

AERO BENDING
560 AUTO CENTER DRIVE
PALMDALE, CA.

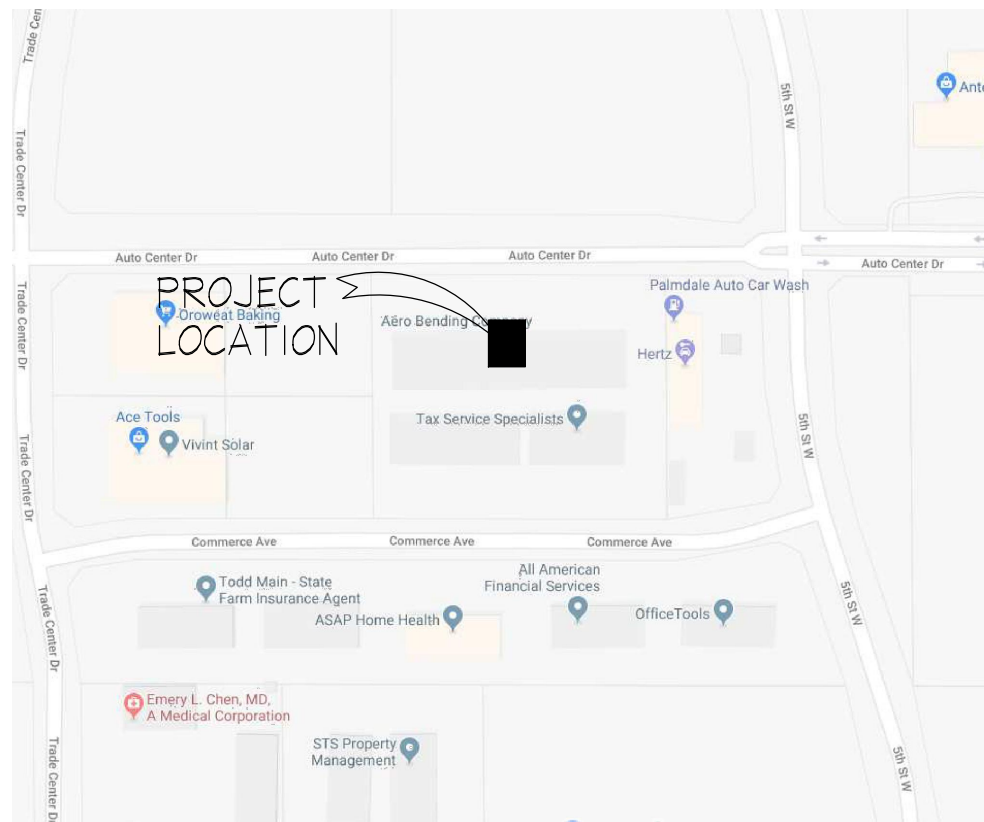
ABBREVIATIONS			SHEET INDEX		
A.B.	ANCHOR BOLT	HRDWRE.	HARDWARE	T-1	TITLE SHEET
A.C.	ASPHALT CONCRETE	HDDB.	HARDBOARD	C-1	SITE PLAN
ADA	AMERICAN WITH DISABILITIES ACT	HDWD.	HARDWOOD	C-2	ADA DETAILS
ADJ.	ADJACENT	H.M.	HOLLOW METAL	C-3	ADA DETAILS
ALT.	ALTERNATE	HORIZ.	HORIZONTAL		
ALUM.	ALUMINUM				
		INV.	INVERT	G-1	GENERAL CONSTRUCTION NOTES
BETWN.	BETWEEN			A-1	FLOOR PLAN
BLK.	BLOCK	L.F.	LINEAL FOOT	A-2	REFLECTIVE CEILING PLAN
BLK'G	BLOCKING			A-3	MEZZANINE FLOOR PLAN
BM.	BEAM	M.H.	MANHOLE	A-4	ROOF PLAN
BOTT.	BOTTOM	MTL.	METAL		
		MAX.	MAXIMUM		
		MIN.	MINIMUM		
CAB.	CABINET			S-1	COLUMN PLAN
C.B.	CATCH BASIN			S-2	FRAMING PLAN
C.J.	CONSTRUCTION JOINT	NAT.	NATURAL		
CLR.	CLEAR	N.I.C.	NOT INCLUDED IN CONTRACT	E-1	ELECTRICAL NOTES
COL.	COLUMN	N.T.S.	NOT TO SCALE	E-2	PANEL SCHEDULE
CONC.	CONCRETE	N.G.	NATURAL GRADE	E-3	POWER PLAN
CONT.	CONTINUOUS			E-4	LIGHTING PLAN
C.O.T.G.	CLEAN OUT TO GRADE	O.C.	ON CENTER		
		OH.	OVERHEAD	M-1	NOTES, SCHEDULES, DETAILS
		OP.	OPENING	M-2	HVAC DUCT PLAN
D.F.	DRINKING FOUNTAIN	OF.	OVERFLOW	M-3	ROOF PLAN
DIM.	DIMENSION				
DIA.	DIAMETER	P.D.F.	POWDER DRIVEN FASTENER	T24-1	
DP.	DEEP	R.	PLATE		
DS.	DOWNSPOUT	PLYWD.	PLYWOOD		
DTL./DET.	DETAIL	P.T.D.F.	PRESSURE TREATED DOUG-FIR		
		RDWD.	REDWOOD		
(E)/EXIST.	EXISTING	R.O.	ROUGH OPENING		
E.F.	EACH FACE	R.D.	ROOF DRAIN		
EQ.	EQUAL	RWL.	RAIN WATER LEADER		
	EACH WAY				
		S.J.	SAWED JOINT		
		STL.	STEEL		
F.O.C.	FACE OF CONCRETE	STRUCT.	STRUCTURAL		
F.O.S.	FACE OF STUD	SPEC.	SPECIFICATION		
F.O.M.	FACE OF MASONRY	STD.	STANDARD		
FW.	FINISHED FLOOR				
F.G.	FINISHED GRADE	T.S.	TUBE STEEL		
F.P.	FINISHED PAD	T.O.C.	TOP OF CONCRETE		
F.S.	FINISHED SURFACE	T.O.P.	TOP OF PLATE		
F.H.	FIRE HYDRANT	T.O.S.	TOP OF SHEATHING		
F.D.	FLOOR DRAIN	T.O.W.	TOP OF WALL		
F.J.	FLOOR JOIST	TYP.	TYPICAL		
FTG.	FOOTING	TEMP.	TEMPORARY		
		U.O.N.	UNLESS OTHERWISE NOTED		
GA.	GAUGE				
GALV.	GALVANIZED	V.C.T.	VINYL COMPOSITION TILE		
G.B.	GYPSUM BOARD				
G.S.M.	GALVANIZED SHEET METAL	WP	WEATHERPROOF		

PROJECT DESCRIPTION

CONSTRUCTION OF A WELDING ROOM WITH STORAGE MEZZANINE ABOVE WITHIN EXISTING BUILDING

BUILDING CODES

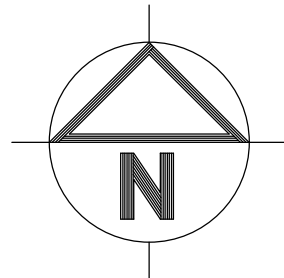
2016 CALIFORNIA BUILDING CODES WITH PALMDALE AMENDMENTS
2016 CALIFORNIA MECHANICAL CODE
2016 CALIFORNIA ELECTRICAL CODE
2016 CALIFORNIA PLUMBING CODE
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA GREEN BUILDING CODE
2017 LA COUNTY FIRE CODE
2016 CALIFORNIA EXISTING BUILDING CODE



VICINITY MAP

NO SCALE

ARCHITECTURAL CIVIL STRUCTURAL BUILD	
<h1 style="margin: 0;">CEI+B</h1>	
CHALLMAN ENGINEERING INC+CEI BUILD INC A DESIGN-BUILD COMPANY	
41758 12TH STREET W, SUITE A PALMDALE, CA 93551 TEL (661) 524-0911 - EMAIL: CEI@CEIENGR.COM WEBSITE: WWW.CEIENGR.COM	
SEAL	
04/09/18	
ISSUE	DATE
REVISION	
△	DATE
PROJECT <h2 style="margin: 0;">AERO BENDING COMPANY</h2> <h3 style="margin: 0;">WELDING ROOM</h3> <p style="margin: 10px 0;">APN: 3003-080-071 560 Auto Center Dr. Palmdale, CA</p>	
SHEET TITLE <h2 style="margin: 0;">TITLE SHEET</h2>	
CONSULTANTS	
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PLAN CHECK NO. -	
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SCALE AS NOTED	SHEET NO.
DATE 02/02/18	T-1
JOB NO. 18-508	



EXISTING SITE PLAN

SC: 1" = 20'

LAND INFORMATION

LOCATION: 560 AUTO CENTER DR., PALMDALE, CA.

APN: 3003-080-071, 072, 073

LEGAL DESCRIPTION:
PARCELS 560A, 560B, & 560C OF CONDOMINIUM PARCEL MAP RECORDED IN PMB 346 PAGES 54 & 55

ZONING: M-2 (INDUSTRIAL)

LOT AREA: 4+ ACRES

GENERAL PLAN: INDUSTRIAL

BUILDING SIZE: EXISTING BUILDING, CONSTRUCT WELDING ROOM WITH STORAGE MEZZANINE

EXISTING BUILDING IS FIRE SPRINKLERED.

TYPE OF CONSTRUCTION: V-B;

OCCUPANCY TYPE: EXISTING - F-2 MODERATE HAZARD FACTORY

FIRE DEPARTMENT NOTES

1. THE REQUIRED FIRE FLOW FOR PUBLIC FIRE HYDRANTS AT THIS LOCATION IS GALLONS PER MINUTE AT 20 PSI FOR A DURATION OF 2 HOURS, OVER AND ABOVE A MAXIMUM DAILY DOMESTIC DEMAND. F.C. 507.3 AND APPENDIX B.
2. ALL FIRE HYDRANTS SHALL MEASURE 6"x4"x2 1/2", BRASS OR BRONZE, CONFORMING TO AMERICAN WATER WORKS ASSOCIATION STANDARD C503, OR APPROVED EQUAL, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE COUNTY OF LOS ANGELES FIRE DEPARTMENT REGULATION 8.
3. FIRE DEPARTMENT VEHICULAR ACCESS ROADS MUST BE INSTALLED AND MAINTAINED IN A SERVICEABLE MANNER PRIOR TO AND DURING THE TIME OF CONSTRUCTION. F.C. 501.4
4. PROVIDE A MINIMUM UNOBSTRUCTED WIDTH OF TWENTY-SIX (26) FEET, EXCLUSIVE OF SHOULDERS, EXCEPT FOR APPROVED SECURITY GATES IN ACCORDANCE WITH SECTION 503.6, AND AN UNOBSTRUCTED VERTICAL CLEARANCE "CLEAR TO SKY" FIRE DEPARTMENT VEHICULAR ACCESS WITHIN 150 FEET OF ALL PORTIONS OF THE EXTERIOR WALLS OF THE FIRST STORY OF THE BUILDING, AS MEASURED BY AN APPROVED ROUTE AROUND THE EXTERIOR OF THE BUILDING. F.C. 503.1.1 & 503.2.2.
5. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOAD OF THE FIRE APPARATUS WEIGHING 25,000 POUNDS AND SHALL BE SURFACED SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. FIRE APPARATUS ACCESS ROADS HAVING A GRADE OF 10 PERCENT OR GREATER SHALL HAVE A PAVED OR CONCRETE SURFACE. F.C. 503.2.3.
6. FIRE DEPARTMENT VEHICULAR ACCESS ROADS SHALL BE PROVIDED WITH A 32-FOOT CENTERLINE TURNING RADIUS. F.C. 503.2.4.
7. DEAD-END FIRE APPARATUS ACCESS ROADS IN EXCESS OF 150-FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED FIRE DEPARTMENT TURNAROUND. F.C. 503.2.5.
8. PROVIDE APPROVED SIGNS OR OTHER APPROVED NOTICES OR MARKINGS THAT INCLUDE THE WORDS "NO PARKING-FIRE LANE". SIGNS SHALL HAVE A MINIMUM DIMENSION OF 12-INCHES WIDE BY 18-INCHES HIGH AND HAVE RED LETTERS ON A WHITE REFLECTIVE BACKGROUND. SIGNS SHALL BE PROVIDED FOR FIRE APPARATUS ACCESS ROADS, TO CLEARLY INDICATE THE ENTRANCE TO SUCH ROAD, OR PROHIBIT THE OBSTRUCTION THEREOF AND AT INTERVALS, AS REQUIRED BY THE FIRE INSPECTOR. F.C. 503.3.
9. WHEN SECURITY GATES ARE PROVIDED, MAINTAIN A MINIMUM ACCESS WIDTH OF 26-FEET. THE SECURITY GATE SHALL BE PROVIDED WITH AN APPROVED MEANS OF EMERGENCY OPERATION, AND SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES AND REPLACED OR REPAIRED WHEN DEFECTIVE. ELECTRIC GATE OPERATORS, WHERE PROVIDED, SHALL BE LISTED IN ACCORDANCE WITH UL 325. GATES INTENDED FOR AUTOMATIC OPERATION SHALL BE DESIGNED, CONSTRUCTED AND INSTALLED TO COMPLY WITH THE REQUIREMENTS OF ASTM F220. GATES SHALL BE OF THE SWINGING OR SLIDING TYPE. CONSTRUCTION OF GATES SHALL BE OF MATERIALS THAT ALLOW MANUAL OPERATION BY ONE PERSON. F.C. 503.6.
10. A MINIMUM 5-FOOT WIDE APPROVED FIREFIGHTER ACCESS WALKWAY LEADING FROM THE FIRE DEPARTMENT ACCESS ROAD TO ALL REQUIRED OPENINGS IN THE BUILDING'S EXTERIOR WALL SHALL BE PROVIDED FOR FIREFIGHTING AND RESCUE PURPOSES. F.C. 504.1.
11. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES ELECTRICAL SUPPLY. IN THE EVENT OF POWER SUPPLY FAILURE, THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. C.B.C. 1006.3.
12. THE MEANS OF EGRESS, AND EXIT DISCHARGE, SHALL BE ILLUMINATED AT ANY TIME THE BUILDING IS OCCUPIED WITH A LIGHT INTENSITY OF NOT LESS THAN 1-FOOT-CANDLE AT THE WALKING SURFACE LEVEL. C.B.C. 1006.2.
13. PORTABLE FIRE EXTINGUISHER SHALL BE INSTALLED IN LOCATIONS AS REQUIRED BY FIRE CODE 906.
14. APPROVED BUILDING ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION SHALL BE PROVIDED AND MAINTAINED SO AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND, BE ARABIC NUMERALS OR ALPHABET LETTERS, AND A MINIMUM 4-INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 0.5-INCH. F.C. 505.1.
15. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. C.B.C. 1008.1.9.
16. EXITS, EXIT ACCESS DOORS AND PATHS OF EGRESS TRAVEL THAT IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS SHALL BE MARKED BY AN APPROVED EXIT SIGN THAT IS READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED. C.B.C. 1011.
17. PROVIDE AN OUTSIDE GAS SHUTOFF VALVE CONSPICUOUSLY MARKED.
18. COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR MORE SHALL NOT BE STORED IN BUILDINGS OR PLACED WITHIN FIVE FEET OF COMBUSTIBLE WALLS, OPENINGS OR COMBUSTIBLE ROOF EAVE, UNLESS AREAS CONTAINING DUMPSTERS OR CONTAINERS ARE PROTECTED BY AN APPROVED AUTOMATIC FIRE SPRINKLER SYSTEM. F.C. 304.3.3.
19. EXIT DOORS SHALL SWING IN THE DIRECTION OF EXIT TRAVEL WHEN SERVING ANY HAZARDOUS AREA OR WHEN SERVING AN OCCUPANT LOAD OF 50 OR MORE.
20. AN APPROVED KEY BOX, LISTED IN ACCORDANCE WITH UL 1037 SHALL BE PROVIDED AS REQUIRED BY FIRE CODE 506. THE LOCATION OF EACH KEY BOX SHALL BE DETERMINED BY THE FIRE INSPECTOR.

ARCHITECTURAL

CIVIL

STRUCTURAL

BUILD

CEI+B

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SEAL

04/09/18

ISSUE

DATE

REVISION

DATE

PROJECT

AERO BENDING
COMPANY
WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
Palmdale, CA

SHEETPLAN

FIRE DEPARTMENT
NOTES

CONSULTANTS

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02/02/18

JOB NO.:

18-508

1.0 GENERAL

- 1.01 ALL WORK SHALL CONFORM TO THE CALIFORNIA BUILDING CODE, LATEST EDITION, AND ANY OTHER REGULATING AGENCIES, WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK. ALL CONTRACTORS AND SUB-CONTRACTORS SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CODES LISTED ABOVE.
- 1.02 ALL CONTRACTORS AND SUB-CONTRACTORS SHALL CHECK AND VERIFY ALL DIMENSIONS, ELEVATIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO COMMENCING ANY WORK OR FABRICATION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- 1.03 WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER MEASURED DIMENSIONS. LARGER SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS. DETAILS MARKED TYPICAL SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY DETAILED OTHERWISE. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL BE AS SHOWN. CONSTRUCTION SHALL BE AS SHOWN FOR OTHER TRADES.
- 1.04 THE CONTRACTOR SHALL LOCATE ALL EXISTING CONCEALED ITEMS AND UTILITIES TO PROTECT IT FROM INJURY. ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE.
- 1.05 THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE BUILDING DEPARTMENT PRIOR TO EACH INSPECTION CHECK AND FOR SUPERVISION AND COORDINATION OF THE TOTAL PROJECT.
- 1.06 THE CONTRACTOR SHALL EMPLOY A COMPETENT REGISTERED ENGINEER OR LAND SURVEYOR TO LAY OUT THE WORK AND ESTABLISH ALL REFERENCE POINTS, LINES, GRADES, LEVELS, AND MEASUREMENTS OF BUILDINGS, GRADING, PAVING, AND OTHER WORK AS REQUIRED FOR AN ACCURATE PLACEMENT OF CONSTRUCTION.
- 1.07 IN THE EVENT THE CONTRACTOR REQUESTS CHANGES OR REVISIONS REQUIRING DRAWINGS OR SERVICES OF THE ENGINEER TO FACILITATE CONSTRUCTION, HE/SHE SHALL ACCEPT THE RESPONSIBILITY TO HIRE AND PAY FEES INVOLVED BY THE ENGINEER.
- 1.08 TITLE 8, CHAPTER 4, SUB-CHAPTER 4 OF THE CALIFORNIA CODE OF REGULATIONS "CAL/OSHA" CONSTRUCTION SAFETY ORDERS IS APPLICABLE TO THE CONSTRUCTION OF THIS PROJECT AND PROVISIONS THEREOF MUST BE FOLLOWED.
- 1.09 THE CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS, PERFORM ALL OTHER SERVICES REQUIRED IN THE CARE AND MAINTENANCE OF ALL PUBLIC UTILITIES AND ASSUME ALL RESPONSIBILITY CONCERNING SUCH WORK FOR WHICH THE OWNER MAY BE LIABLE.
- 1.10 THE CONTRACTOR SHALL PROVIDE AND PAY FOR ALL GAS, POWER, AND WATER USED IN THE PERFORMANCE OF ANY CONDITIONS OF THE ENTIRE CONTRACT. THIS INCLUDES PROVIDING ANY TEMPORARY PIPE, WIRE, VALVES, AND FITTINGS AS NEEDED.
- 1.11 THE CONTRACTOR SHALL PROVIDE, INSTALL AND MAINTAIN FOR THE DURATION OF THE WORK TEMPORARY OUTSIDE TOILET FACILITIES. AT THE COMPLETION OF THE WORK, THE TOILETS SHALL BE REMOVED FROM THE SITE.
- 1.12 EACH SUB-CONTRACTOR SHALL KEEP PREMISES FREE FROM RUBBISH AND AT THE COMPLETION OF WORK AND SHALL REMOVE ALL RUBBISH LEAVING THE AREA "BROOM-CLEAN".
- 1.13 THE CONTRACTOR SHALL THOROUGHLY CLEAN THE INSIDE AND OUTSIDE OF STRUCTURES INCLUDING EQUIPMENT, WALLS, CEILING, FLOORS, AND HARDWARE. THIS SHALL INCLUDE THOROUGH CLEANING OF ROOFS, WINDOWSILLS, HORIZONTAL PROJECTIONS, EXTERIOR STEPS, DECKS, WALKWAYS AND RAILS.
- 1.14 ALL PLUMBING FIXTURES SHALL BE CLEANED AND POLISHED. LIGHTING FIXTURES SHALL BE FREE OF DUST, DIRT AND STAINS. EQUIPMENT AND MACHINERY SHALL BE CLEANED, SERVICED AND READY TO USE.
- 1.15 ALL GLASS SHALL BE WASHED AND POLISHED ON BOTH SIDES. THIS INCLUDES THE REMOVAL OF ALL LABELS, MARKS AND SPOTS.
- 1.16 ALL FLOORS SHALL BE WASHED AND MOPPED DRY. TILE OR LINOLEUM SHALL BE WAXED AND POLISHED AS PER MANUFACTURERS RECOMMENDATION.
- 1.17 A CERTIFICATE OF CONSTRUCTION COMPLIANCE WITH ENERGY PLANS SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO FINAL INSPECTION AND APPROVAL.
- 1.18 THIS FACILITY SHALL MEET THE ACCOMMODATION OF THE HANDICAPPED PERSONS AS REQUIRED BY THE CURRENT EDITION OF "TITLE 24 OF CALIFORNIA ADMINISTRATIVE CODE".
- 1.19 CONTRACTOR AGREES THAT HE/SHE ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN THE CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING ANY LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- 1.20 THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES PRIOR TO CONSTRUCTION FOR INSTALLATION REQUIREMENTS. THE CONTRACTOR SHALL COORDINATE WORK WITH EACH UTILITY.
- 1.21 ANY COST INCURRED BY THE ENGINEER OR HIS REPRESENTATIVE DUE TO THE RE-INSPECTION OR RE-SURVEYING OF THIS PROJECT WILL BE PAID FOR BY THE GENERAL CONTRACTOR.
- 1.22 THE GENERAL CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A COMPLETE SET OF "AS-BUILT" PLANS WITH CHANGES MARKED IN RED.

2.0 SITEMORK

- 2.01 A SEPARATE PERMIT IS REQUIRED FROM THE BUILDING DEPARTMENT FOR ANY DEMOLITION WORK.
- 2.02 A SEPARATE PERMIT IS REQUIRED FROM THE PUBLIC WORKS DEPARTMENT FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY.
- 2.03 ALL EARTHWORKS SHALL CONFORM TO ALL APPLICABLE CODE STANDARDS AND CITY STANDARDS.
- 2.04 WHERE TRENCHES OR EXCAVATIONS ARE 5 FEET OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND IS NECESSARY, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY AND OR LOCAL GOVERNMENTS, PRIOR TO THE ISSUANCE OF A BUILDING OR GRADING PERMIT.
- 2.05 CONCRETE FOOTINGS SHALL BE POURED AGAINST UNDISTURBED SOIL OR 90% COMPACTED DIRT, WHICH HAS BEEN APPROVED BY THE BUILDING OFFICAL.
- 2.06 THE SITE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, APPROVALS AND LICENSES NECESSARY TO LEGALLY COMPLETE WORK.
- 2.07 ALL LANDSCAPING SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE CODES AND STANDARDS.
- 2.08 THE IRRIGATION SYSTEM SHALL BE LAID OUT AS CLOSELY AS POSSIBLE TO DRAWINGS. FULL AND COMPLETE COVERAGE IS REQUIRED. THE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS IN ORDER TO INSURE ADEQUATE IRRIGATION OF ALL PLANTED AREAS.
- 2.09 ALL INSTALLATION OF SPRINKLERS, IRRIGATION PIPES, AND CONTROLLERS SHALL BE PER MANUFACTURER'S INSTRUCTIONS.
- 2.10 LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, PAYING ALL NECESSARY FEES AND SCHEDULING ALL NECESSARY INSPECTIONS.

10.0 THERMAL AND MOISTURE PROTECTION

- 10.01 FLAT ROOFS TO BE COVERED BY 26 GA. METAL COLD FORMED PANEL WITH A FACTORY APPLIED FINISH OR GALVALUME COATING. REFER TO STEEL BUILDING DRAWINGS FROM CBC STEEL BUILDINGS.
- 10.02 CBC STEEL BUILDINGS TO PROVIDE A NECESSARY TRIMS, CLOSURE STRIPS, END CAPS, AND FLASHING TO WEATHER-TITE BUILDING. ALL MATERIAL SHALL MATCH ROOF PANEL MATERIAL AND COLOR.
- 11.0 DOORS AND WINDOWS
- 11.01 METAL DOORS AND FRAMES SHALL BE FABRICATED FROM 16 GAUGE MATERIAL AND SHOP PAINTED WITH A GRAY PRIMER.
- 11.02 ALL FRAMES SHALL BE SET PLUMB AND SQUARE AND SYMMETRICALLY PLACED IN OPENINGS. DOORS SHALL BE INSTALLED TO OPERATE FREELY, BUT NOT LOOSELY, WITHOUT STICKING OR BINDING.
- 11.03 EXIT DOORS SHALL BE OPENABLE FROM WITHIN WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
- 11.04 SWINGING DOORS SHALL BE EQUIPPED WITH HARDWARE (DOOR HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES THAT ARE REQUIRED BY CHAPTER 11A OR 11B) SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE.
- 11.05 HARDWARE HEIGHT (HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISHED FLOOR. LOOKS USED FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT.
- 11.06 LOCKS AND LATCHES IN BUILDINGS WITH GROUP A OCCUPANCY HAVING A OCCUPANT LOAD OF 300 OR LESS, GROUPS B, F, M, AND S AND IN PLACES OF RELIGIOUS WORSHIP, THE MAIN EXTERIOR DOOR OR DOORS ARE PERMITTED TO BE EQUIPPED WITH KEY-OPERATED LOCKING DEVICES FROM EGRESS SIDE PROVIDED A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE ON OR ADJACENT TO THE DOOR STATING: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. THE SIGN SHALL BE IN LETTERS 1 INCH HIGH ON A CONTRASTING BACKGROUND.
- 11.07 DOORS FROM INDIVIDUAL DWELLING OR SLEEPING UNITS OF GROUP R OCCUPANCIES HAVING AN OCCUPANT LOAD OF 10 OR LESS ARE PERMITTED TO BE EQUIPPED WITH A NIGHT LATCH, DEAD BOLT OR SECURITY CHAIN, PROVIDED SUCH DEVICES ARE OPENABLE FROM INSIDE WITHOUT THE USE OF A KEY OR TOOL.
- 11.08 REFER TO HORTON STACKING DOOR SPECIFICATIONS FOR INTERIOR HANGAR DOOR LOCKING MECHANISM. DOOR SHOULD BE ABLE TO BE UNLOCKED WITHOUT ANY SPECIAL KNOWLEDGE OR EFFORT.
- 11.09 UNLESS DEADBOLT IS OPENABLE FROM THE INSIDE BY TURNING THE DOOR KNOB, THE DEADBOLT MUST BE AN INDICATING TYPE AND ON OR NEAR THE DOOR IN LETTERS 1 INCH HIGH STATING "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS" 3304(c).

12.0 FINISHES

- 12.01 ALL INTERIOR WALLS AND CEILINGS SHALL BE COVERED CONFORMING TO CBC CHAPTER 8, UNLESS OTHERWISE NOTED.
- 12.02 GYPSUM CONSTRUCTION AND ATTACHMENT SHALL FOLLOW CHAPTER 25 OF CBC. SIZE AND SPACING OF NAILS OR SCREWS AS PER TABLE 2508.5 OF CBC.
- 12.03 METAL SURFACES SHALL RECEIVE TWO COATS OF PRIMER, ONE COAT OF THAT SHALL BE SHOP APPLIED. FINAL COAT OF PAINT SHALL BE AS SELECTED BY OWNER, UNLESS OTHERWISE NOTED.
- 12.04 INTERIOR AND EXTERIOR WALL PAINTS SHALL BE APPLIED IN NO LESS THAN TWO COATS. COLOR AND TYPE SHALL BE AS SELECTED BY THE OWNER, UNLESS OTHERWISE NOTED.
- 12.05 WALL AND CEILING MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATION IN SECTION 803.1.1 OF THE CBC.

13.0 SPECIALITIES

NOT APPLICABLE

1.0 STRUCTURAL CONCRETE

- 1.01 ALL CONCRETE WORK SHALL CONFORM TO A.C.I. 318 AND A.C.I. 301, LATEST EDITION WITH MODIFICATIONS AS NOTED ON THE DRAWINGS OR HEREINAFTER NOTED.
- 1.02 THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE THE FOLLOWING UNLESS OTHERWISE NOTED:
a. SLABS ON GRADE – 3000 PSI, UNLESS OTHERWISE NOTED IN CALCULATIONS
b. SPREAD FOOTINGS – 3000 PSI, UNLESS OTHERWISE NOTED IN CALCULATIONS
c. CONTINUOUS FOOTINGS – 3000 PSI, UNLESS OTHERWISE NOTED IN CALCULATIONS
d. NON-STRUCTURAL FLATWORK – 2500 PSI, UNLESS OTHERWISE NOTED IN CALCULATIONS
- 1.03 COMPRESSIVE STRENGTH OF EXTERIOR SLABS AND FLAT WORK SHALL BE INCREASED FOR MODERATE AND SEVERE WEATHERING EXPOSURE PER TABLE 1904.2.2 OF CBC.
- 1.04 CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND APPROVED BY THE ENGINEER OR SHALL CONFORM TO MIX DESIGNS AS ESTABLISHED IN CHAPTER 19 OF THE CALIFORNIA BUILDING CODE, LATEST EDITION.
- 1.05 PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE II. THE SAME BRAND SHALL BE USED THROUGHOUT THE JOB.
- 1.06 AGGREGATE FOR HARD ROCK CONCRETE SHALL CONFORM TO ASTM C-33. NON-REACTIVE AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM ASTM C-330. ALL AGGREGATE SHALL BE SUPPLIED BY A SINGLE SOURCE.
- 1.07 ALL WATER SHALL BE CLEAN AND POTABLE.
- 1.08 START CURING AS SOON AS HARD TRAWING IS DONE. CURING FOR SLABS SHALL BE WET CURING BY USING BURLAP FOR A MINIMUM OF 7 DAYS. CURING COMPOUND SHALL BE USED ON ALL CURBS AND SIDEWALKS AND CONFORM TO A.S.T.M. C-309. IT SHALL BE USED PER MANUFACTURER'S RECOMMENDATIONS.
- 1.09 DO NOT POUR CONCRETE WHEN TEMPERATURE EXCEEDS 90° OR 80° WHEN WINDS EXCEEDS 120 MPH.
- 1.10 WHEN WIND, TEMPERATURE AND HUMIDITY CONDITIONS CAUSE EARLY DISAPPEARANCE OF BLEED WATER, STEPS SHALL BE TAKEN TO USE A FOG SPRAY. CURING SHALL COMMENCE IMMEDIATELY AFTER FINISH TRAWLING.
- 1.11 SAW-CUT JOINTS IN NEW CONCRETE SLABS SHALL BE DONE WITHIN 4 TO 12 HOURS AFTER CONCRETE HAS BEEN FINISHED. DEPTH OF SAW-CUT SHALL NOT BE MORE THAN 1/4 THICKNESS OF SLAB. EARLY-ENTRY DRY-CUT JOINTS ARE USUALLY 1 TO 4 HOURS AFTER COMPLETION OF FINISHING, DEPENDING ON CONCRETE'S SETTING CHARACTERISTICS. A MINIMUM DEPTH OF 1 INCH SHALL BE USED FOR EARLY-ENTRY SAWS.

2.0 CONCRETE MASONRY UNITS

- 2.01 CONCRETE BLOCK: HOLLOW CONCRETE UNITS SHALL CONFORM TO ASTM C-90. ALL CELLS TO BE SOLID GROUTED ASTM C-476, UNLESS OTHERWISE NOTED.
- 2.02 CONCRETE BLOCK VENEER: BLOCK VENEER SHALL CONFORM TO A.S.T.M. C-90.
- 2.03 MORTAR SHALL BE TYPE S: 1,800 PSI, A.S.T.M. C-270, AND C.B.C. TABLE 21-A.
- 2.04 GROUT SHALL BE COURSE WITH 2,000 PSI COMPRESSIVE STRENGTH IN 28 DAYS, A.S.T.M. C-476 AND C.B.C. TABLE 21.

3.0 STRUCTURAL STEEL

- 3.01 BOLTS SHALL CONFORM TO ASTM A-307 OR A-36; HIGH STRENGTH BOLTS SHALL CONFORM TO A-325; NUTS SHALL CONFORM TO ASTM A-363, GRADE A, HEX STYLE.
- 3.02 ALL HIGH STRENGTH BOLTS REQUIRE SPECIAL INSPECTION PER SECTION 1705 OF CALIFORNIA BUILDING CODE.
- 3.03 ANCHOR BOLTS SHALL CONFORM TO ASTM A-307 OR ASTM. F-1554, GRADE 36. THREADED ROOS USED FOR ANCHOR BOLTS SHALL CONFORM TO ASTM F-1554, GRADE 50.
- 3.04 STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING: PIPE COLUMNS SHALL CONFORM TO ASTM A-53, GRADE B (35 KS); WIDE FLANGE & WT SHALL CONFORM TO ASTM A-992, GRADE 50; ANGLES & CHANNELS SHALL CONFORM TO ASTM A-36.
- 3.05 THE USE OF ROLLED STEEL SECTION, BOLTS AND/OR REINFORCING BAR MANUFACTURED OUTSIDE THE UNITED STATES WILL REQUIRE VERIFICATION THAT THE PRODUCTS COMPLY WITH APPLICABLE ASTM STANDARDS. MILL CERTIFICATES WILL BE REQUIRED FOR ALL STEEL. STEEL GRADES OTHER THAN ASTM A-36 WILL REQUIRE TESTING BY AN APPROVED LABORATORY. THE BUILDING OFFICAL, PRIOR TO THEIR USE, MUST APPROVE ALL FOREIGN BOLTS.
- 3.06 STEEL FABRICATOR SHALL BE LICENSED AND CERTIFIED CITY OF LOS ANGELES AND WITH THE REGULATING BUILDING AND SAFETY DEPARTMENT.
- 3.07 ALL WELDS SHALL COMPLY WITH A.W.S. A5.1 AND A.W.S. D1.1, STRUCTURAL CODE. WELDING ELECTRODES SHALL BE A.W.S. E 70 XX, EXCEPT GRADE 60 REINFORCING BAR SHALL BE A.W.S. E 90 XX ELECTRODES.
- 3.08 ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH THE A.W.S. CODE D1.4 AND APPROVED BY THE REGULATING BUILDING OFFICAL.
- 3.09 STEEL FABRICATOR SHALL FURNISH TO ENGINEER SHOP DRAWINGS OF ALL STRUCTURAL STEEL TO BE FABRICATED FOR REVIEW AND APPROVAL PRIOR TO ORDERING ANY STEEL. FINAL APPROVED SHOP DRAWINGS MUST BE RECEIVED BY FABRICATOR PRIOR TO START OF FABRICATION, SUBJECTIVE TO SHOP CERTIFICATION.
- 3.10 SPECIAL INSPECTION FOR WELDING IS REQUIRED, EXCEPT UNDER THE SPECIFICATION OF CHAPTER 17 OF THE CALIFORNIA BUILDING CODE, THE LATEST EDITION AND BUILDING OFFICAL AUTHORITY.
- 3.11 A CERTIFICATE OF FABRICATION, FROM THE SHOP PERFORMING THE WELDING, MUST BE FURNISHED TO THE BUILDING AND SAFETY INSPECTOR PRIOR TO STEEL ERECTION APPROVAL.
- 3.12 ALL STEEL NOT EMBEDDED IN CONCRETE SHALL BE POWER TOOLED CLEAN AND RECEIVED ONE SHOP COAT OF PRIMER, SSPC PAINT 25.
- 3.13 STANDARD FINISH FOR ALL STEEL SHALL BE RED OXIDE PRIMER.
- 3.14 THE USE OF PRE-ENGINEERED STEEL BUILDINGS SHALL BE DESIGNED AND MANUFACTURED TO CURRENT BUILDING CODES. ACCREDITATION OF THE FABRICATION SHALL BE TO THE STANDARDS OF METAL BUILDING MANUFACTURERS ASSOCIATION (MBMA), AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), AND A CERTIFIED AND LICENSED SHOP FABRICATOR WITH CITY OF LOS ANGELES. WELDERS SHALL HOLD CERTIFICATION OF AMERICAN WELDING SOCIETY (AWS).

4.0 REINFORCING STEEL

- 4.01 ALL REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60 FOR NO. 4 BARS AND LARGER, ASTM A-615, GRADE 40 FOR NO. 3 AND SMALLER.
- 4.02 WOVEN WIRE MESH SHALL CONFORM TO ASTM A-185, AND LAPPED A MINIMUM 1½ SPACES OR A MINIMUM OF 12".
- 4.03 ALL REINFORCING STEEL SHALL BE SUPPORTED IN CONFORMANCE WITH THE MANUAL OF STANDARD PRACTICE.
- 4.04 ALL REINFORCING STEEL MARKED "CONTINUOUS" MAY BE SPLICED WITH A LAP OF 30 BAR DIAMETERS IN CONCRETE, 40 BAR DIAMETERS IN MASONRY, EXCEPT AS NOTED.
- 4.05 REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM COVER: FORMED SURFACES IN CONTACT WITH EARTH - 2 INCHES, FOOTINGS - 3 INCHES, WALLS (EXTERIOR FACE) - 1 1/2 INCHES, WALLS (INTERIOR FACE) - 1 INCH, SLAB - 3/4 INCH, PRECAST CONCRETE PANEL - 3/4 INCH.
- 4.06 DOWELS SHALL BE PROVIDED AT ALL POUR JOINTS AND SHALL BE THE SAME SIZE AND SPACING AS REINFORCING DIRECTLY BEYOND POUR JOINTS. MINIMUM LAP SHALL BE 30 BAR DIAMETERS (1'-3" MINIMUM) IN CONCRETE OR 40 BAR DIAMETERS (2'-0" MINIMUM) FOR MASONRY.
- 4.07 REINFORCING STEEL SHALL BE CLEAN OF MUD, OIL, OR OTHER NON-METALLIC COATING THAT WILL PROHIBIT PROPER BONDING OF CONCRETE TO STEEL.

5.0 LIGHT GAGE STEEL FRAMING

- 5.01 LOAD BEARING METAL STUDS AND JOISTS SHALL BE FORMED FROM STEEL HAVING A MINIMUM 33,000 PSI YIELD POINT (ASTM. A-446-83, GRADE A OR ASTM A-570-79, GRADE 33 OR ASTM A-611-82, GRADE C). STUDS OR JOISTS WITH A MINIMUM 40,000 PSI YIELD POINT (ASTM A-446-83, GRADE C) OR A MINIMUM 50,000 PSI YIELD POINT (ASTM A-446-83, GRADE D).
- 5.02 NONBEARING METAL STUDS AND TRACK SHALL BE COLD FORMED STEEL COMPLYING WITH ASTM A-366-91, ASTM A-446-91, GRADE A OR ASTM A-568-92 AND ASTM A-611-91 OR OTHER STEEL IN COMPLIANCE WITH C.B.C. STANDARD NO. 22-9, SECTION A 3.2. STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 33,000 PSI. STEEL STUDS, TRACKS, AND ACCESSORIES ARE GALVANIZED IN COMPLIANCE WITH ASTM A-925.
- 5.03 MATERIAL IDENTIFICATION, SIZES, AND PROPERTIES ARE BASED ON THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA.COM) PRODUCT TECHNICAL INFORMATION BOOK (ICC ER-4943P).
- 5.04 SUB-STRUCTURAL COMPONENTS SUCH AS PURLINS AND GIRTS SHALL BE HIGH-STRENGTH HOT ROLLED MATERIAL AS PER ASTM A-1011, GRADE 55 (57,000 PSI MINIMUM YIELD STRENGTH) STEEL.
- 5.05 GALVANIZED (G-90) AS PER ASTM A-653 SHALL BE THE TYPICAL FINISH.

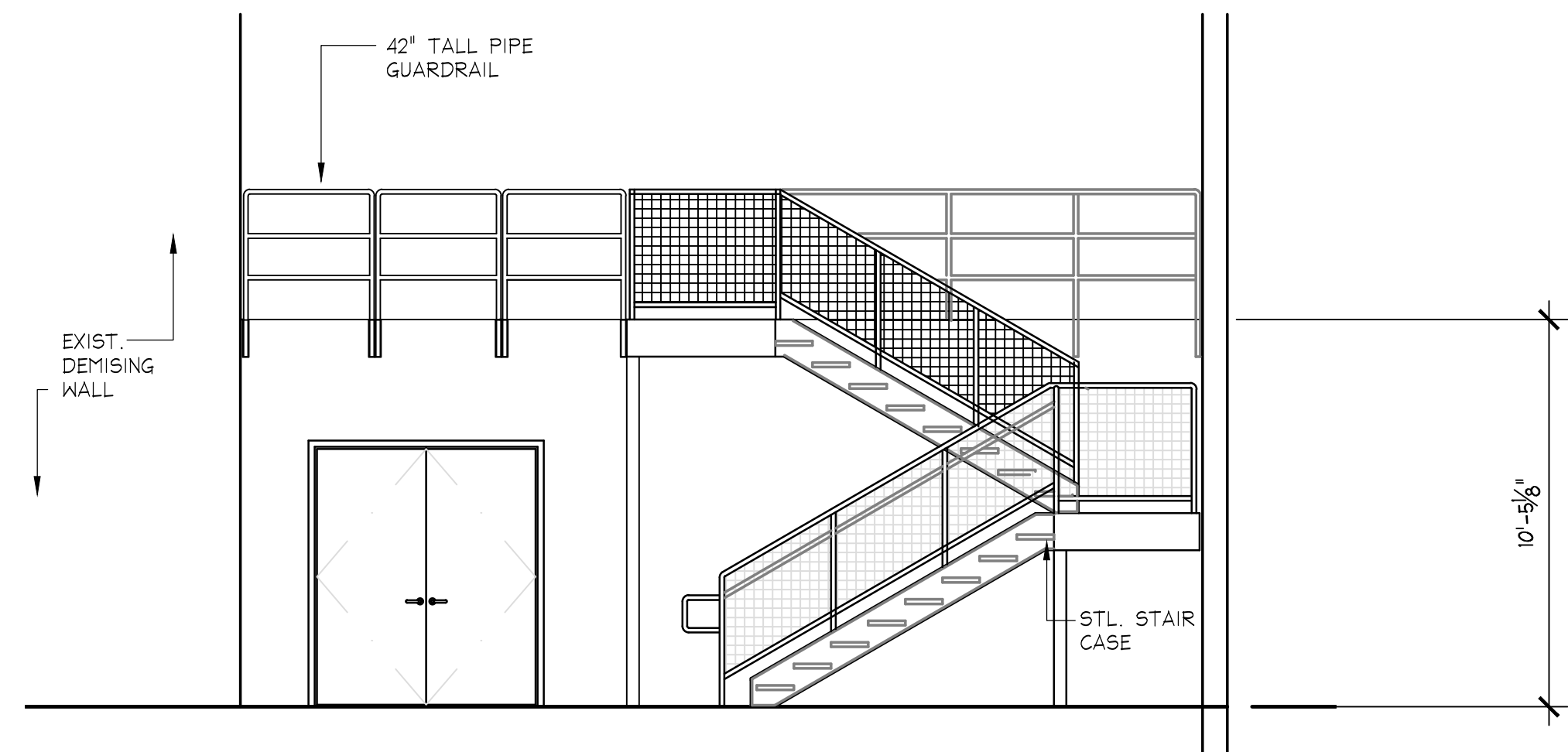
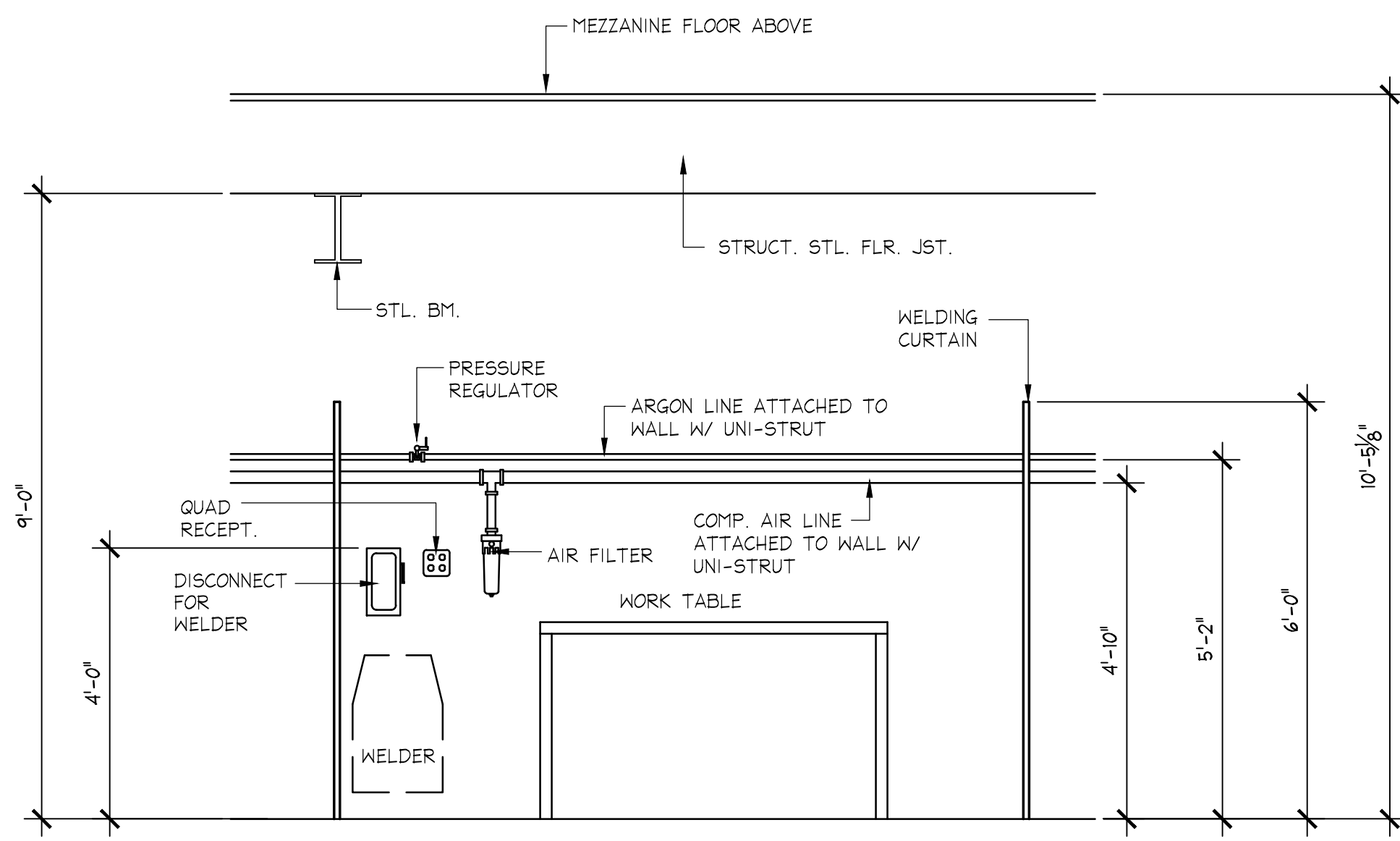
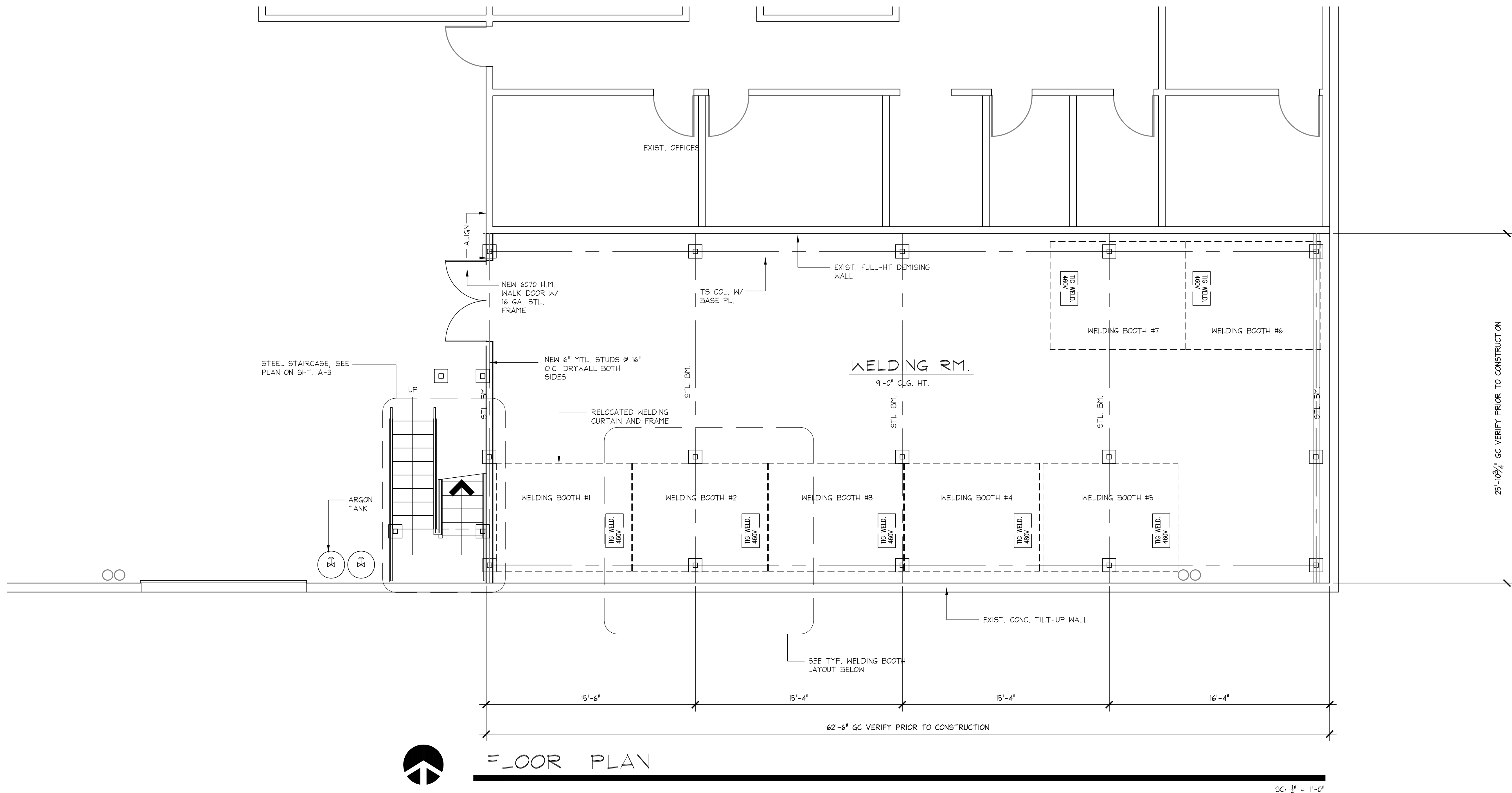
6.0 WOOD

- 6.01 ALL LUMBER SHALL BE WEST COAST DOUGLAS FIR OF THE FOLLOWING GRADE, UNLESS OTHERWISE NOTED: BEAMS & HEADERS - DENSE NO. 1. HORIZONTAL JOISTS, STUDS, & BLOCKING - NO. 2.
- 6.02 0.229 IN. x 3 IN. x 3 IN. PLATE WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS THAT WOULD OTHERWISE BEAR ON WOOD SURFACES.
- 6.03 ALL LUMBER SHALL BE STAMPED WITH A GRADE MARK OF THE WEST COAST LUMBER BUREAU.
- 6.04 ALL PLYWOOD SHALL CONFORM TO THE AMERICAN PLYWOOD ASSOCIATION PRODUCT STANDARD PSI-74, STRUCTURAL I, UNLESS OTHERWISE NOTED. ALL PLYWOOD SHALL BE EXTERIOR GLUED.
- 6.05 FRAMING CONNECTIONS SHALL BE SIMPSON "STRONG-TIE" BY SIMPSON COMPANY OR MAY BE SUBSTITUTED BY APPROVAL BY ENGINEER AND BUILDING DEPARTMENT
- 6.06 BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT SIZE. RE-TIGHTEN ALL NUT PRIOR TO CLOSING WALL.
- 6.07 ALL WOOD IN CONTACT WITH FLOOR SLAB SHALL BE "WOLMANIZED CCA" PER STANDARDS FOR PRESERVATIVE TREATED WOOD.
- 6.08 APPROVED CROSS-BRIDGING OR SOLID BLOCKING ALL BE SPACED AS FOLLOWS:
a. RAFTERS MORE THAN 8" DEEP - 10'-0" O.C. MAXIMUM
b. RAFTERS LESS THAN 8" DEEP - 8'-0" O.C. MAXIMUM
- 6.09 GLUE LAMINATED BEAMS SHALL BE INDIVIDUALLY WRAPPED IN MOISTURE RESISTANT PAPER AT PLANT, MAINTAIN WRAPPING FREE OF TEARS OR BREAKS UNTIL READY TO INSTALL.
- 6.10 LUMBER FOR GLUE LAMINATED BEAMS SHALL BE DOUGLAS FIR S4S, GRADED IN ACCORDANCE WITH C.B.C. COMBINATION "A", 2400F, WOLB STANDARD SPECIFICATIONS HAVING UNIFORM MOISTURE CONTENT NOT LESS THAN 7% NOR MORE THAN 12%. MAKE SURFACE TO BE GLUED AS SMOOTH AS POSSIBLE WITHOUT SANDING TO A UNIFORM THICKNESS WITH A MAXIMUM VARIATION OF 1/64th OF AN INCH, AND CLEAN AND FREE OF DUST OIL AND ANY OTHER SUBSTANCES DETRIMENTAL TO BOND. FURNISH A.I.T.C. INSPECTION CERTIFICATES.
- 6.11 GLUE SHALL BE IN ACCORDANCE WITH GLUE MANUFACTURER'S SPECIFICATION.
- 6.12 ENDS OF GLUE LAMINATED BEAMS SHALL BE SEALED. ADEQUATE PROTECTION FROM MOISTURE SHALL BE PROVIDED AT ALL TIMES PRIOR TO THE CLOSING OF THE BUILDING.
- 6.13 PROVIDE STANDARD CAMBERS, EXCEPT AS NOTED ON THE DRAWINGS.
- 6.14 SHOP DRAWINGS FOR GLUE LAMINATED BEAMS AND THE DATE OF MANUFACTURER SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING OF BEAMS.
- 6.15 WOOD DIAPHRAGM NAILING MUST BE INSPECTED AND APPROVED PRIOR TO APPLYING ROOF COVERING.
- 6.16 DO NOT NOTCH JOISTS, RAFTERS, OR BEAMS WITHOUT THE APPROVAL OF THE ENGINEER.
- 6.17 PLANS, DETAILS, AND CALCULATIONS SHALL BE REVIEWED BY THE JOB ARCHITECT/ENGINEER PRIOR TO SUBMITTAL TO THE CITY FOR APPROVAL.
- 6.18 TRUSS FABRICATOR SHALL SUBMIT, NAME, AND PHONE NUMBER OF THE AGENCY INSPECTING THE SHOP OPERATIONS.
- 6.19 CALCULATIONS AND DETAILS ARE TO BE PREPARED AND SIGNED BY A REGISTERED ARCHITECT/ENGINEER.
- 6.20 TRUSS MANUFACTURER SHALL PROVIDE A TRUSS PLACEMENT DIAGRAM THAT IDENTIFIES THE PROPOSED LOCATION FOR EACH INDIVIDUALLY DESIGNATED TRUSS AND REFERENCES THE CORRESPONDING TRUSS DESIGN DRAWINGS (TO BE INCLUDED IN THE SUBMITTAL PACKAGE AND WITH THE SHIPMENT OF TRUSSES).
- 6.21 EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED, OR OTHERWISE PERMANENTLY AFFIXED THERE TO THE FOLLOWING INFORMATION WITHIN TWO FEET OF THE CENTER OF THE BOTTOM CHORD.

7.0 SPECIAL INSPECTION AND STRUCTRAL OBSERVATION

- 7.01 SPECIAL INSPECTION BY A REGISTERED DEPUTY MUST BE PERFORMED FOR THE FOLLOWING:
a. CONCRETE WORK THAT INVOLVES CONCRETE COMPRESSIVE STRENGTH GREATER THAN 2,500 PSI.
b. CONCRETE FOUNDATIONS DESIGNATED FOR GRADE BEAMS AND PILE AND PIER FOOTINGS.
c. ALL WELDING, EXCEPT WELDING DONE IN APPROVED FABRICATOR'S SHOP, ONLY PERIODIC INSPECTION IS REQUIRED FOR SINGLE PASS FILLET WELD LESS THAN 5/8". FLOOR AND ROOF DECK WELDS, WELDED STUDS ON A METAL DECK, STEEL STAIRS AND RAILS.
d. POSTS INSTALLED IN CONCRETE OR MASONRY WITH CHEMICAL OR MECHANICAL FASTENERS.
e. MASONRY STRUCTURES INCLUDING RETAINING WALLS
f. PERIODIC INSPECTION FOR PLYWOOD DIAPHRAGMS, VERTICAL OR HORIZONTAL, WITH NAILING GREATER THAN 4" O.C. OR DOUBLE SIDED SHEAR WALLS.
g. PERIODIC INSPECTION FOR ENGINEERED STRUCTURAL SHEAR WALL SYSTEMS. REFER TO CBC VOL. II, SECTION 1704 FOR ADDITIONAL REQUIREMENTS.
- 7.02 SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICAL. THE SPECIAL INSPECTOR SHALL OBSERVED THE REQUIRED WORK ASSIGNED IN CONFORMANCE WITH DESIGN AND CALCULATIONS OF APPROVED PLANS. THE INSPECTOR SHALL PROVIDE A COPY OF THE INSPECTION FOR BOTH CONTRACTOR AND BUILDING INSPECTOR. A COPY OF INSPECTION SHALL ALSO BE PROVIDED TO OWNER. SPECIAL INSPECTION SHALL BE PERFORMED PRIOR TO BUILDING INSPECTOR COMING OUT.
- 7.03 STRUCTURAL OBSERVATION SHALL BE PERFORMED BY DESIGN ENGINEER OR REGISTERED ENGINEER WITH THE CAPACITY AND KNOWLEDGE TO PERFORM SUCH WORK. STRUCTURAL OBSERVATION REQUIRED BY REGULATING AGENCY AND IS NOT LIMITED TO THE FOLLOWING:
a. FOUNDATIONS - FOOTINGS, STEM WALLS, MAT SLAB, CAISSONS, PILES, GRADE BEAMS, RETAINING FOUNDATIONS, AND HILLSIDE ANCHORS
b. WALLS - REINFORCED CONCRETE, REINFORCED MASONRY, AND WOOD FRAMED
c. FRAMES - STEEL MOMENT, STEEL BRACED, CONCRETE MOMENT, AND MASONRY MOMENT
d. FLOORS - REINFORCED CONCRETE, STEEL DECK, STRUCTURAL WOOD DECK
- 7.04 STRUCTURAL OBSERVATION REPORT SHALL BE FILLED OUT AT TIME OF OBSERVATION. A COPY OF REPORT SHALL BE GIVEN TO CONTRACTOR AND BUILDING INSPECTOR.

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<div>CEI+B</div> <div>CHALLMAN ENGINEERING INC-CEI BUILD INC A DESIGN-BUILD COMPANY</div> <div>41758 12TH STREET W, SUITE A PALMDALE, CA 93551 TEL (661) 524-0911 ~ EMAIL: CEI@CEIENGR.COM WEBSITE: WWW.CEIENGR.COM</div> <div>SEAL</div> <div>04/09/18</div> <div>75% REVIEW SET</div> <div>REVISION</div> <div>DATE</div> <div>08-25-17</div> <div>PROJECT AERO BENDING COMPANY WELDING ROOM</div> <div>APN: 3003-080-071 560 Auto Center Dr. Palmdale, CA</div> <div>SHEET TITLE</div> <div>GENERAL NOTES</div> <div>CONSULTANTS</div> <div>PLAN CHECK NO. -</div> <div>DRAWN: WLC</div> <div>CHECKED: WLC</div> <div>SCALE: AS NOTED</div> <div>DATE: 02/02/18</div> <div>JOB NO: 1B-50B</div> <div>SHEET NO: G-1</div> <div>DOCUMENT NOTICE: THESE PLANS AND ANY ATTACHED DOCUMENTS ARE THE WORK AND PROPERTY OF CHALLMAN ENGINEERING, INC. (THE COMPANY). THE DUPLICATION AND USE OF THESE DOCUMENTS SHALL BE DONE ONLY BY AGREEMENT AND WRITTEN CONSENT BY THE COMPANY AND SHALL BE PURSUANT TO APPLICABLE LAWS. ANY ALTERATION OF THESE DOCUMENTS SHALL VOID THEIR USE IF IT IS DONE WITHOUT PERMISSION FROM THE COMPANY.</div>			



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SEAL

04/09/18

ISSUE DATE

REVISION DATE

PROJECT
**AERO BENDING
COMPANY**
WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
Palmdale, CA

SHEET TITLE
**FLOOR PLAN &
ELEVATIONS**

CONSULTANTS

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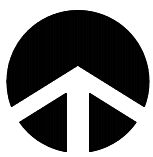
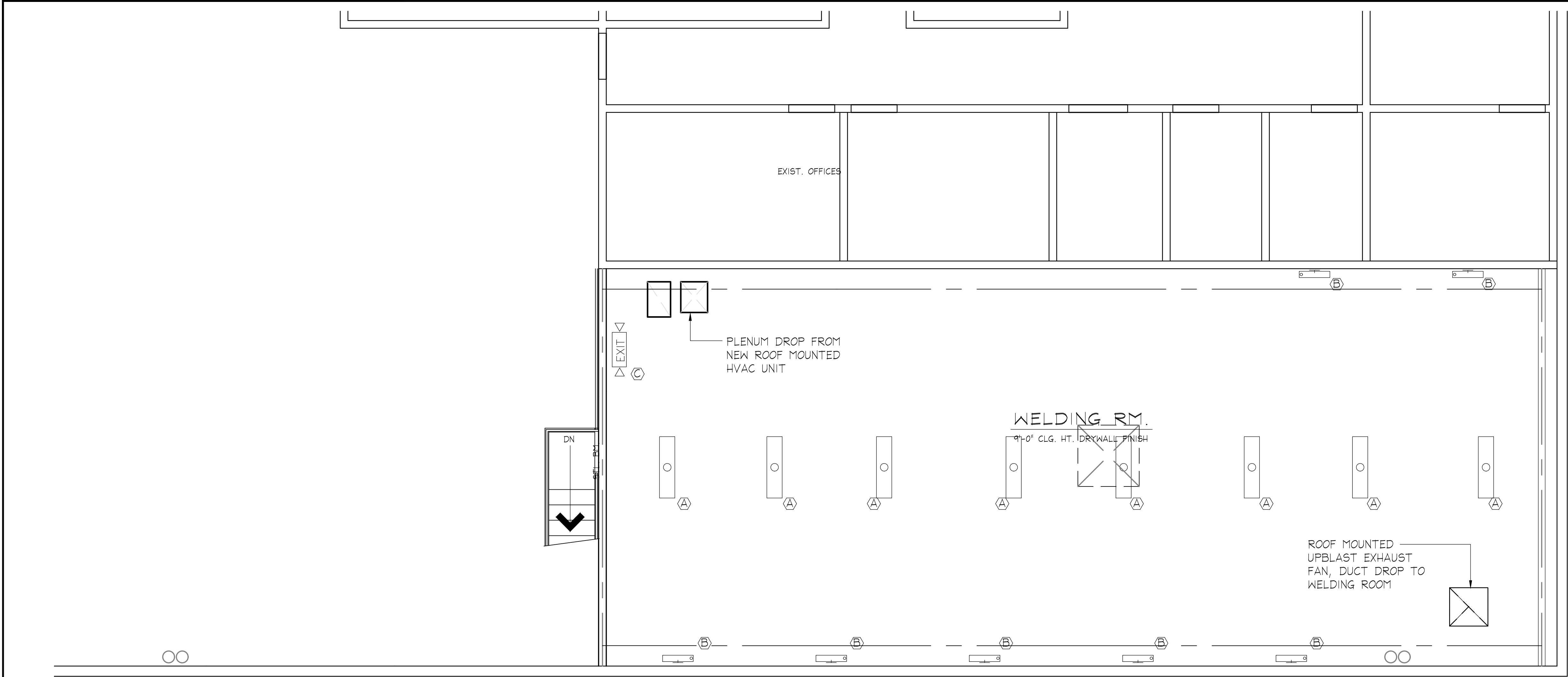
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DATE **02/02/18**


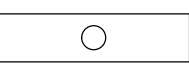

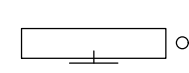
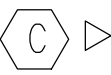

JOB NO. **18-508**

A-1



REFLECTIVE CEILING PLAN

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

LIGHT FIXTURE SCHEDULE				
SYMBOL	TYPE	MANUFACTURER MODEL No.	LAMP	PROVIDED BY
 	LED SURFACED 1'x4' ACRYLIC LENS	LITHONIA LIGHTING T SERIES SURFACE MOUNT TLX4 40L FW A12 MVOLT EZ1 LP840	39W 4000K	CONTRACTOR
 	2' LED WALL MT. ACRYLIC LENS	LITHONIA LIGHTING W SERIES WL2 12L MVOLT EZB LP840 MSD7	12W 4000K	CONTRACTOR
 	CEILING MOUNTED INTEGRATED EXIT/UNIT COMBO LED	LITHONIA LIGHTING ECR LED M6 3W, 120V, 6" HIGH RED LETTERS	1.5W OUTPUT	CONTRACTOR

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PROJECT

AERO BENDING
COMPANY
WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
Palmdale, CA

SHEET TITLE

REFLECTIVE
CEILING PLAN

CONSULTANTS

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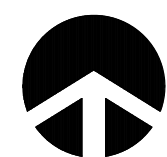
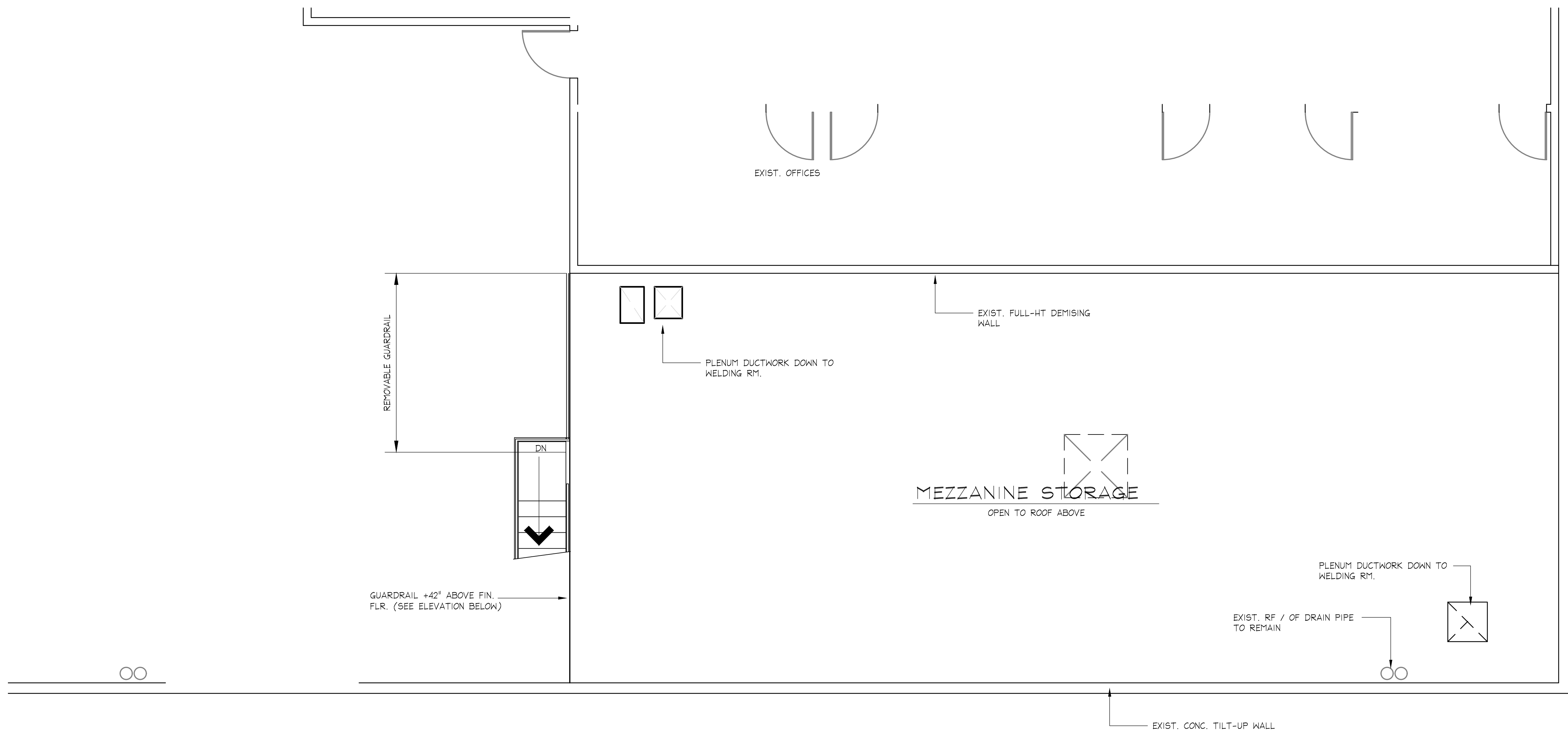
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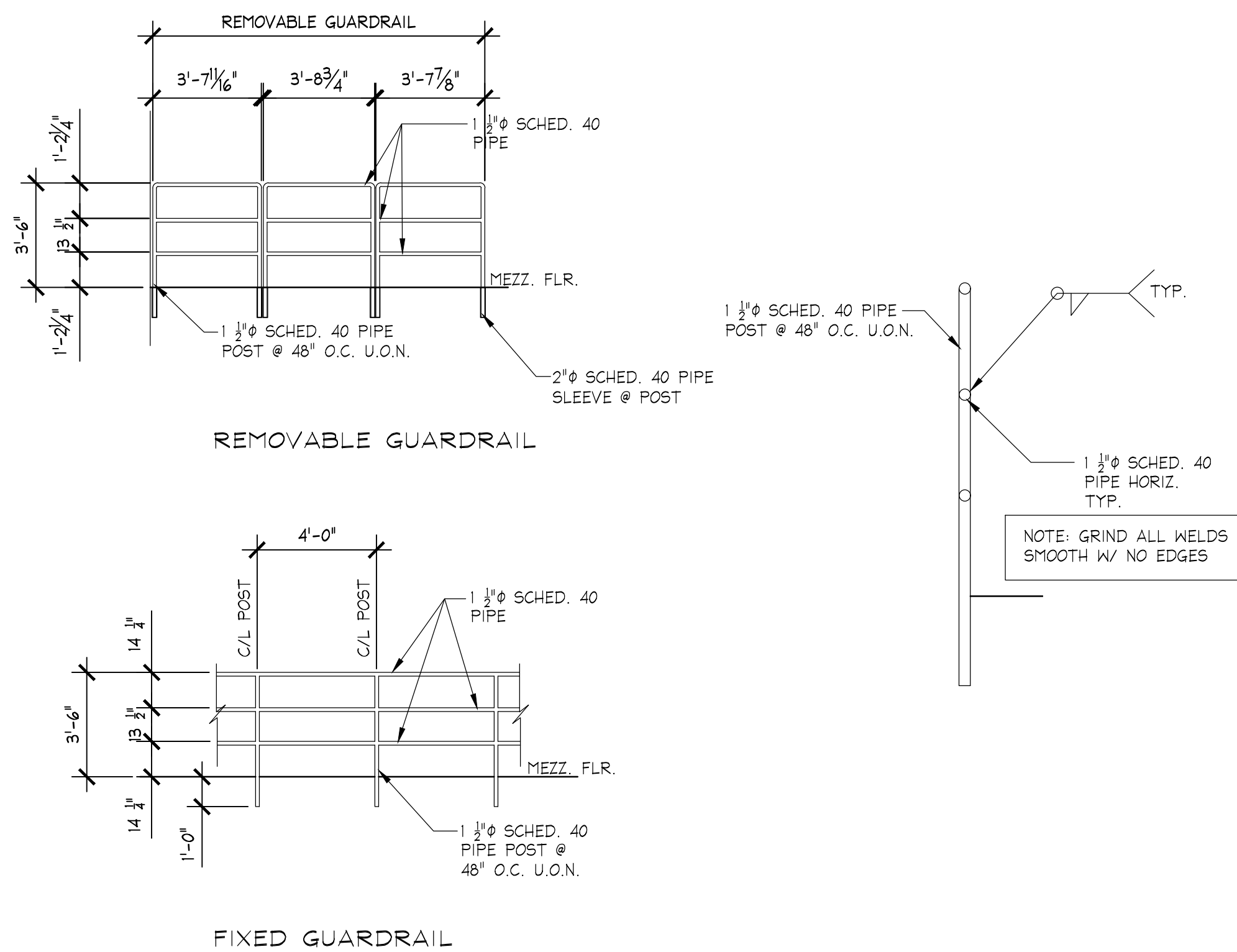
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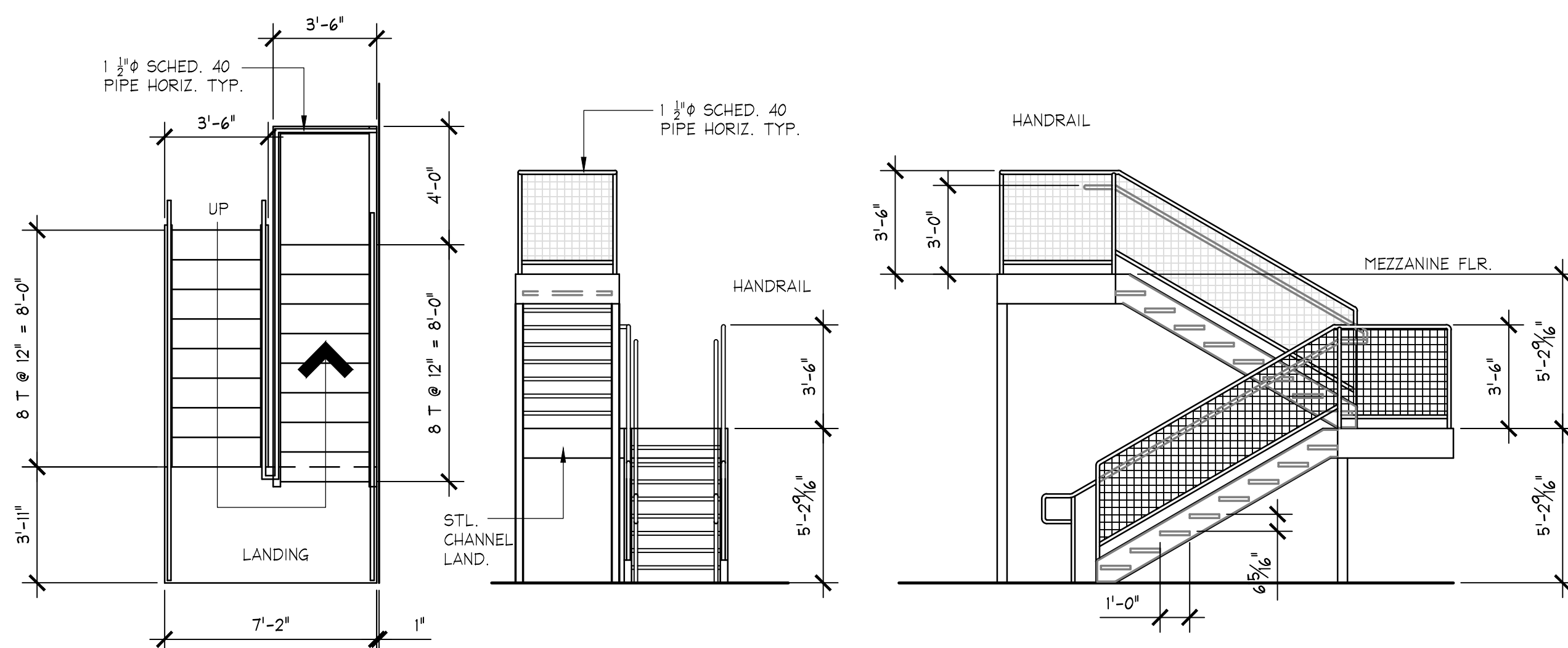
MEZZANINE FLOOR PLAN

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



GUARDRAIL DETAIL

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



STAIRWAY PLAN / ELEVATION

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

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PROJECT

AERO BENDING COMPANY

WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
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MEZZANINE FLOOR PLAN & GUARDRAIL / STAIR PLAN

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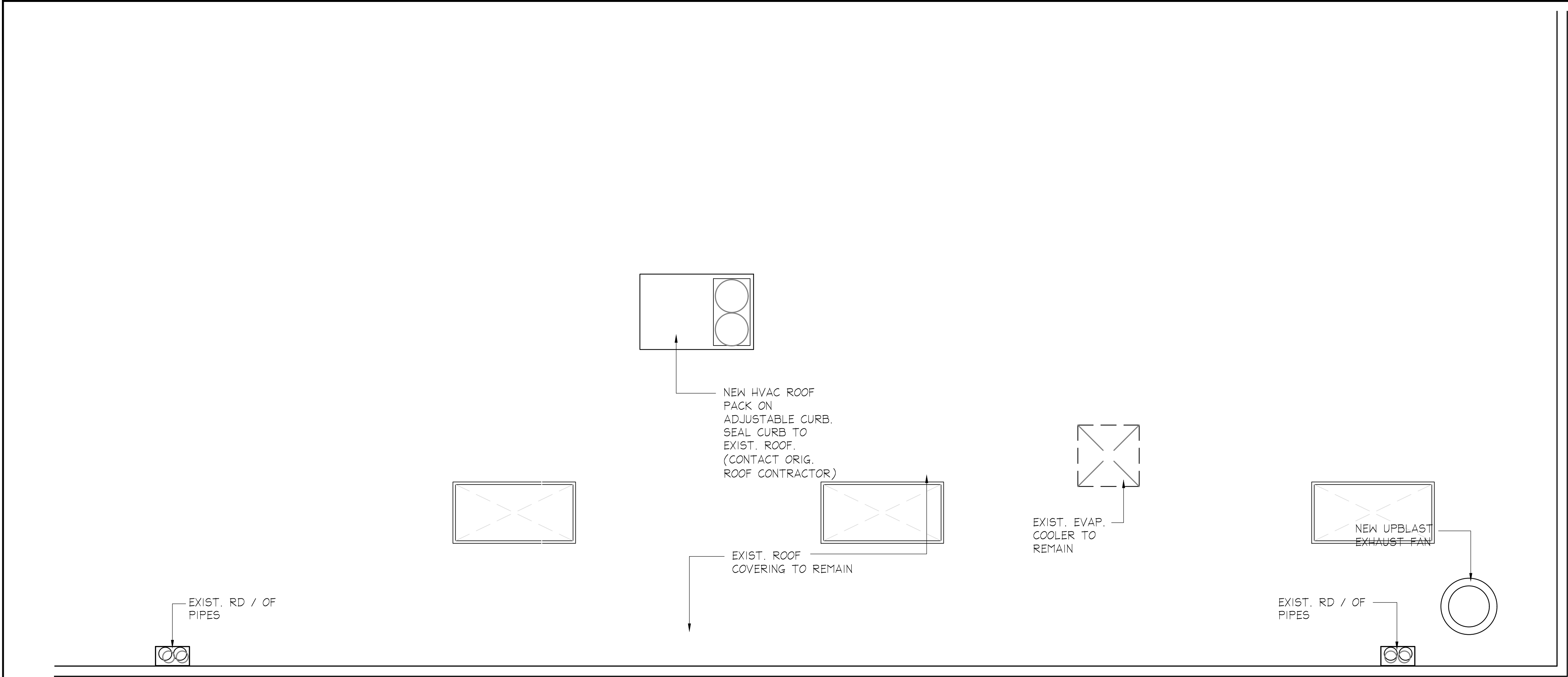
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DATE	JOB NO.
02/02/18	18-508



 ROOF PLAN

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

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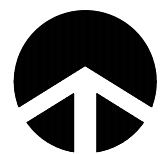
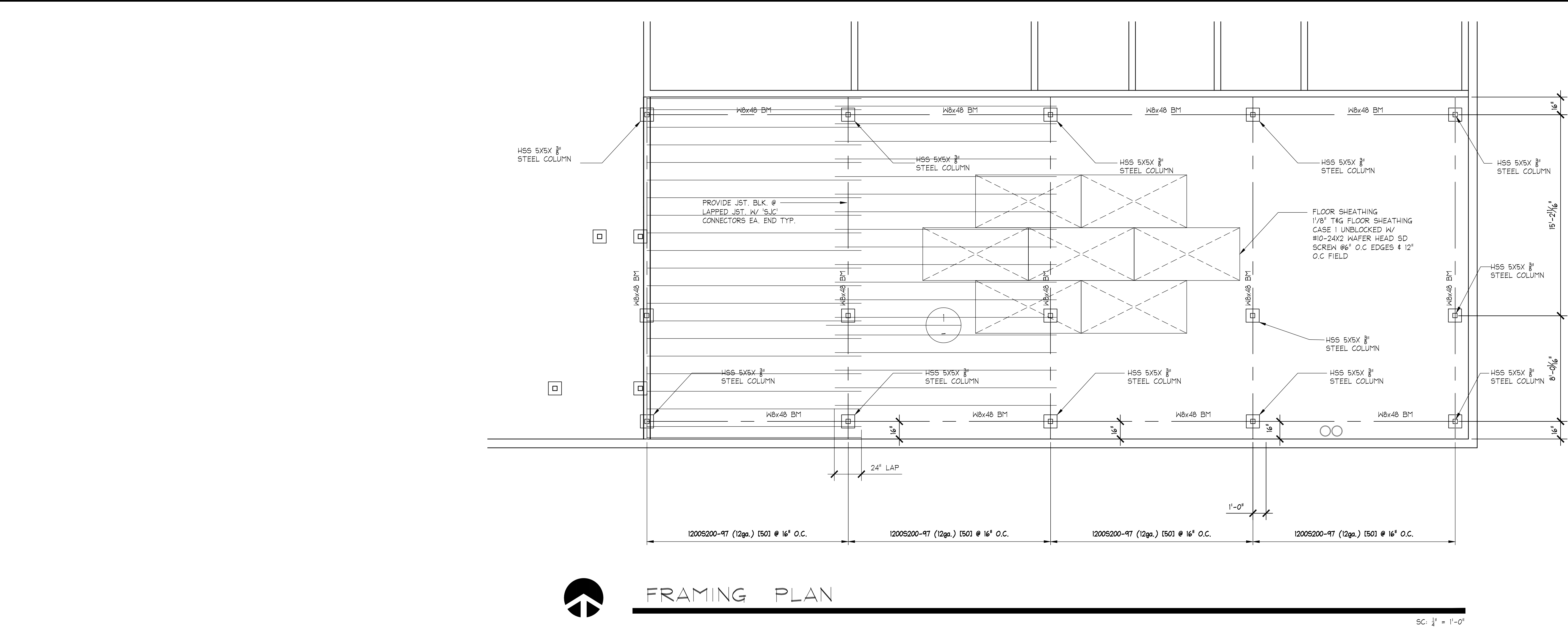
ROOF PLAN

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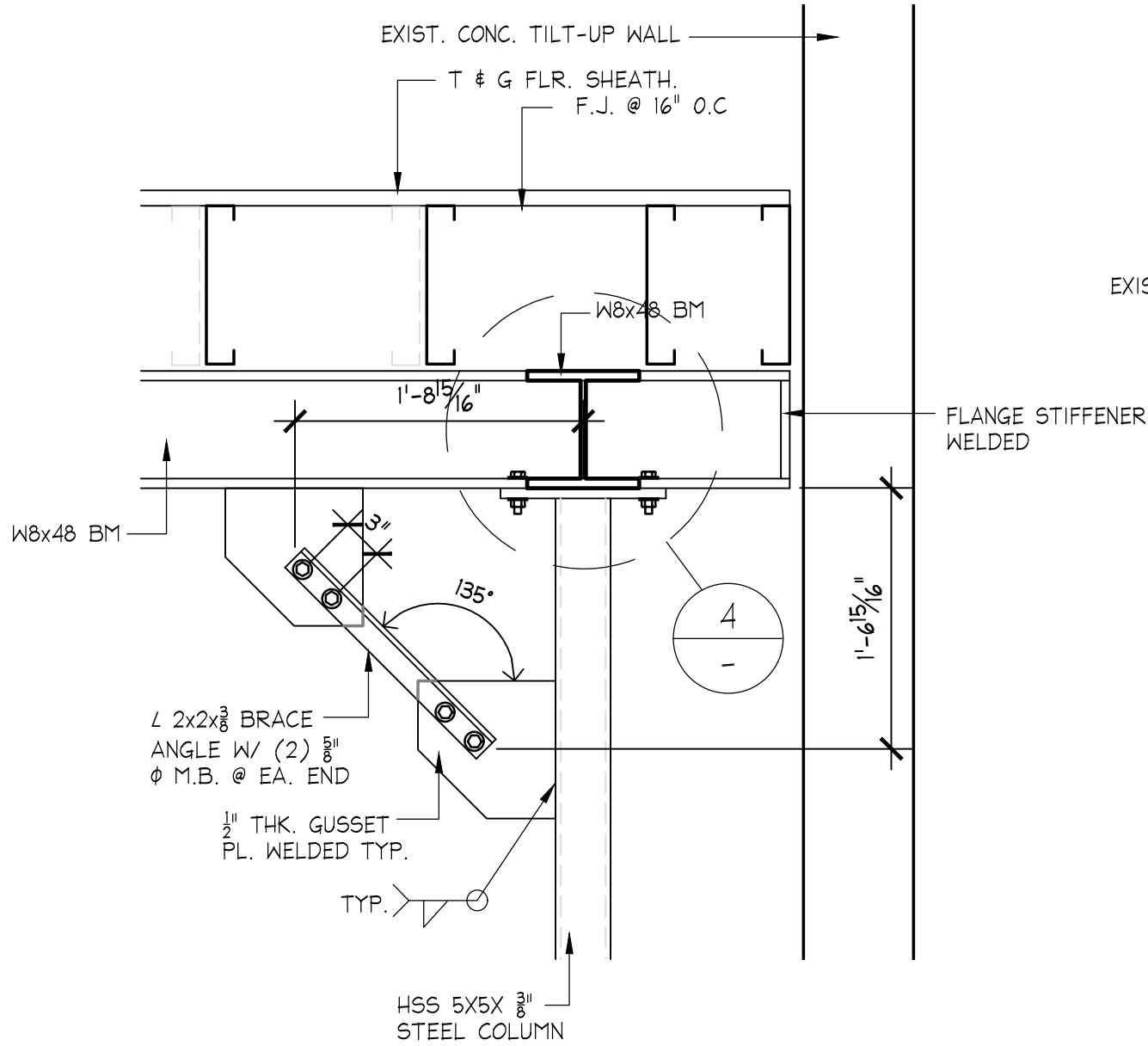
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SCALE	AS NOTED		SHEET NO.
DATE	02/02/18		A-4
JOB NO.	18-508		



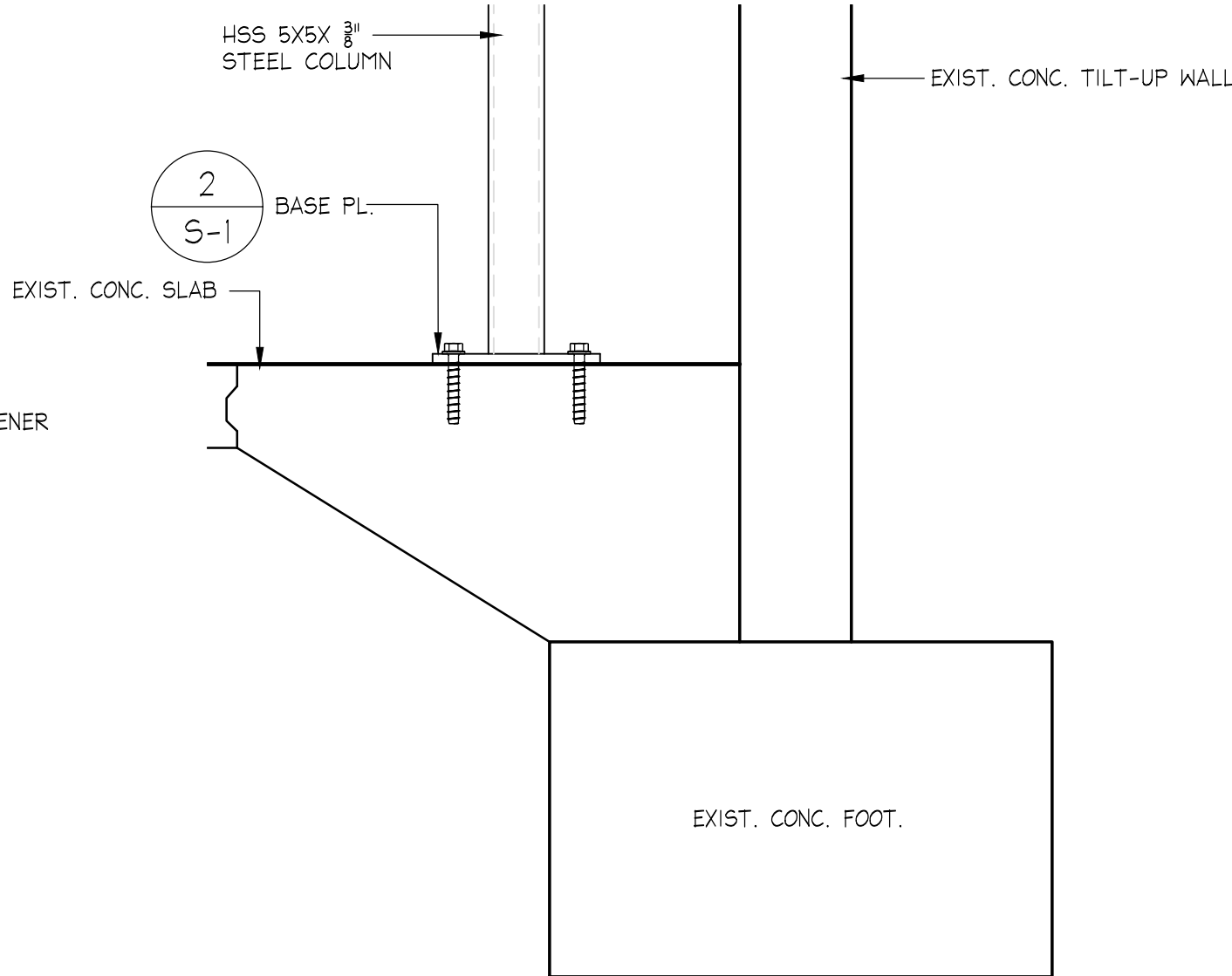
FRAMING PLAN

SC: 1" = 1'-0"



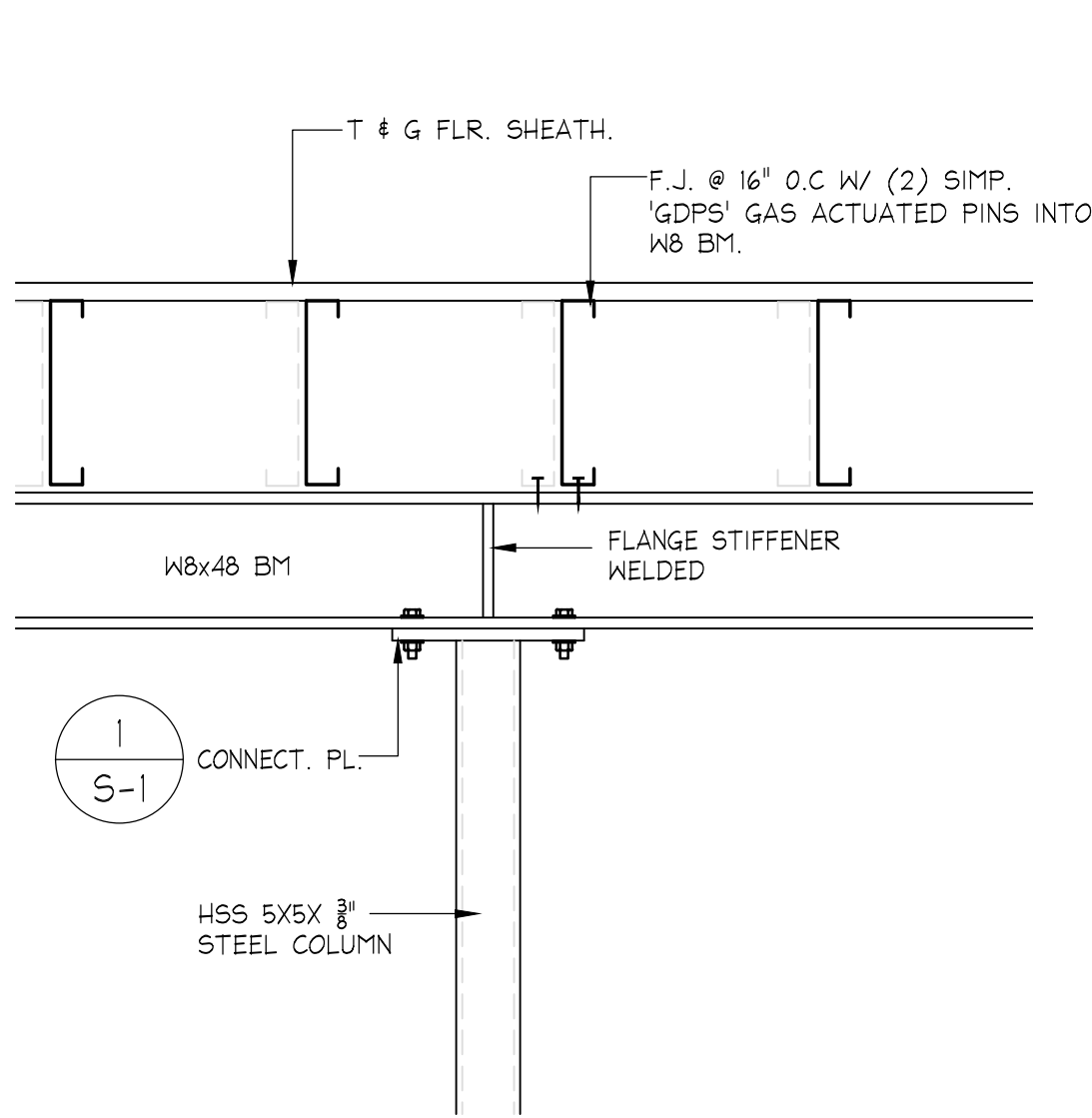
① COLUMN CONNECTION

SC: 1" = 1'-0"



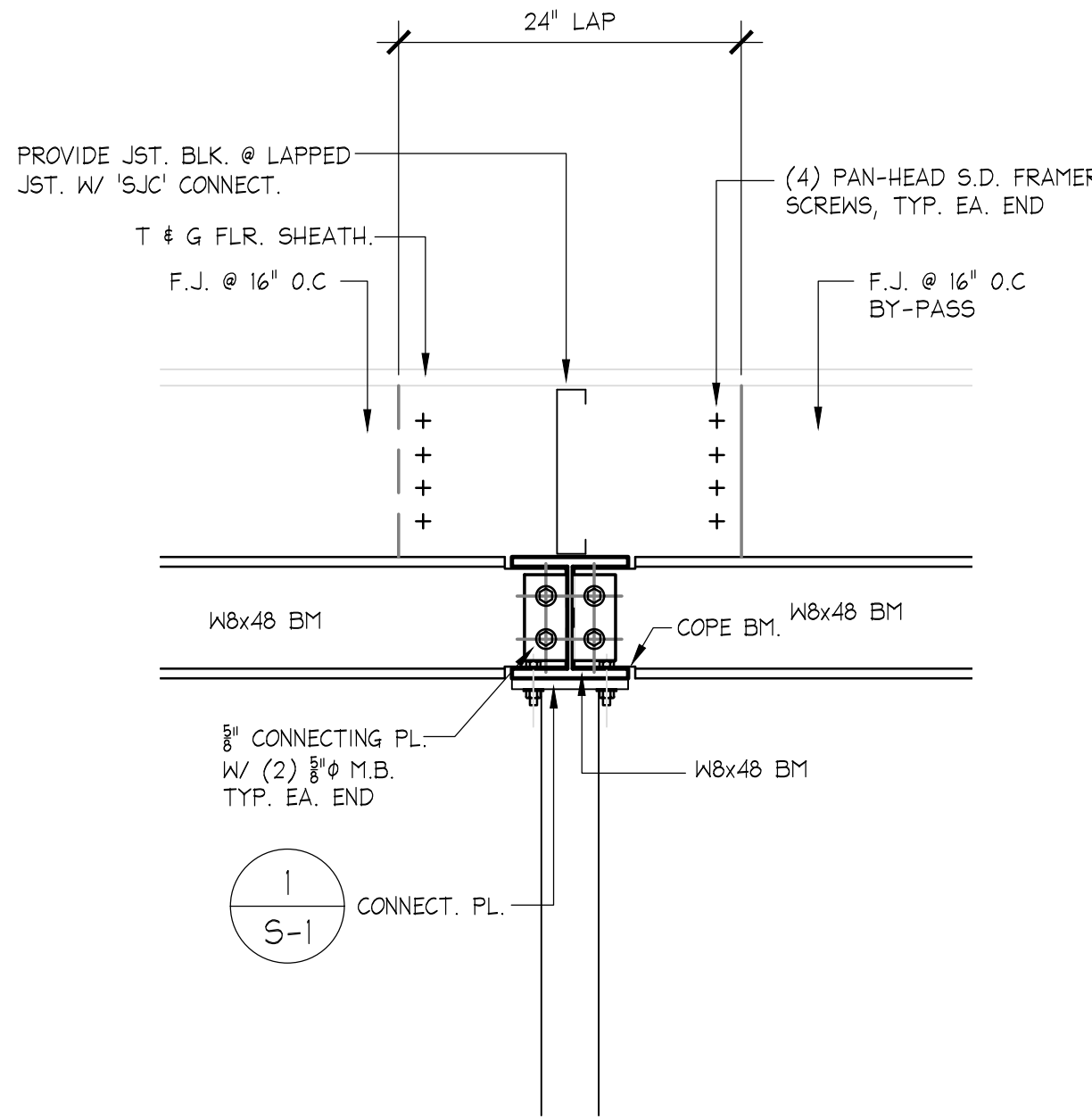
② COLUMN CONNECTION

SC: 1" = 1'-0"



③ F.J. CONNECTION

SC: 1" = 1'-0"



④ COLUMN CONNECTION

SC: 1" = 1'-0"

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WEBSITE: WWW.CEIENGR.COM

SEAL

04/09/18

ISSUE	DATE

REVISION	DATE
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PROJECT

AERO BENDING COMPANY

WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
Palmdale, CA

SHEET TITLE

FRAMING PLAN &
DETAILS

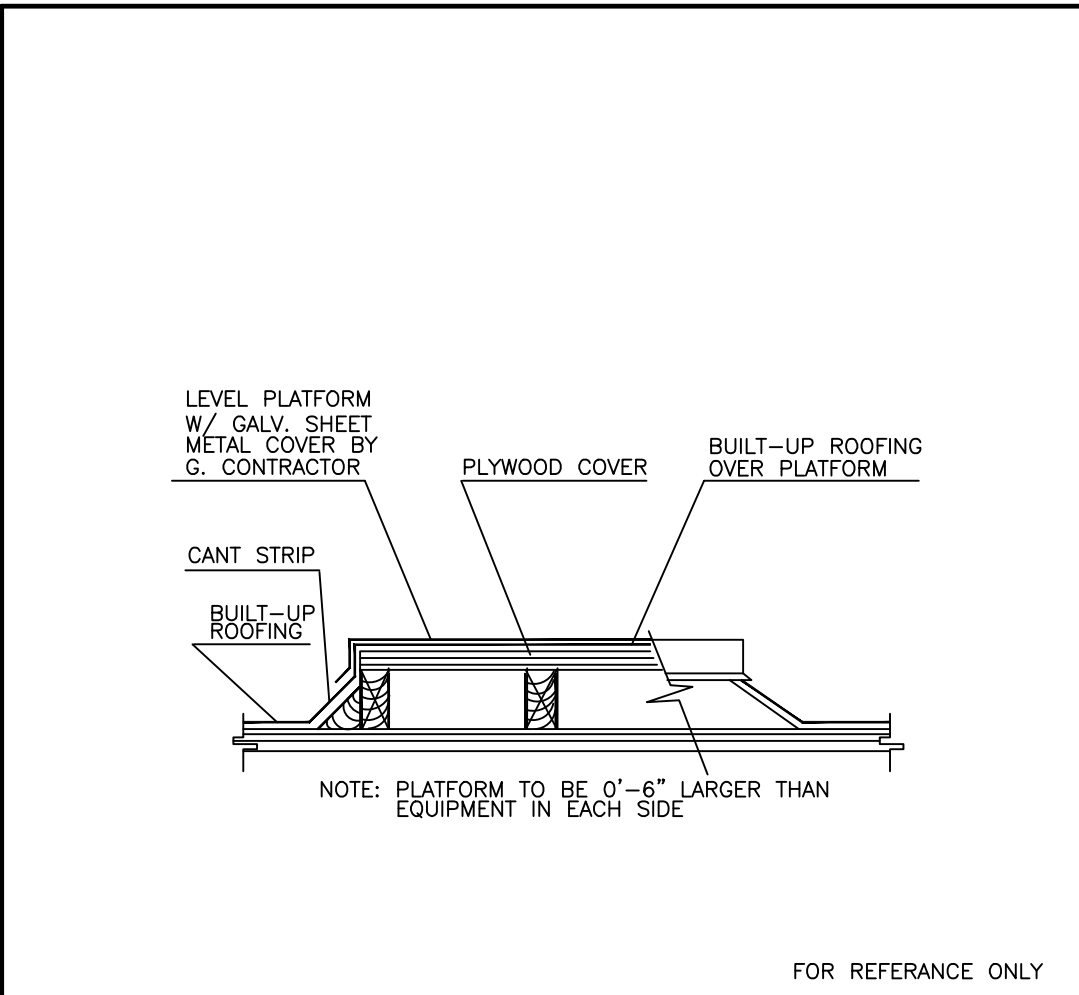
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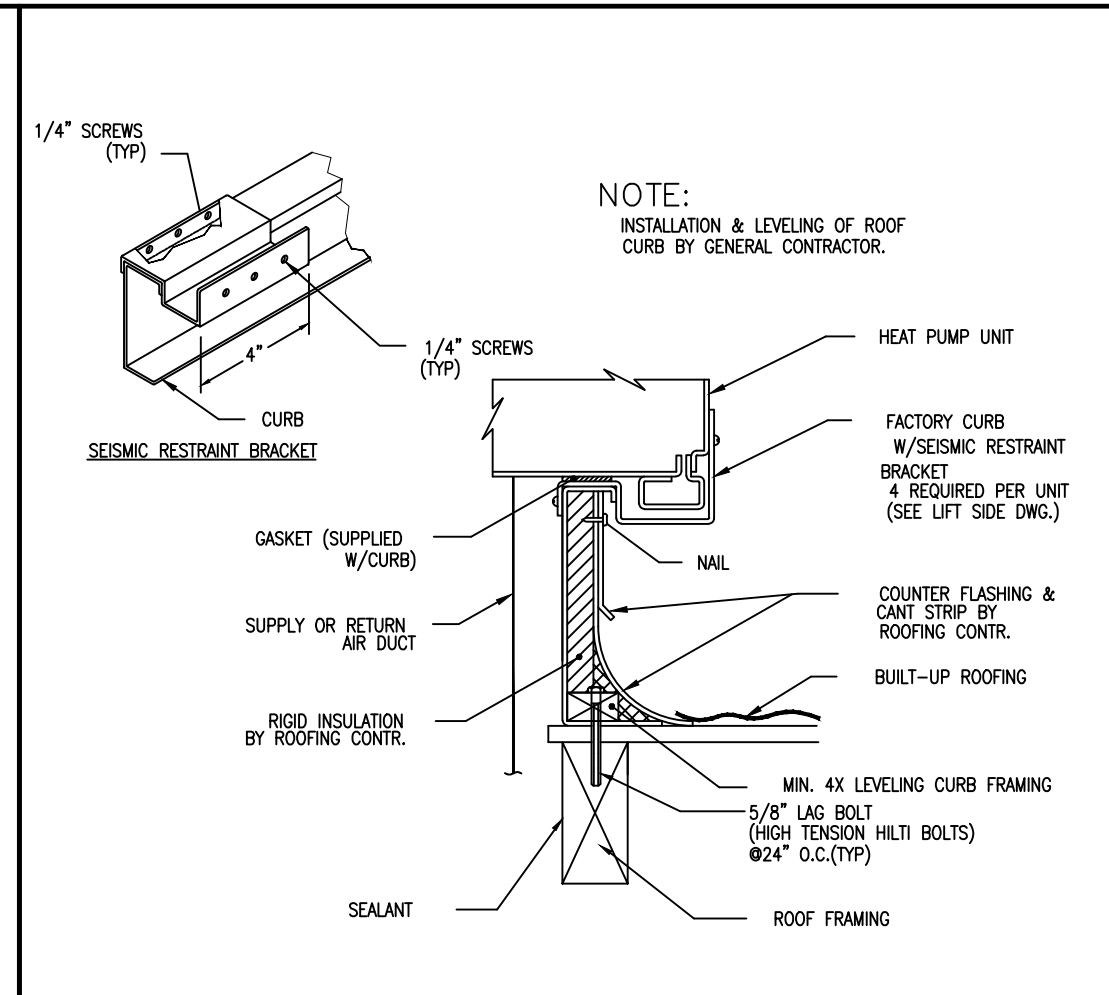
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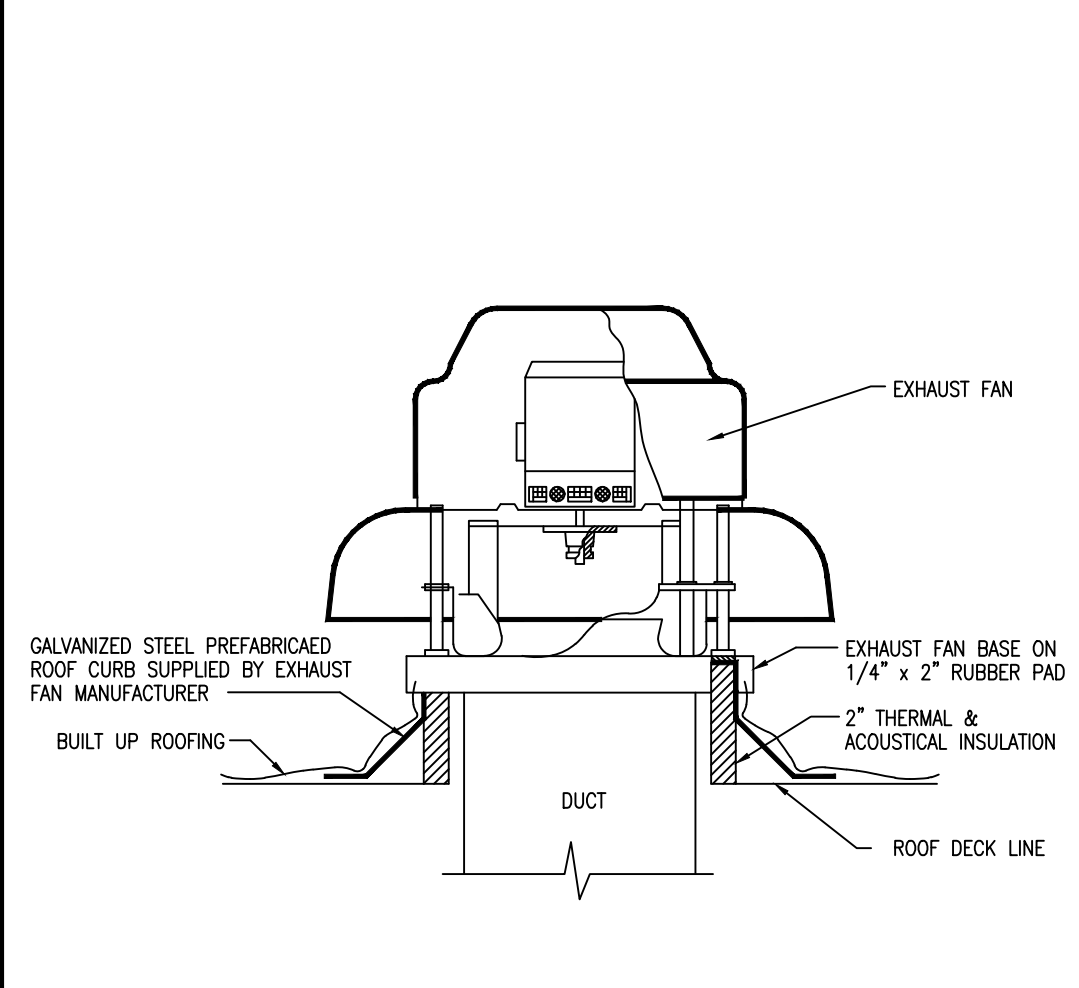
SHEET NO. **S-2**



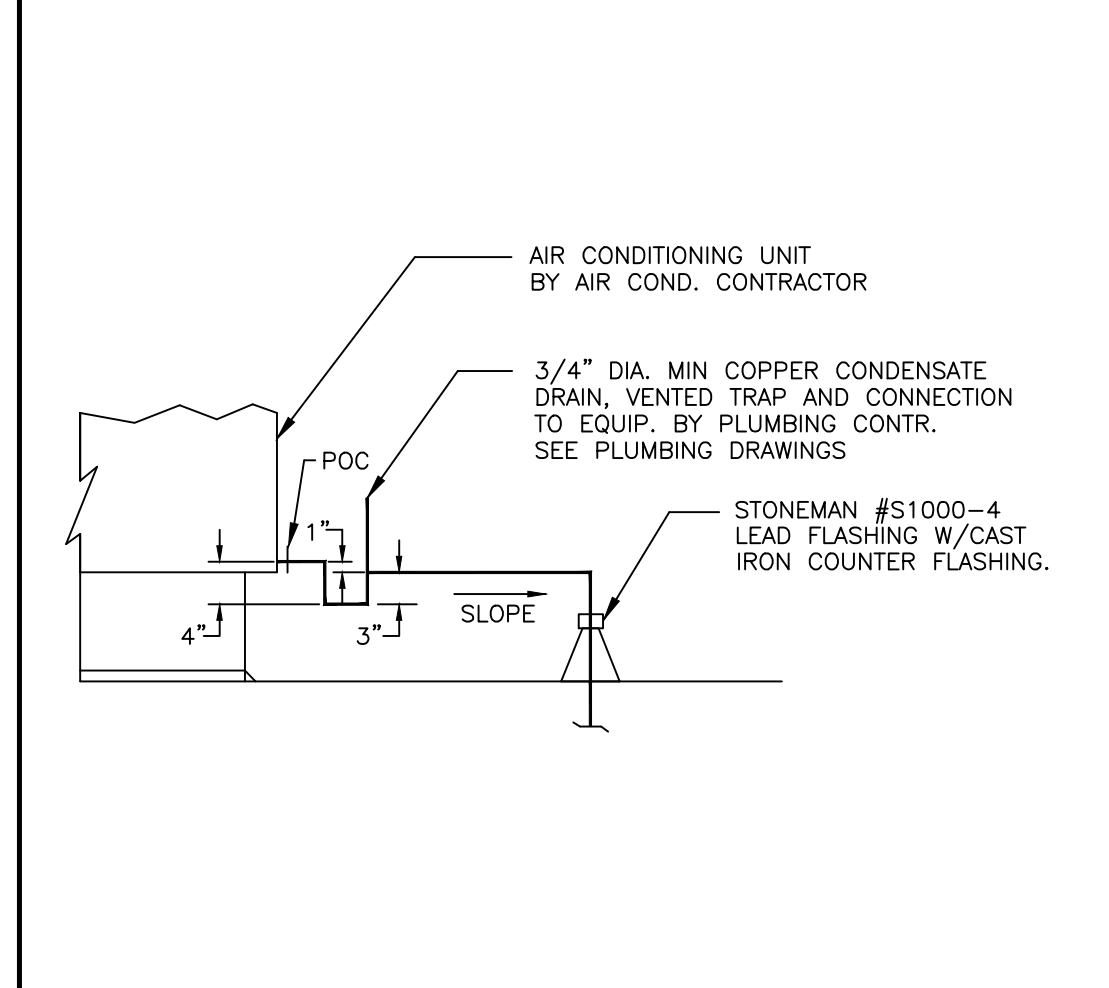
ROOF EQUIPMENT PLATFORM



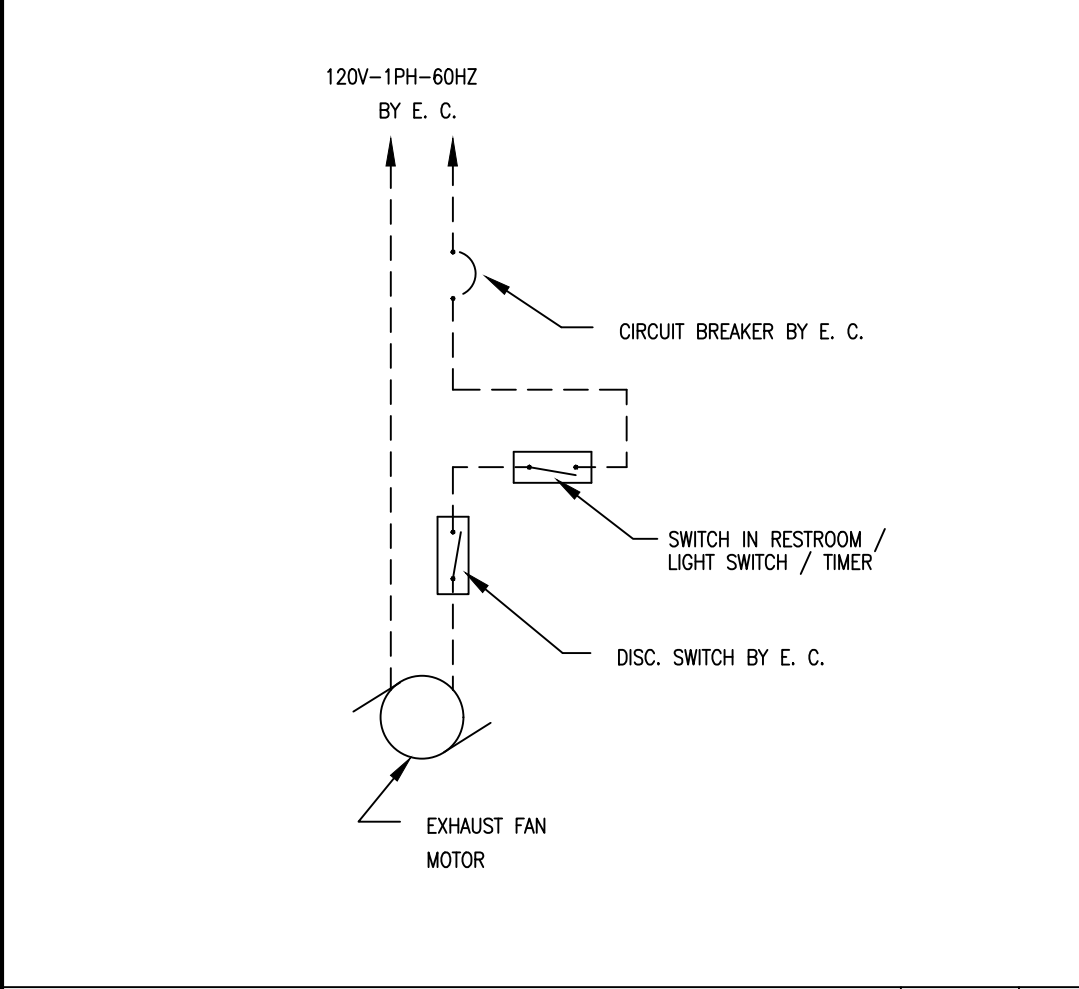
SEISMIC A/C CURB SUPPORT DETAIL



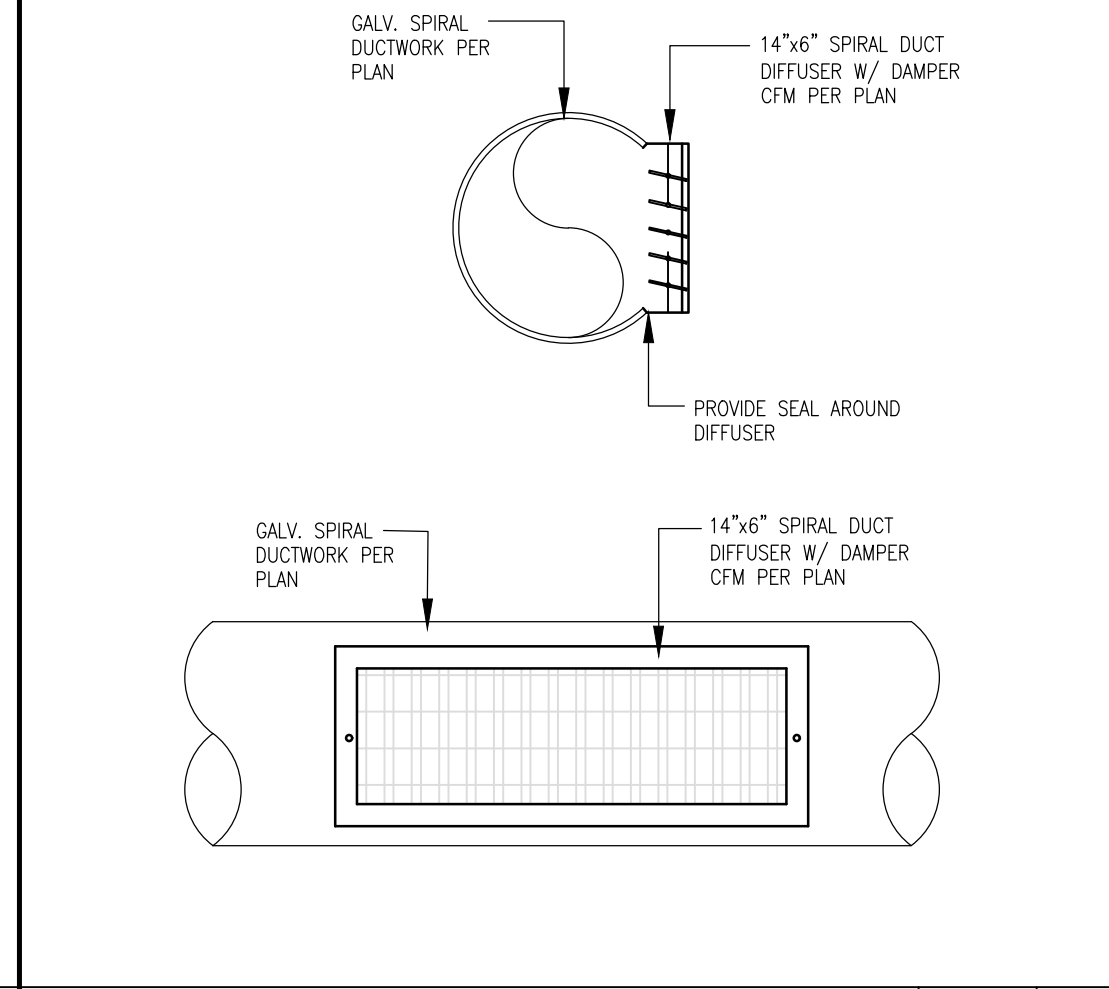
ROOF TOP EXHAUST FAN



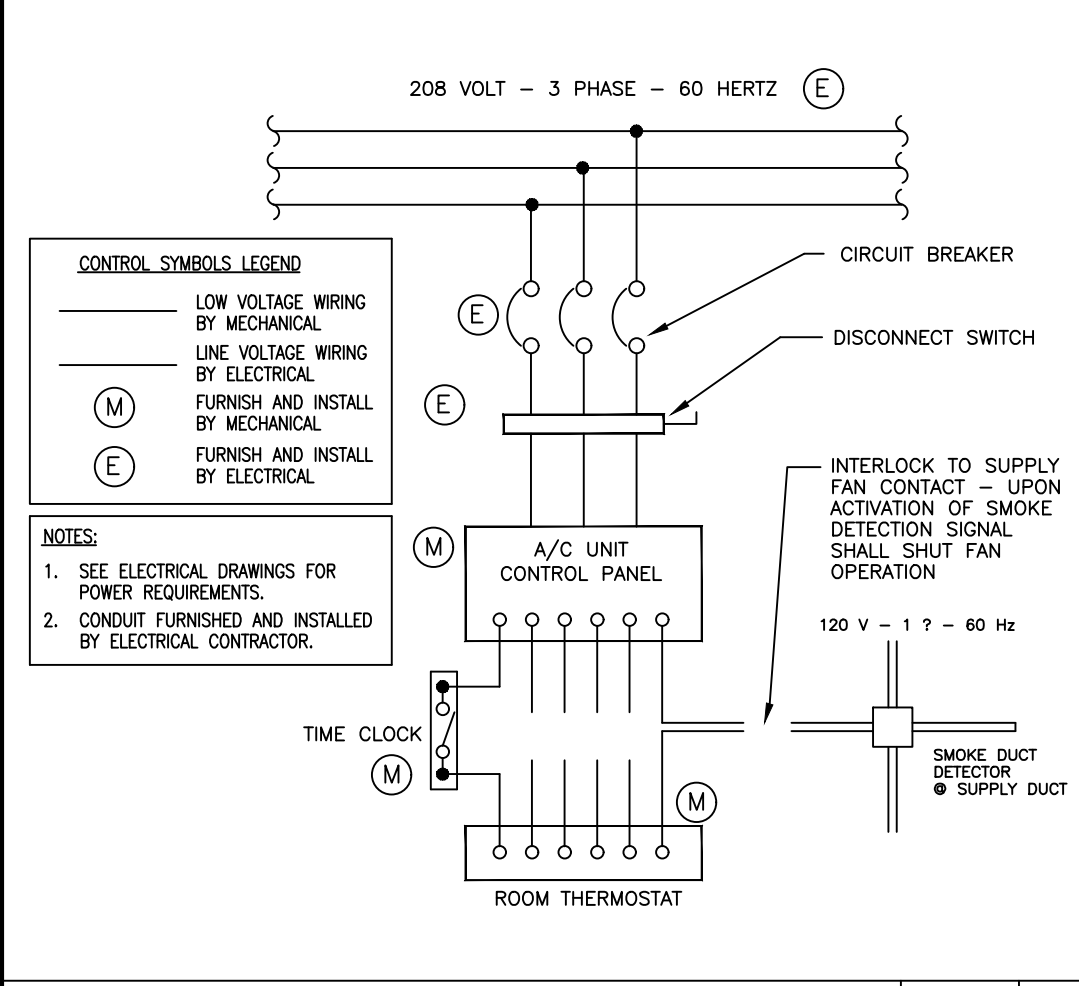
CONDENSATE DRAIN DETAIL



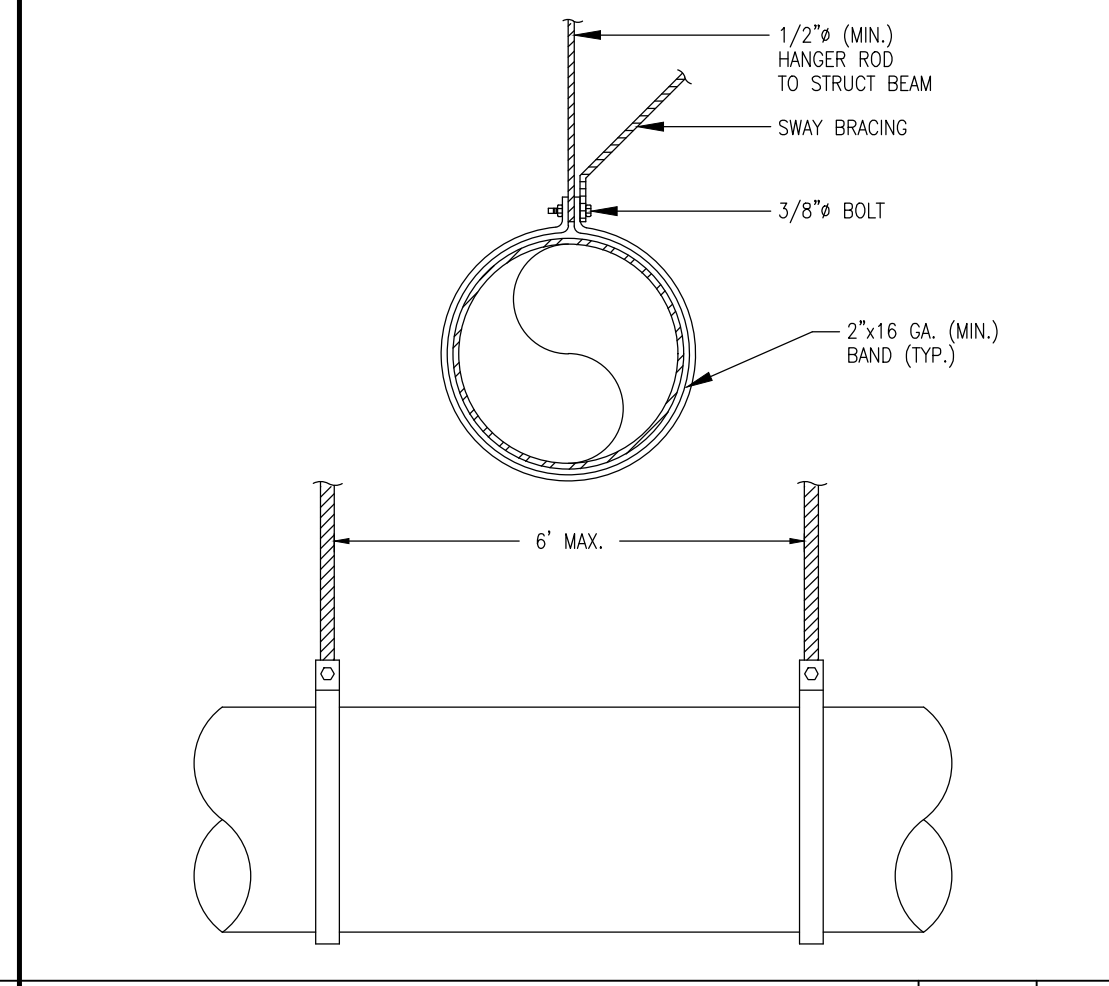
EXHAUST FAN CONTROL



DIFFUSER DETAIL



AC UNIT CONTROL WIRING DIAGRAM



DUCT SUPPORT DETAIL

LEGEND			
SYMBOL	DOUBLE	SINGLE	ABBREVIATION
		SA	SA SUPPLY AIR DUCT
		RA	RA RETURN AIR DUCT
		EAD	EAD EXHAUST AIR DUCT
		OA	OA OUTSIDE AIR DUCT
			TRANSITION - RECTANGULAR TO RECT-ANGULAR
			TRANSITION - RECTANGULAR TO ROUND
			ELBOW W/TURNING VANE
		6X6L	(L) LINED DUCT, DUCT SIZE WITH L FOR SINGLE LINE
			RISE IN DIRECTION OF AIRFLOW
			DROP IN DIRECTION OF AIRFLOW
			DUCT ENCLOSURE IN GYPSUM BOARD FOR 2 HOURS RATING
			FLEXIBLE DUCT
			THERMOSTAT WITH AUTOMATIC CHANGE-OVER & VENTED LOCKABLE CLEAR COVER
			SUPPLY AIR DUCT - SECTION
			RETURN, EXHAUST, OR OUTSIDE AIR DUCT -SECTION
			ROUND DUCT OR STACK - SECTION
		12X12CD 360	12"X 12" NECK PERFORATED CEILING DIFFUSER, 360 CFM
		6X6R 150	6"X 6" PERFORATED CEILING REGISTER, 150 CFM
		12X8R 250	12"X 8" WALL REGISTER 250 CFM
		FD	FD FIRE DAMPER
		SD	SD SMOKE DETECTOR
		FSD	FSD FIRE AND SMOKE DAMPER COMBINATION
		THRU	THRU THROUGH
		TYP.	TYP. TYPICAL
		CD	CD CONDENSATE DRAIN
		DN.	DN. DOWN
		OD	OD OVERFLOW DRAIN
		DWG.	DWG. DRAWING
		UNO	UNLESS NOTED OTHERWISE

- ### GENERAL NOTES
- ALL ROOF PENETRATION SHALL BE FINISHED BY LICENCED ROOFING CONTRACTOR.
 - THE DRAWINGS, SPECIFICATIONS AND GENERAL NOTES DESCRIBE THE RECOMMENDED SCOPE OF WORK AND THE DOCUMENTS SHALL BE USED FOR THE PURPOSE OF BIDDING, BUILDINGS DEPARTMENT REVIEW, AND TO SECURE THE NECESSARY CONSTRUCTION PERMIT ONLY. CONTRACTOR SHALL PROVIDE CONSTRUCTION DRAWINGS AND OBTAIN WRITTEN APPROVAL OF ALL INSPECTION AUTHORIZED GOVERNMENTAL AGENCIES AND UTILITY COMPANIES PRIOR TO START OF AFFECTED WORK.
 - ALL MECHANICAL WORK SHALL COMPLY WITH LOCAL APPLICABLE CODE AND UNIFORM MECHANICAL CODE.
 - COORDINATE ALL MECHANICAL WORK W/ARCHITECTURAL, ELECTRICAL STRUCTURAL, SUBCONTRACTOR & OTHER TRADES TO AVOID INTERFERENCES.
 - COORDINATE LOCATIONS OF OPENING THROUGH FLOOR, WALL & ROOF W/ARCHITECTURAL, ELECTRICAL & STRUCTURAL DRAWINGS.
 - SEAL & TAPE ALL OPENINGS IN DUCTWORK AIRTIGHT AFTER TESTING.
 - ALL SIZES FOR DUCT, GRILLE, REGISTER, DIFFUSER & LOUVER SHALL BE IN INCHES.
 - CHECK & VERIFY ALL FIELD CONDITIONS & ACTUAL DIMENSIONS BEFORE PREPARING SHOP DRAWINGS & BEGINNING INSTALLATION NOTIFY ARCHITECT IMMEDIATELY OF AND ALL DISCREPANCIES.
 - TEST & BALANCE ALL EXHAUST SYSTEM ACCORDING TO CFM INDICATED ON PLANS.
 - ALL APPLIANCE AND PLUMBING VENTS SHALL BE AT LEAST TEN (10) FEET IN A HORIZONTAL DIRECTION, OR THREE (3) FEET ABOVE THE OUTSIDE-AIR INTAKES FOR HVAC UNITS.
 - CONTRACTOR TO PROVIDE CUT SHEET OF CEILING DIFFUSERS TO ARCHITECT AND OWNER FOR APPROVAL.
 - PROVIDE INSULATION FOR ALL EXPOSE DUCTS.

- ### GENERAL SEISMIC NOTES
- ALL MECHANICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTION IN ANY DIRECTION USING THE FOLLOWING CRITERIA :
- FIXED EQUIPMENT ON GRADE 22% OF OPERATING WEIGHT
FIXED EQUIPMENT ON STRUCTURE 33% OF OPERATING WEIGHT
- FOR FLEXIBILITY MOUNTED EQUIPMENT USE 2 TIMES THE ABOVE VALUES.
SIMULTANEOUS VERTICAL FORCE - USE 1/3 TIMES HORIZONTAL FORCE.
- NOTE :
- FOR EQUIPMENT WEIGHING 400 POUNDS OR MORE, ANCHORAGE DETAIL AND APPROPRIATE DESIGN CALCULATIONS SHALL BE SUBMITTED AS PART OF THE MECHANICAL SHOP DRAWINGS.

MECHANICAL EQUIPMENT SCHEDULE								
UNIT SYMBOL	LOCATION	NO. OF UNITS	HEATING CAPACITY (OUTPUT)	EFFICIENCY (AFUE)	AIR COOLING (CAPACITY)	EFFICIENCY (SEER)	POWER	COMMENTS
AC 1	OUTSIDE ROOF	1	65,000	80	48,000	11.8	208V, 3ø, 30A	YORK ZH049H08B2B1ACA2A1

EXHAUST FAN SCHEDULE									
UNIT SYMBOL	LOCATION	MANUFACTURER	MODEL No.	SERVICE	RPM	CFM	SP	ELECTRICAL	COMMENTS
EF 1	ROOF MOUNT	LOREN COOK	180 ACRUB	CONTINUOUS	1086	225	0.50	115V, 1ø, 20A	PROVIDE BACKDRAFT DAMPER

DIFFUSER, REGISTER, GRILLE & LOUVER SCHEDULE					
NO.	SIZE	CFM	PRESSURE	NC	DIRECTION
S-1	14"x6" SPIRAL DUCT DIFFUSER	132	0.01	-	9 FT. 1-WAY
S-2	18"x18" RETURN REGISTER	630	0.12" WG	<20	
S-2	8"x6" WALL RELIEF DAMPER		0.05" WG		

ARCHITECTURAL CIVIL STRUCTURAL BUILD

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CHALLMAN ENGINEERING INC. CEI BUILD INC
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04/09/18

REVISION DATE

REVISION DATE

PROJECT
AERO BENDING
COMPANY
WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
Palmdale, CA

SHEET TITLE

MECHANICAL
NOTES &
SYMBOLS

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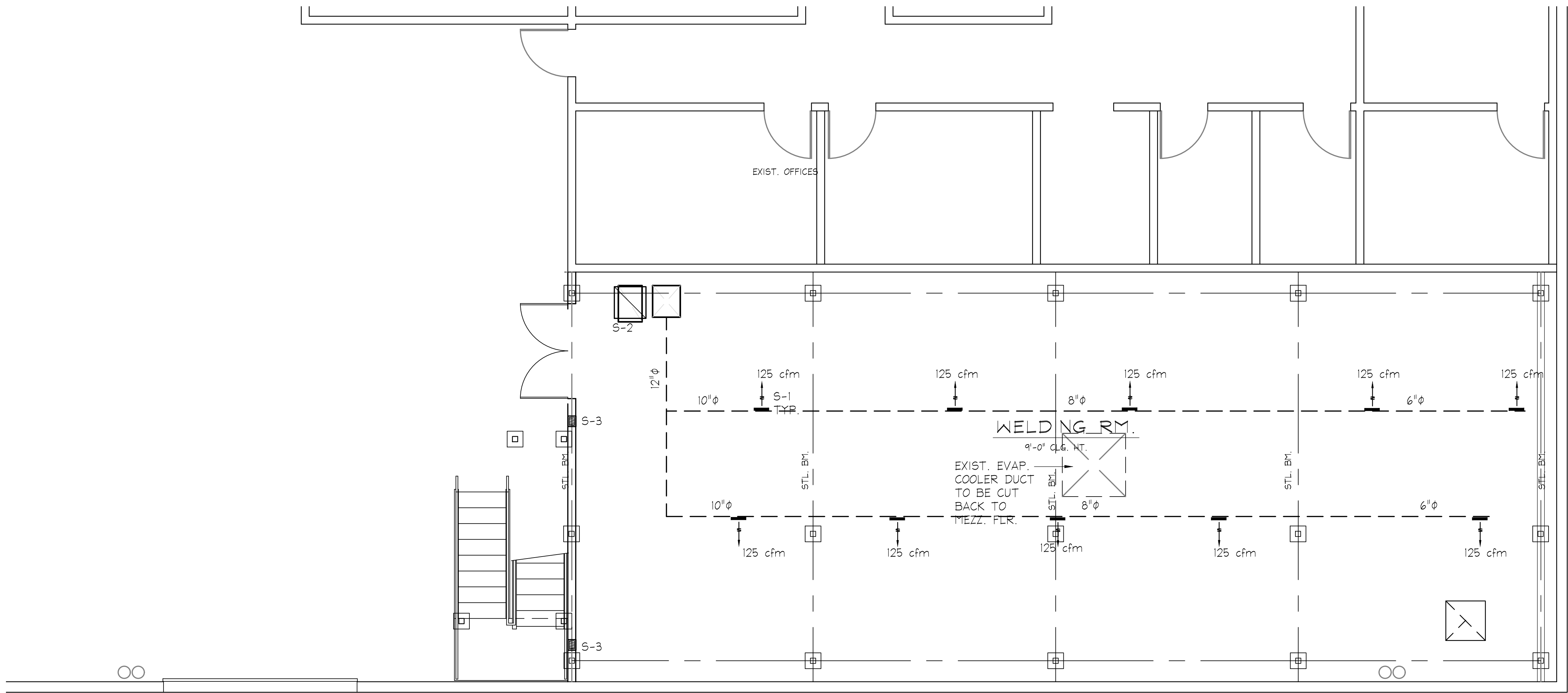
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SCALE: *AS NOTED* SHEET NO. *M-1*

DATE: *02/02/18*

JOB NO. *18-508*



HVAC DUCT PLAN

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

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COMPANY
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Palmdale, CA

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DUCT PLAN &
EQUIPMENT
SCHEDULE

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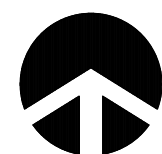
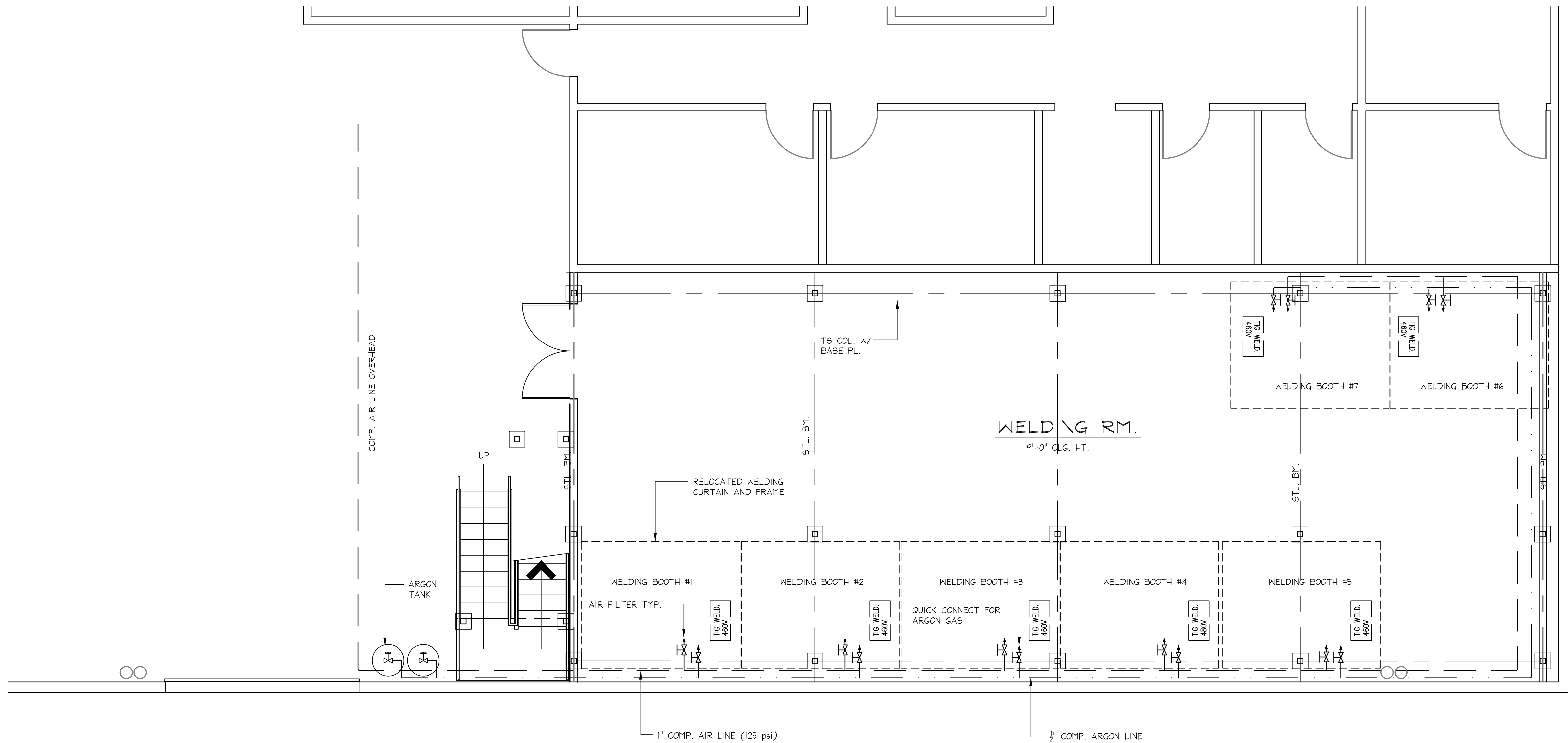
02/02/18

JOB NO.

18-508

SHEET NO.

M-2



PLUMBING AIR PLAN

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

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















































AIR PLUMBING
PLAN

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DRAWN	WJC	CHECKED	WJC
SCALE	AS NOTED		SHEET NO.
DATE	02/02/18		P-1
JOB NO.	18-508		

LIGHT FIXTURES		POWER/COMM		CONDUIT/WIRE		MISCELLANEOUS	
	CEILING SURFACEMOUNT		SINGLE RECEPT		NEW		MOTOR
	WALL SURFACEMOUNT		DUPLEX RECEPT		UNDERGROUND		THERMOSTAT
	PENDANT MOUNT		DUPLEX-HALF SWITCHED		NEW POWER HOMERUN (3 HOTS & NEUT SHOWN)		CIRCUIT BREAKER
	RECESSED DOWNLIGHT		DOUBLE DUPLEX		ISOLATED GROUND		FUSIBLE SWITCH
	RECESSED WALLWASH		SPECIAL CONFIGURATION		ISOLATED GROUND		GROUND
	RECESSED FLUOR		FLOORMOUNT 208V, 1Ø RECEPT		(E) POWER HOMERUN		PHASE
	SURFACE FLUOR		DUPLEX-FLOOR OUTLET		CONDUIT STUB (W/MARKER)		CLOCK
	FLUOR, STRIP UON		GROUND FAULT CIRCUIT INTERRUPT		VERTICAL CONDUIT RUN		CLOCK/SPEAKER COMBIN
	TRACK LIGHT		JUNCTION BOX		CONDUIT SEAL		WALL MOUNTED CLOCK
	DIRECTIONAL FLOOD		SPECIAL SYSTEM JUNCTION BOX		FLEXIBLE CONNECTION		PUSHBUTTON
	EMERGENCY FIXTURE		DATA (2)CAT6 UTP CABLES (2)JR-45 JACKS T568B STD UO.N.		LOW VOLTAGE		FLUSHMOUNT PANEL
	POLE LIGHT		PHONE (1)CAT6 UTP CABLE (4)JR-11 JACKS T568B STD UO.N.		SURFACEMOUNT RACEWAY		SURFACEMOUNT PANEL
	POLE LIGHT-DECORATIVE		PHONE/DATA (2)CAT6 UTP CABLES (2)JR-45 JACKS T568B STD UO.N.		INDICATES LINE CONTINUES		FLUSHMOUNT PANEL
	UPLIGHT-FLUSH IN GRADE		TV OUTLET (1)RG-6/U CABLE w/F-CONNECTOR & (1)CAT6 UTP CABLE (1)JR-45 JACK T568B STD		CORD W/PLUG		
	BOLLARD		SAFETY DISCONNECT				
	TANDEM-WIRED LAMPS		DROP CORD RECEPT				
	UNDERCABINET LIGHT		ABOVE-CLGMOUNT J-BOX				
	WALL SURFACEMOUNT LINEAR TYPE		TV OUTLET-FLOORMOUNT				
	PENDANT LINEAR FLUOR		TELEPHONE FLOOR OUTLET				
	RECESSED WALLMOUNT		DATA FLOOR OUTLET				
	WALLPACK		WIRELESS ACCESS POINT IN CEILING				
	EXIT LIGHT-WALL		MOUNT DEVICE ABOVE COUNTER PER ARCHITECTURAL REQUIREMENTS				
	EXIT LIGHT-CEILING (ARROW INDICATES DIRECTION)						
	LOW LEVEL EXIT SIGN						
	LETTER ADJACENT INDICATES						

ABBREVIATIONS

AB	AMPERE	DI	DISTRIBUTION	HID	HIGH INTENSITY DISCHARGE	NL	NIGHT LIGHT	TO	TO
AB	AMP BREAKER	DIST	DOUBLE POLE SINGLE THROW	HO	HIGH OUTPUT	NO	NORMALLY OPEN	TE	TE
ABAND	ABANDONED	DW	DISHWASHER	HOA	HAND-OFF-AUTO	NPF	NORMAL POWER FACTOR	TE	TE
ABV	ABOVE	EM	EMERGENCY	hp	HORSEPOWER	NTS	NOT TO SCALE	TE	TE
AC	ALTERNATING CURRENT	(E)	EXISTING	HPF	HIGH POWER FACTOR	OC	ON CENTER	TS	TS
AC-#	AIR CONDITIONER	EA	EACH	HPS	HIGH PRESSURE SODIUM	OC	OVERCURRENT PROTECTION	TS	TS
ADJ	ADJACENT	EB	ELECTRONIC BALLAST	IC	INTERCOM	OD	OUTSIDE DIAMETER	TS	TS
AF	AMP FUSE, AMP FRAME	EC	ELECTRICAL CONTRACTOR	ID	IDENTIFICATION	OH	OVERHEAD	TS	TS
AFF	ABOVE FINISH FLOOR	EC-#	EVAPORATIVE COOLER	IF	INSIDE FROST	OSA	OFFICE OF THE STATE ARCHITECT	TT	TT
AFG	ABOVE FINISH GRADE	EF-#	EXHAUST FAN	IG	ISOLATED GROUND	OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING & DEVELOPMENT	TV	TV
AIC	AMPERES INTERRUPTING CAPACITY	EL	EVENING LIGHT	J-BOX	JUNCTION BOX	OVL	OVERLOAD	TV	TV
AI	ALUMINUM	ELEC	ELECTRICAL	K	QUANTITY 1000	P	POLE	U	U
AS	AMP SWITCH RATING	EM	EMERG BATTERY BACKUP	KW	KILOWATT	PA	PUBLIC ADDRESS	U	U
ATS	AUTOMATIC TIME SWITCH	EMB	EMERGENCY BALLAST	LC	LIGHTING CONTACTOR	PB	PULLBOX	U	U
ATS	AUTOMATIC TRANSFER SWITCH	EMERG	EMERGENCY	LPS	LOW PRESSURE SODIUM	PC	PULL CHAIN	U	U
AV	AUDIBLE/AUDIO VISUAL	EOL	END OF LINE	LRA	LOCKED ROTOR AMPS	PC	PHOTOCELL	U	U
AWG	AMERICAN WIRE GAGE	EQUIP ^T	EQUIPMENT	LS	LIFE SAFETY BRANCH	ph	PHASE	U	U
BFG	BELOW FINISH GRADE	ES	ENERGY SAVING	LT	LIGHT	PNL	PANEL	V	V
BIL	BASIC IMPULSE LEVEL	(EXN)	(E) IN (N) LOCATION	LTG	LIGHTING	POC	POINT OF CONNECTION	VA	VA
BLDG	BUILDING	(EXR)	(E) TO BE (R)	LV	LOW VOLTAGE	-PP-	POWER PRIMARY	VA	VA
C	CONDUIT	EXT	EXTERIOR	MC	MECHANICAL CONTRACTOR	-PS-	POWER SECONDARY	VH	VH
C	CATV CONDUIT	F	FLUORESCENT	MCA	MINIMUM CKT AMPS	(R)	RELOCATE(D)		
CAB ^T	CABINET	(F)	FUTURE	MCB	MAIN CIRCUIT BREAKER	RECEPT	RECEPTACLE		
CATV	CABLE TELEVISION	F-#	FURNACE	MCTB	MAIN CATV TERMINAL BOARD	REF	REFRIGERATOR		
CB	CIRCUIT BREAKER, CODE BLUE	FA	FIRE ALARM	MCTC	MAIN CATV TERMINAL CABINET	REQ'D	REQUIRED		
CBC	CA. BUILDING CODE	FACP	FIRE ALARM CONTROL PANEL	MECH	MECHANICAL	RLA	RATED LOAD AMPS		
CEC	CA. ELECTRICAL CODE	FAT	FIRE ALARM TERMINAL	MFR	MANUFACTURER	RM	ROOM		
	CA. ENERGY COMMISSION	FAU	FORCED AIR UNIT	MFS	MAIN FUSIBLE SWITCH	RMG	RIGID METAL CONDUIT		
GF	COMPACT FLUORESCENT	FBO	FURNISHED BY OTHERS	MH	METAL HALIDE	RMV	REMOVE		
CFC	CALIFORNIA FIRE CODE	FC-#	FAN COIL	MLO	MAIN LUGS ONLY	RPLC	REPLACE		
CLG	CEILING	FLA	FULL LOAD AMPS	MOCP	MAXIMUM OCP	RS	RAPID START		
CL	CENTER LINE	FLR	FLOOR	MSB	MAIN SWITCHBOARD	SC	SIGNAL CABINET		
CKT	CIRCUIT	FLUOR	FLUORESCENT	MT	MOUNT	SCC	SHORT CKT CURRENT		
CN ^T R	CONTRACTOR	FS	FUSIBLE SWITCH	MT HT	MOUNTING HEIGHT	SFM	STATE FIRE MARSHAL		
C. O	CONDUIT ONLY (W/PULLROPE)	FVNR	FULL VOLTAGE NON-REVERSING	MTS	MANUAL TRANSFER SWITCH	SHT	SHEET		
COND	CONDUIT, CONDUCTOR	G	GROUNDING CONDUCTOR	MTB	MAIN TELEPHONE TERMINAL BOARD	SL	SULMINE, SIGHT LEG		
CR	CRITICAL BRANCH	GC	GENERAL CONTRACTOR	MTTC	MAIN TELEPHONE TERMINAL CABINET	SPEC	SPECIFICATION		
CSFM	CALIFORNIA SFM	GD	GARBAGE DISPOSAL	MW	MICROWAVE	SPQ	SINGLE POLE SINGLE THROW		
CT	CURRENT TRANSFORMER	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	N	NEUTRAL (GROUNDED CONDUCTOR)	SQ	SQUARE		
CU	COPPER	GFI	GROUND FAULT CIRCUIT INTERRUPTER	N	NEW	STR'G	STORAGE		
CU-#	CONDENSING UNIT	GND	GROUND	N3R	NEMA 3R	SURF	SURFACE		
D	DEPTH	GRS	GALVANIZED RIGID STEEL	NC	NORMALLY CLOSED	SVC	SERVICE		
DC	DIRECT CURRENT	GWS	GANG WITH SWITCH	NEC	NATIONAL ELECTRICAL CODE	SW	SWITCH		
DF	DRAINING FOUNTAIN	H	HEIGHT, HIGH	NEMA	NAT'L ELEC MANUFACTURER'S ASSOC	T	TRANSFORMER, TERMINAL		
DIA	DIAMETER	HACR	HEATING, AC & REFRIG	NIC	NOT IN CONTRACT	-T-	TELEPHONE CONDUIT		
DISC	DISCONNECT								

GENERAL COMMUNICATION PLAN NOTES

- SIGNAL AND COMMUNICATIONS SYSTEMS RACEWAYS AND BOXES: PROVIDE AND INSTALL 4" SQUARE RECESSED JUNCTION BOX WITH 1-GANG RING AND (1) 3/4" CONDUIT SUB TO ACCESSIBLE CEILING SPACE AT EACH WALL TELEPHONE (VOICE), TELEVISION AND DATA OUTLET LOCATION SHOWN ON THE PLANS UNLESS OTHERWISE NOTED FOR EACH COMBINATION VOICE/DATA OUTLET, PROVIDE AND INSTALL (2) 3/4" CONDUIT STUBS TO ACCESSIBLE CEILING SPACE.
- BEFORE CONSTRUCTION, COORDINATE AND VERIFY ALL DATA AND TELEPHONE LOCATIONS WITH OWNER OR ARCHITECT
- TELEPHONE WIRING: EACH TELEPHONE OUTLET LOCATION SHOWN ON THE PLANS SHALL HAVE A 4 PAIR, 24 GAUGE CONTINUOUS CABLE, CATEGORY 6 (BERK-TEK LANMARK SERIES OR APPROVED EQUAL), HOMERUN TO THE TELEPHONE TERMINAL BOARD "TIB" TERMINATE AT OUTLET LOCATION WITH OWNER APPROVED JACK, VERIFY LOCATIONS WITH OWNER OR ARCHITECT PRIOR TO CONSTRUCTION.
 - TELEVISION PREWIRE: EACH TELEVISION OUTLET SHOWN ON THE PLANS SHALL HAVE AN RG6 (WITH QUAD SHIELD) COAXIAL CABLE HOMERUN PREWIRED TO THE CATV TERMINAL BOARD LABEL AND LEAVE ADEQUATE SLACK FOR UTILITY CONNECTION
 - VOICE/DATA WIRING: EACH VOICE/DATA OUTLET LOCATION SHOWN ON THE PLANS SHALL HAVE (2) 4 PAIR, 24 GAUGE, CATEGORY 6, UTP CABLES (BERK-TEK LANMARK SERIES OR APPROVED EQUAL) HOMERUN TO THE TELEPHONE TERMINAL BOARD TERMINATE AT OUTLET LOCATION WITH OWNER APPROVED JACK VERIFY SYSTEM REQUIREMENTS WITH OWNER OR ARCHITECT PRIOR TO CONSTRUCTION.
 - DEVICE LOCATIONS SHOWN ARE SCHEMATIC AND APPROXIMATE. EXACT LOCATIONS SHALL BE FIELD VERIFIED DURING ROUGH-IN WITH ARCHITECTURAL ELEVATIONS, CASEWORK SHOP DRAWINGS, FURNITURE, ETC. AND SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT WITH OTHER EQUIPMENT
 - ELECTRICAL AND COMMUNICATIONS OUTLETS SHOWN IN THE SAME LOCATION, SHALL BE MOUNTED ON OPPOSITE SIDES OF THE SAME STUD. COORDINATE BETWEEN ELECTRICAL AND COMMUNICATIONS PLANS

ROOF PLAN NOTES

- PROVIDE SEALTITE POWER & CONTROL CONNECTIONS TO ALL AC UNITS
- ALL EQUIPMENT SHOWN ABOVE ROOF IS NEMA 3R.
- VERIFY EXACT EQUIPMENT LOCATIONS AND POINTS OF CONNECTION WITH MECHANICAL CONTRACTOR
ROUGH-IN
- CONDUIT SHOWN IS ROUTED IN CEILING SPACE BELOW ROOF DECK
- NO ROOF MOUNT CONDUIT IS ALLOWED UNLESS OTHERWISE NOTED
- FUSE DISCONNECT SWITCHES PER EQUIPMENT NAMEPLATE RATING
- ALL ROOF PENETRATIONS SHALL BE MADE WITH ROOF JACKS, SEAL ALL PENETRATIONS WITH MASTIC

GENERAL NOTES

- CODE COMPLIANCE ALL WORK SHALL CONFORM TO AND BE PERFORMED IN ACCORDANCE WITH CODES, STANDARDS AND ORDINANCES AS SET FORTH BY THE AUTHORITIES HAVING JURISDICTION AND THEIR LATEST ADOPTED EDITIONS (IN EFFECT AT TIME OF BUILDING PERMIT APPLICATION) OF THE FOLLOWING PUBLICATIONS:
- A. CALIFORNIA CODE OF REGULATIONS TITLE 24 2016 CALIFORNIA ELECTRICAL CODE; INCLUDES 2014 NATIONAL ELECTRICAL CODE, UNIFORM FIRE CODE, UNIFORM BUILDING CODE, ETC. WITH CALIFORNIA AND OTHER LOCAL AMENDMENTS AS APPLICABLE.
- B. AMERICANS WITH DISABILITIES ACT (ADA)
2. SAFETY: THE ELECTRICAL CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS FOR OTHER WORKPERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED FOR SAFETY. THE CONTRACTOR SHALL HOLD ALL PARTIES HARMLESS OF NEGLIGENT SAFETY PRACTICES, WHICH MAY CAUSE INJURY TO OTHERS ON OR NEAR THE JOB SITE.
3. FIRE RATED ASSEMBLIES SHALL MAINTAIN RATINGS AS SPECIFIED IN THE CALIFORNIA BUILDING CODE CHAPTER 7. CONTRACTOR SHALL PROVIDE AND INSTALL PHYSICAL ENCLOSURE AROUND FIXTURES, PANELS, ETC. AS REQUIRED. ALL ASSEMBLIES TO BE PENETRATED SHALL BE INSTALLED WITH APPLICABLE THROUGH-PENETRATION FIRESTOP SYSTEM AS DETERMINED BY UL CLASSIFICATION. BEFORE CONSTRUCTION, VERIFY AND COMPLY WITH REQUIREMENTS OF LOCAL AUTHORITY HAVING JURISDICTION.
4. MOUNTING HEIGHTS IN INCHES TO CENTERLINE ABOVE FINISH FLOOR SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
- +18" AFF: RECEPTACLES, TELEPHONE, TV & DATA OUTLETS
+48" AFF: TOP OF BOX FOR LIGHT SWITCHES
+48" AFF: TOP OF BOX FOR FIRE ALARM MANUAL PULL STATIONS, T-STATS
THE LOWER OF +80" AFF OR 6" BELOW CEILING: FIRE ALARM VISUALS
- BEFORE ROUGH-IN, VERIFY ALL MOUNTING HEIGHTS AND EXACT LOCATIONS FOR ALL EQUIPMENT ELECTRICAL CONNECTIONS, STUB-UPS, RECEPTACLES, OUTLETS, ETC. WITH ARCHITECT OR OWNER. PLACE DEVICES LOCATED ABOVE COUNTERS, SHELVING, ETC. AND BATHROOMS SO AS NOT TO CONFLICT WITH EDGES OF WAINSCOTING, COUNTER SPLASH, SHELVING, ETC. ARCHITECTURAL SHEETS SHALL GATHER
5. LABEL PANELS, CABINETS, BACKBOARDS, MAIN DEVICES, SAFETY SWITCHES, CONTACTORS AND OTHER SPECIFICALLY DESIGNATED EQUIPMENT SHOWN ON PLANS. USE ENGRAVED LAMINATED PLASTIC NAMEPLATES ATTACHED BY SCREWS OR NAILS. FOR FEEDERS, NEATLY AND INDELIBLY LABEL CONDUIT DESTINATIONS ON BOTH VISIBLE ENDS OF CONDUIT RUNS WHERE CONDUITS TERMINATE AT DESIGNATED ENCLOSURES, STRUCTURES OR EQUIPMENT (INCLUDING PULL AND SPLICE BOXES).
6. EQUIPMENT ANCHORAGE: BRACE OR ANCHOR ALL ELECTRICAL EQUIPMENT TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION. USE THE FOLLOWING CRITERIA FOR DETERMINING:
- A. FIXED EQUIPMENT ON GRADE 30% OF OPERATING WEIGHT.
B. FIXED EQUIPMENT ON STRUCTURE 45% OF OPERATING WEIGHT.
C. EMERGENCY POWER EQUIPMENT ON GRADE 40% OF OPERATING WEIGHT.
D. EMERGENCY POWER EQUIPMENT ON STRUCTURE 60% OF OPERATING WEIGHT.
- EXCEPTIONS: FOR FLEXIBLY MOUNTED EQUIPMENT USE 4X THE ABOVE VALUES; FOR SIMULTANEOUS VERTICAL FORCE, USE FLOOR. SEE STRUCTURAL PLANS FOR ANCHORAGE DETAILS AND WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE AUTHORITY HAVING JURISDICTION. SHOULD SAID APPROVAL BE WITHHELD, ELECTRICAL CONTRACTOR SHALL, AT NO EXTRA COST TO THE OWNER, MODIFY AND JUSTIFY INSTALLATION AS REQUIRED TO GAIN APPROVAL.

MECHANICAL SYSTEMS

1. MECHANICAL UNIT CONDUITS: TO PREVENT DAMAGE DUE TO VIBRATION, BOTH POWER AND CONTROL WIRING CONDUITS FEEDING EXTERIOR MECHANICAL UNITS SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR WITH LIQUID TIGHT FLEXIBLE TYPE AT FINAL CONNECTION TO UNIT AND BETWEEN ROOF JACK AND DISCONNECT SWITCH WHERE DISCONNECT IS MOUNTED ON UNIT.
2. NOT USED
3. T-STAT J-BOXES: PROVIDE AND INSTALL 4" SQUARE JUNCTION BOX WITH 1-GANG RING AND 1/2" CONDUIT TO ACCESSIBLE CEILING SPACE ABOVE AT EACH THERMOSTAT LOCATION
4. EXHAUST FANS SHALL BE PROVIDED & INSTALLED BY MECHANICAL CONTRACTOR WITH WIRING CONNECTIONS MADE BY ELECTRICAL CONTRACTOR
5. MECHANICAL EQUIPMENT CONTROLS: MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LOW VOLTAGE WIRE AND CONNECTIONS (BELOW 120 VOLT) TO AND FROM ALL MECHANICAL CONTROL DEVICES ALL LOW VOLTAGE CONTROL WIRE SHALL BE IN CONDUIT, UNLESS OTHERWISE NOTED.
6. PULL ROPES: ANY RACEWAY WITHOUT CABLE OR WIRE SHALL BE INSTALLED WITH MINIMUM 200 POUND TEST PULL LINE AND LARGER IF REQUIRED BY SERVING UTILITY COMPANY. ANY NEW OR EXISTING COMMUNICATION OR SIGNAL RACEWAY ROUTED BETWEEN BUILDINGS, SIGNAL CABINETS, AND/OR SIGNAL CLOSETS WITH FUTURE CAPACITY SHALL BE INSTALLED WITH MINIMUM 200 POUND TEST PULL LINE AS WELL AS THE CALLED FOR CABLE

FIRE ALARM SYSTEM

1. NOT USED
2. DUCT SMOKE DETECTORS SHALL BE PROVIDED BY FIRE ALARM CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR. DETECTOR POWER AND SUPERVISORY WIRING AND CONNECTIONS SHALL BE MADE BY ELECTRICAL CONTRACTOR. MECHANICAL UNIT CONTROL (SHUTDOWN UPON DETECTOR ALARM) WIRING AND CONNECTIONS SHALL BE MADE BY MECHANICAL CONTRACTOR.

GENERAL LIGHTING PLAN NOTES

- DUAL LEVEL SWITCHING: IN ROOMS 100 SQ. FT. OR LARGER, OR WHERE INDICATED ON PLANS, CONTROL INBOARD LAMPS BY ONE SWITCH AND OUTBOARD LAMPS BY OTHER SWITCH
- NIGHT LIGHT (NL) DESIGNATED LUMINAIRES IN INTERIOR LOCATIONS SHALL HAVE ONE BALLAST CONTINUOUSLY ENERGIZED. LUMINAIRES IN EXTERIOR LOCATIONS SHALL BE AUTOMATICALLY CONTROLLED TO BE ON FROM DUSK TO DAWN
- LIGHTING FIXTURE LOCATIONS SHOWN ARE SCHEMATIC. REFER TO ARCHITECTURAL PLANS (REFLECTED CEILING, ELEVATIONS, ETC.) FOR EXACT LOCATIONS AND MOUNTING HEIGHTS PRIOR TO ROUGH-IN
- REFER TO ARCHITECT'S REFLECTED CEILING PLAN(S) FOR CEILING HEIGHTS, TYPES, FINISHES, ETC. IN EACH AREA VERIFY FLANGE TYPES, TRIM CITS, STEM LENGTHS, ETC. FOR ALL FIXTURES PRIOR TO SUBMITTALS
- CONFIRM LOCATION OF ALL DOORS SWINGS WITH ARCHITECTURAL PLANS PRIOR TO ROUGH-IN OF SWITCHES.
- PROVIDE UNSWITCHED HOT LEG OF ROOM LIGHTING BRANCH CIRCUIT TO EACH BATTERY POWERED EMERGENCY LIGHT AND EXIT SIGN FOR CONTINUOUS CHARGING

GENERAL POWER PLAN NOTES

- FUSING: ALL FUSIBLE SAFETY DISCONNECT SWITCHES SHALL BE PROVIDED WITH DUAL-ELEMENT TIME DELAY TYPE FUSES SIZED AND RATED PER EQUIPMENT MANUFACTURERS' RECOMMENDATIONS. VERIFY WITH EQUIPMENT NAMEPLATE BEFORE INSTALLATION.
- INSTALL SEPARATE NEUTRALS FOR EACH BRANCH CIRCUIT SERVING ISOLATED GROUND RECEPTACLES.
- MOTOR OVERLOAD PROTECTION: WHERE REQUIRED BY NEC ARTICLE 430 PART C AND NOT SHOWN ON PLAN OR PROVIDED INTEGRAL WITH EQUIPMENT, PROVIDE AND INSTALL THERMAL OVERLOAD PROTECTION FOR ALL MOTORS.
- SPARE CONDUIT FOR RECESSED PANELS: PROVIDE (1) 3/4" SPARE CONDUIT STUB UP TO ACCESSIBLE ABOVE CEILING SPACE AND/OR ACCESSIBLE SPACE BELOW FOR EVERY (3) SPARE BREAKER SPACES AS INDICATED ON PANEL SCHEDULES.
- DEVICE LOCATIONS SHOWN ARE SCHEMATIC AND APPROXIMATE. EXACT LOCATIONS SHALL BE FIELD VERIFIED DURING ROUGH-IN WITH ARCHITECTURAL ELEVATIONS, CASEWORK SHOP DRAWINGS, FURNITURE, ETC. AND SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT WITH OTHER EQUIPMENT.
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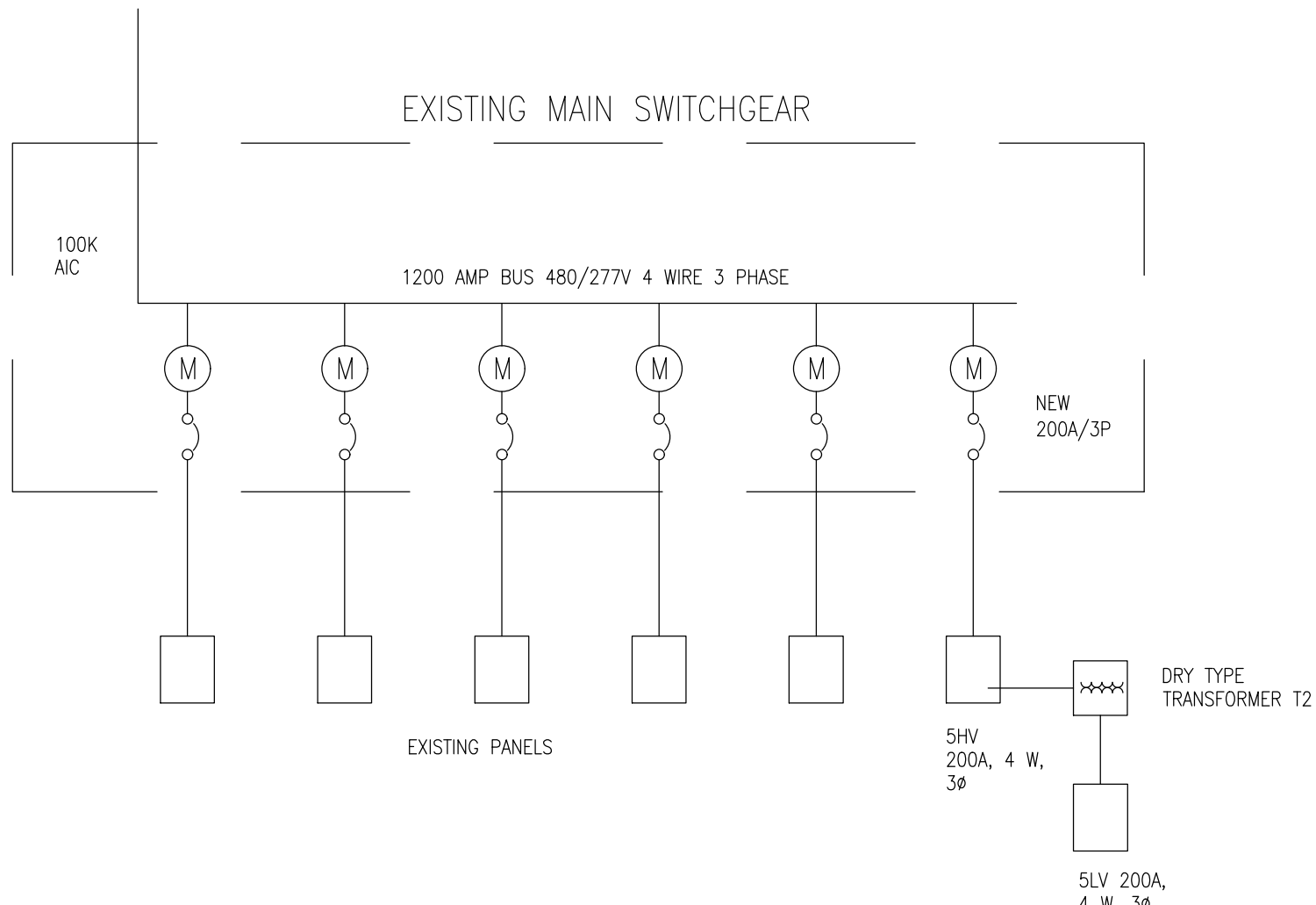
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PROJECT			
AERO BENDING COMPANY			
WELDING ROOM			
APN: 3003-080-071 560 Auto Center Dr. Palmdale, CA			
SHEET TITLE			
ELECTRICAL NOTES & SYMBOLS			
CONSULTANTS			
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SCALE	AS NOTED		SHEET NO.
DATE	02/02/18		E-1
JOB NO.	18-508		

(N) PANEL '5HV'

PANEL 3ø 5HV	TYPE	LOC.	WELDING RM.	MTG.	SURFACE	MAIN	MLO											
BUS: AMP 225	VOLTS 480V	FEEDER	AT															
DESCRIPTION	WATTAGE			OUTLETS		BRKR												DESCRIPTION
	A	B	C	LTG	REC	MSC												
WELDER-BOOTH #1 460V, 3ø	4400	4400	4400				1 30	1	•	2	30			4400	4400		WELDER-BOOTH #5 460V, 3ø	
							3 5	3	•	4	3							
WELDER-BOOTH #2 460V, 3ø	4400	4400					30	7	•	8	30			4400		4400	WELDER-BOOTH #6 460V, 3ø	
								9	•	10				4400				
WELDER-BOOTH #3 460V, 3ø	4400		4400				30	11	•	12	3					4400	WELDER-BOOTH #7 460V, 3ø	
		4400						13	•	14	30			4400	4400			
								15	•	16								
WELDER-BOOTH #4 460V, 3ø	4400		4400				30	17	•	18	3					4400		
		4400						19	•	20								
			4400				3	21	•	22								
								23	•	24								
								25	•	26								
								27	•	28								
								29	•	30								
								31	•	32								
								33	•	34								
								35	•	36								
								37	•	38								
								39	•	40								
								41	•	42								
CONNECTED LOAD	17600	17600	17600											13200	13200	13200	CONNECTED LOAD	
ø A LOAD	30800																	
ø B LOAD	30800																	
ø C LOAD	30800																	
TOTAL LOAD	92400																	
92400 VOLT-AMPS / (√3 * PHASE VOLTS @ 480 VOLTS 3ø = 112 AMPS																		

(N) PANEL '5LV'

PANEL	3ø	5LV	TYPE	NEW	LOC.	WELDING RM	MTG.	SURFACE	MAIN	MLO									
BUS: AMP	225	VOLTS	120/208	FEEDER	AT														
DESCRIPTION	VOLT-AMPS			OUTLETS			BRKR				BRKR	OUTLETS			VOLT-AMPS			DESCRIPTION	
	A	B	C	LTG	REC	MSC	AMP	P			P	AMP	LTG	REC	MSC	A	B	C	
LIGHTS-WELDING	900			8			20	1	1	2	30					2650			AC-1
LIGHTS-BOOTHS 1 & 2		300		6			20	1	3	4							2650		208V, 3ø
LIGHTS-BOOTHS 3 & 4			300	6			20	1	5	6	3							2650	
LIGHTS-BOOTHS 5 & 6	300			6			20	1	7	8	2	20		2		1200			RECEPT.-ROOF
LIGHTS-BOOTH 7		150		2			20	1	9	10	1						1000		RECEPT.-BOOTH #1
LIGHTS-EXIT SIGNS			100	1			20	1	11	12	1	20						1000	RECEPT.-BOOTH #2
EXH FAN EF-1	1600						20	1	13	14	1	20				1000			RECEPT.-BOOTH #3
									15	16	1	20					1000		RECEPT.-BOOTH #4
									17	18	1	20						1000	RECEPT.-BOOTH #5
									19	20	1	20				1000			RECEPT.-BOOTH #6
									21	22	1	20					1000		RECEPT.-BOOTH #7
									23	24									
									25	26									
									27	28									
									29	30									
									31	32									
									33	34									
									35	36									
									37	38									
									39	40									
									41	42									
CONNECTED LOAD	2800	450	400													5850	5650	4650	CONNECTED LOAD
ø A LOAD	8650																		
ø B LOAD	6100																		
ø C LOAD	5050																		
TOTAL LOAD	19800																		
19800 VOLT-AMPS / (√3 * PHASE VOLTS @ 208 VOLTS 3ø = 60 AMPS																			



SINGLE LINE DIAGRAM

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PROJECT

AERO BENDING COMPANY

WELDING ROOM

APN: 3003-080-071

560 Auto Center Dr.

Palmdale, CA

SHEET TITLE

PANEL SCHEDULE & SINGLE LINE

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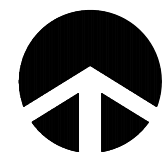
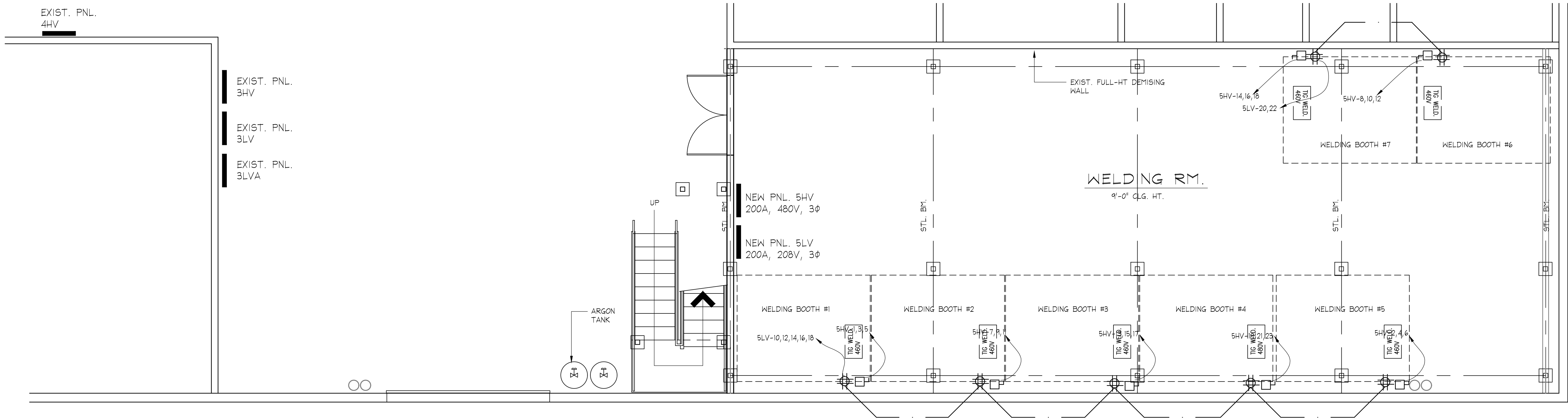
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18-508

SHEET NO.:

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POWER PLAN

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

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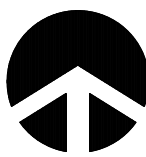
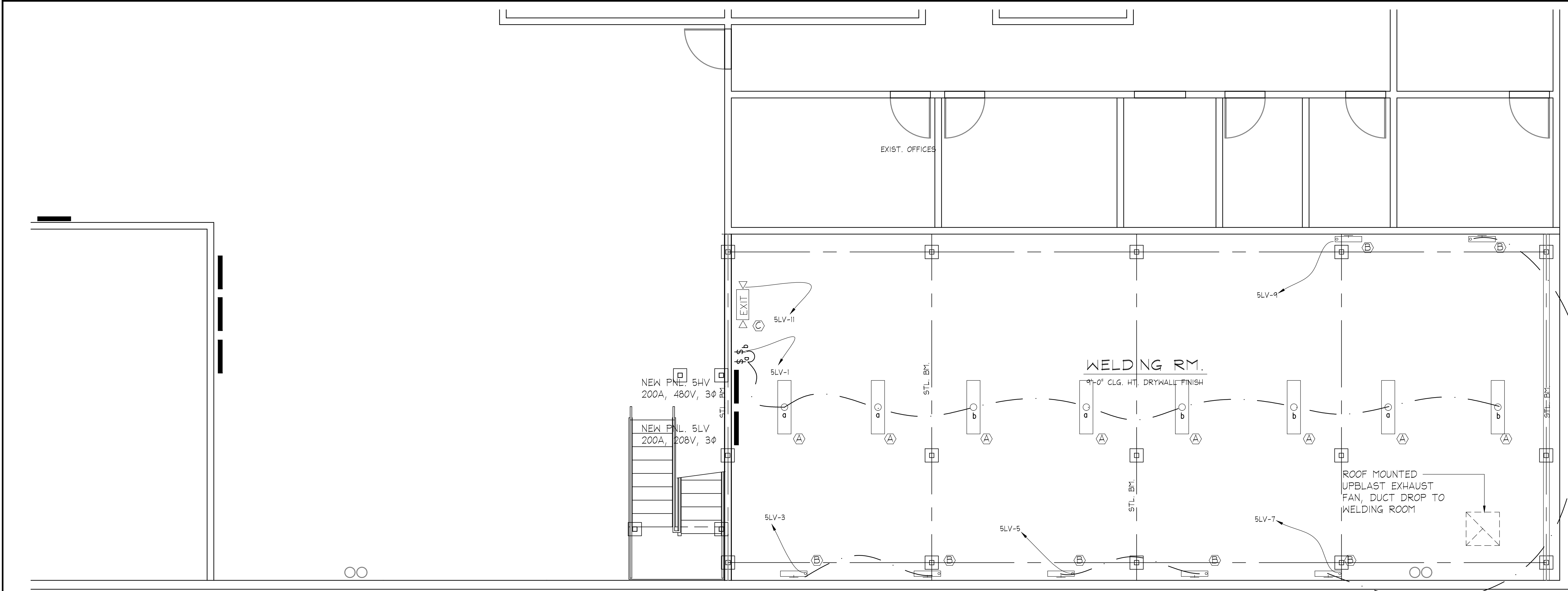
POWER PLAN

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DATE	02/02/18		E-3
JOB NO.	18-508		



LIGHTING PLAN

LIGHT FIXTURE SCHEDULE

SYMBOL	TYPE	MANUFACTURER MODEL No.	LAMP	PROVIDED BY
	LED SURFACED 1'x4' ACRYLIC LENS	LITHONIA LIGHTING T SERIES SURFACE MOUNT TLX4 40L FW A12 MVOLT EZ1 LP840	39W 4000K	CONTRACTOR
	2' LED WALL MT. ACRYLIC LENS	LITHONIA LIGHTING W SERIES WL2 12L MVOLT EZB LP840 MSD7	12W 4000K	CONTRACTOR
	CEILING MOUNTED INTEGRATED EXIT/UNIT COMBO LED	LITHONIA LIGHTING ECR LED M6 3W, 120V, 6" HIGH RED LETTERS	1.5W OUTPUT	CONTRACTOR

ARCHITECTURAL

CIVIL

STRUCTURAL

BUILD

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COMPANY
WELDING ROOM

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Palmdale, CA

SHEET TITLE

LIGHTING PLAN

CONSULTANTS

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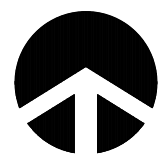
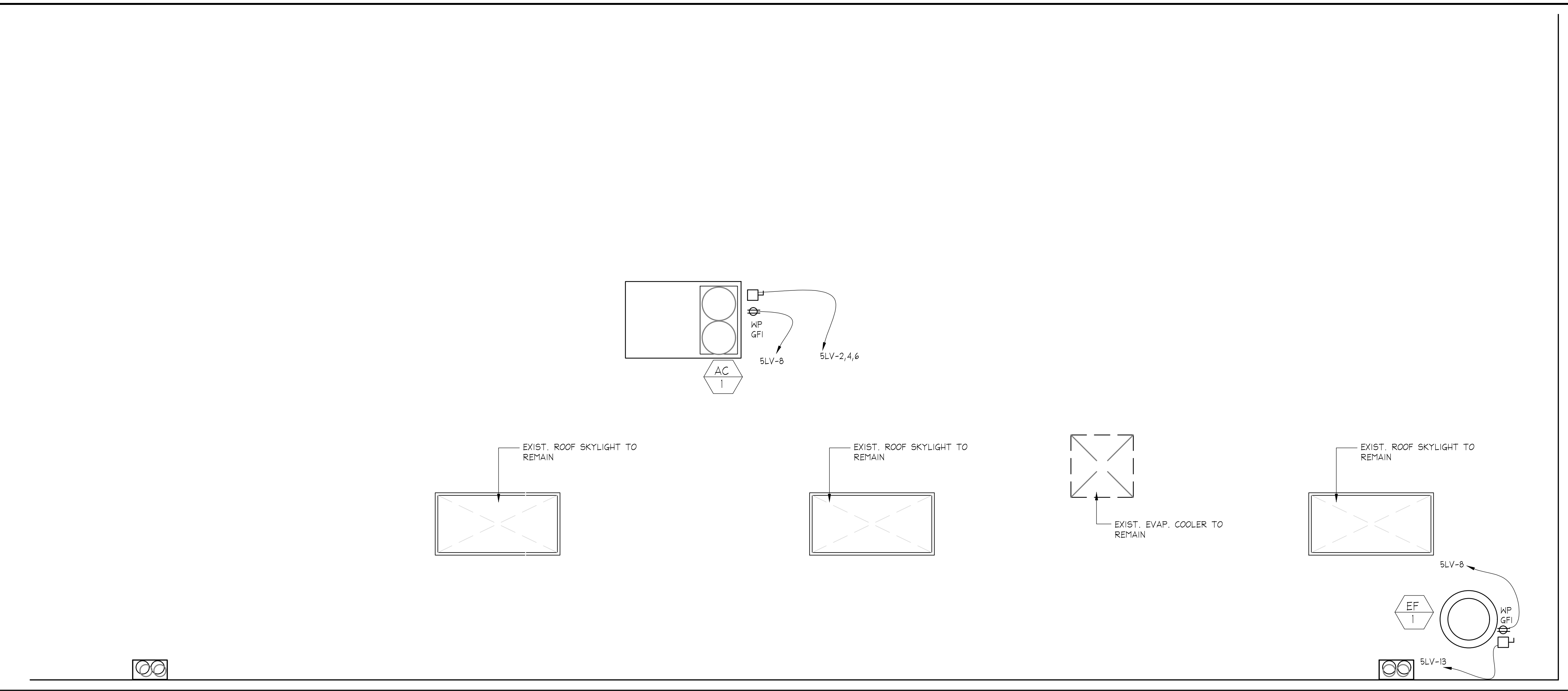
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E-4



ROOF POWER PLAN

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

ARCHITECTURAL

CIVIL

STRUCTURAL

BUILD

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SEAL

04/09/18

ISSUE

DATE

REVISION

DATE

PROJECT

AERO BENDING COMPANY
WELDING ROOM

APN: 3003-080-071
560 Auto Center Dr.
Palmdale, CA

SHEET TITLE

ROOF POWER PLAN

CONSULTANTS

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JOB NO.

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SHEET NO.

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