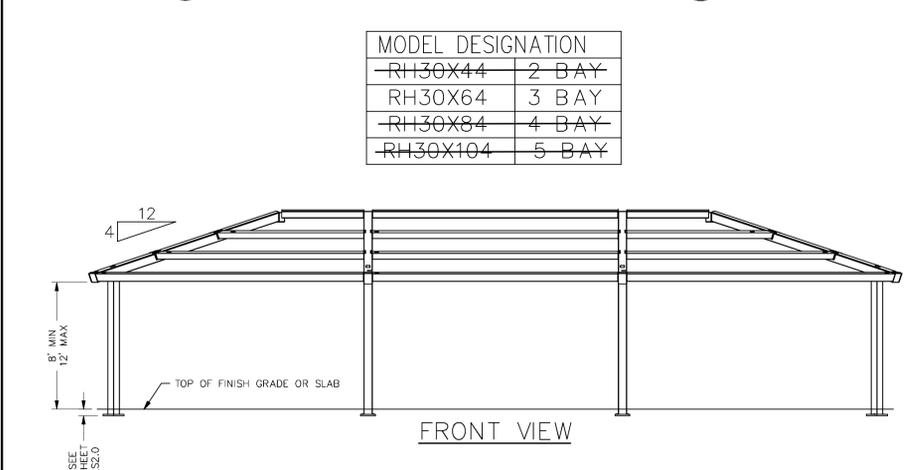
RH30X44	2 BAY
RH30X64	3 BAY
RH30X84	4 BAY
RH30X104	5 BAY

\*NOTE: QUANTITIES WILL VARY DEPENDING ON SHELTER SIZE ORDERED, PLEASE REFER TO JOB SPECIFIC BILL OF MATERIALS AND INSTALLATION MANUAL.

ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL	LENGTH	UNIT WEIGHT
1	4		CORNER COLUMN	**SEE NOTE BELOW		353 lbmass
2	*		SIDE COLUMN	**SEE NOTE BELOW		399 lbmass
3	2		LH SIDE EAVE BEAM	HSS8X4X3/16		311 lbmass
4	2		RH SIDE EAVE BEAM	HSS8X4X3/16		311 lbmass
5	2		END EAVE BEAM	HSS8X4X3/16		422 lbmass
6	*		SIDE EAVE BEAM	HSS8X4X3/16		287 lbmass
7	4		CORNER RAFTER	HSS8X8X1/4		607 lbmass
8	*		SIDE RAFTER	HSS10X8X1/4		474 lbmass
9	2		END RIDGE BEAM	HSS6X6X3/16		149 lbmass
10	*		MID RIDGE BEAM	HSS6X6X3/16		329 lbmass
11	*		CONNECTOR	HSS8X8X1/2		48 lbmass
12	2		LH SIDE PURLIN 1	HSS5X5X3/16		238 lbmass
13	2		RH SIDE PURLIN 1	HSS5X5X3/16		238 lbmass
14	2		END PURLIN 1	HSS5X5X3/16		278 lbmass
15	2		LH SIDE PURLIN 2	HSS5X5X3/16		167 lbmass
16	2		RH SIDE PURLIN 2	HSS5X5X3/16		167 lbmass
17	2		END PURLIN 2	HSS5X5X3/16		137 lbmass
18	*		MID PURLIN	HSS5X5X3/16		284 lbmass

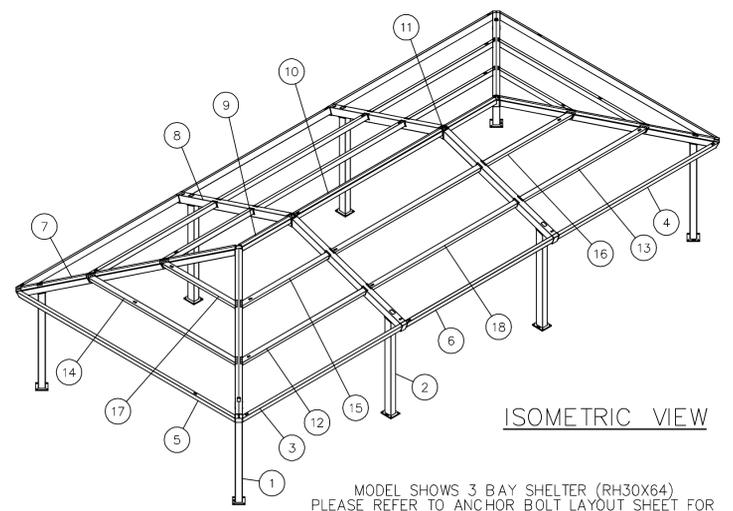
\*\*NOTE: MATERIAL WILL VARY DEPENDING ON SHELTER SIZE ORDERED.

- CORNER COLUMN 8' UTB - (HSS8X8X1/4)
- SIDE COLUMN 8' UTB - (HSS10X8X5/16)
- CORNER COLUMN 10' UTB - (HSS8X8X1/4)
- SIDE COLUMN 10' UTB - (HSS10X8X5/16)
- CORNER COLUMN 12' UTB - (HSS10X8X5/16)
- SIDE COLUMN 12' UTB - (HSS12X8X5/16)

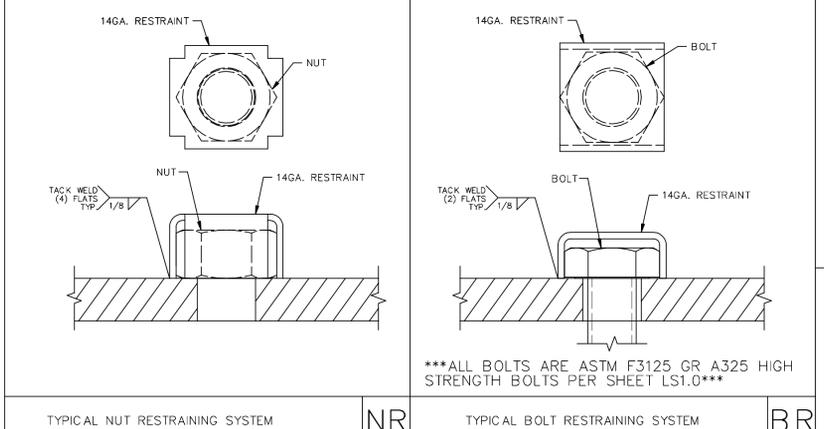


96" MIN IF USED OVER ACCESSIBLE PARKING OR ACCESS AISLES

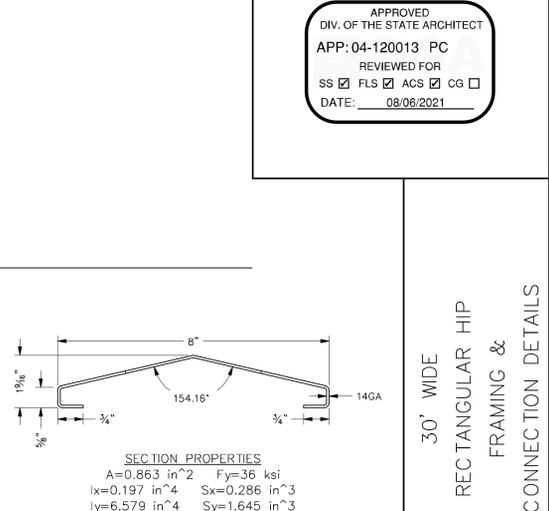
114" MIN IF LOCATED OVER ACCESSIBLE PASSENGER LOADING ZONES



MODEL SHOWS 3 BAY SHELTER (RH30X64)  
 PLEASE REFER TO ANCHOR BOLT LAYOUT SHEET FOR CORRECT COLUMN PLACEMENT BASED ON SIZE ORDERED



\*\*\*ALL BOLTS ARE ASTM F3125 GR A325 HIGH STRENGTH BOLTS PER SHEET L51.0\*\*\*



**SECTION PROPERTIES**  
 A=0.863 in<sup>2</sup> Fy=36 ksi  
 Ix=0.197 in<sup>4</sup> Sx=0.286 in<sup>3</sup>  
 Iy=6.579 in<sup>4</sup> Sy=1.645 in<sup>3</sup>

**SECTION PROPERTIES**  
 A=0.657 in<sup>2</sup> Fy=36 ksi  
 Ix=0.087 in<sup>4</sup> Sx=0.03 in<sup>3</sup>  
 Iy=2.92 in<sup>4</sup> Sy=0.97 in<sup>3</sup>

30' WIDE RECTANGULAR HIP FRAMING & CONNECTION DETAILS

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LS3.1



# ELECTRICAL INFORMATION - RECTANGULAR HIP

ICON'S STANDARD ELECTRICAL IS DESIGNED TO ACCOMMODATE Ø1/2" CONDUIT WITH A Ø3" INLET HOLE ON THE BOTTOM OF EACH COLUMN. THE CONDUIT PATHWAY RUNS THROUGH THE COLUMN, RAFTER, AND RIDGE BEAM THROUGH ALL BOLTED CONNECTIONS AS SHOWN. IF YOU HAVE SPECIAL ELECTRICAL REQUIREMENTS, PLEASE OUTLINE ANY CHANGES BELOW AS DESCRIBED.

PLEASE NOTE: DESIGN LIMITATIONS ON HOLE/CUTOUT SIZES MAY APPLY. ICON WILL REACH OUT TO DISCUSS ANY SUCH LIMITATIONS AS NEEDED.

NOTE: ICON SHELTER FRAME IS NOT UL LISTED TO ACT AS A CONDUIT FOR ELECTRICAL WIRING. CONSULT LOCAL BUILDING CODES WHEN PLANNING YOUR ELECTRICAL SYSTEM.

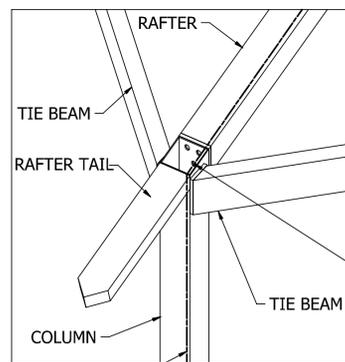
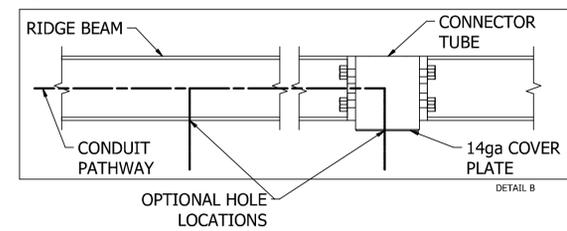
PRELIMINARY: NOT FOR CONSTRUCTION

**STEPS:**

1. CONDUIT HOLE SIZE (DETAIL A)
2. ELECTRICAL EXIT HOLES (DETAIL B)
3. ELECTRICAL ACCESS & COVER PLATES (DETAIL C)
4. ELECTRICAL CONDUIT PATHWAY (DETAIL D)

**OPTIONAL EXIT HOLES**

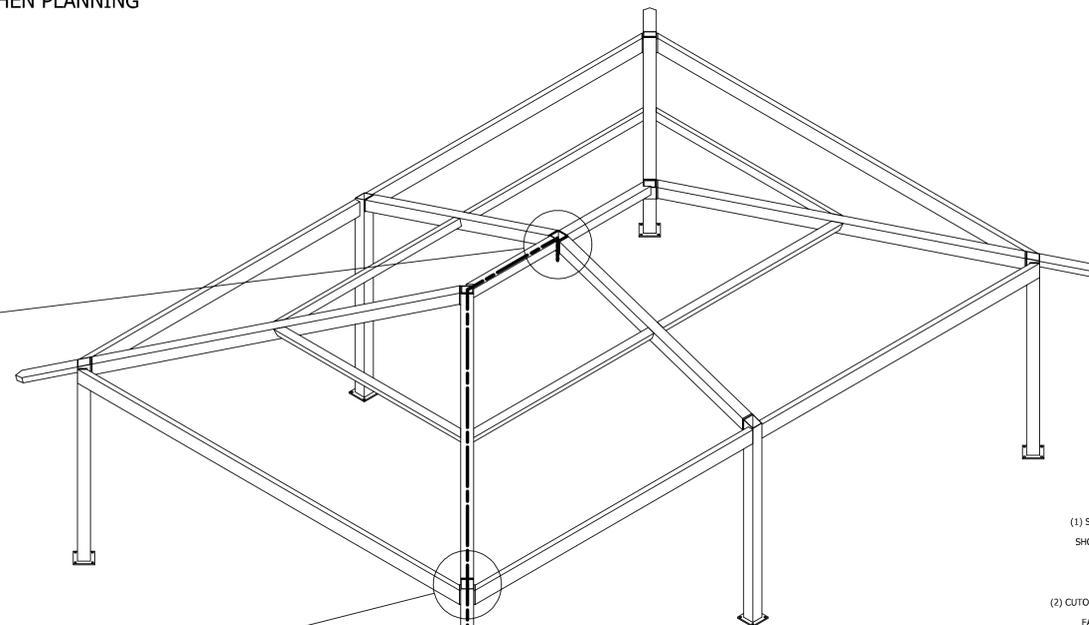
IF REQUIRED, EXIT HOLES FOR LIGHTING, ETC. CAN BE PLACED IN THE RIDGE BEAM AND/OR CONNECTOR TUBE WITH 14ga COVER PLATE AS SHOWN (CHARGES APPLY). USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED EXIT HOLE LOCATIONS AND SIZE.



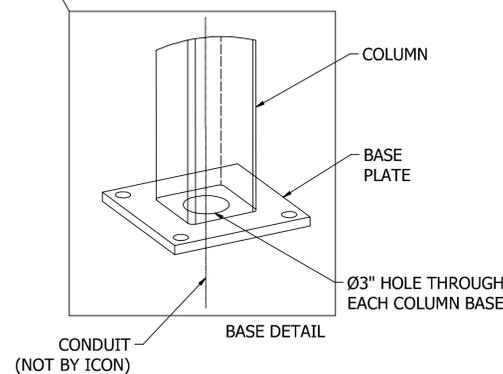
ICON PROVIDES A MINIMUM OF (1) 3/4" HOLE AT EACH CONNECTION FOR 1/2" CONDUIT. IF APPLICABLE, PLEASE SPECIFY REQUIRED CONDUIT SIZE: (CHARGES APPLY)

- 3/4" CONDUIT (1" HOLES)
- 1" CONDUIT (1 1/4" HOLES)
- OTHER (PLEASE SPECIFY)

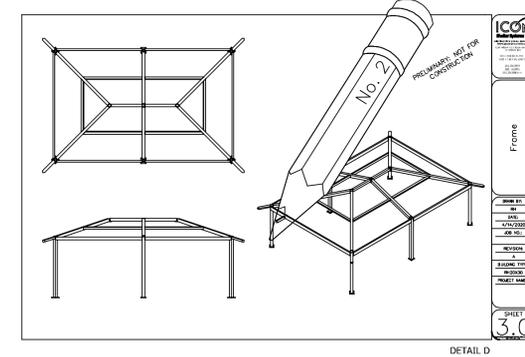
NOTE: BUILDING DEPICTED ON THIS SHEET FOR ILLUSTRATION PURPOSES ONLY. ACTUAL LAYOUT AND FRAME MEMBER QUANTITIES VARY BY DESIGN. PLEASE REFER TO ELEVATION AND FRAME SHEETS IN THIS PRELIMINARY FOR ORDER-SPECIFIC CONFIGURATION.



CONDUIT PATHWAY PROVIDED FOR EACH COLUMN.

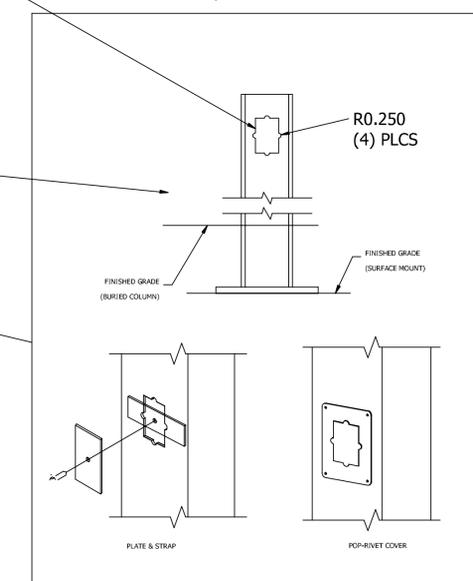


IF REQUIRED, PLEASE DRAW THE NECESSARY ELECTRICAL CONDUIT PATHWAY ON THE FRAME SHEET OF THIS PRELIMINARY.



**OPTIONAL CUTOUTS**  
USE FRAME SHEET OF THIS PRELIMINARY TO SPECIFY REQUIRED CUTOUT LOCATIONS (CHARGES APPLY) SEE REQUIRED INFO BELOW

- (1) STANDARD CUTOUT SIZE SHOWN. SPECIFY IF OTHER SIZE REQUIRED.
- (2) CUTOUTS WILL BE ON INSIDE FACE OF COLUMN UNLESS OTHERWISE INDICATED ON FRAME SHEET.
- (3) SPECIFY HEIGHT ABOVE FINISHED GRADE FOR EACH CUTOUT AS SHOWN



- (4) COVER PLATES PROVIDED UPON REQUEST (CHARGES APPLY)  
PLEASE SPECIFY TYPE AND QUANTITY REQUIRED:
- PLATE & STRAP
  - POP-RIVET COVER PLATE
- HOW MANY REQUIRED? \_\_\_\_\_

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DATE	4/2/2021
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**JRMA**  
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REGISTERED PROFESSIONAL ENGINEER  
ANGEL D. JOY  
NO. 5000  
STATE OF CALIFORNIA  
07/29/2021

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REVIEWED FOR  
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DATE: 08/06/2021

ELECTRICAL ACCESS

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LS5.0