

CONSTRUCTION

- C.1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE PERMITS, FUNDING AGENCY REQUIREMENTS AND THE TOWN REGULATIONS AND STANDARDS WHEN THERE IS A CONFLCT BETWEEN THE STANDARDS THE MORE STRINGENT SHALL APPLY UNLESS OTHERWISE DIRECTED BY ENGR
- C.2. THE TECHNICAL SPECIFICATIONS COVER NOT ONLY THE WORK SPECIFICALLY INCLUDED IN THE SCOPE OF THE WORK BEING BID, BUT ALSO CONTAINS SPECIFICATIONS FOR WORK THAT COULD BE ADDED AS THE WORK PROGRESS OR AS NEEDED TO COMPLETE THE WORK.
- C.3. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND UNDERSTANDING THE PLANS, SPECIFICATIONS, STANDARDS AND CODES. CONTRACTOR SHALL EXECUTE HIS WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ADDITIONAL WORK OR MATERIALS REQUIRED TO BRING THE WORK IN CONFORMANCE WITH THESE REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER
- C.4. A QUALIFIED SUPERINTENDENT WHO IS ACCEPTABLE TO THE OWNER SHALL BE AT THE WORK SITE AND GIVE EFFICIENT SUPERVISION TO THE WORK UNTIL IT IS COMPLETED. THE SUPERINTENDENT SHALL HAVE FULL AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR, AND ALL DIRECTIONS GIVEN TO THE SUPERINTENDENT SHALL BE CONSIDERED GIVEN TO THE THE CONTRACTOR. AT MOST TIMES, THE SUPERINTENDENT SHALL NOT BE ENGAGED IN OPERATION OF EQUIPMENT OR OTHER CONSTRUCTION..
- C.5. ALIGNMENTS AND UTILITY MODIFICATIONS MAY BE ADJUSTED BY ENGINEER IN THE FIELD TO ACCOMMODATE CONFLICTS THAT ARISE OR FOR OTHER SITE CONDITIONS.
- C.6. CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING OR WATER DAMAGE REGARDLESS OF WATER SOURCE. ANY REQUIRED DEWATERING AND/OR RESTORATION REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- C.7. CONTRACTOR SHALL LIMIT ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPES AS SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THAT LIMIT SHALL BE RESTORED TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL WORK SHALL INCLUDE THE PARKING OF VEHICLES & EQUIPMENT, DISPOSAL OF WASTE, & ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.
- C.8. ALL WORK SHALL BE COMPLETED FROM WITHIN EXECUTED EASEMENTS OR RIGHTS OF WAY. NOTIFY ENGINEER SHOULD CONFLICT ARISE. USE OF ADJOINING PROPERTY IS PROHIBITED UNLESS CONTRACTOR MAKES ARRANGEMENTS WITH ADJOINING LAND OWNER AND PROVIDES EXECUTED DOCUMENTATION OF THOSE ARRANGEMENT TO ENGINEER & ENGINEER DETERMINES THAT THE DOCUMENTATION IS ADEQUATE. AT CONCLUSION OF PROJECT, A WRITTEN ACCEPTANCE AND RELEASE FROM ADJOINING LAND OWNER IS REQUIRED. USE OF HAND TOOLS IS REQUIRED IN CLOSE PROXIMITY TO PROPERTIES
- C.9. THE CONCRETE SULFATE EXPOSURE IS CLASS 2 FOR THIS PROJECT. ALL EXTERIOR CONCRETE SHALL BE FIBER MESH REINFORCED.
- C.10 CONTROL ALL DUST W/ A DUST PALLATIVE APPROVED BY ENGINEER. INCLUDE THIS WORK IN THE COST OF THE ASSOCIATED WORK.
- C.11 WORK HOURS SHALL BE LIMITED TO BETWEEN 7:30 AND 5:00 ON TOWN WORK DAYS

GENERAL NOTES

CONSTRUCTION (CONT'D)

- C12. CONTRACTOR SHALL COORDINATE WITH ADJOINING PROPERTY OWNERS WHEN WORKING ADJACENT TO THEIR PROPERTY. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
- C13. HOT & COLD WEATHER CONCRETING SHALL BE PERFORMED CONSISTENT WITH CDOT STANDARDS. COST FOR THIS WORK SHALL BE INCLUDED IN THE COST OF THE WORK.
- C.14. CONTRACTOR SHALL BE RESPONSIBLE FOR STAGING & ACCESS POINTS.
- C15. ALL SPOILS AND TRASH REMOVAL SHALL BE INCLUDED IN THE COST OF THE WORK.
- C16. REFERENCES TO CDOT STANDARDS REFER TO 2017 COLORADO DEPARTMENT TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD CONSTRUCTION.
- C.17 WHERE FUTURE LINES ARE STUBBED, INSTALL END CAP & DELINEATE END BY BRINGING 2X4 WOOD POST MARKED AT EVEN 1' MARKS (0 AT BOTTOM) & EXTENDING FROM THE TOP OF THE CAP TO THE SURFACE. BACK 2X4 W/STEEL T FENCE POST. INCLUDE COST FOR THIS WORK IN THE COST OF THE PIPE OR CONDUIT.

SURVEY AND HORIZONTAL AND VERTICAL CONTROL

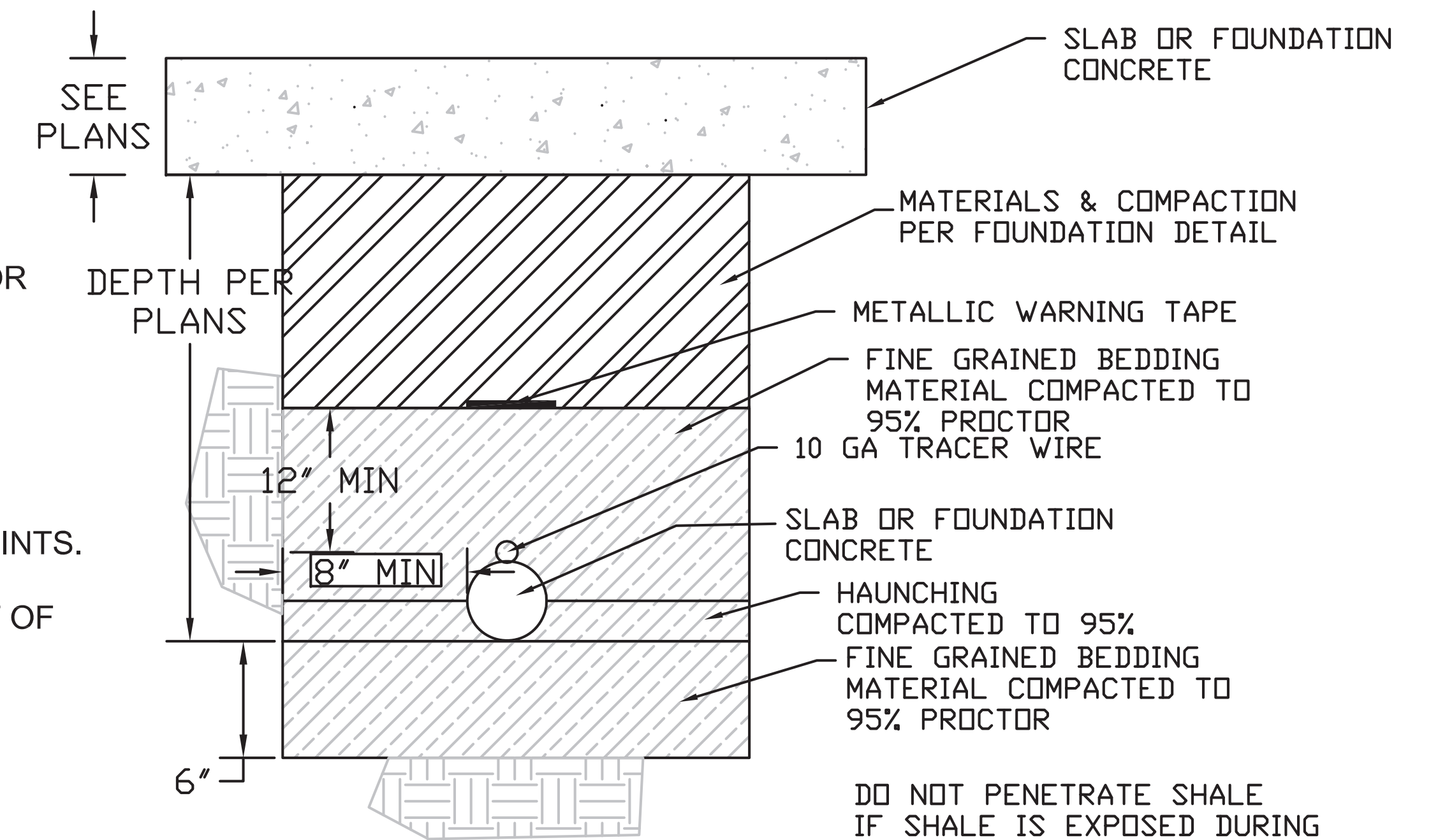
SURVEY INFORMATION TO BE PROVIDED TO THE CONTRACTOR ARE OUTLINED IN SUB SECTION 10.11 OF THE AGREEMENT

RIGHT OF WAY PRECAUTIONS - WHILE WORK CAN BE PERFORMED FROM WITHIN TOWN PROPERTY, IN PLACES THE LIMITS OF CONSTRUCTION ARE VERY CLOSE TO PRIVATE PROPERTY LINES. CONTRACTOR MUST ENSURE THAT THERE IS NO TRESPASS ON PRIVATE PROPERTY. PRIOR TO CONSTRUCTION, ROW LIMITS MUST BE SURVEYED & STAKED BY PROFESSIONAL LAND SURVEYOR. IN ORDER TO AVOID TRESPASS, CONTRACTOR MAYBE REQUIRED TO USE HAND TOOL.

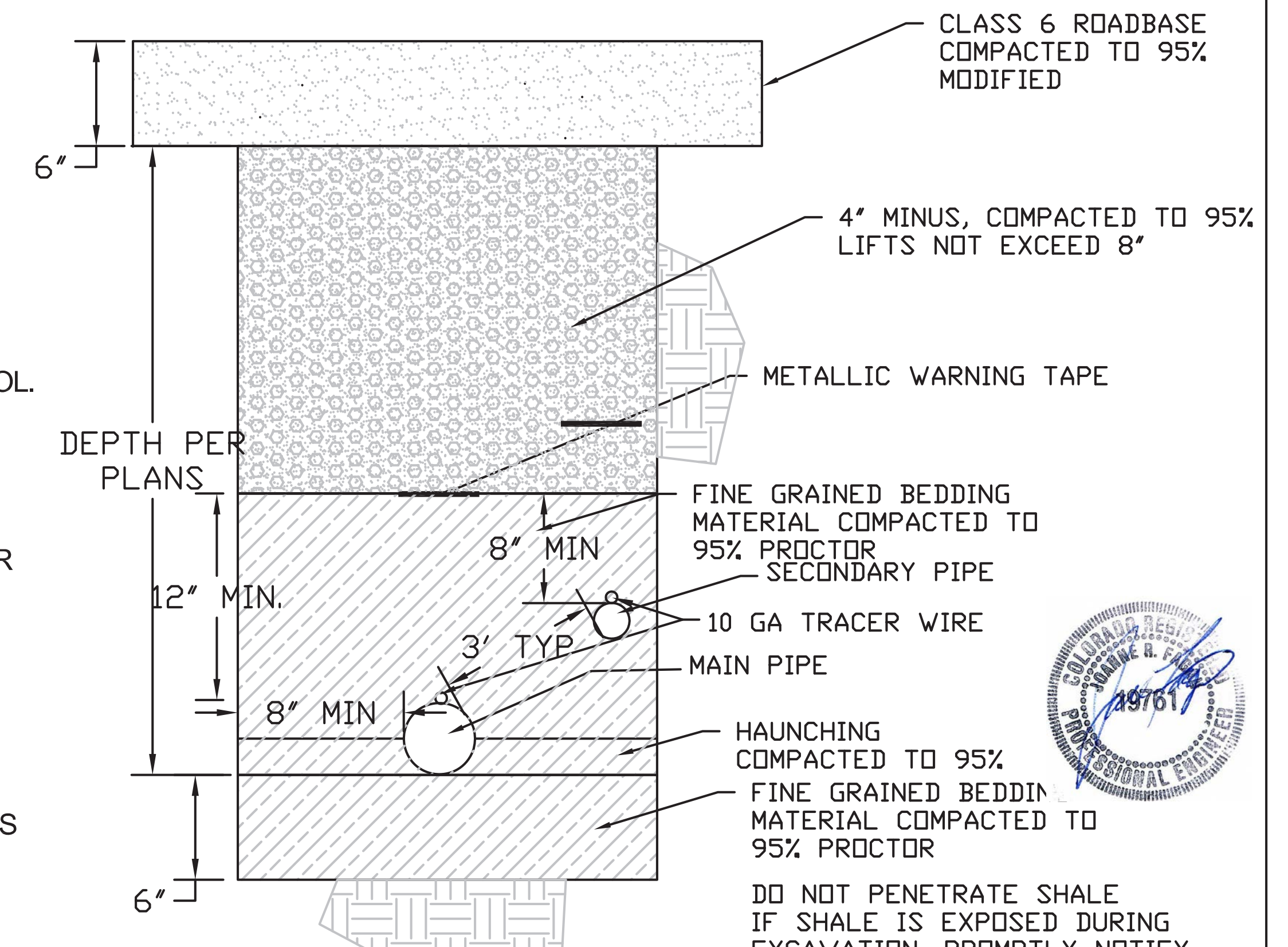
UTILITIES

U.1. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITIES AT LEAST 3 BUSINESS DAYS, NOT INCLUDING THE ACTUAL DAY OF NOTICE, PRIOR TO COMMENCING OPERATIONS IN PROXIMITY OF THE UTILITY. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) TO HAVE LOCATIONS OF UNCC REGISTERED LINES MARKED BY MEMBER COMPANIES. ALL OTHER UNDERGROUND FACILITIES SHALL BE LOCATED BY CONTACTING THE RESPECTIVE OWNER. UTILITY SERVICE LATERALS SHALL ALSO BE LOCATED PRIOR TO BEGINNING EXCAVATION OR GRADING.

U.2. UTILITIES SHOWN THE PLANS ARE APPROXIMATE BASED ON LOCATES PROVIDED BY THE UTILITIES DURING DESIGN. THERE MAY BE OTHER UTILITIES THAT ARE NOT SHOWN OR ARE SHOWN INCORRECTLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AS NECESSARY TO ENSURE THE UTILITIES WILL NOT BE IMPACTED BY CONSTRUCTION ACTIVITIES. THE COST FOR SUCH INVESTIGATION SHALL BE INCLUDED IN THE COST OF THE WORK TO WHICH IT IS APPURTENANT.



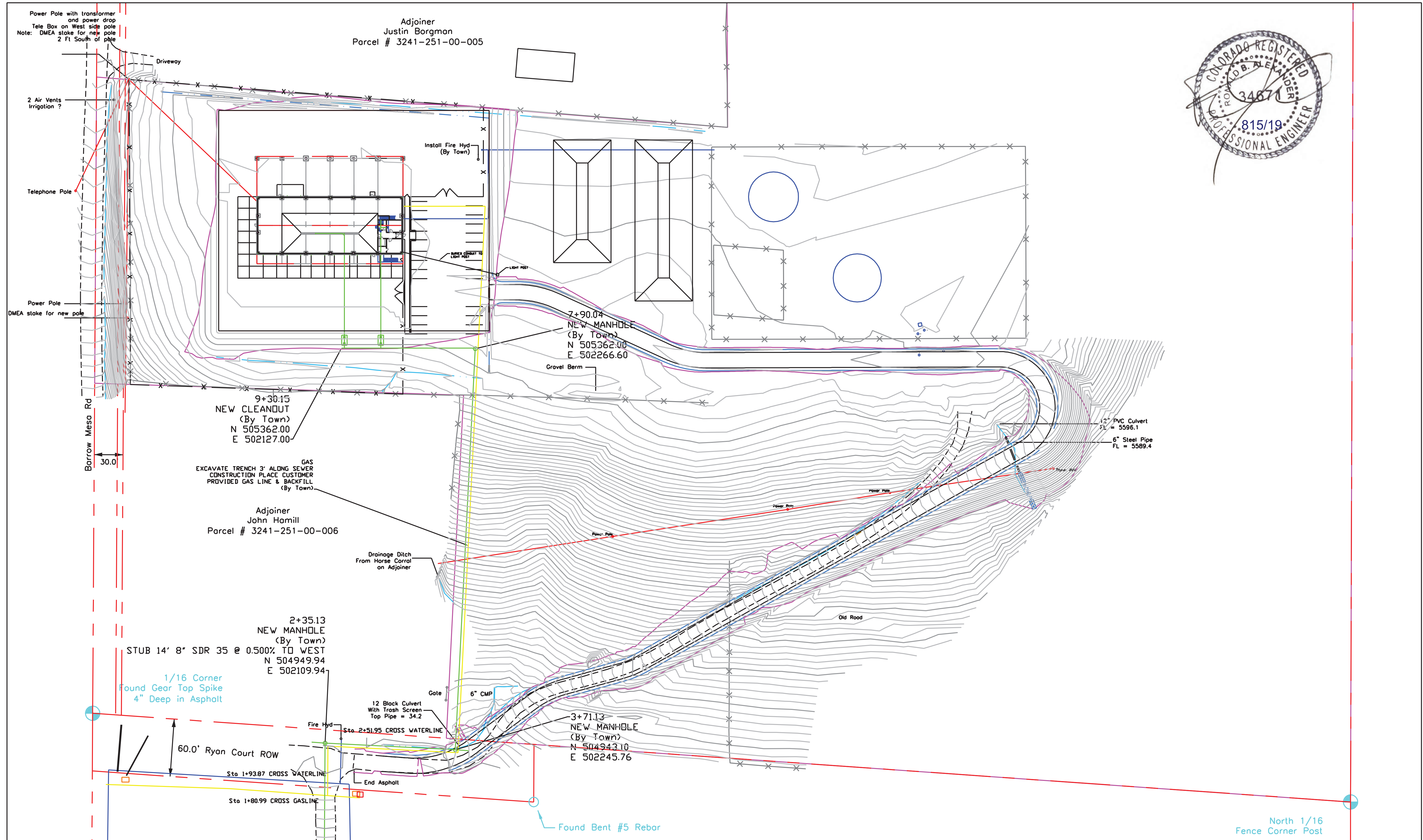
BELOW SLAB UTILITY TRENCH DETAIL



OUTSIDE BUILDING TRENCH DETAIL

811 FOR BURIED UTILITY INFORMATION THREE (3) BUSINESS DAYS BEFORE YOU DIG CALL 811 (+1-800-485-4847) UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) www.uncc.org

Computer File Information		Sheet Revisions		CONSOLIDATED CONSULTING SERVICES P.O. BOX 1073 Ridgway, CO 81432 (970) 240-8510 RA	Town of Hotchkiss P.O. BOX 389 Hotchkiss, CO 81419 (970) 872-3863	As Constructed		PUBLIC WORKS FACILITY		Project No./Code	
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Last Modification Date: 2-5-19	Initials: RA					Revised:	Designer: RA		XXXXXX		
Full Path: C:\Hotchkiss\H-Shop\						Void:	Detailer: RA				
Drawing File Name: H-Shop							Sheet Subset:	Subset Sheets: 1 of 1	Sheet Number 1		
Acad Ver.: R2000	Scale: NONE	Units: English									



Computer File Information	
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Last Modification Date:	7-3-19 Initials: RA
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Sheet Revisions	

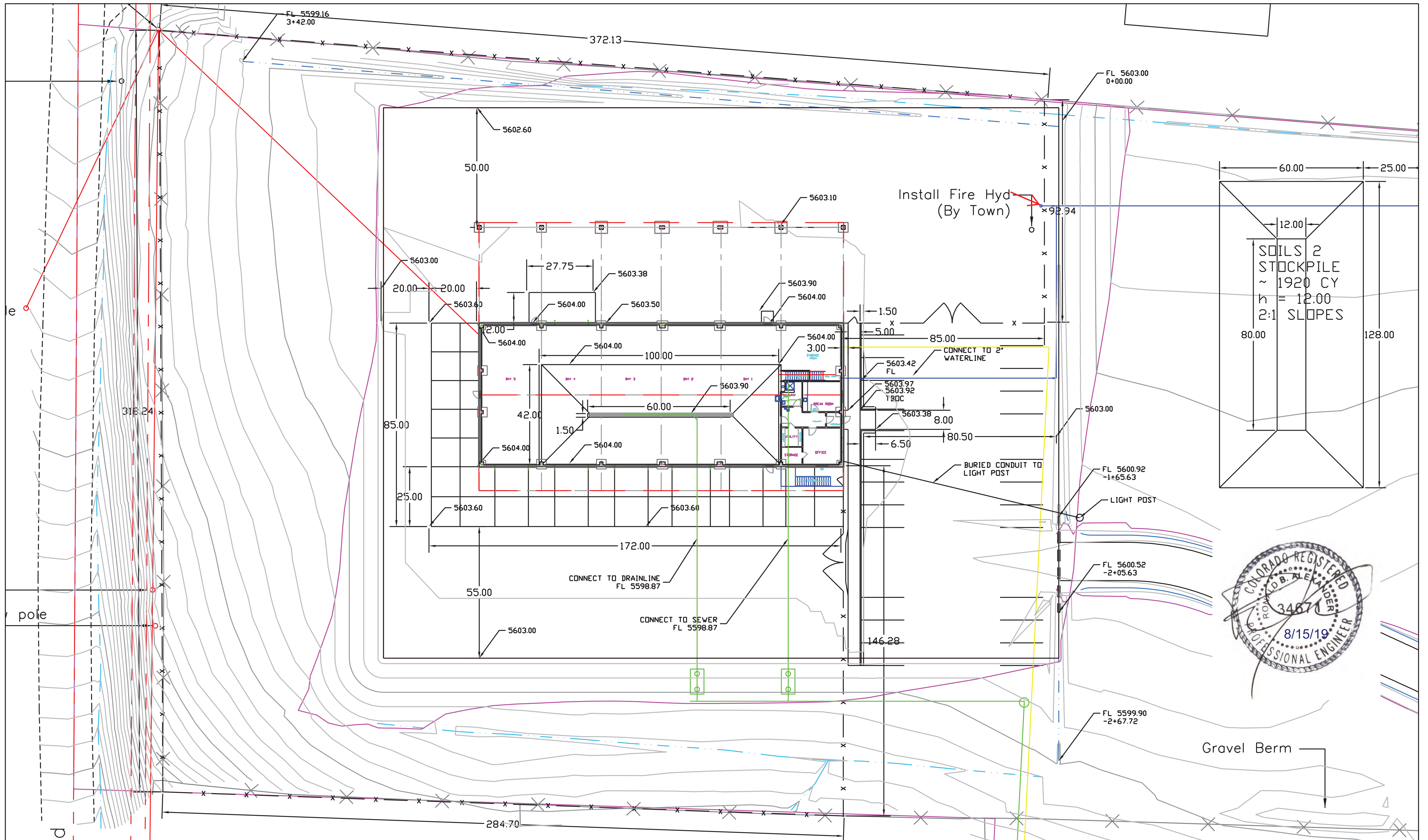
CONSOLIDATED CONSULTING SERVICES
 Town of Hotchkiss
 P.O. BOX 369
 Hotchkiss, CO 81419
 (970) 872-3663

P.O. BOX 1073
 Ridgway, CO 81432
 (970) 240-8510 RA

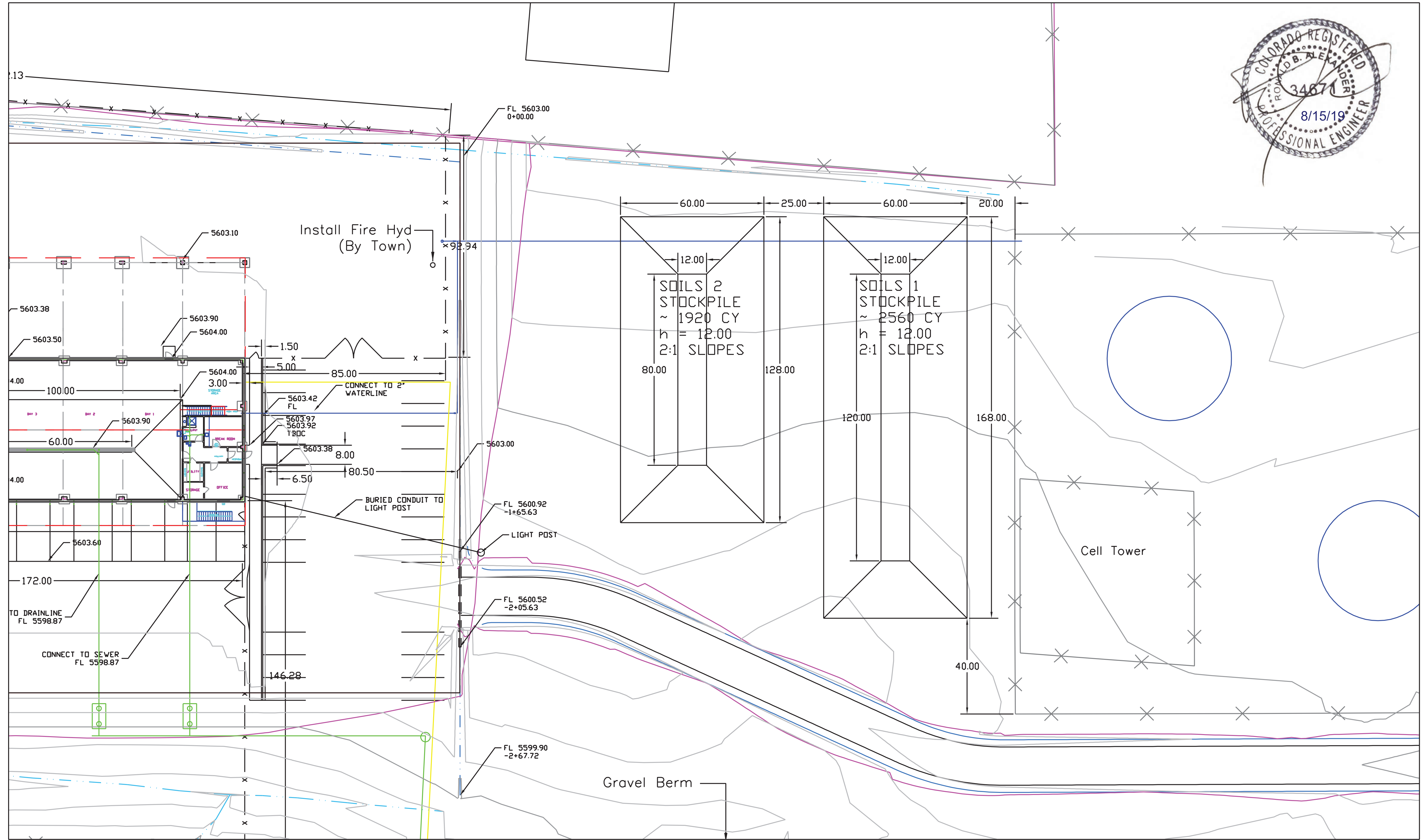
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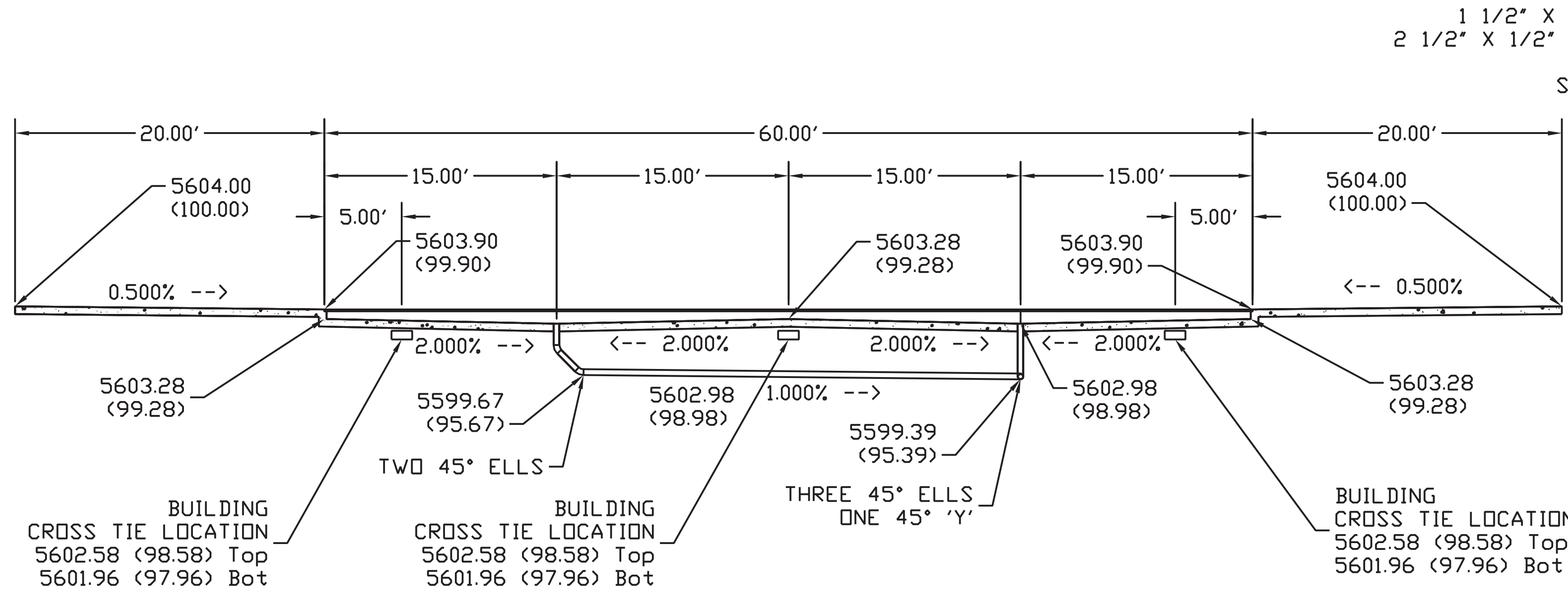
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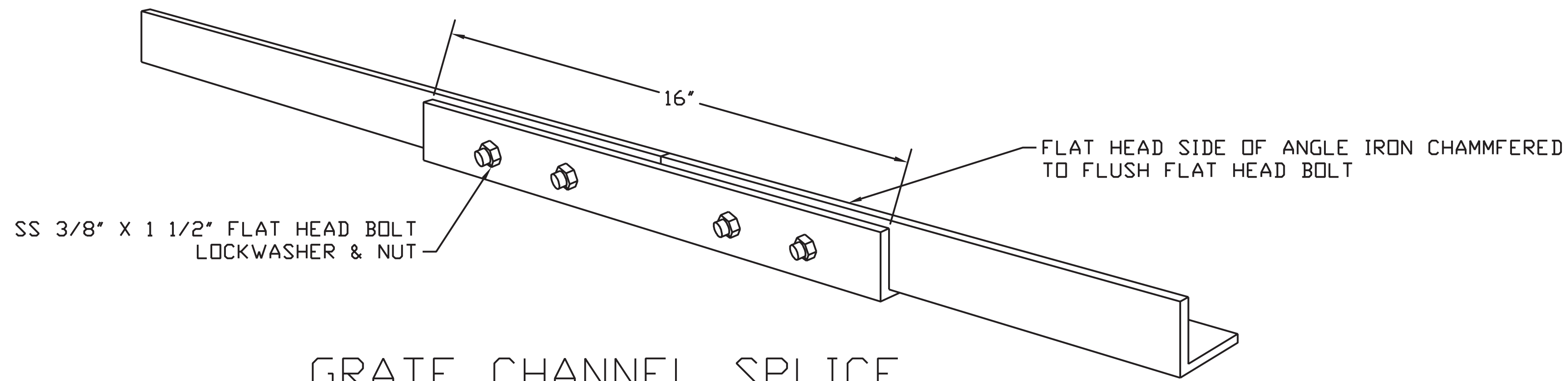
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WEST/EAST PROFILE

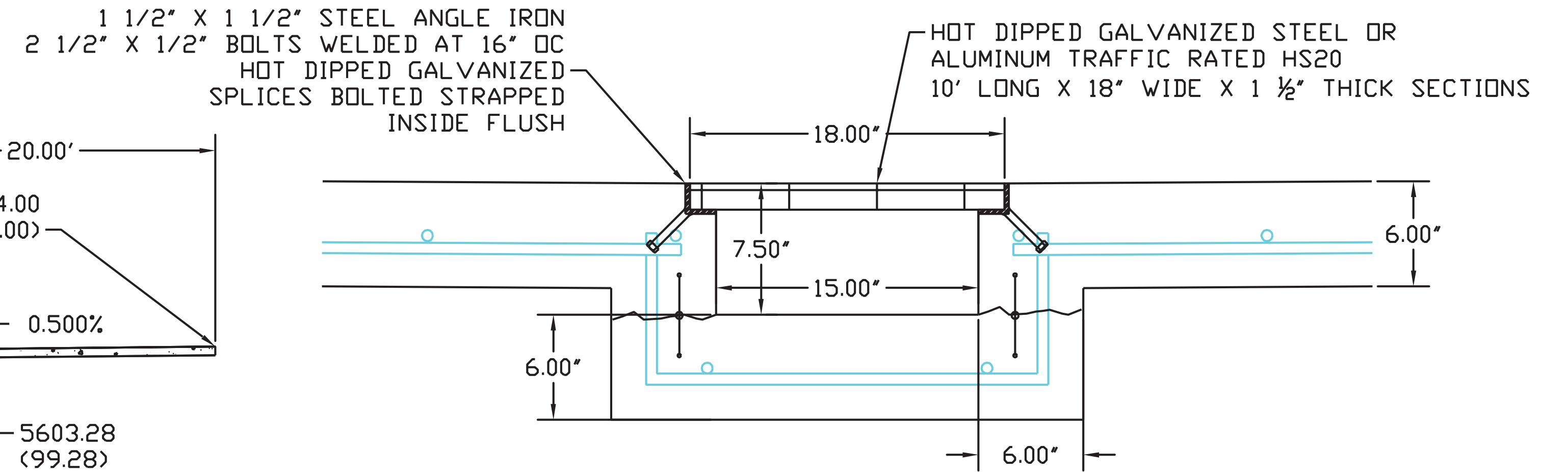


GRATE CHANNEL SPLICE

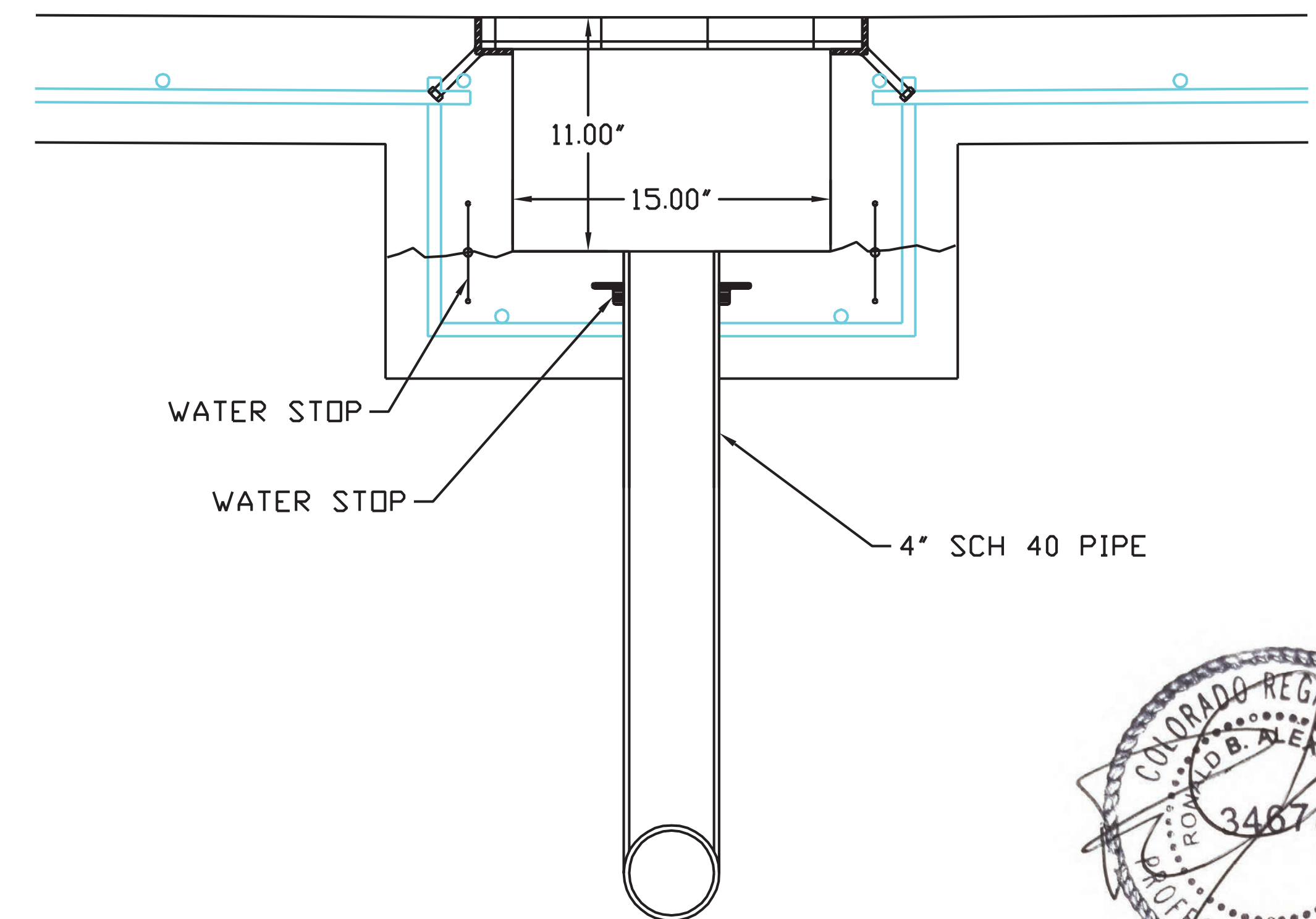
NOTE:

FLOOR DRAIN IS A WATER TIGHT STRUCTURE
POUR SHOULD BE MONOLYTHIC OR IF IN PHASES,
WATERSTOP AT ALL COLD JOINTS

BUILDING CROSS TIE LOCATIONS
0+05, 0+30, 0+55 BOTTOM CONCRETE = 5302.68 (98.68)



ENDS & CENTER CROSS SECTION
0+00, 0+30, 0+60

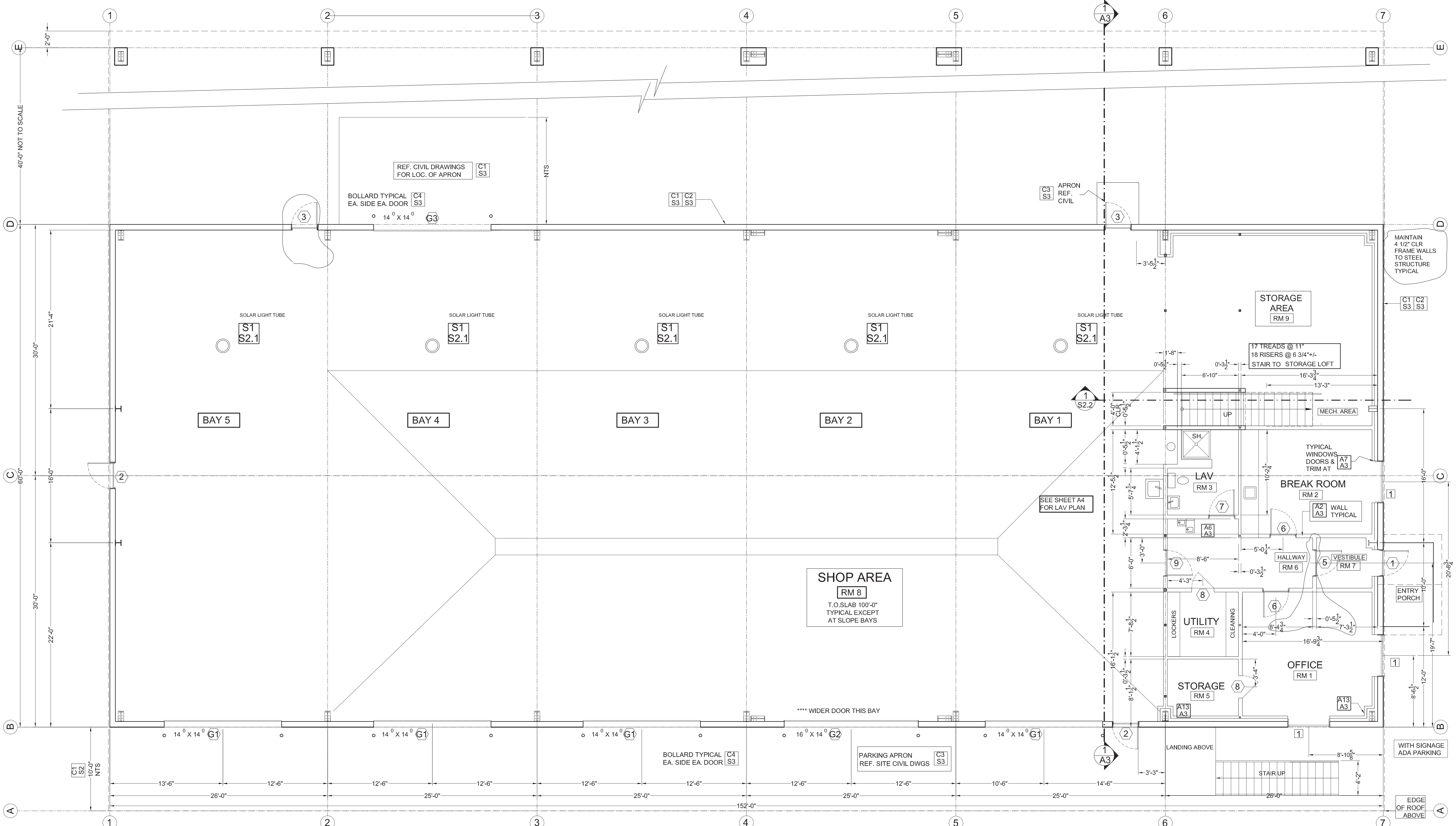


DRAIN CROSS SECTION
0+15, 0+45

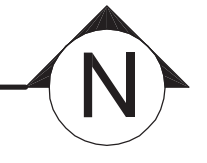
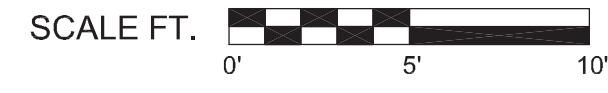


Sheet added 8/23/19

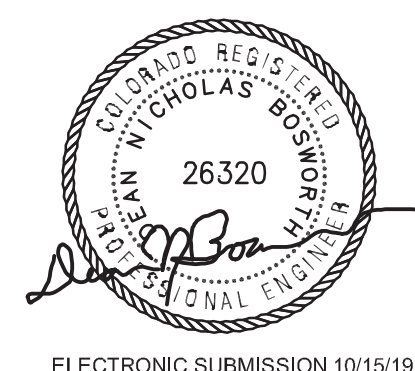
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SHOP BUILDING - PLAN



PARKING APRON
REF. SITE CIVIL DWGS C3 S3



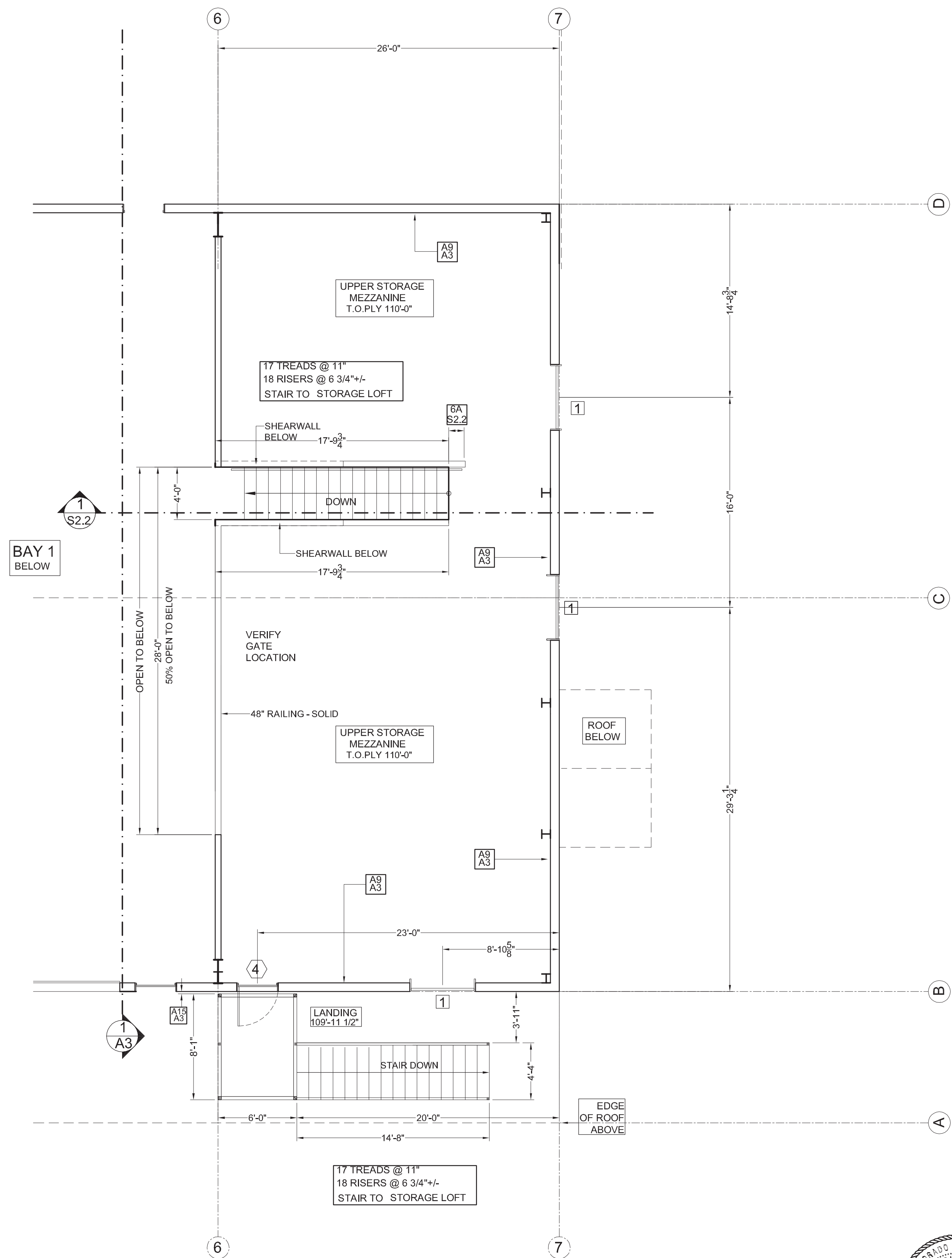
ELECTRONIC SUBMISSION 10/15/19

DRAWING ISSUES	
02/28/19	50% CD
03/20/19	RFP
08/15/19	GMP SET
10/15/19	REV 1 - PERMIT SET

PUBLIC WORKS FACILITY
TOWN OF HOTCHKISS, COLORADO

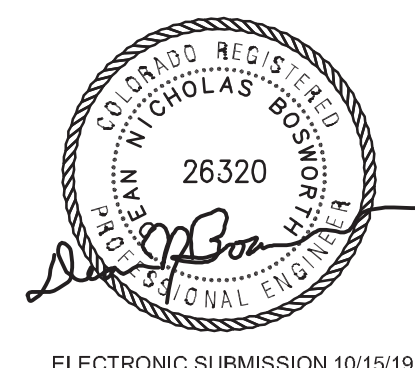
DEAN NICHOLAS BOSWORTH, PE
COLORADO STRUCTURAL ENGINEER
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970 729 1431
dean.bosworth@gmail.com

10/15/19
FLOOR PLAN
SLAB LEVEL
A1-1



MEZZANINE PLAN - T.O. PLY 110'-0"

SCALE FT.



DRAWING ISSUES	
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03/20/19	RFP
08/15/19	GMP SET
	REV 1 - PERMIT SET

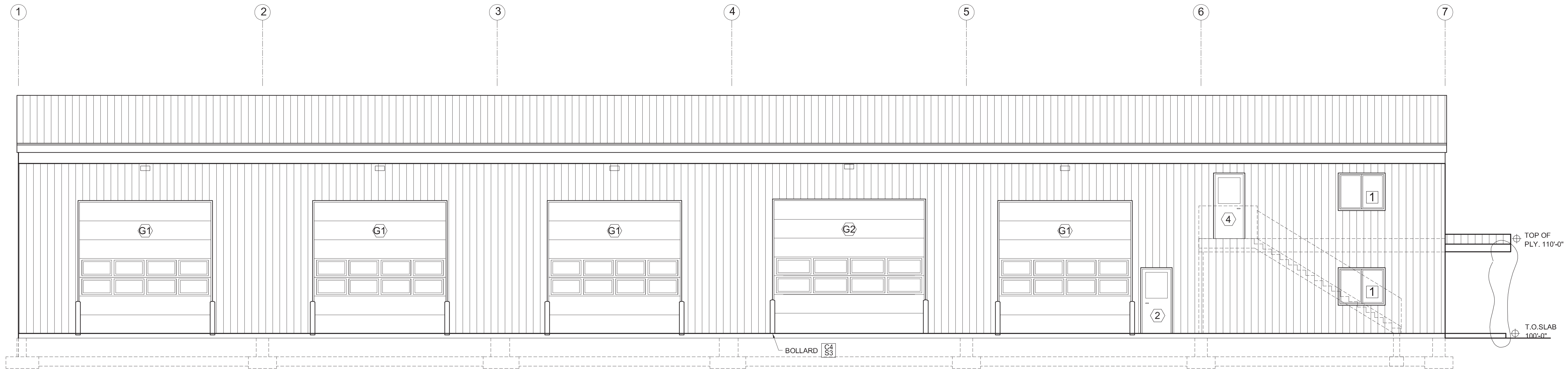
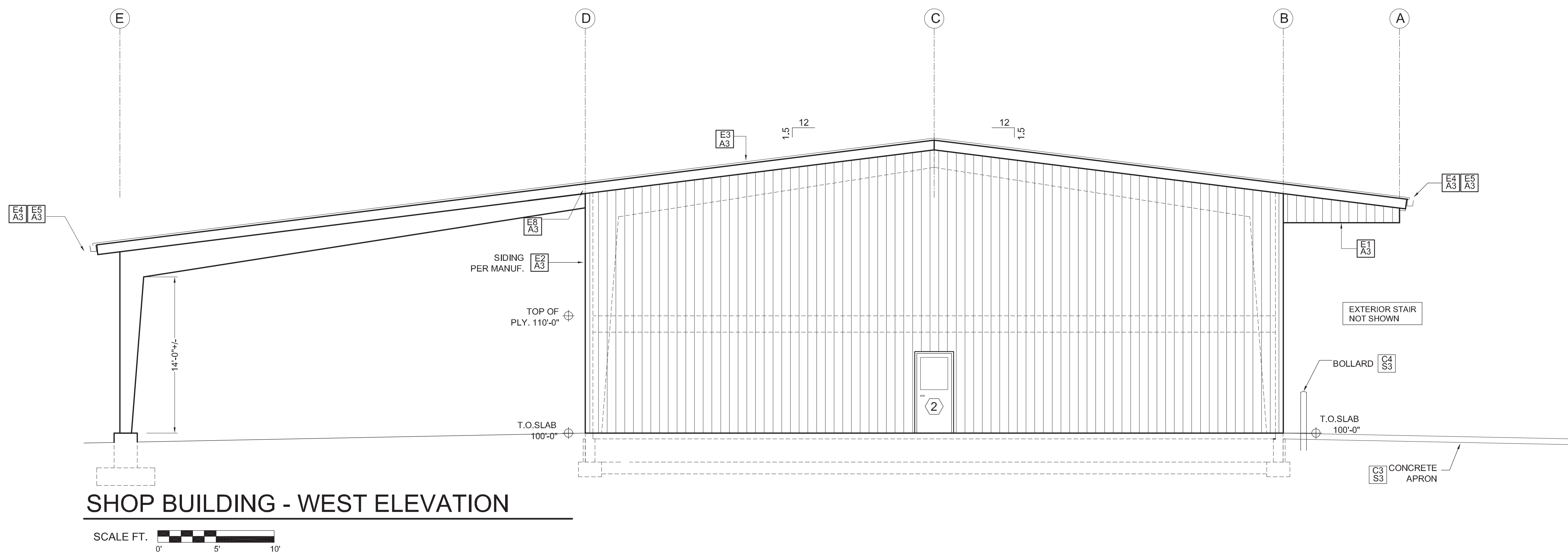
PUBLIC WORKS FACILITY
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10/15/19
FLOOR PLAN
MEZZ. LEVEL
A1-2



REFERENCE WEST ELEVATION FOR TYPICAL NOTES

SHOP BUILDING - SOUTH ELEVATION

SCALE FT. 0' 5' 10'



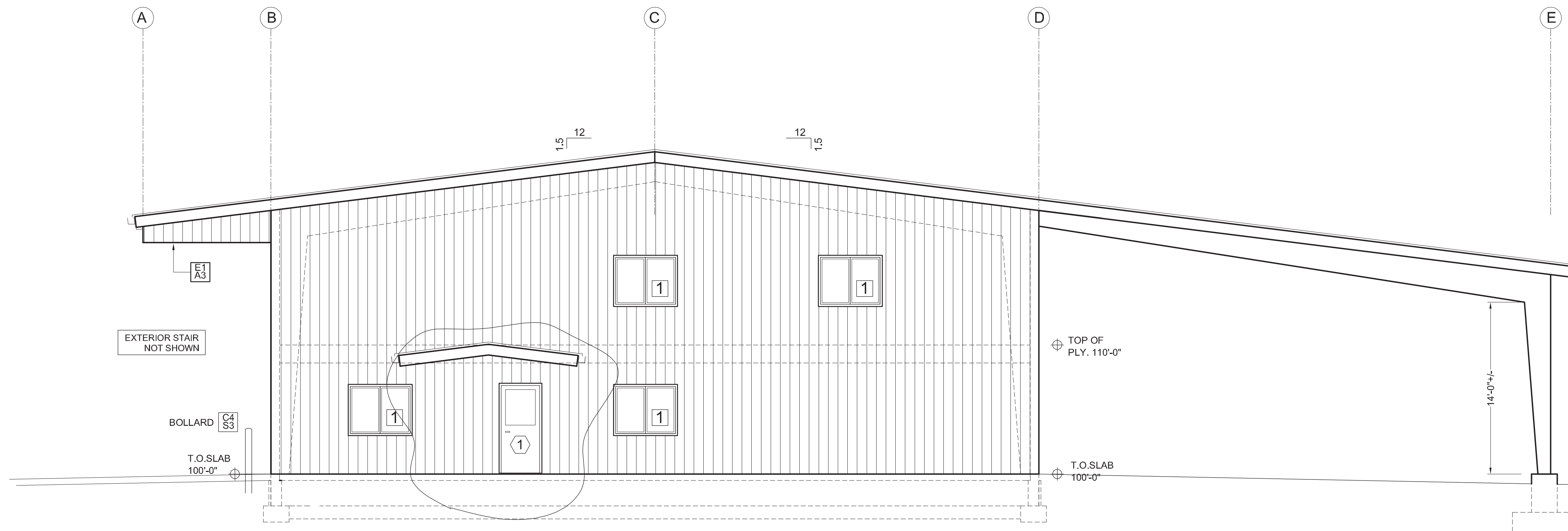
ELECTRONIC SUBMISSION 10/15/19

DRAWING ISSUES	
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08/15/19	GMP SET
10/15/19	REV 1 - PERMIT SET

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TOWN OF HOTCHKISS, COLORADO

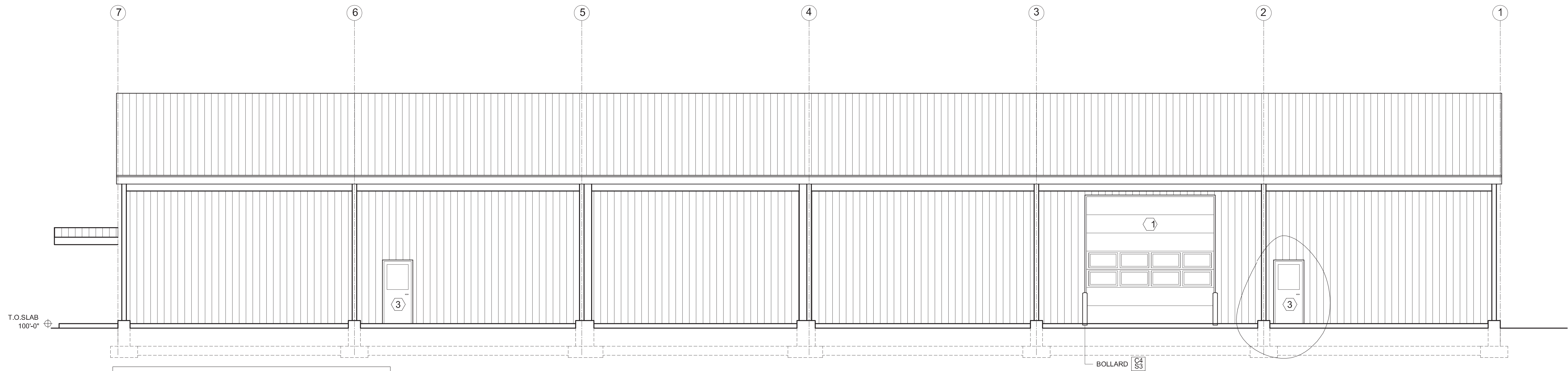
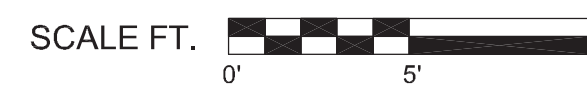
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10/15/19
BUILDING ELEVATIONS
A2-1



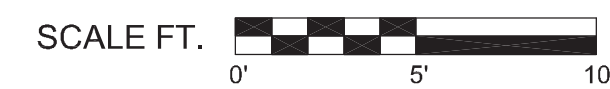
REFERENCE WEST ELEVATION FOR TYPICAL NOTES

SHOP BUILDING - EAST ELEVATION



REFERENCE WEST ELEVATION FOR TYPICAL NOTES

SHOP BUILDING - NORTH ELEVATION



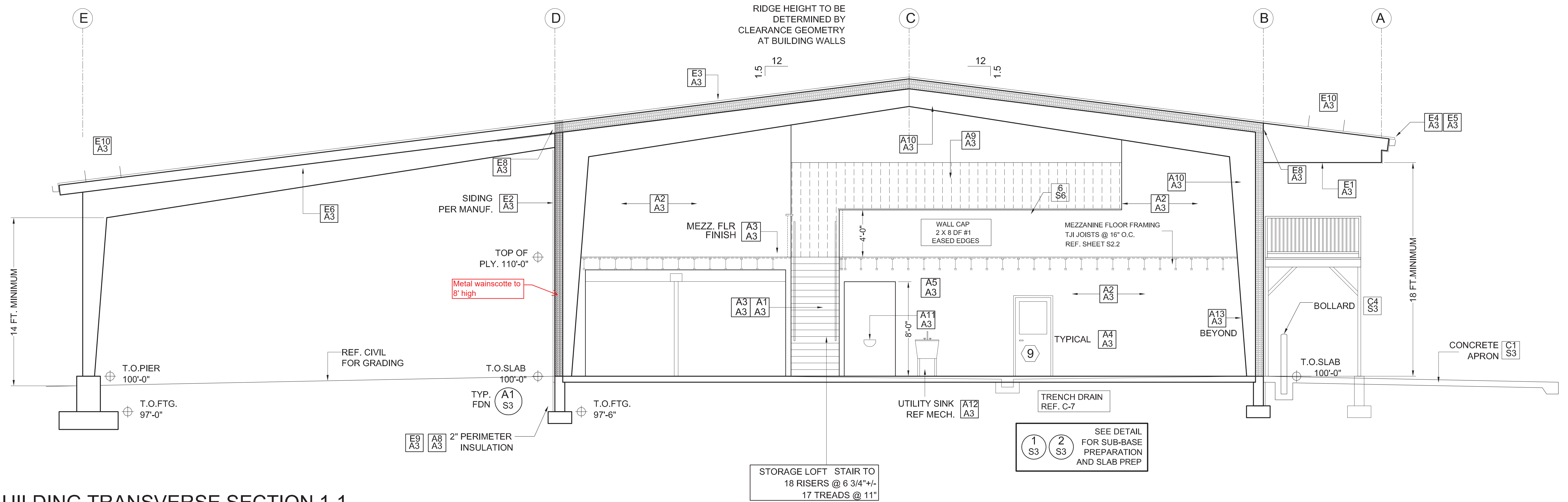
ELECTRONIC SUBMISSION 10/15/19

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08/06/19	GMP SET
10/15/19	REV 1 - PERMIT SET

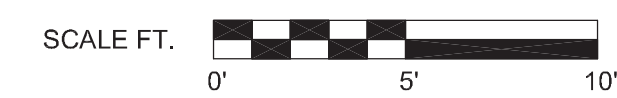
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TOWN OF HOTCHKISS, COLORADO

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10/15/19
BUILDING
ELEVATIONS
A2-2



BUILDING TRANSVERSE SECTION 1-1

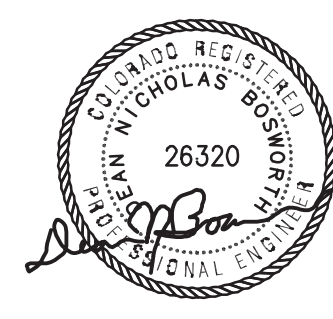


DRAWING NOTES

- A1 A3** MEZZANINE EXIT STAIRS
MEZZANINE STAIRS - MAX. RISE 6 3/4" MAXIMUM RUN 11" TREAD LENGTH 12" 1" TOE SPACE 3/8" MAX. VARIATION STAIR GEOMETRY SHALL BE ADJUSTED WITHIN THESE PARAMETERS WHEN FINAL ELEVATIONS OF UPPER AND LOWER FINISHED FLOORS ARE KNOWN
SEE S2.2 FOR STRUCTURAL REQ'TS.
- A2 A3** MEZZANINE HANDRAIL
THE GENERAL CODE REQUIREMENTS FOR THE HANDRAIL ARE INCLUDED BELOW. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A HANDRAIL THAT MEETS OR EXCEEDS THESE SPECIFICATIONS INCLUDING ALL BLOCKING AND BRACKETS REQUIRED.
- HANDRAIL TO BE LOCATED A MIN. OF 34" AND MAX. OF 38" (36" DETAILED) ABOVE THE NOSING. HANDRAIL HEIGHT ABOVE NOSINGS SHALL NOT VARY MORE THAN A TOTAL OF 3/8"
- HANDRAIL SHALL EXTEND (1) TREAD LENGTH AT BOTTOM HANDRAIL SHALL RETURN HORIZ. 12 INCHES AT THE TOP
- HANDRAILS ARE REQUIRED (1) SIDE OF THE STAIR
- A3 A3** HANDRAIL CONSTRUCTION
1 1/4" MIN. 2" MAX. CIRCULAR GRIPABLE SURFACE
1 1/2" CLEARANCE TO WALL FINISHES
HANDRAIL SHALL PROVIDE CONTINUOUS GRIP SURFACE (UNBROKEN) SPLICES REQUIRED SHALL BE SEAMLESS
- A4 A3** MINIMUM LOADING
HANDRAIL LOAD 20 PLF (S OCCUP. IBC 1607.7.11)

- A5 A3** TYPICAL INTERIOR WALLS TO BE FRAMED OF 2X4 OR 2 X6 HF #2 STUDS MAXIMUM STUD SPACING 16" O.C., 5/8" DRYWALL, MOISTURE-RESISTANCE DRYWALL SHALL BE USED AT LOCATIONS SUBJECT TO WATER, DRYWALL TO BE INSTALLED TO CODE, TAPED AND TEXTURED. TEXTURE TYPE SHALL BE A NON-SMOOTH FINISH TO BE DETERMINED BY OWNER.
LAVATORY TO BE PAINTED (SEMI GLOSS PER OWNER) BY CONTRACTOR ALL OTHER ROOMS TO BE PAINTED BY OWNER
- A6 A3** DRYWALL ENTIRE LAVATORY TO BE MOISTURE-RESISTANT
R11 INSULATION AT ALL INTERIOR WALLS - COMPATIBLE FOR INTERIOR USE
INSTALL CEMENT BOARD BACKING BEHIND SHOWERS AND OTHER LOCATIONS WHERE REQUIRED BY MANUFACTURER OR THE IBC.
- A7 A3** MEZZANINE FLOOR FINISH BY OWNER
STAIR FLOOR FINISH BY OWNER
- A8 A3** TRIM OUT ALL DOORS AND MOP BOARDS PER FINISH SPECIFICATIONS
- A9 A3** RECESS FOR EYE WASH.
- A10 A3** WATER FOUNTAIN - ADA COMPLIANT
INSTALL TO MANUFACTURER SPECIFICATIONS. REF. MECH.
- A11 A3** RETURN TRIM AT WINDOWS AND DOORS TO INTEGRATE WITH TRIM, FLASHING AND MOISTURE-PROOFING FOR EXTERIOR WINDOWS
- A12 A3** PERIMETER INSULATION
2" RIGID FOAM REF. SPECIFICATIONS
- A13 A3** STEEL INTERIOR LINER PER METAL BUILDING MANUFACTURER
PERIMETER OF MAIN FLOOR (EXCEPT) AT OFFICE SPACES WHERE FRAME WALLS EXIST. HEIGHT TO WIND GIRT (MINIMUM 8 FT. HIGH) AND AT EXTERIOR OF MEZZANINE TO A HEIGHT OF 8 FT.
- A14 A3** STEEL FRAMING SHALL BE PRIMED PER PROJECT SPECIFICATIONS
- A15 A3** EYEWASH PER OSHA.
REF. MECH DWGS
- A16 A3** MOP SINK REF. MECH.
- A17 A3** FRAME AROUND STEEL COLUMNS IN OFFICE SPACES
DRYWALL FINISH PER OTHER DETAILS
- A18 A3** LOCATE STAIR LANDING OUTSIDE OF THE ENVELOPE OF THE BUILDING. MAXIMUM GAP 1" TBD

- ### EXTERIOR NOTES FOR METAL BUILDING PACKAGE
- REF. METAL BUILDING SPECIFICATION NOTES AND MANUF. SHOP DRAWINGS
ALL EXTERIOR STEEL BUILDING COMPONENTS SHALL BE COMPATIBLE WITH SELECTED STRUCTURAL SYSTEMS, ROOFING SYSTEMS, WALL SYSTEMS AND MISC. TRIM. COLOR TO BE SELECTED BY OWNER AND SHALL MATCH.
- E1 A3** SOFFIT TO BE COVERED WITH STEEL SIDING TO MATCH WALL APPEARANCE.
- E2 A3** EXTERIOR SIDING
REF. SPECIFICATIONS COLOR TBD FROM STANDARD COLORS
- E3 A3** ROOFING PER STEEL BUILDING MANUF.
STANDING SEAM
ROOFING TO BE SPECIFIED FOR SPANS PER BUILDING MANUF.
- E4 A3** FLASHING PER STEEL BUILDING MANUF.
AS NEEDED FOR A WATER AND DAMP TIGHT INSTALLATION.
- E5 A3** CONTINUOUS RAINGUTTER SOUTH OVERHANG PER MANUF.
CONTINUOUS RAINGUTTER NORTH OVERHANG PER MANUF.
DOWNSPOUT EACH END. SLOPE AS REQUIRED.
INTERMEDIATE DOWNSPOUTS SHALL NOT BE USED.
- E6 A3** ROOFING EXPOSED TO BELOW AT EQUIPMENT AWNING
ALL STRUCTURAL ELEMENTS TO BE PRIMED
- E8 A3** FLASH AND SEAL AT BEAM PROJECTIONS AS REQUIRED.
FLASHING TO MATCH SIDING COLOR, INSULATE AND CAULK
- E9 A3** FLASHING OVER INSULATION GALVANIZED 24 GAGE.
PROFILE TO ACCOMMODATE BASE DETAIL OF BUILDING
EXTEND MIN. 6 INCHES BELOW FINISHED GRADE
ATTACH INSULATION TO STEMWALL PER INSUL.MANUF.SPEC.
- E10 A3** SNOW RAILS SHALL BE DESIGNED AND SPECIFIED BY THE METAL BUILDING MANUFACTURE AND SHALL BE CONSISTENT WITH THE STANDING SEAM ROOF. CLIPS SHALL BE INSTALLED AT NORTH AND SOUTH EAVE LINES TO PROTECT RAINGUTTERS.



DRAWING ISSUES	
02/28/19	50% CD
13/20/19	RFP
08/15/19	GMP SET
10/15/19	REV 1 PERMIT SET

PUBLIC WORKS FACILITY
TOWN OF OLATHE, COLORADO

DEAN NICHOLAS BOSWORTH, PE
COLORADO STRUCTURAL ENGINEER

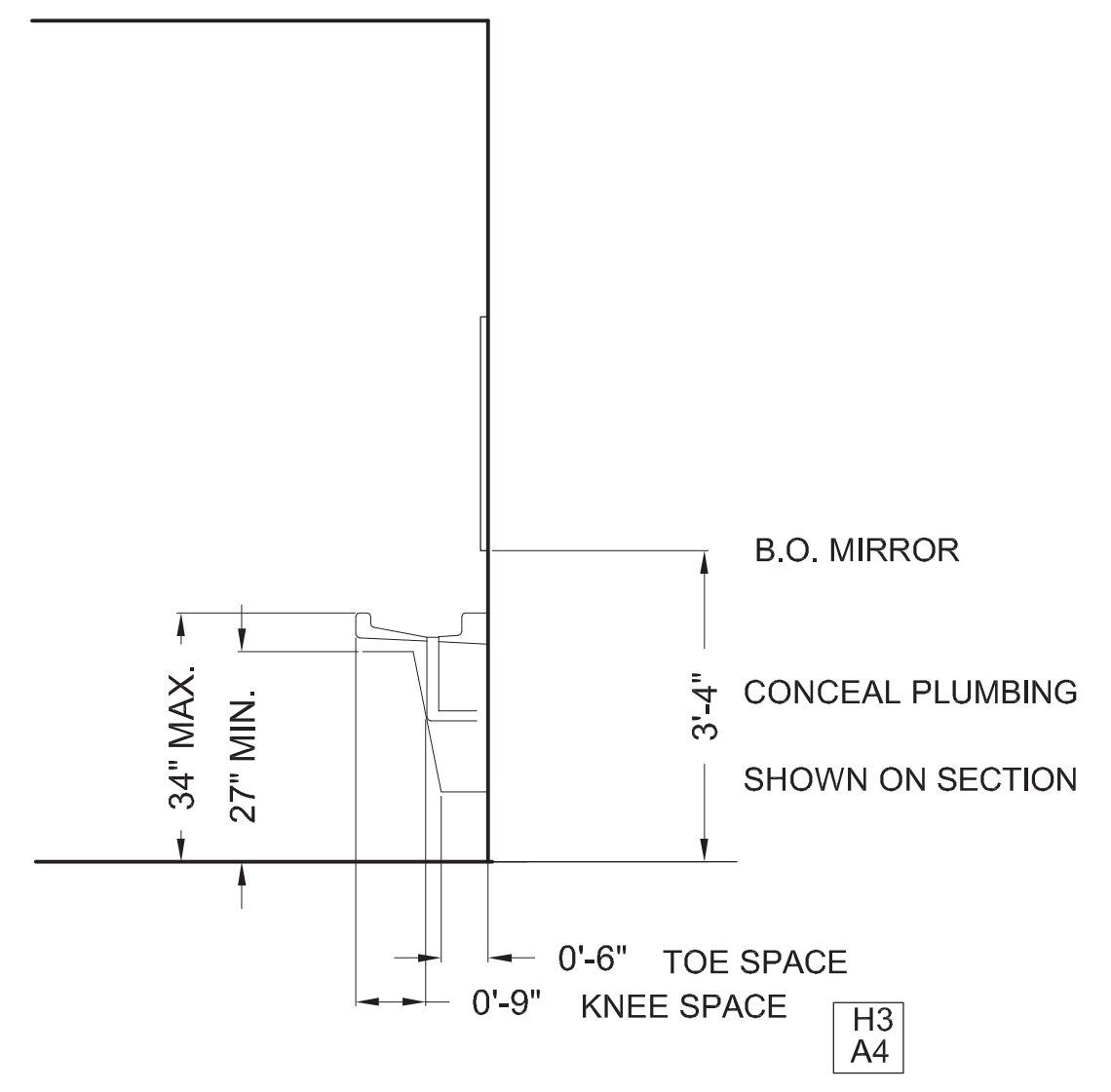
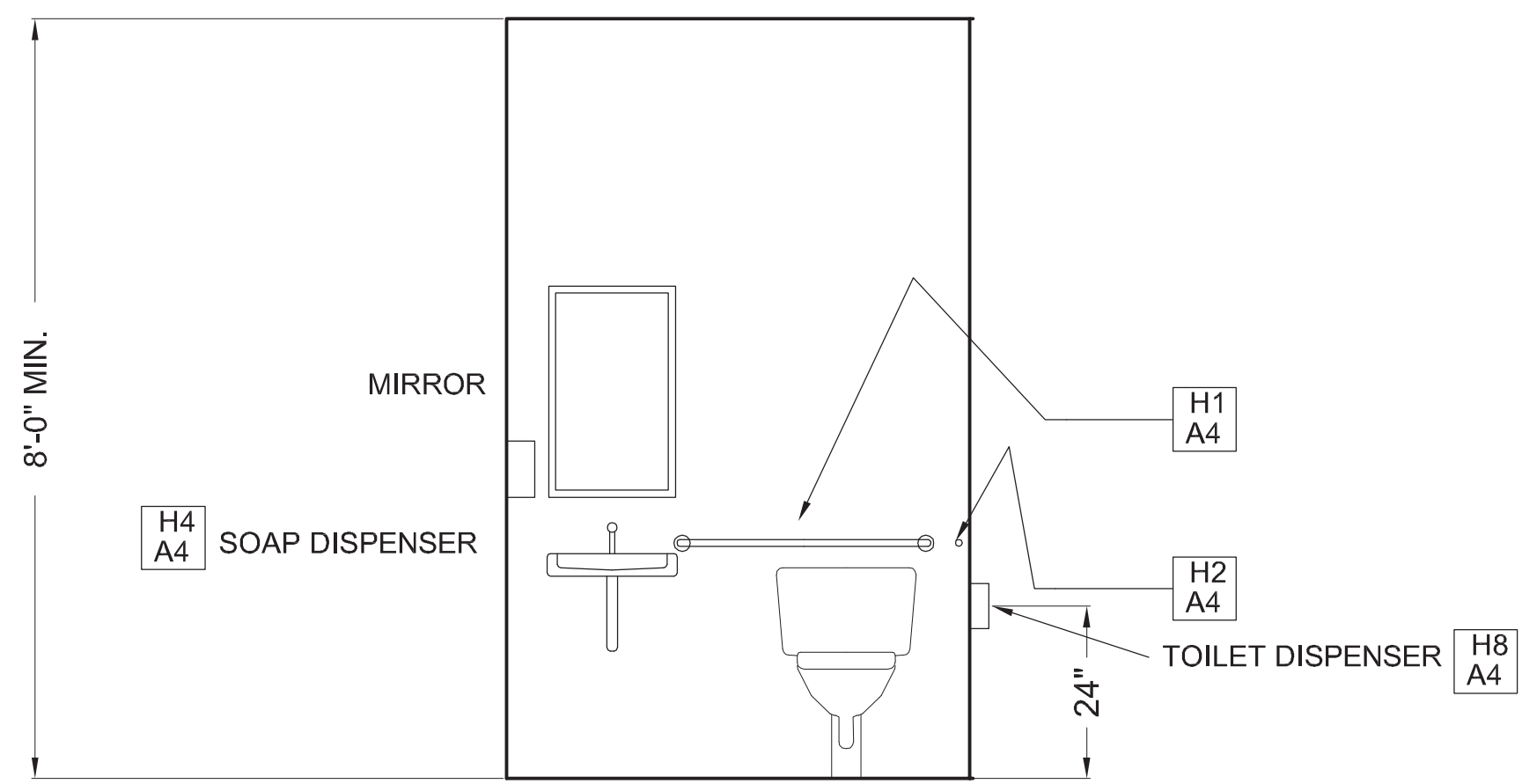
150 ROCKPOINT DRIVE UNIT B
DURANGO, CO 81301

970 729 1431
dean.bosworth@gmail.com

10/15/19
BUILDING
X-SECTION

A3

ELECTRONIC SUBMISSION 10/15/19



PRODUCT SPECIFICATIONS

REFER TO MECHANICAL PLANS AND SPECIFICATIONS FOR ALL PLUMBING FIXTURES. REFER TO MANUFACTURER SPECIFICATIONS FOR R.I. PLUMBING LOCATIONS AND R.I. FRAMING SIZES AND BACKING MATERIAL AS NEEDED.

- TOWEL WASTE UNITS - BOBRICK B369 - MOUNT PER MANUF. DIMENSIONS FOR ADA COMPATIBILITY
- SOAP DISPENSER - BOBRICK B-2111 - MOUNT PER MANUF. DIMENSIONS
- TOILET TISSUE DISPENSER - BOBRICK B4388 - MOUNT PER MANUF. DIM.
- MIRROR - BOBRICK B-942 11 1/4" X 17 1/4"
- 36 INCH GRAB BARS - BOBRICK B-5806 (915MM)
- 42 INCH GRAB BARS - BOBRICK B-5806 (1065MM)

ADDITIONAL NOTES

PROVIDE BLOCKING IN FRAMING AS REQUIRED FOR ALL SPECIFIED FIXTURES, GRAB BARS, SURFACE AND FLUSH MOUNT ACCESSORIES. VERIFY ALL BACKING REQUIREMENTS AND BLOCKING LOCATIONS WITH MANUFACTURER'S SPECIFIC DIRECTION AND INSTRUCTION.

PRODUCT SPECIFICATIONS SHOWN MAY BE SUBSTITUTED WITH AN APPROVED EQUAL TO BE SELECTED BY THE CONTRACTOR AND OWNER. INSTALLATION TO MAINTAIN ADA ACCESSIBILITY MAY VARY WITH SUBSTITUTED PRODUCTS. VERIFY ANY DIMENSIONAL VARIATIONS AS A RESULT OF SUBSTITUTIONS.

ALL FLOOR SHALL BE FINISHED WITH SHEET VINYL COMPATIBLE WITH WHEELCHAIR LOADING. INSTALL PER MANUFACTURER REQUIREMENTS.

ALL WALLS SHALL BE PRIMED THEN PAINTED WITH A GLOSS/CLEANABLE PAINT.

ALL FLOOR PERIMETERS SHALL BE FINISHED WITH A MOPABLE VINYL BASEBOARD MATERIAL MINIMUM OF 4 INCHES IN HEIGHT. (BY OWNER)

LIGHTING SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (LATEST STATE ADOPTED STANDARD)

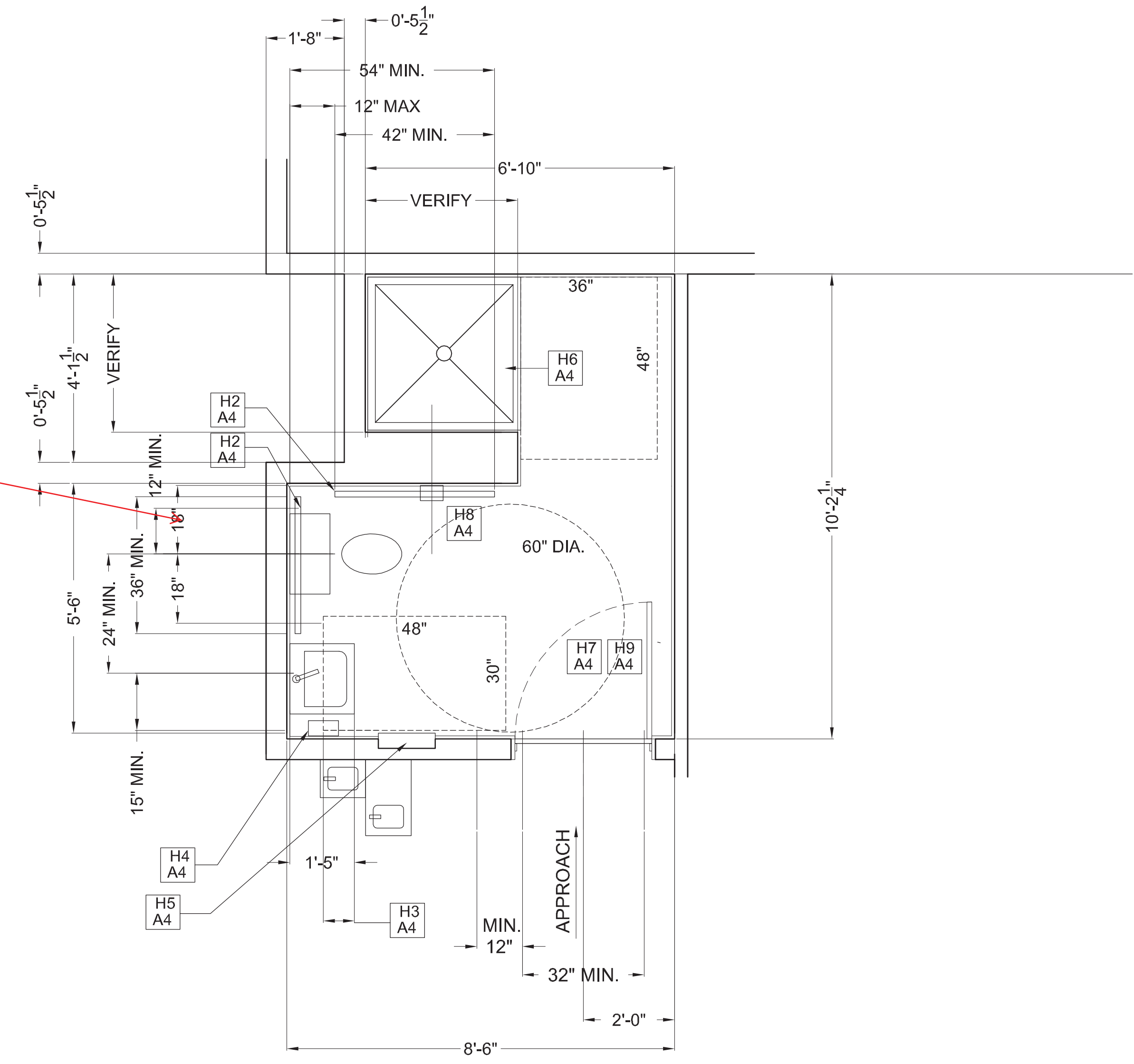
VENTILATION FAN SHALL BE PROVIDED (SWITCH OR TIMER OPERATED). EXHAUSTED AIR TO EXTERIOR IS REQUIRED. REF. MECH.

EACH DOOR SHALL BE SIGNED WITH ADA ACCESSIBILITY SYMBOL AND SHALL BE CLEARLY IDENTIFIED AS UNISEX

FIXTURE WALL ELEVATION TYPICAL

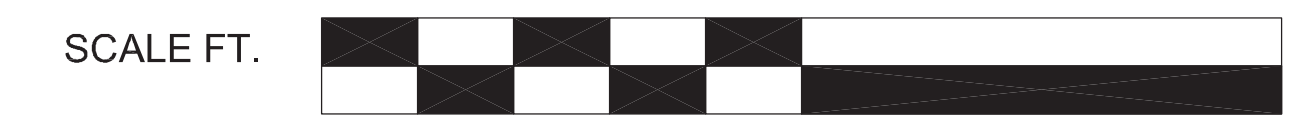
SECTION AT LAVATORY TYPICAL

Insure that the spacing selected not only meets the minimums listed but also does not create interferences

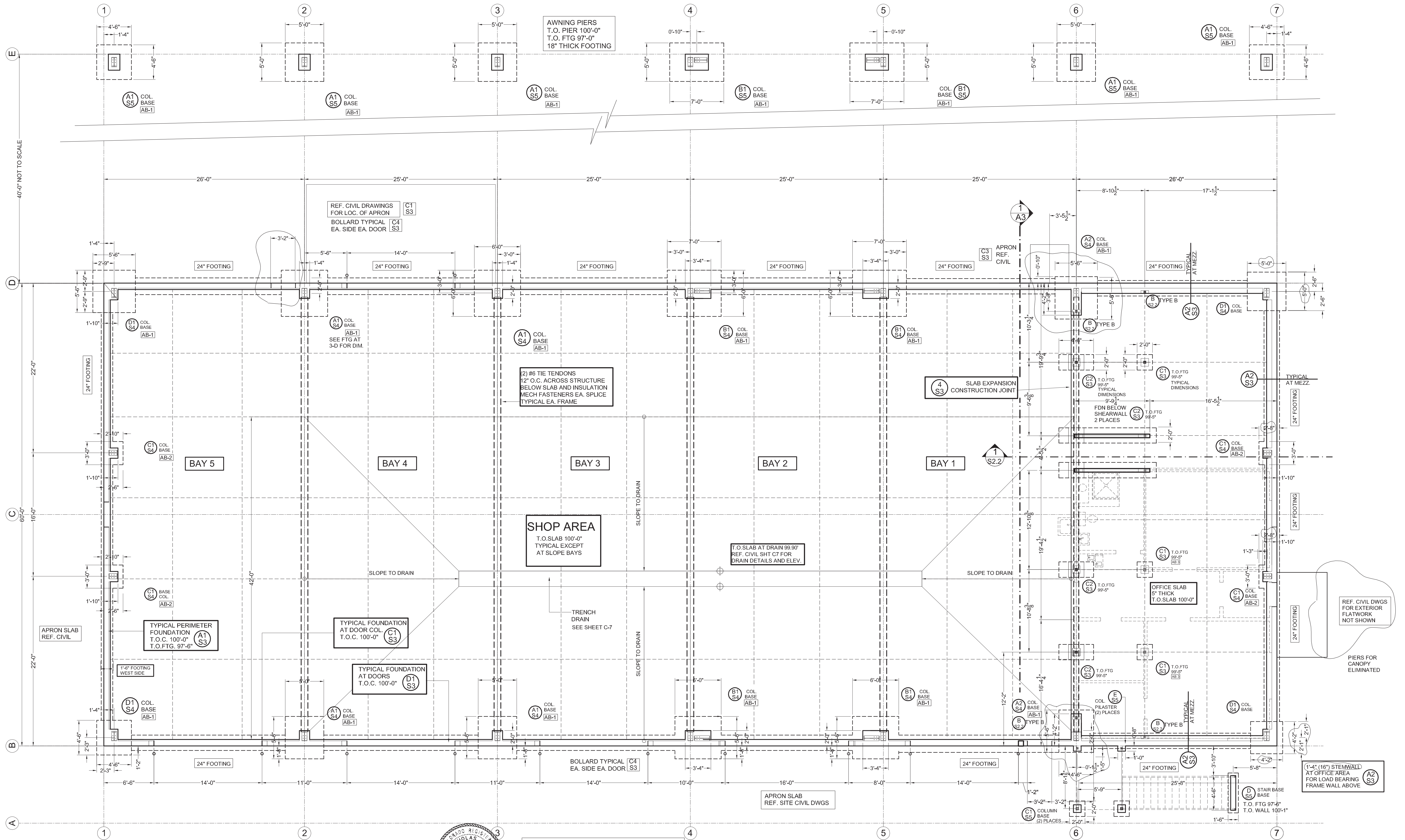


- H1 A4 36" MIN. REAR GRAB BAR MOUNT 33" MIN. 36" MAX. FROM FINISHED FLOOR
- H2 A4 42" MIN. SIDE GRAB BAR MOUNT 33" MIN. 36" MAX. FROM FINISHED FLOOR
- H3 A4 KNEE SPACE TO PLUMBING MINIMUM 9 INCHES
- H4 A4 SOAP DISPENSER LOCATE PER MANUFACTURER SPECS.
- H5 A4 RECESSED COMBINATION TOWEL/WASTE UNIT
- H6 A4 5/8" BARRIER FREE THRESHOLD
- H7 A4 DOOR - REF. SCHEDULE & SPECIFICATIONS ADA HARDWARE - SELF CLOSING SPRING LOCK - PANIC HARDWARE
- H8 A4 TOILET PAPER DISPENSER LOCATE 15" MIN. 24" MAX. FROM FINISHED FLOOR
- H9 A4 ADA COMPATIBLE LEVER-TYPE DOOR LATCH ADA COMPATIBLE DOOR STOP

LAVATORY PLAN/ DETAILS

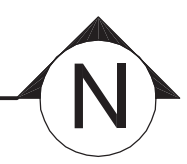


DRAWING ISSUES GMP SET REV 1 PERMIT 10/15/19	PUBLIC WORKS FACILITY TOWN OF HOTCHKISS, COLORADO	DEAN NICHOLAS BOSWORTH, PE	10/15/19
		COLORADO STRUCTURAL ENGINEER	LAV PLAN
		150 ROCKPOINT DRIVE #B DURANGO, CO 81301	970 729 1431 dean.bosworth@gmail.com



SHOP FOUNDATION PLAN

SCALE FT. 0' 5' 10'



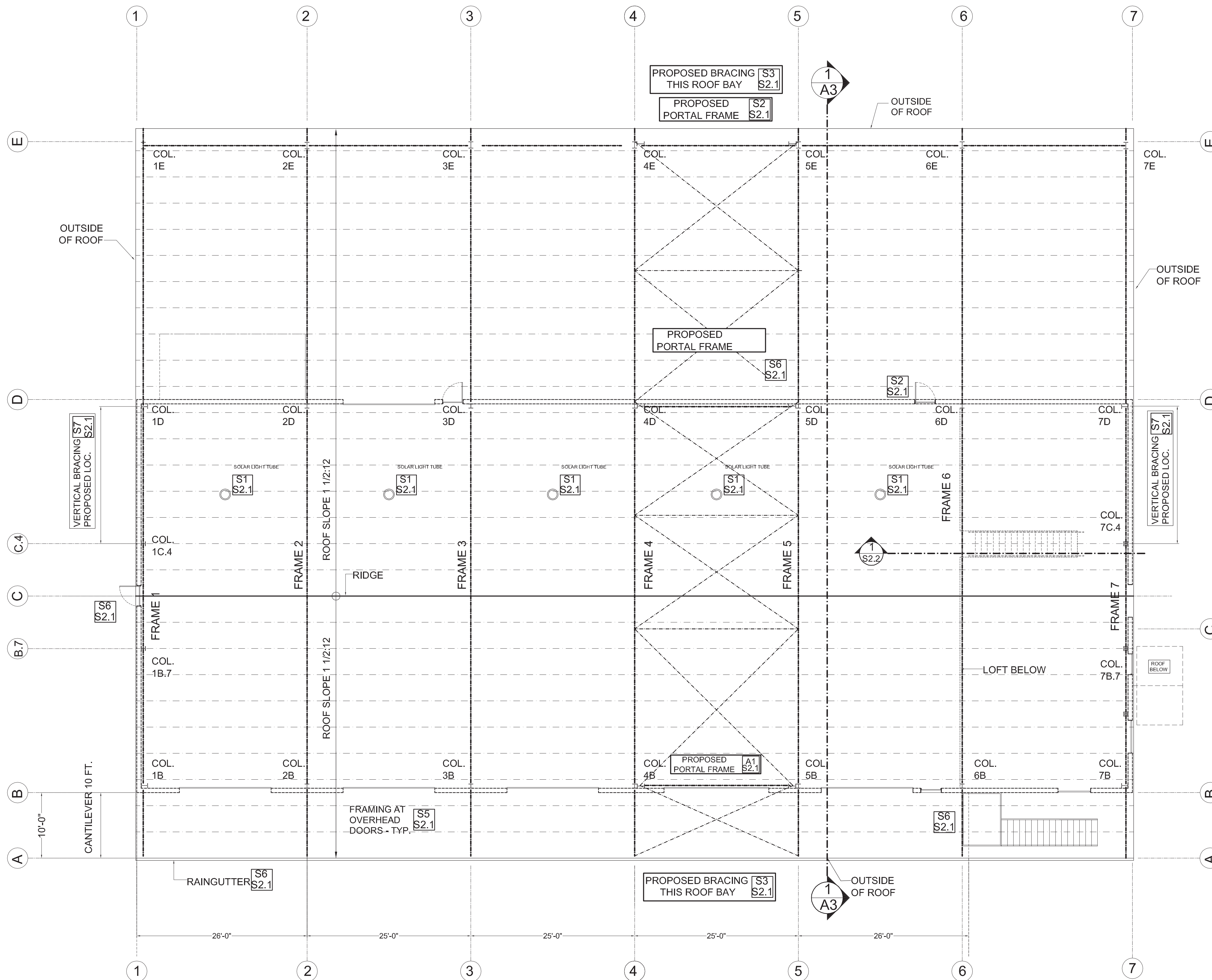
TYPICAL FOUNDATION AT DOORS	(B1 S3)
TYPICAL PERIMETER FOUNDATION	(A1 S3)
TYPICAL SLAB DETAILS	(2 S3)
TYPICAL EXCAVATION STRUCTURAL FILL/BACKFILL	(1 S3)

DRAWING ISSUES	
02/28/19	50% CD
03/20/19	RFP
08/15/19	GMP SET
	REV 1 - PERMIT SET

PUBLIC WORKS FACILITY
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10/15/19
FOUNDATION PLAN
S1



STEEL BUILDING NOTES

THIS PLAN IS A SCHEMATIC LAYOUT OF THE ROOF PLAN AND PROPOSED FRAME LOCATIONS, BRACING LOCATIONS AND COLUMN LOCATIONS. THE FINAL LOCATION, SIZES AND DESIGN OF THESE ELEMENTS IS SUBJECT TO THE DESIGN FURNISHED BY THE STEEL BUILDING MANUFACTURER/FABRICATOR.

THE CONTRACTOR IS RESPONSIBLE FOR THE SELECTION OF THE STEEL BUILDING MANUFACTURER/FABRICATOR. REFERENCE PROJECT SPECIFICATIONS.

THE CONTRACTOR SHALL PROVIDE NOTICE TO THE ENGINEER AS SOON AS PRACTICAL IF THE STRUCTURAL LAYOUT SHOWN IS NOT EFFICIENT OR APPLICABLE WITH THE DESIGN INTENT OF THE BUILDING MANUFACTURER. MINOR VARIATIONS IN THE FRAMING LAYOUT WILL RESULT IN MINOR CHANGES TO THE FOUNDATION AND FLOOR PLAN.

THE STEEL BUILDING MANUFACTURER SHALL FURNISH ALL NECESSARY DESIGN, DETAILING, AND MATERIALS FOR THE FOLLOWING ELEMENTS OF THE CONSTRUCTION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL ASPECTS OF THE CONSTRUCTION OF THE METAL BUILDING INCLUDING THE SELECTION OF THE BUILDING ELEMENTS REQUIRED TO COMPLETE THE BUILDING WITHIN THE PROJECT SPECIFICATIONS, INDUSTRY STANDARDS AND GOVERNING CODES. THE CONTRACTOR SHALL INSURE COMPATIBILITY OF ALL METAL BUILDING ELEMENTS ALL DESIGN AND DETAILING SHALL BE UNDER THE DIRECTION AND APPROVAL OF A COLORADO REGISTERED ENGINEER RETAINED BY THE METAL BUILDING MANUFACTURER.

REFERENCE PROJECT SPECIFICATIONS FOR SUBMITTAL AND REVIEW PROCESS.

THE FOLLOWING ELEMENTS SHALL BE INCLUDED AS PART OF THE STEEL BUILDING SYSTEM.

- MOMENT STEEL FRAMES INCLUDING BEAMS AND COLUMNS
- ROOF PURLINS AND BEAMS AS REQUIRED
- WALL PURLINS AND WIND COLUMNS AS REQUIRED
- BRACING OR PORTAL FRAMES AS REQUIRED AT LOC. SHOWN
- STEEL STANDING SEAM ROOFING
- RIBBED METAL SIDING
- ALL BASE PLATES AND ANCHOR BOLTS
- VINYL FACED INSULATION AT EXTERIOR WALLS AND ROOF (EXCEPT AT AWNING & OVERHANG)
- EXTERIOR PASSAGE DOORS AND WINDOWS
- SUPERSTRUCTURE FLASHING, SOFFITS AND FASCIAS AS REQUIRED.
- RAINGUTTERS, DOWNSPOUTS AND SNOW CLIPS AT LOCATIONS SHOWN
- SKYLIGHTS AND REQUIRED FRAMING AND FLASHING

ALL STEEL SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

SUPERSTRUCTURE DESIGN LOADS

THE STEEL BUILDING MANUFACTURER SHALL PROVIDE THE NECESSARY STRUCTURAL ELEMENTS EXTERIOR SKIN ELEMENTS AND FLASHING TO PROVIDE A WEATHER-PROOF STRUCTURE TO THE LOADINGS REQUIRED IN THE INTERNATIONAL BUILDING CODE 2015. THE STEEL BUILDING MANUF. SHALL PROVIDE ALL NECESSARY ENGINEERING BY A COLORADO REGISTERED ENGINEER.

THE BUILDING SHALL BE DESIGNED FOR THE FOLLOWING LOADS
LOADCOMBINATIONS SHALL BE CONSISTENT WITH INDUSTRY PRACTICES AND THE IBC

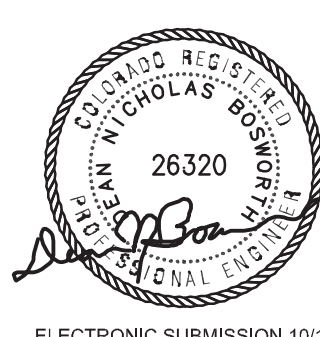
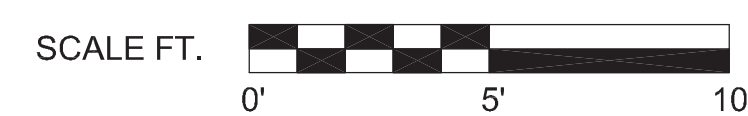
THE BUILDING SHALL BE DESIGNED FOR THE FOLLOWING STRUCTURAL LOADS

- SNOW LOAD 40 PSF (ROOF)
 - WIND LOAD 115 MPH 3 SEC. GUST
 - SEISMIC ZONE TO BE DETERMINED
 - MEZZANINE 125 PSF
 - COLLATERAL LOADS (INTERIOR CEILING, MECH, ETC) 10 PSF
- LOAD COMBINATIONS SHALL BE CONSISTENT WITH INDUSTRY PRACTICES AND THE IBC

STEEL BUILDING NOTES

- S1 S2.1** SOLAR LIGHT TUBES SHALL BE INSTALLED AT THE LOC. SHOWN ON THE PLANS. FRAMING SHALL BE DESIGNED TO SUPPORT EDGE OF ROOFING. WEATHER-PROOFING AND LIGHT TUBES. MINOR VARIATIONS IN LOCATION ARE PERMITTED TO FACILITATE STRUCTURAL ELEMENTS LIGHT TUBES SHALL BE VELUX MODEL #TGF 022 0000E0 22" DIAMETER, WITH ACCESSORIES REQ'D FOR INSTALLATION
- S2 S2.1** PORTAL FRAME TO BE USED IN THIS BASE IN PLACE OF X-BRACING.
- S3 S2.1** PROPOSED LOCATION OF ROOF PLANE BRACING. FINAL LOCATION, DETAILS AND MEMBERS SHALL BE DETERMINED BY THE METAL BUILDING FABRICATOR ENGINEER.
- S4 S2.1**
- S5 S2.1** TYPICAL OVERHEAD DOOR. METAL BUILDING MANUF. TO PROVIDE NECESSARY HEADERS, STEEL TRIM TO MATCH SIDING, REQUIRED FLASHING. COORD. DIM. WITH DOOR MANF.
- S6 S2.1** ALL EXTERIOR PASSAGE DOORS SHALL BE FURNISHED BY METAL BUILDING MANUFACTURER. DOORS SHALL MEET THE REQUIRED MINIMUM SPECIFICATIONS IN THE SPECIFICATIONS METAL BUILDING MANUFACTURER TO PROVIDE NECESSARY HEADERS, STEEL TRIM TO MATCH SIDING AND REQUIRED FLASHING AS REQUIRED FOR A WEATHERTIGHT INSTALL.
- S7 S2.1** PROPOSED LOCATION FOR VERTICAL STEEL X-BRACING IN THIS BAY. FINAL LOCATION, DETAILS AND MEMBERS SHALL BE DETERMINED BY THE METAL BUILDING MANUFACTURER'S DESIGN ENGINEER.

SHOP BUILDING - PLAN - BUILDING OVERVIEW-SCHEMATIC STRUCTURAL



NOT FOR CONSTRUCTION - 50% COMPLETION CD - RFP

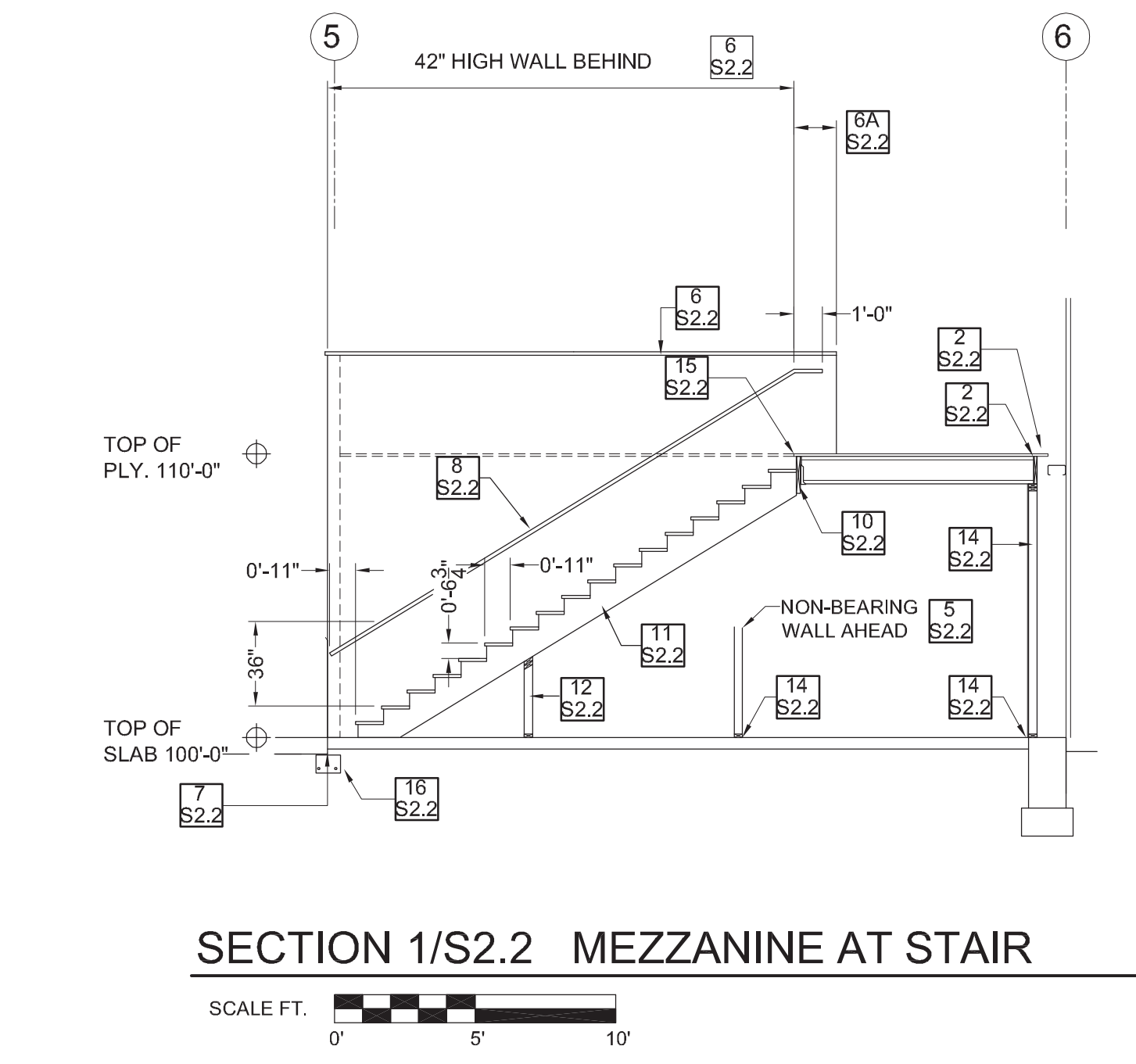
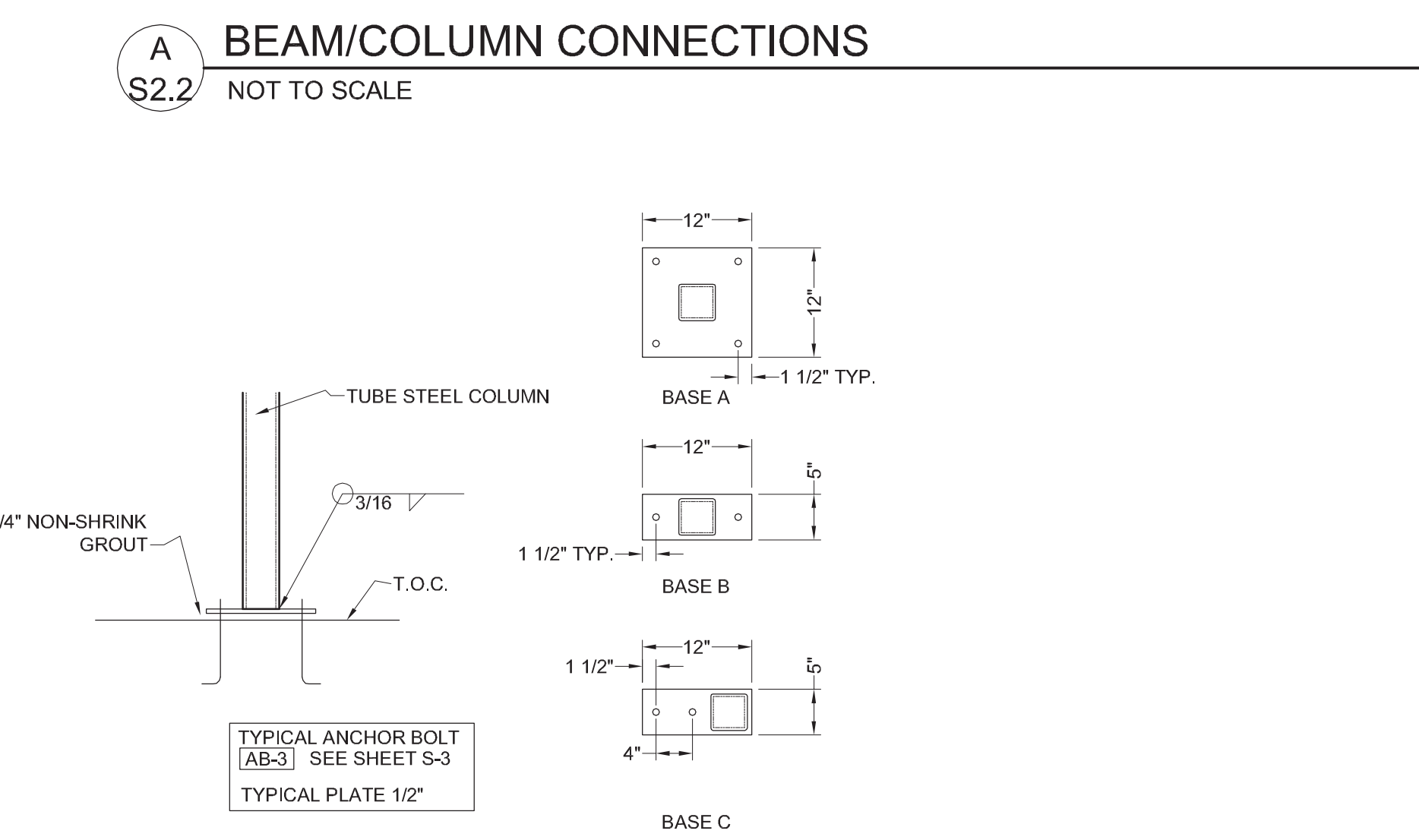
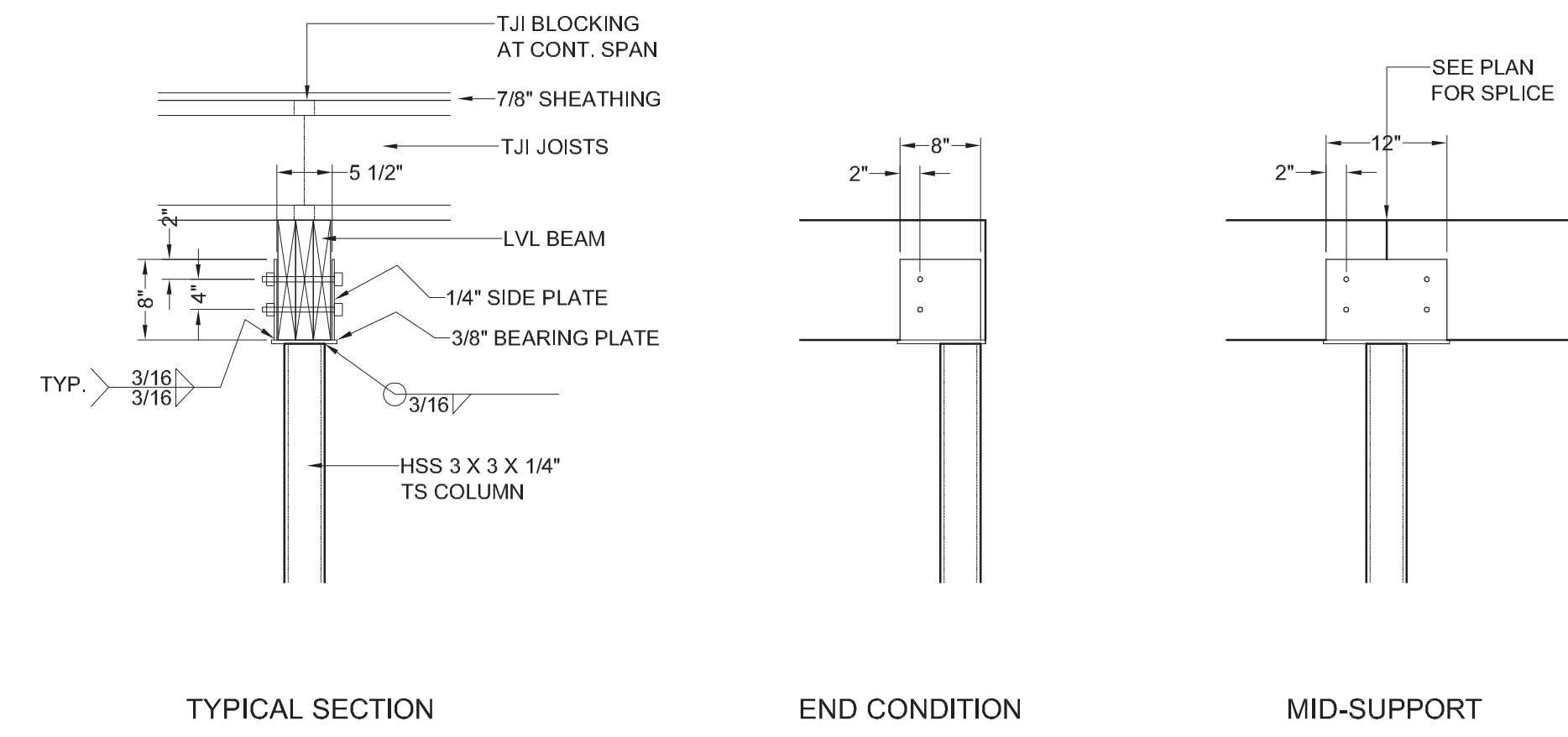
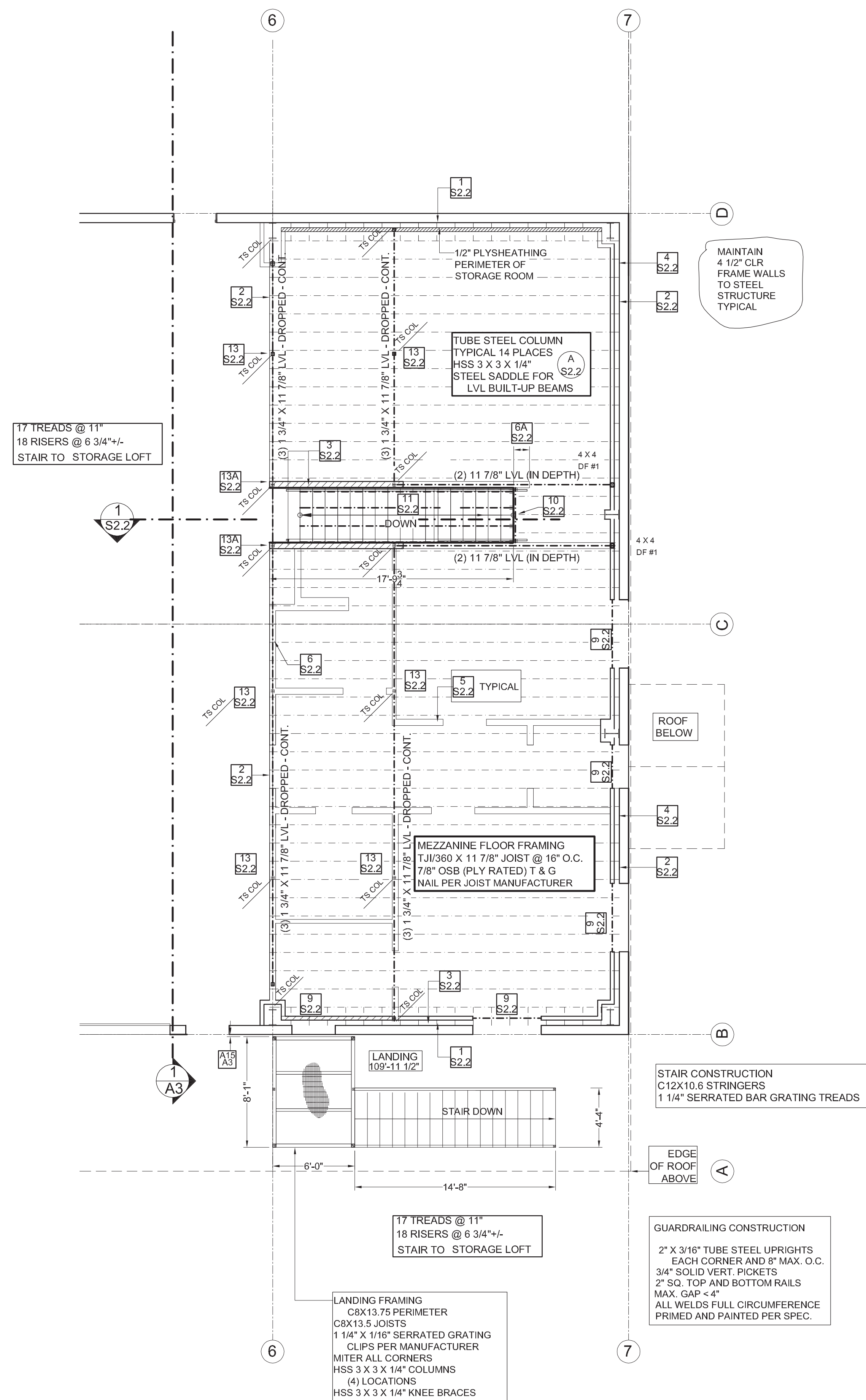
DRAWING ISSUES	
02/28/19	50% CD
03/20/19	RFP
10/15/19	REV. 1 - PERMIT

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10/15/19
FRAMING
PLAN
S2.1

ELECTRONIC SUBMISSION 10/15/19

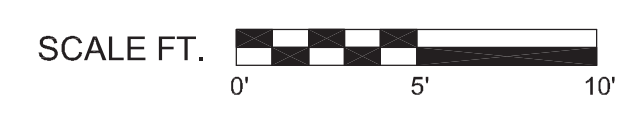


DRAWING NOTES

1 S2.2	TJI LOOKOUT JOISTS @ 16" O.C. LSL CONT. RIM SIMPSON TOP FLANGE HANGERS PER JOIST MANUFACTURER	9 S2.2	TYPICAL HEADER (2) 9 1/2" LVL DROPPED (3) TRIMMERS (1) KING STUD AT INTERIOR FRAME WALLS
2 S2.2	1 1/2" X 11 7/8" LSL RIM JOIST	10 S2.2	(1) 1 3/4" X 16" LVL HEADER SIMP. HU14 TO LVL HDRS EACH END
3 S2.2	2 X 6 @ 16" O.C. FRAME SHEAR WALL 1/2" PLYWOOD (1) SIDE 8d NAILS @ 4" O.C. PANEL EDGES 8" O.C. FIELD	11 S2.2	STAIR FRAMING 1 3/4" X 14" LV STRINGERS @ 16" O.C. TRUS JOIST STAIR TREAD HANGER TO LVL AT TOP SIMP. HU11 EA. LOC. STIFFEN STRINGER WITH 2 X 4
4 S2.2	2 X 4 @ 16" O.C. LOAD BEARING WALL STUD LAYOUT TO MATCH JOISTS 5/8" DRYWALL AT INSIDE 1/2" PLYWOOD WHERE SHOWN	12 S2.2	NON-STRUCTURAL INFILL WALL BELOW STAIRS LOCATE TO FACILITATE MECHANICAL EQUIP. PLAN
4A S2.2	CANTILEVER SHEATHING TO COVER GAP	13 S2.2	LVL BEAM CONTINUOUS OVER COLUMN
5 S2.2	NON-LOAD BEARING FRAME WALL 2 X 4 @ 16" O.C. 5/8" DRYWALL EACH SIDE	13A S2.2	LVL BEAM SPLICED AT COLUMN
6 S2.2	42" HIGH CLOSURE "GUARD WALL" 2 X FRAMING @ 16" O.C. FINISH BOTH SIDES WITH PANEL SIDING 2 X CONT. DF #1 CAP. 1 X TRIM	14 S2.2	2 X PT OR RDWD PLATE. 1/2" EXP. BOLT @ 48" O.C. MAX. SPACING. MAX. 12" FROM ENDS. EXP. BOLT SIMPSON WEDGE-ALL WEDGE ANCHOR (OR APPROVED EQUIVALENT)
6A S2.2	EXTEND CLOSURE WALL 15" FOR RAIL EXTENSION	15 S2.2	BUILD UP NOSING FROM STAIR TO MATCH GEOMETRY OF OTHER TREADS
7 S2.2	SLAB CHANGE IN THICKNESS AT OFFICE/SHOP SLAB AT OFFICE/STORAGE AREA - 5" THICK SLAB AT SHOP - 7" THICK CONSTRUCTION/EXPANSION JOINT	16 S2.2	TENSION TIES BELOW SLAB REFERENCE OTHER DETAILS
8 S2.2	CODE HANDRAIL (1) SIDE		

/// SHEARWALLS
WALLS WITH 1/2" PLYWOOD
(1) SIDE. COVER WITH
DRYWALL AT OFFICE SPACES
EXPOSED AT STORAGE AREA

MEZZANINE FRAMING PLAN



DRAWING ISSUES

02/28/19	50% CD
03/20/19	RFP
08/15/19	GMP SET
10/15/19	REV 1 - PERMIT SET

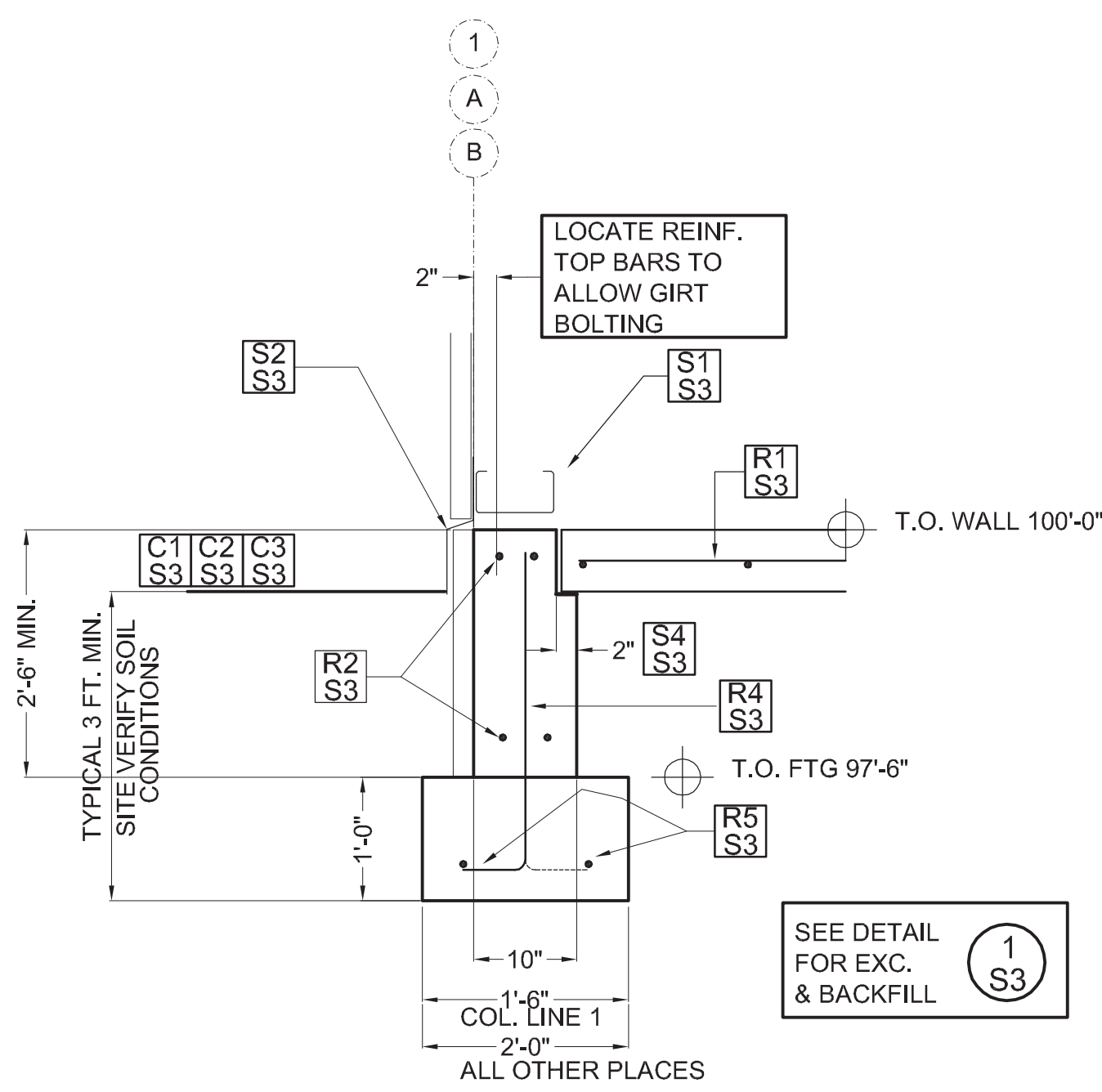
PUBLIC WORKS FACILITY
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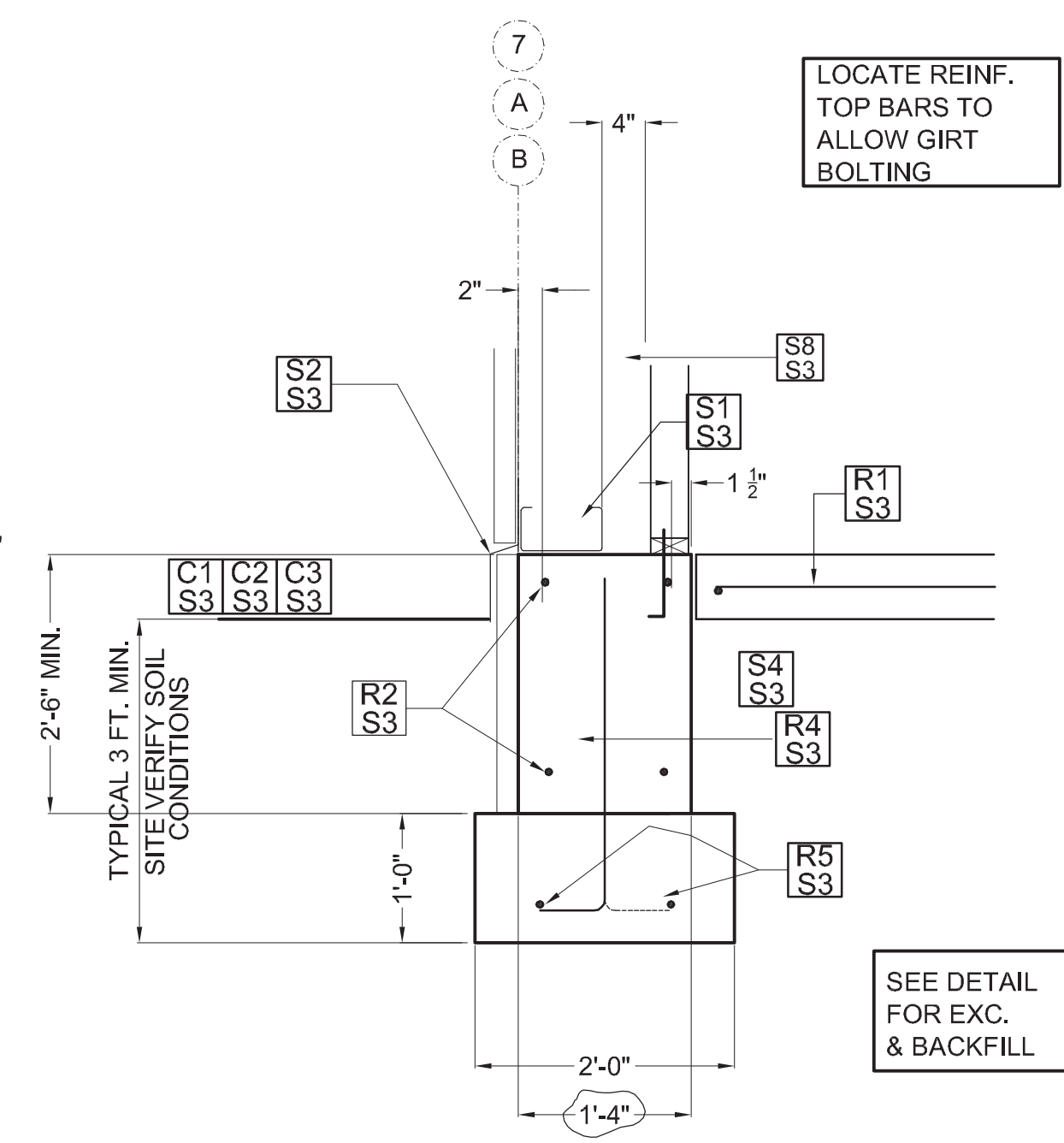
10/15/19
MEZZANINE
FRAMING
S2.2

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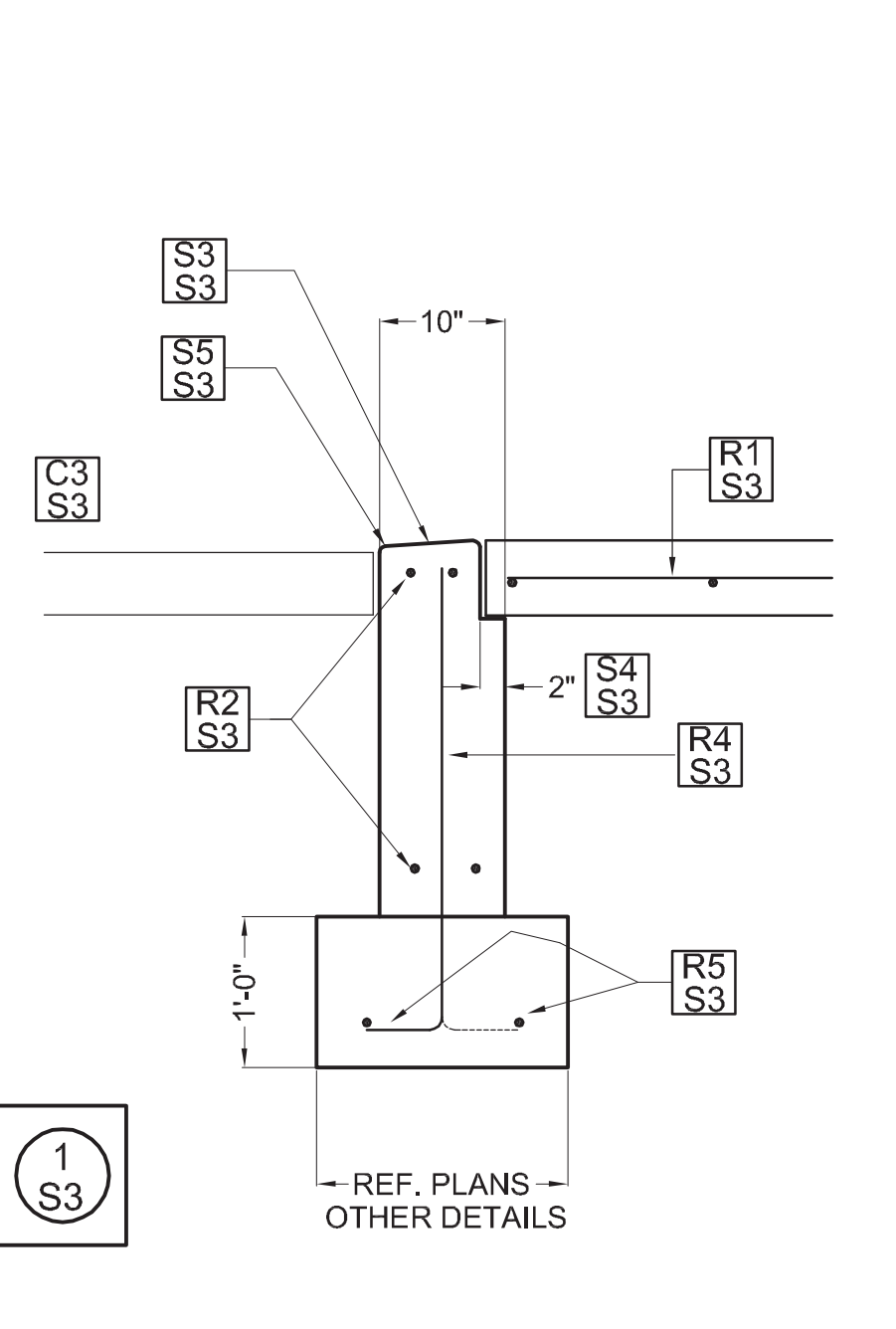
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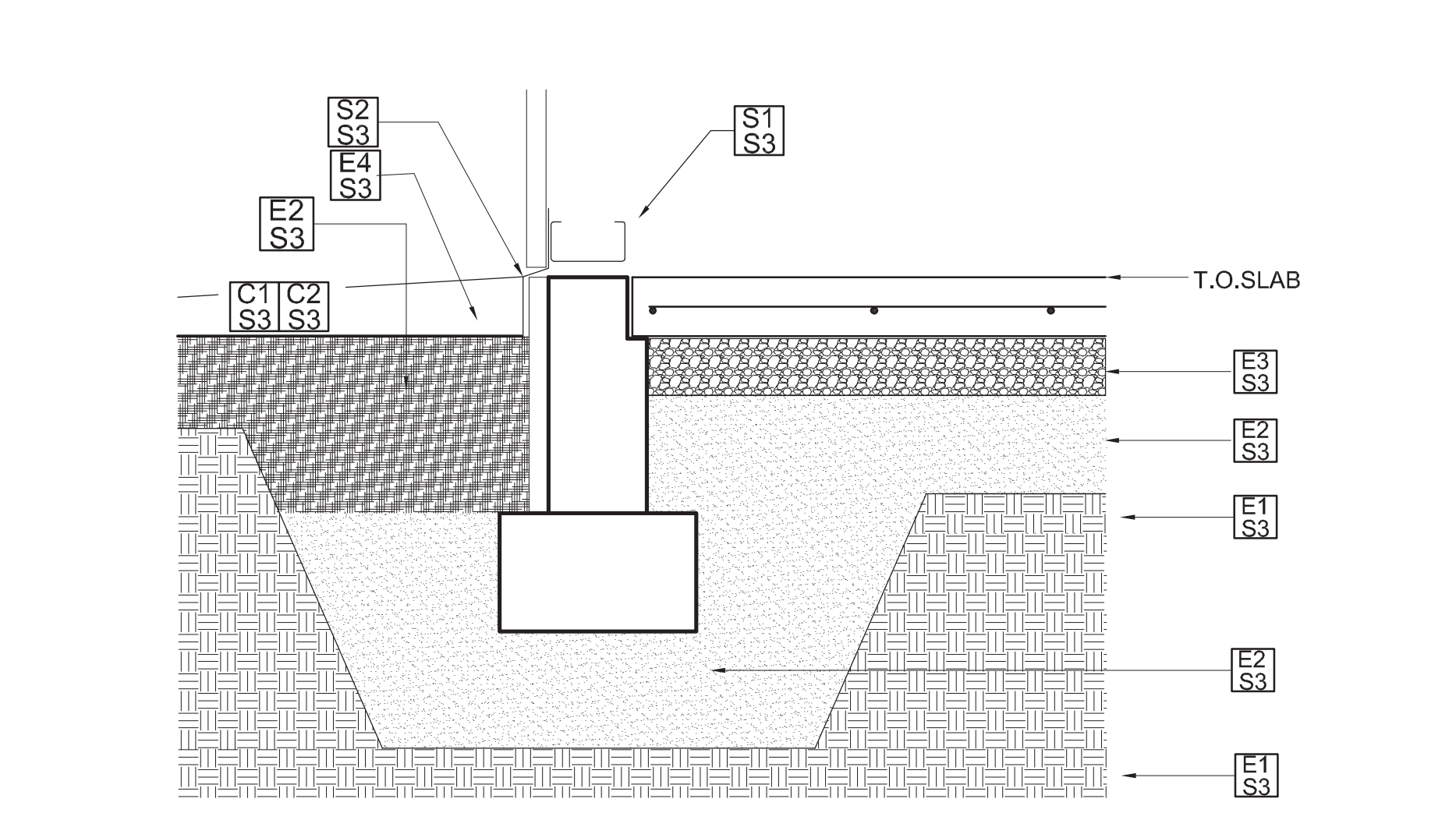
A1 TYP PERIMETER FOUNDATION
NOT TO SCALE



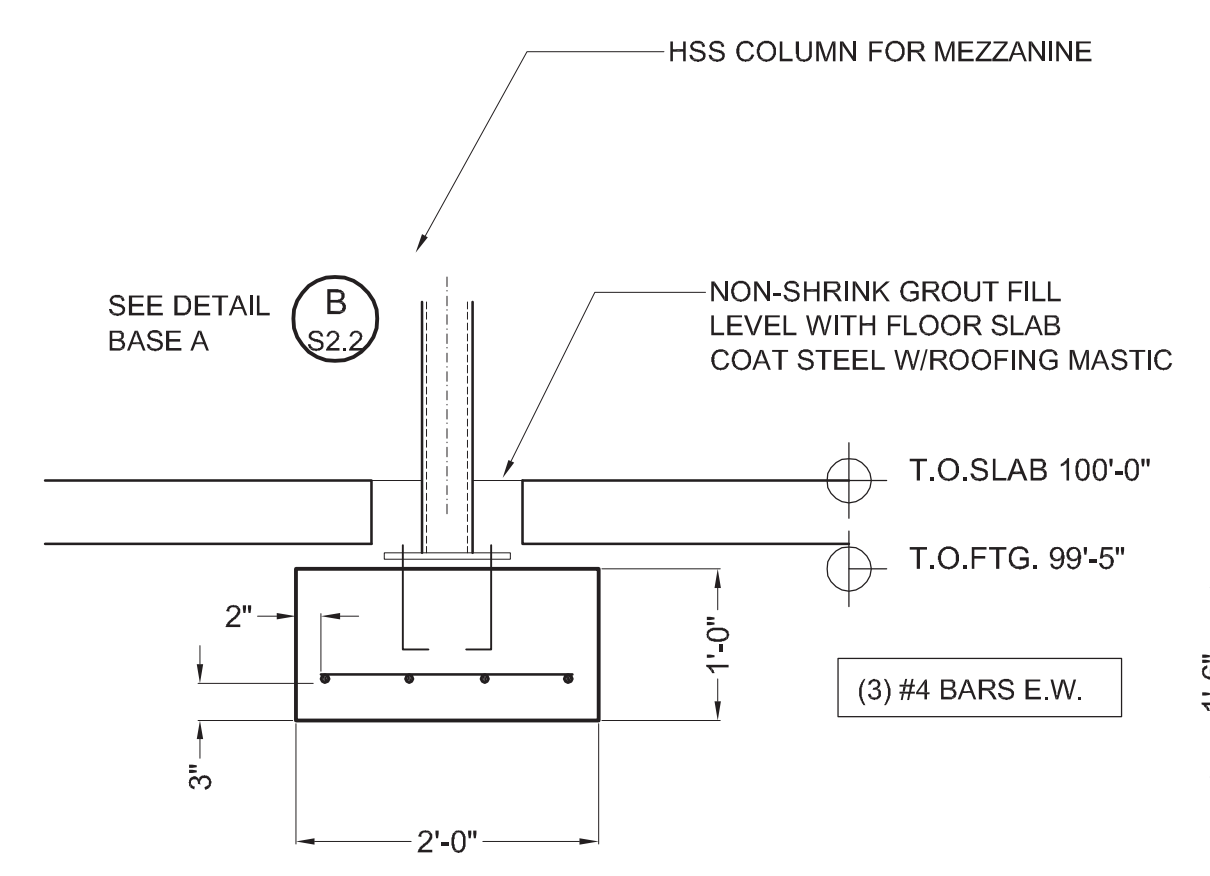
A2 PERIMETER FOUNDATION AT MEZZ.
NOT TO SCALE



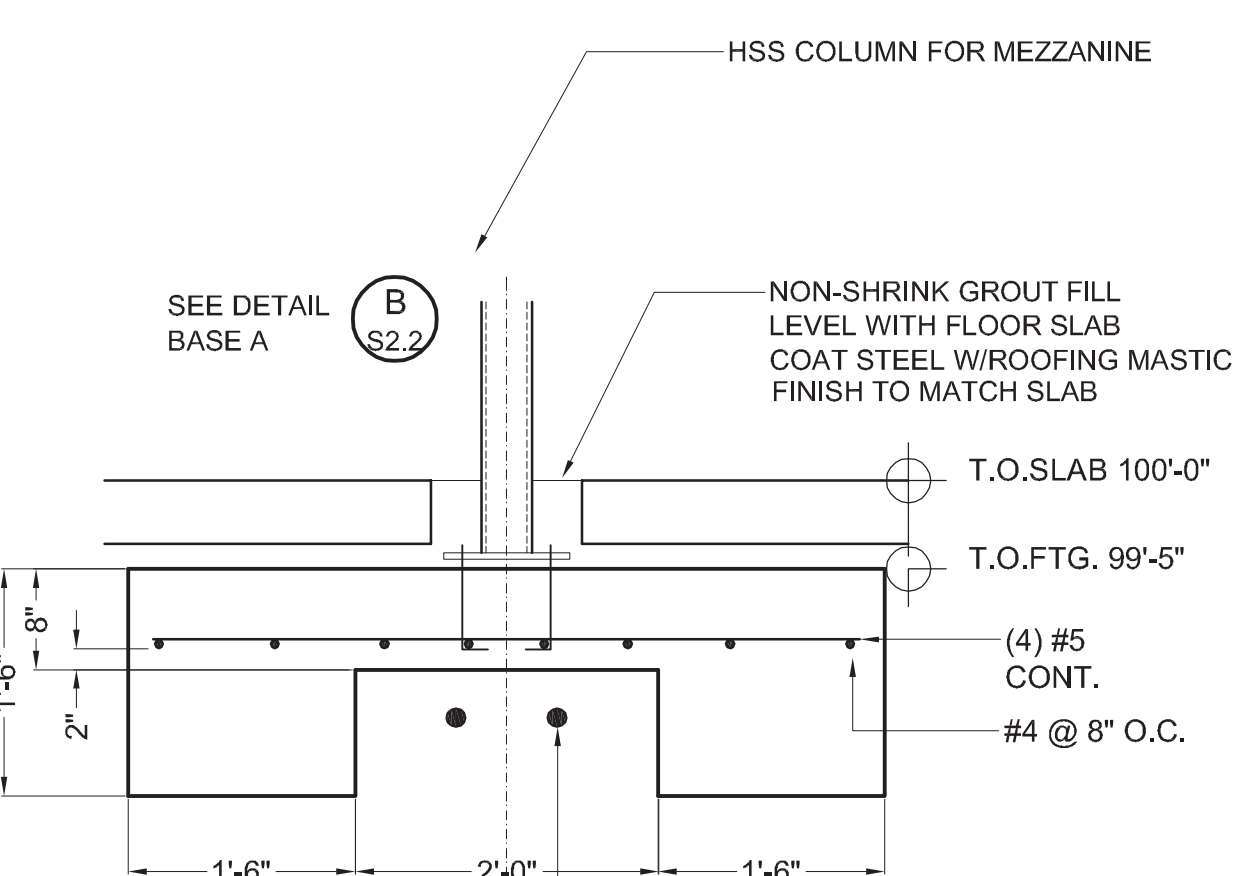
B1 FOUNDATION AT OVERHEAD DOORS
NOT TO SCALE



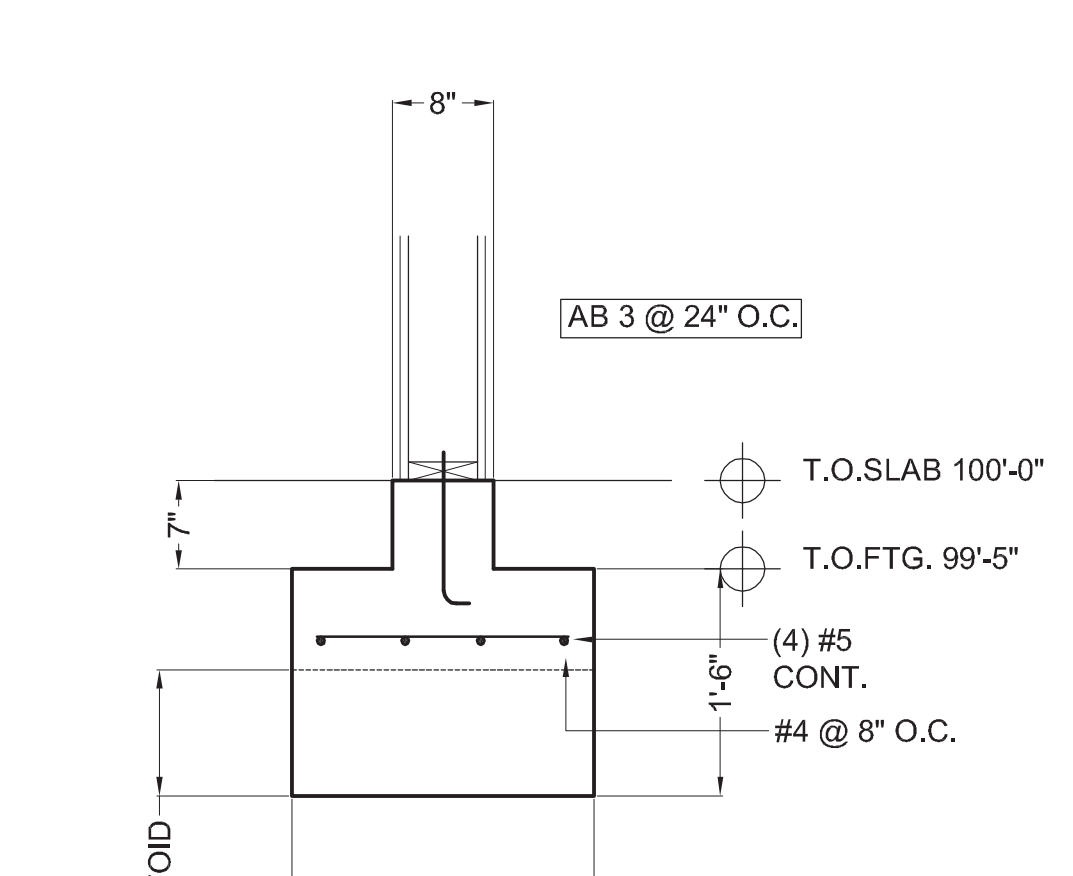
1 EXCAVATION/BACKFILL DETAILS
NOT TO SCALE



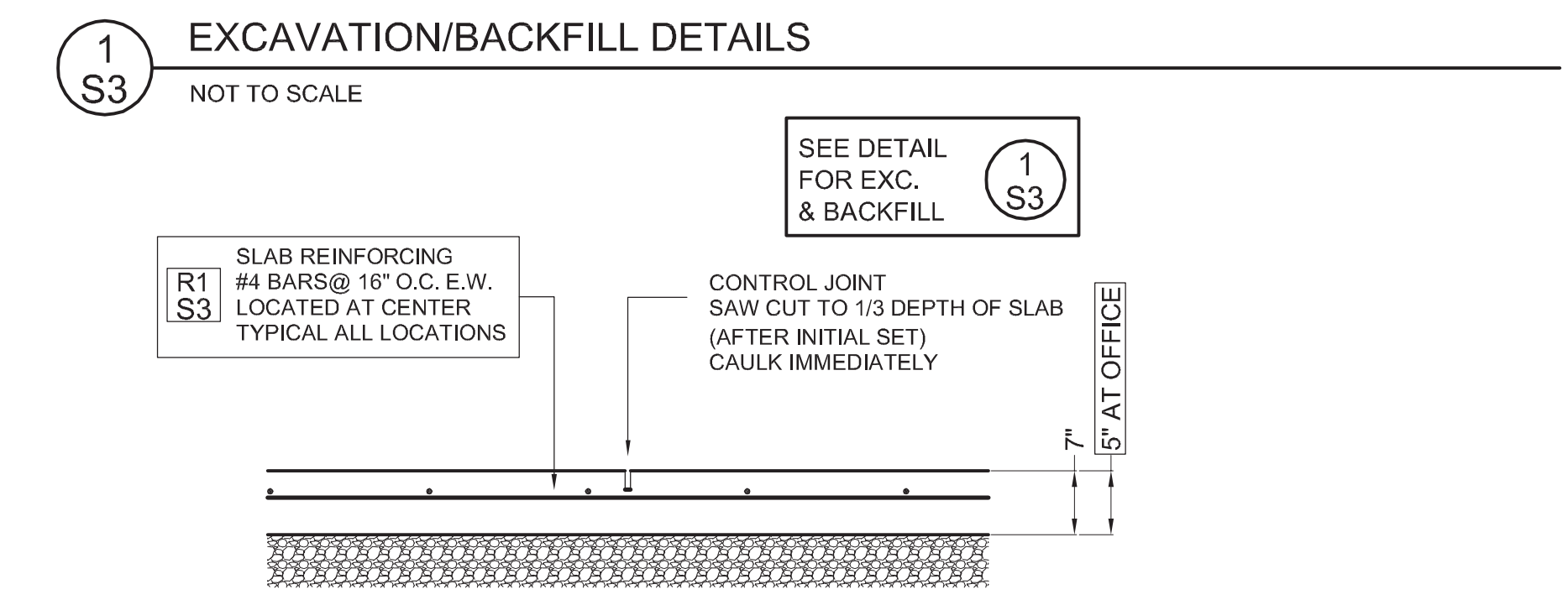
C1 FOUNDATION AT MEZZ. PIER
NOT TO SCALE



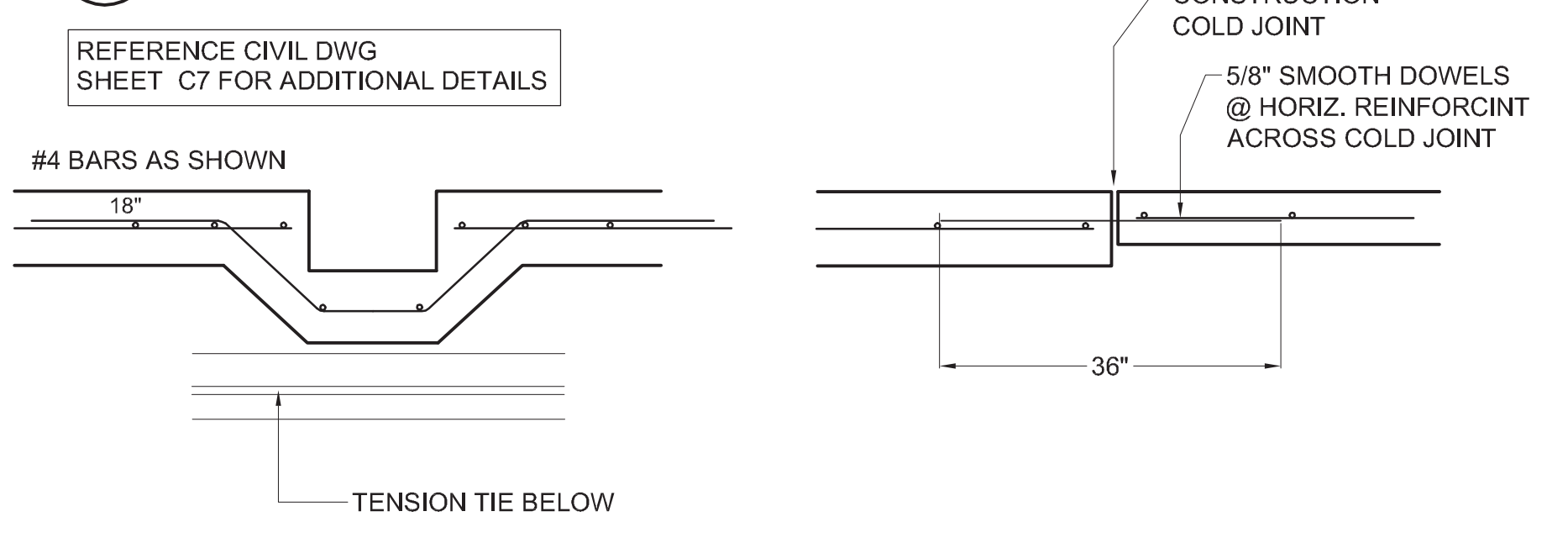
C2 FOUNDATION AT MEZZ. PIER
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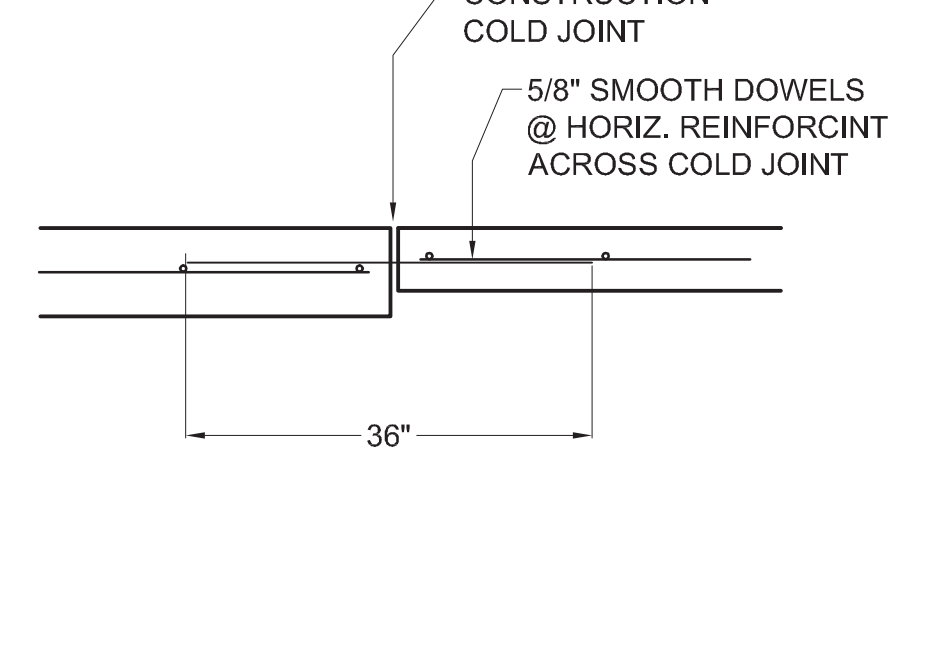
C3 FOUNDATION AT SHEARWALL
NOT TO SCALE



2 TYPICAL SLAB DETAIL
NOT TO SCALE

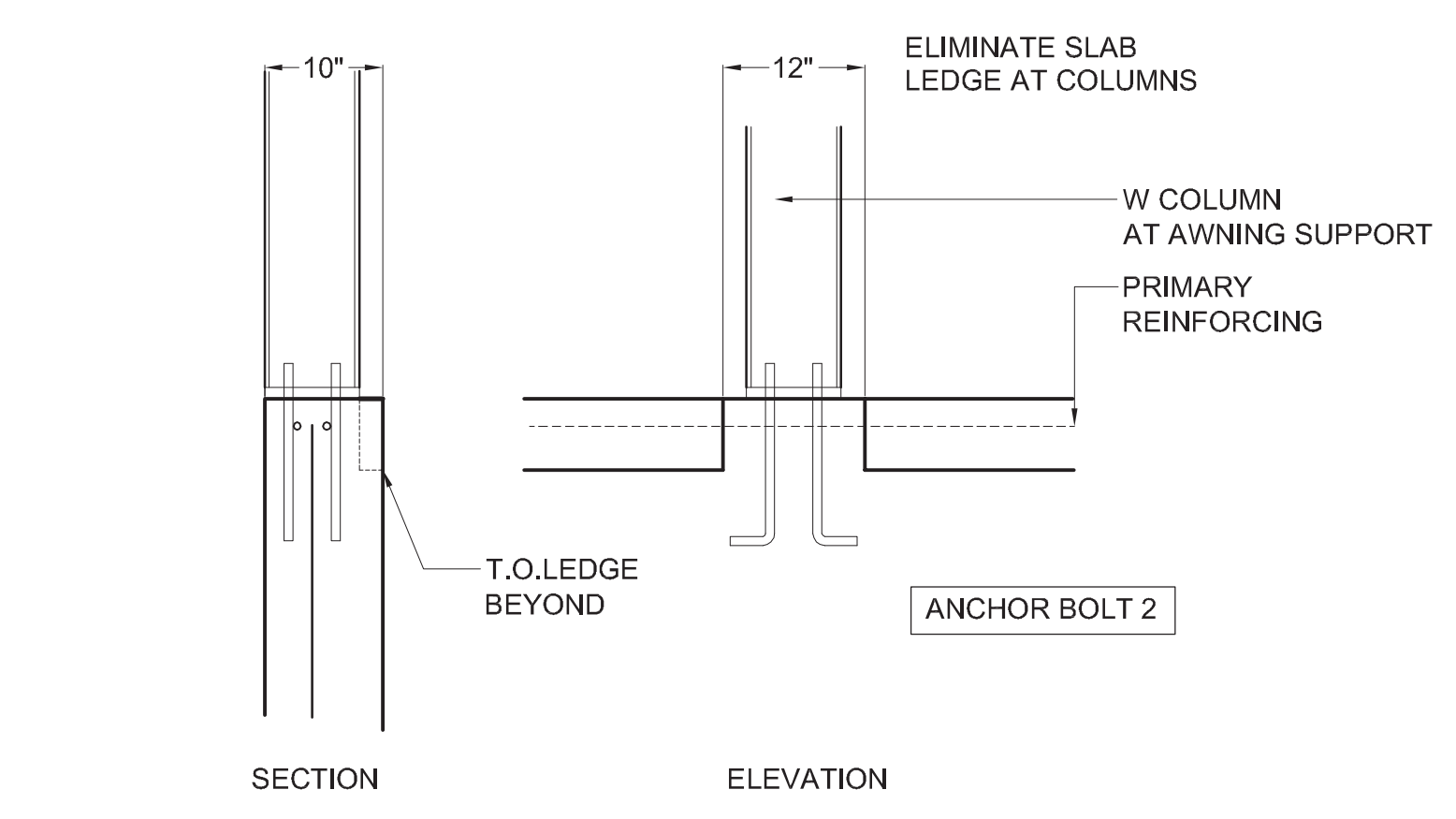


3 SLAB DETAIL AT TRENCH DRAIN
NOT TO SCALE



4 COLD JOINT SLAB
NOT TO SCALE

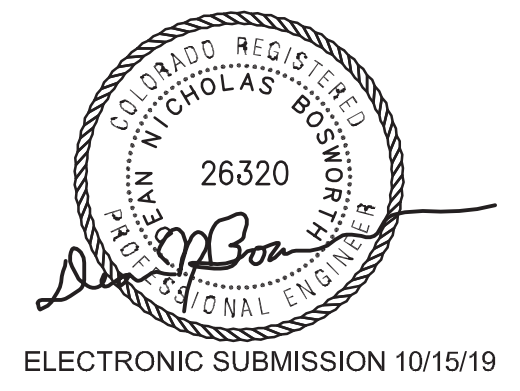
- S1** REFER TO METAL BUILDING DETAILS FOR ATTACHMENT BOLTING REQUIREMENTS OF GIRTS TO FOUNDATION AS REQUIRED
- S2** FLASHING OVER PERIMETER INSULATION REFER TO ARCHITECTURAL DRAWINGS FLASHING GEOMETRY AND MATERIAL SHALL BE SELECTED APPROPRIATE FOR THE CONDITIONS AT THOSE LOCATIONS IN THE BUILDING AND MAY VARY
- S3** SLOPE TOP OF FOUNDATION AT DOOR FOR DRAINAGE. MIN. OF 1/4"
- S4** 2" CONTINUOUS LEDGE. T.O. LEDGE 7" BELOW T.O. SLAB ALL LOCATIONS (VARIES W/ T.O. SLAB)
- S5** 1/2" TOOLED EDGE AT EXPOSED SLAB EDGES
- S6** TYPICAL STEMWALL REINFORCING CONT. THRU COLUMN PEDESTALS
- S7** PEDESTAL EXTENSION TO BE DETERMINED WHEN INTERIOR "CANT" OF FRAME COLUMN IS KNOWN VERIFY WITH PROJECT STRUCTURAL ENGINEER MEZZANINE COLUMN TO BE LOCATED TO AVOID CONFLICT WITH FRAME COLUMN
- S8** MEZZANINE LOAD BEARING WALL 2 X 4 HF#2 @ 16" O.C. LOAD BEARING WALL PLYWOOD SHEATHING AT STORAGE AREA 5/8" TYPE X DRYWALL AT OFFICE SPACES 2 X 4 PT CONTINUOUS PLATE 1/2" ANG. BOLTS @ 48" O.C. TO STEMWALL
- E1** PREPARATION FOR STRUCTURAL FILL REF. PROJECT GEOTECHNICAL INVESTIGATION REMOVE LOOSE MATERIAL AND ORGANICS SCARIFY AND PROOF COMPACT
- E2** STRUCTURAL FILL CDOT CLASS 6 (OR APPROVED EQUAL) 95% MODIFIED PROCTOR COMPACTION 8" MINIMUM BELOW ALL SLABS (ALL FILL TO UNDIST. SOILS TO BE STRUCTURAL FILL) 8" MINIMUM BELOW ALL FOOTINGS 8" MINIMUM FILL PLACEMENT BEYOND FOOTING EDGES
- E3** 4" MIN. 3/4" WASHED OR SCREEN ROCK BELOW ALL CONCRETE FOR LEVELING COURSE AND CAPILLARY BREAK FROM GROUND WATER. PLATE VIBRATE IN PLACE
- E4** PERIMETER BACKFILL REF. CIVIL DWGS SEE CIVIL DRAWINGS FOR SLAB AND LANDSCAPE LOC. REF. PROJECT SPECIFICATIONS
- C1** SLOPE FINISHED GRADE FROM STRUCTURE REFERENCE SITE PLAN FOR GRADING AND LOCATIONS OF EXTERIOR FLATWORK
- C2** MAINTAIN MIN. 6" T.O. SLAB TO GRADE AT LOCATIONS WITHOUT FLATWORK
- C3** PARKING/ACCESS/SIDEWALK SLABS REF. CIVIL ENGINEERING DRAWINGS
- C4** BOLLARD EACH SIDE OF DOOR REF. CIVIL DRAWINGS FOR DETAILS

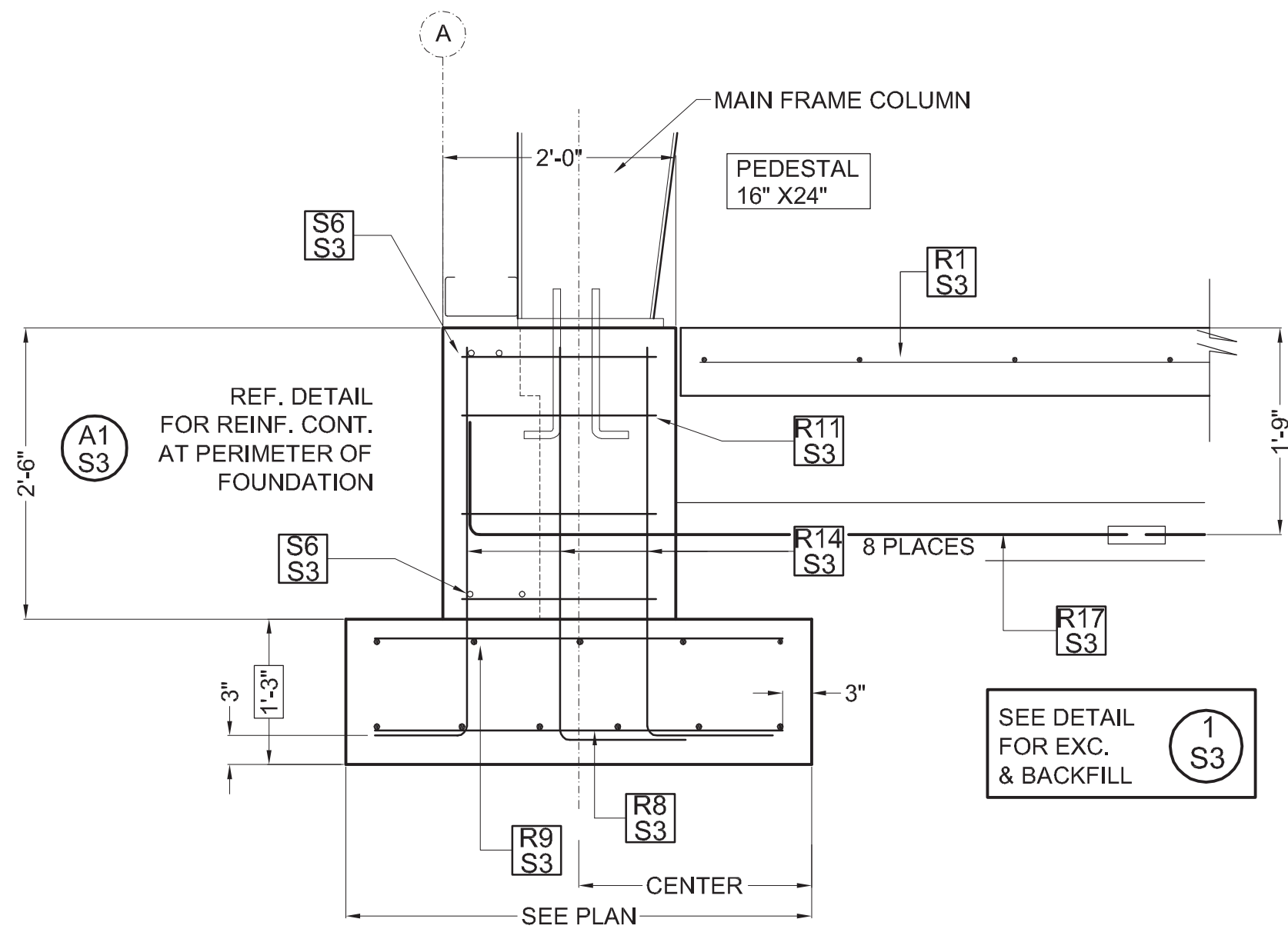


D1 FOUNDATION AT MISC COLUMNS
NOT TO SCALE

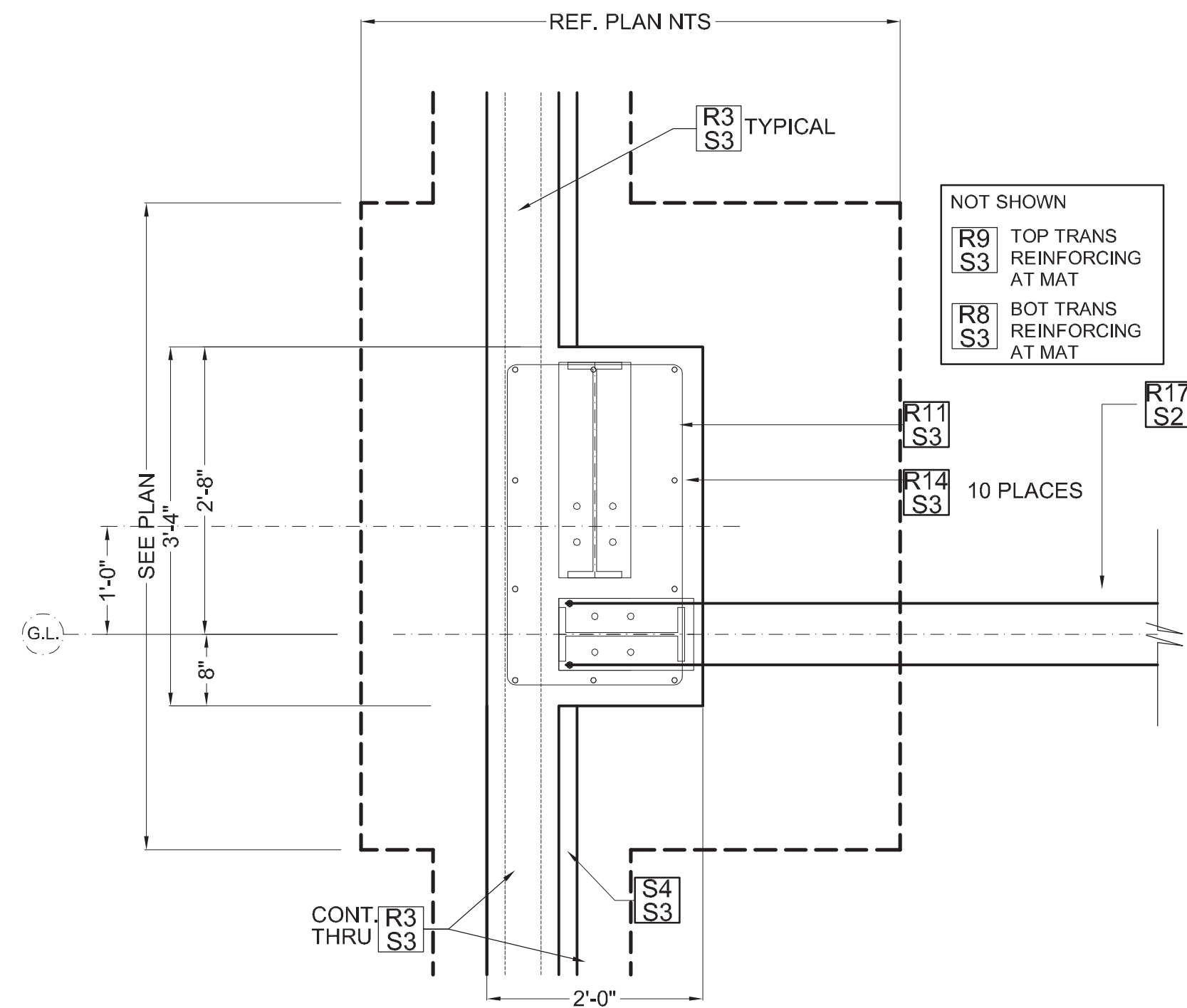
REINFORCING SCHEDULE		TYPICAL REINFORCING PLACEMENT	BOLT SCHEDULE	
R1 S3	TYPICAL SLAB REINFORCING #4 BARS @ 16" O.C. E.W. AT SLAB CENTER		AB 1 3/4" X 18 ANCHOR BOLT - 3" PROJECTION ASTM A36 ASTM A563 NUT AND USS FLAT WASHER 3" HORIZ. LEG	
R2 S3	(2) #5 HORIZ. BARS CONTINUOUS PROVIDE CORNER BARS TOP AND BOTTOM			AB 2 3/4" X 15 ANCHOR BOLT - 3" PROJECTION ASTM A36 ASTM A563 NUT AND USS FLAT WASHER 3" HORIZ. LEG
R3 S3	#5 HORIZ. BARS CONTINUOUS PROVIDE CORNER BARS			
R4 S3	#4 VERTICAL BARS @ 16" O.C. VERTICAL LEG & 6" HOOK AS SHOWN 3" CLR FROM BOTTOM OF SLAB		REF. METAL BUILDING SHOP DRAWINGS FOR BOLT LOCATIONS, BOLT SIZE, EMBEDMENT & PROJECTION. VERIFY COMPATIBILITY OF DETAIL PRIOR TO CONCRETE PLACEMENT	
R5 S3	#4 HORIZ. BARS CONTINUOUS PROVIDE CORNER BARS			
R6 S3	#4 TIES @ 8" O.C. VERT. SPACING GEOMETRY AS REQ'D TO ENCASE VERTICAL BARS AND ANCHOR BOLTS AS SHOWN			
R7 S3	BOTTOM REINF AT FOOTING PADS #5 BARS @ 8" O.C. E.W. 3" CLR FROM GRADE			
R8 S3	TOP REINF AT FOOTING PADS #5 BARS @ 8" O.C. E.W. 3" CLR FROM GRADE			
R9 S3				
R10 S3	(4) #4 VERT. BARS ENCASE IN TIES 8" LEG TO BOTTOM MAT			
R11 S3	ISOLATED PAD BOTTOM REINF. #5 BARS @ 8" O.C. E.W. 3" FROM GRADE			
R12 S3	ISOLATED PAD TOP REINF. #5 BARS @ 8" O.C. E.W. 2" FROM TOP OF CONCRETE			
R13 S3	#5 VERTICAL COLUMN BENT BARS LOCATIONS AS SHOWN 12" HOOK TO BOTTOM MAT			
R14 S3	#4 TIES @ 8" O.C. VERT. SPACING GEOMETRY AS REQ'D TO ENCASE VERTICAL BARS AND ANCHOR BOLTS AS SHOWN			
R15 S3				
R16 S3				
R17 S3	(2) #6 BARS @ 6" O.C. TIE TENDONS MECH. FASTENERS EA. SPLICE CONT COLUMN TO COLUMN AT MAIN FRAMES ENCASE IN CONCRETE MIN. 3" COVER			

DRAWING ISSUES	PUBLIC WORKS FACILITY TOWN OF HOTCHKISS, CO	DEAN NICHOLAS BOSWORTH, PE COLORADO STRUCTURAL ENGINEER	10/15/19 FOUNDATION DETAILS S3
02/28/19 50% CD		150 ROCKPOINT DRIVE UNIT B DURANGO, CO 81301	
03/20/19 RFP		970 729 1431 dean.bosworth@gmail.com	
08/15/19 GMP			
10/15/19 REV 1 PERMIT SET			

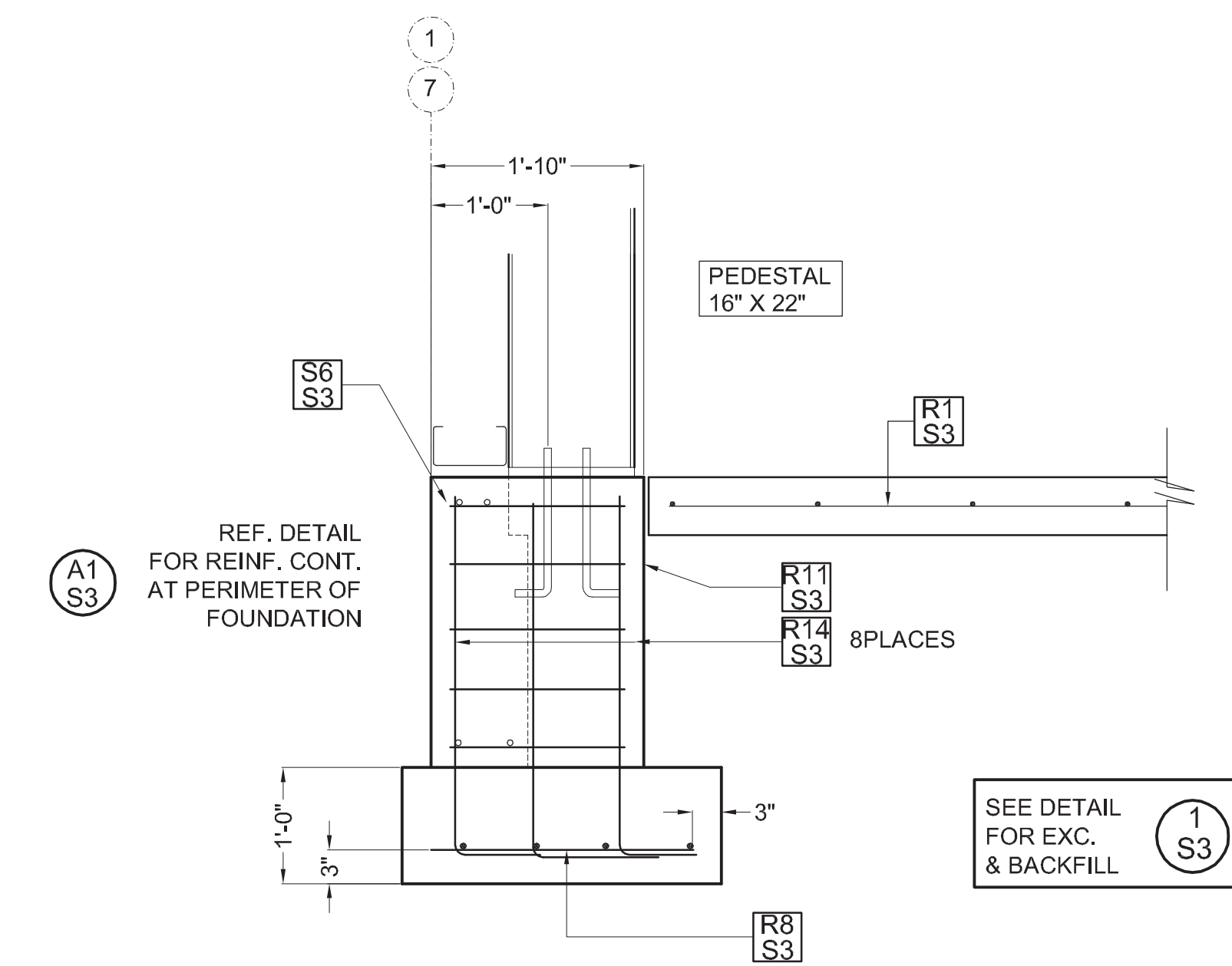




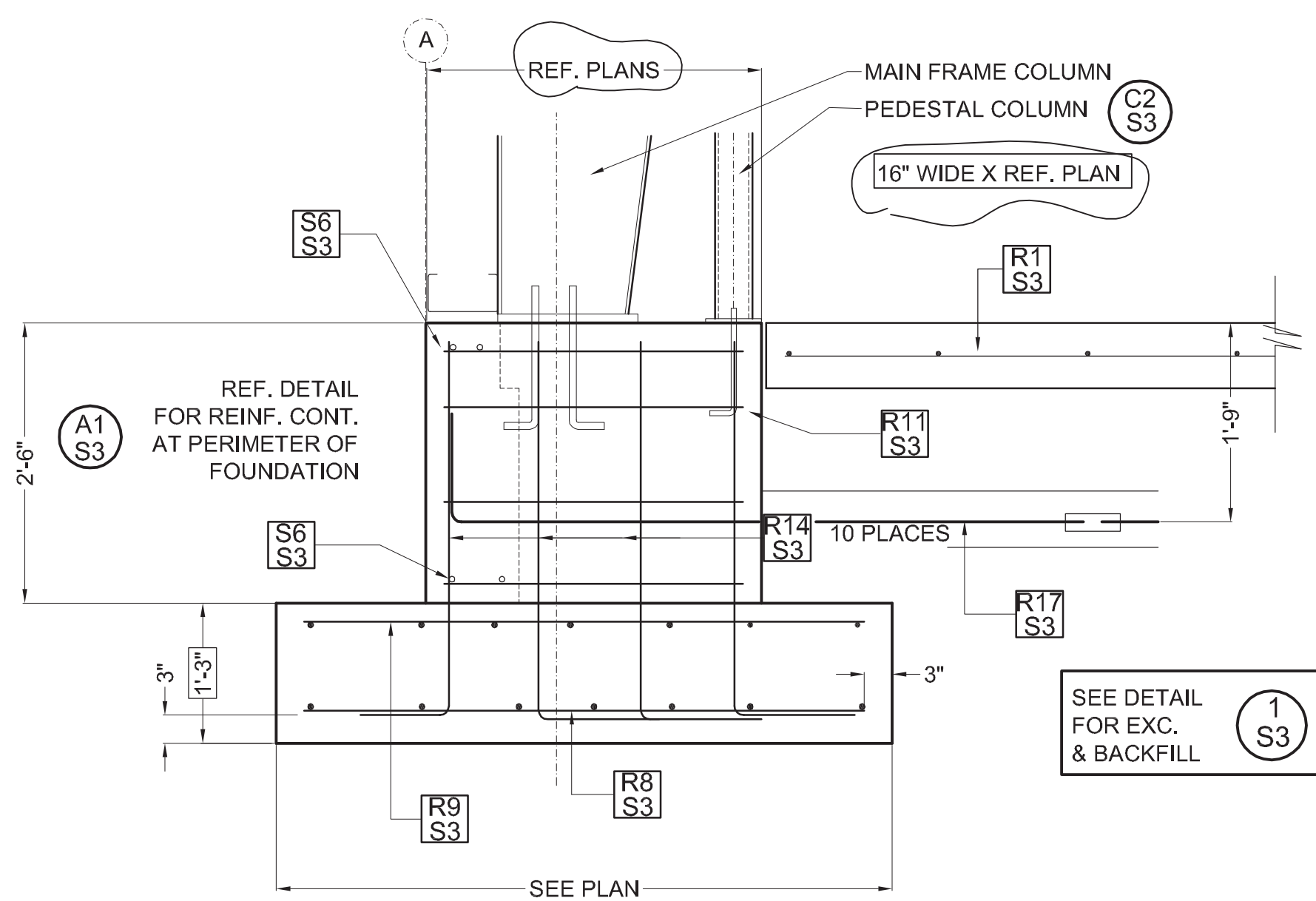
A1 S4 TYPICAL FOUNDATION AT MAIN FRAME
NOT TO SCALE



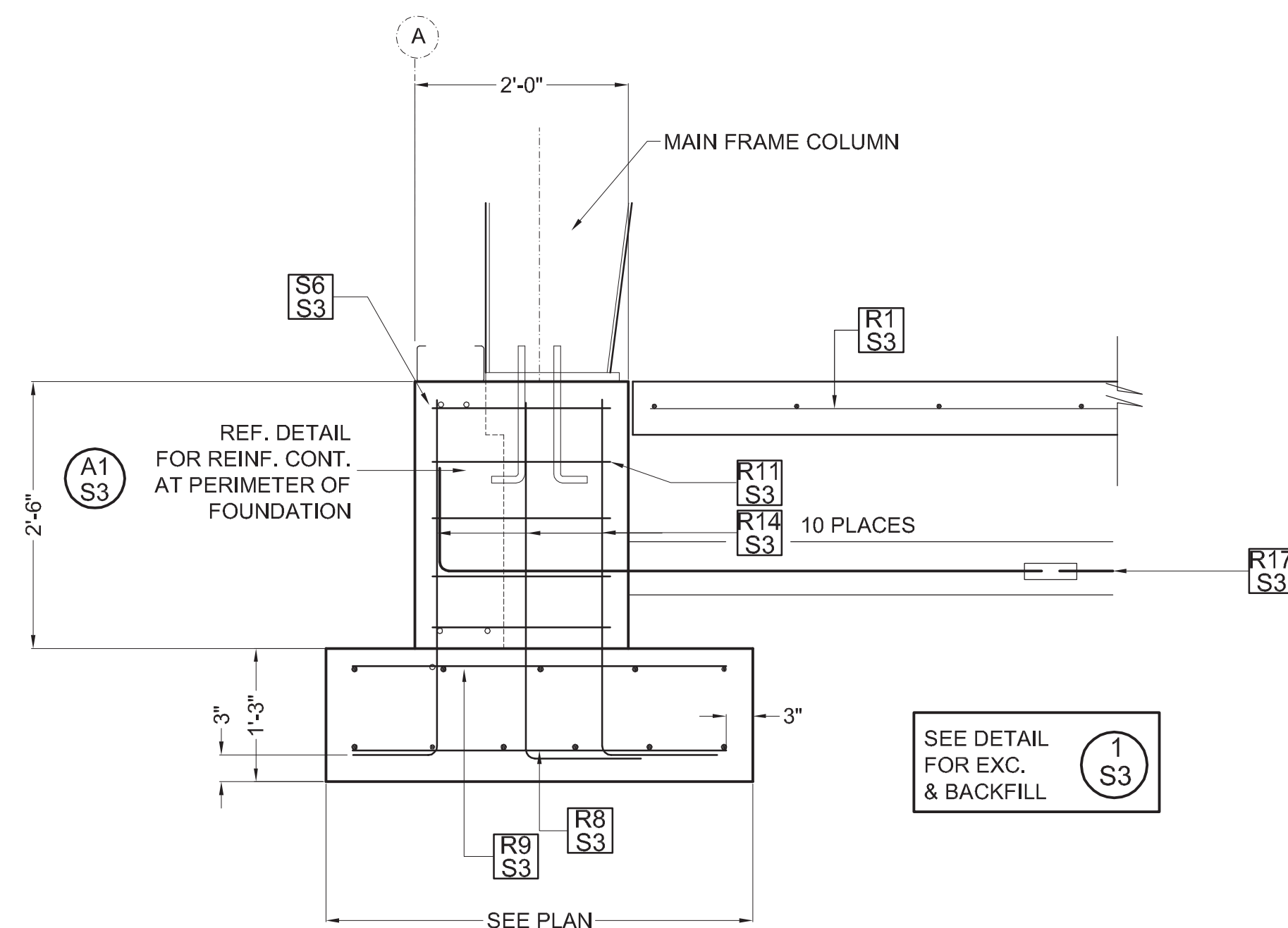
FOUNDATION PLAN AT PORTALS



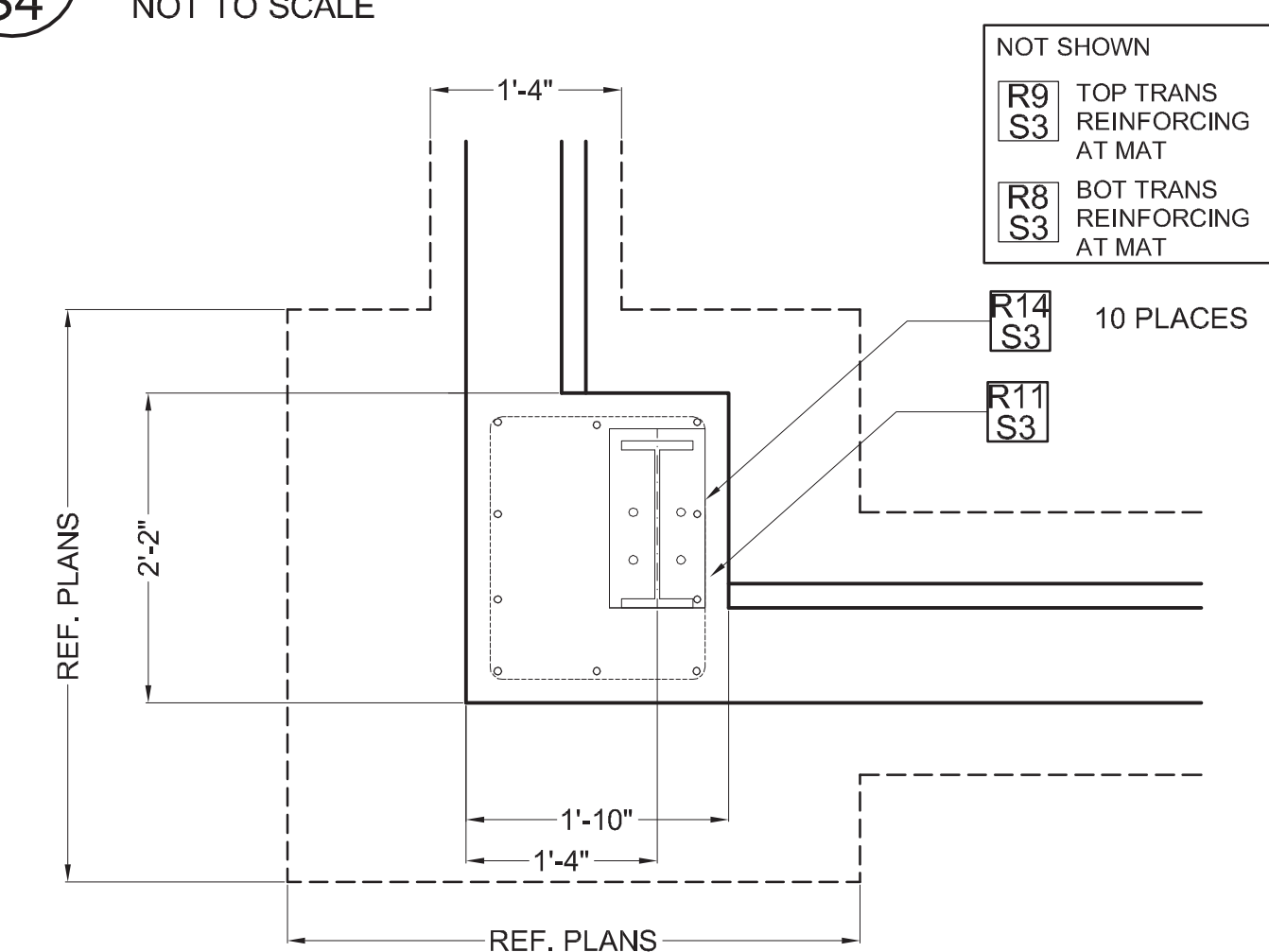
C1 S4 FOUNDATION MID-BUILDING END WALLS - WIND COLUMNS
NOT TO SCALE



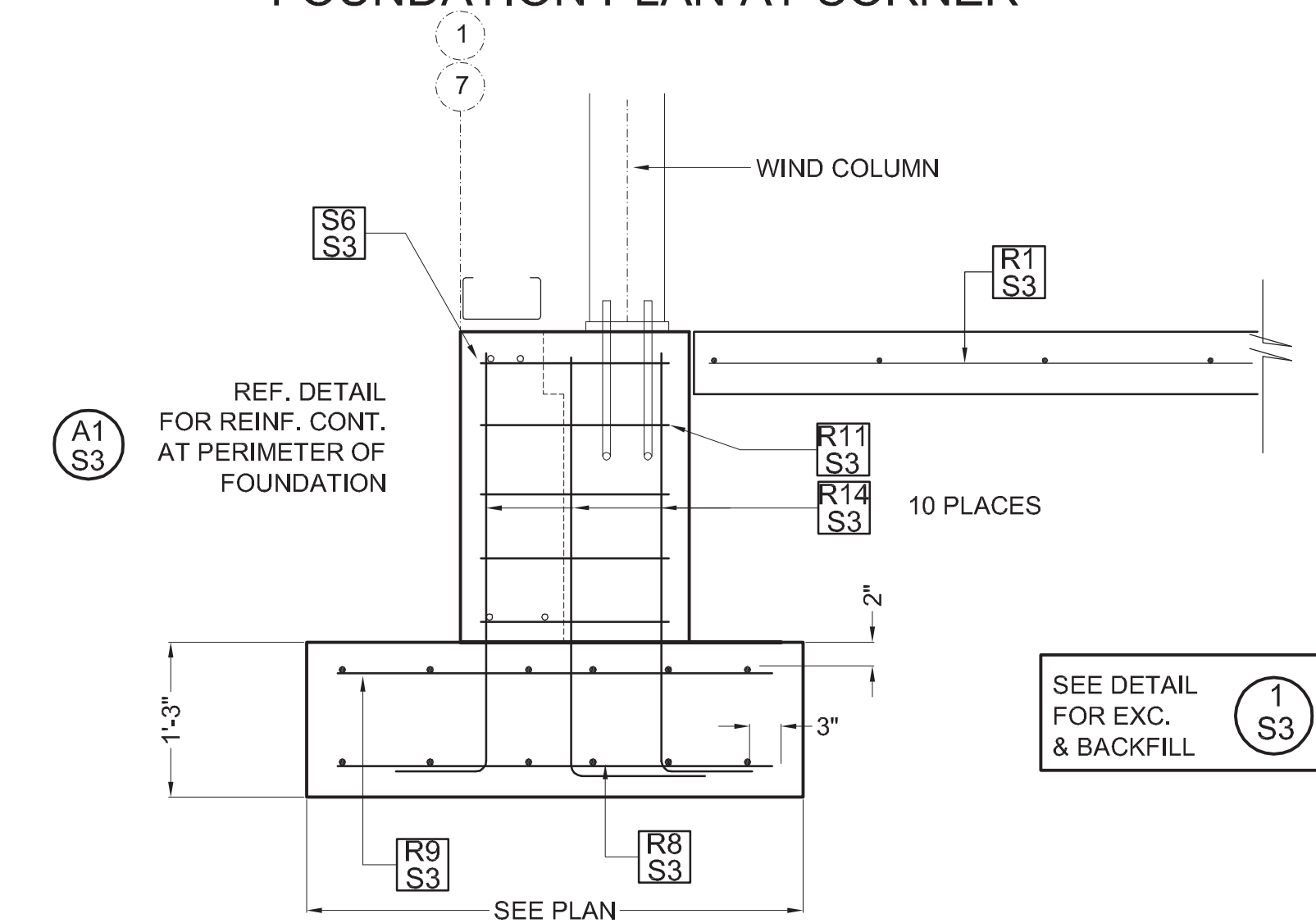
A2 S4 FOUNDATION MAIN FRAME AT MEZZANINE COLUMNS GRID LINE 6
NOT TO SCALE



B1 S4 FOUNDATION AT SHOP BUILDING PORTAL FRAMES
NOT TO SCALE



FOUNDATION PLAN AT CORNER



D1 S4 FOUNDATION AT CORNERS - SHOP BUILDING
NOT TO SCALE

REF. METAL BUILDING SHOP DRAWINGS FOR BOLT LOCATIONS, BOLT SIZE, EMBEDMENT & PROJECTION. VERIFY COMPATIBILITY OF DETAIL PRIOR TO CONCRETE PLACEMENT



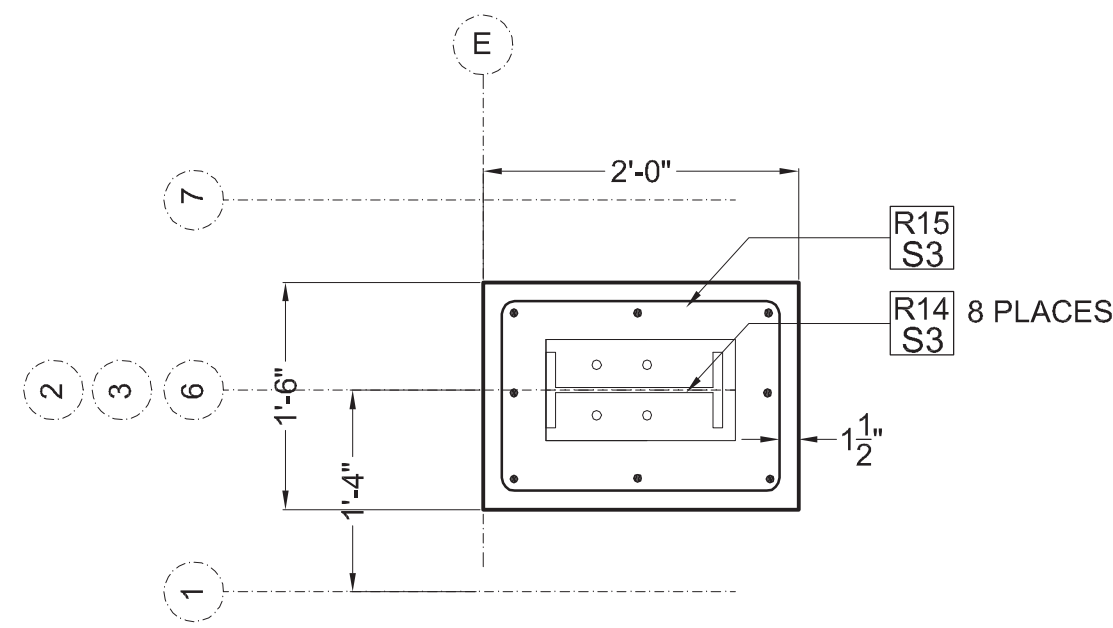
ELECTRONIC SUBMISSION 10/15/19

DRAWING ISSUES
02/28/19 50% CD
03/20/19 RFP
08/15/19 GMP
10/15/19 REV 1 PERMIT SET

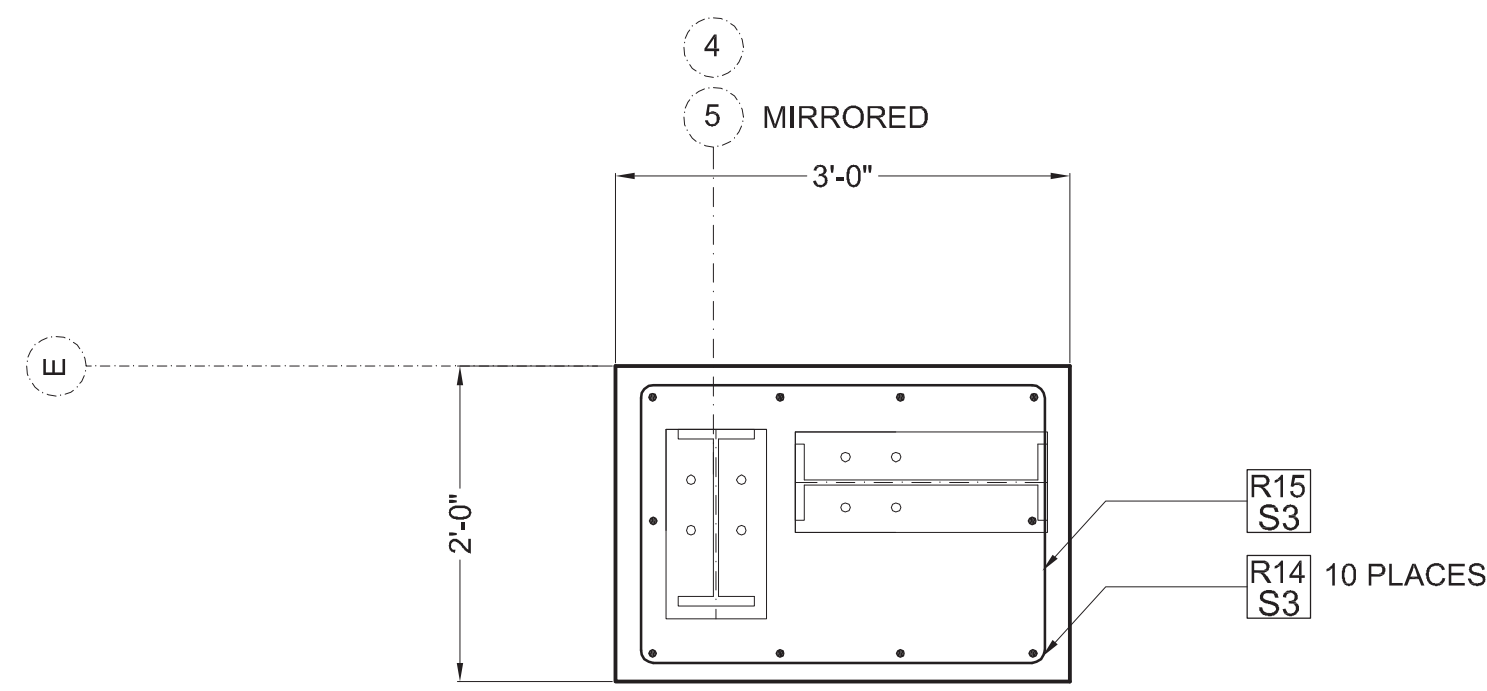
PUBLIC WORKS FACILITY
TOWN OF HOTCHKISS, CO

DEAN NICHOLAS BOSWORTH, PE
COLORADO STRUCTURAL ENGINEER
150 ROCKPOINT DRIVE UNIT B
DURANGO, CO 81301
970 729 1431
dean.bosworth@gmail.com

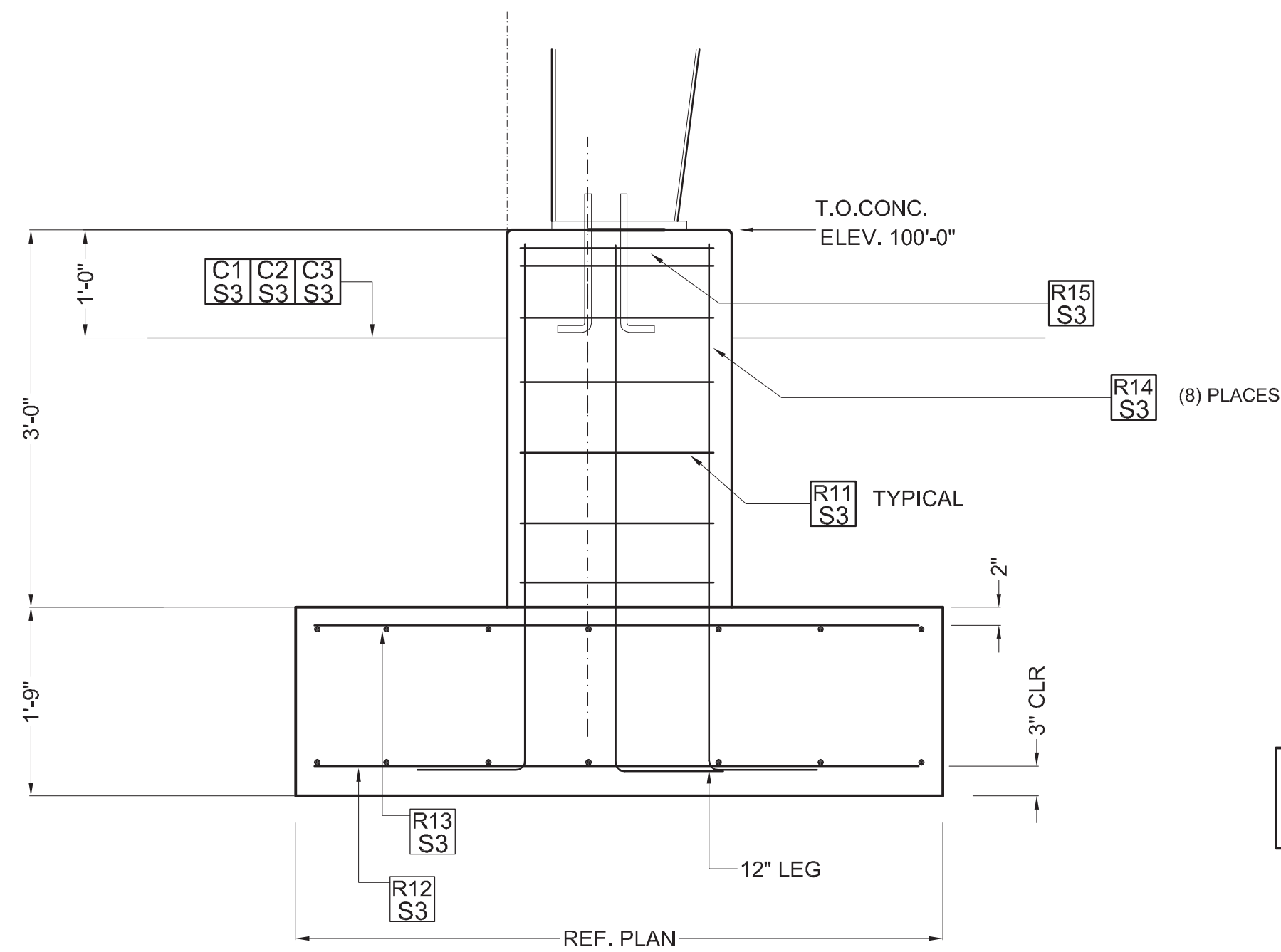
10/15/19
FOUNDATION DETAILS
S4



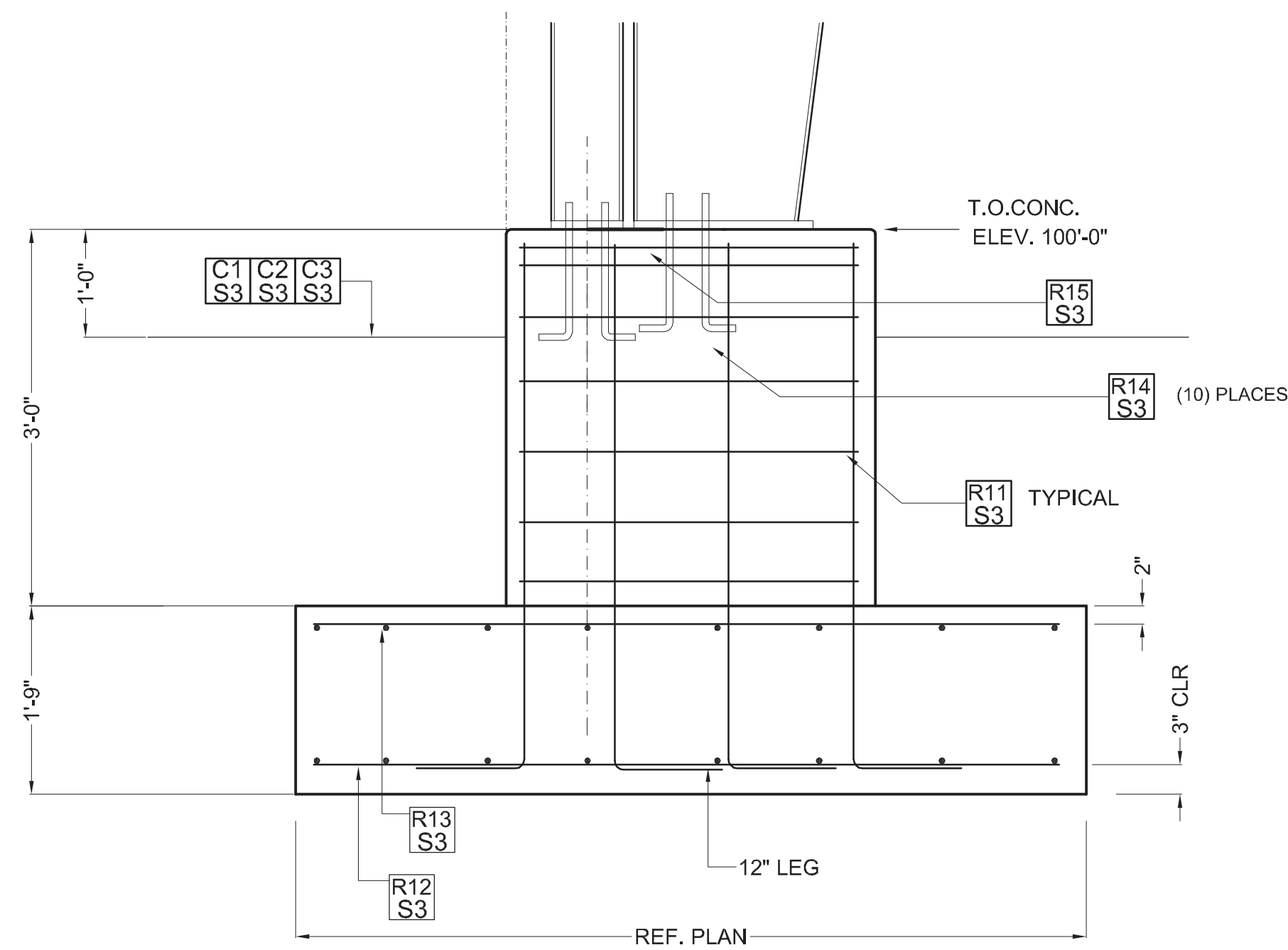
PEDESTAL PLAN



PEDESTAL PLAN

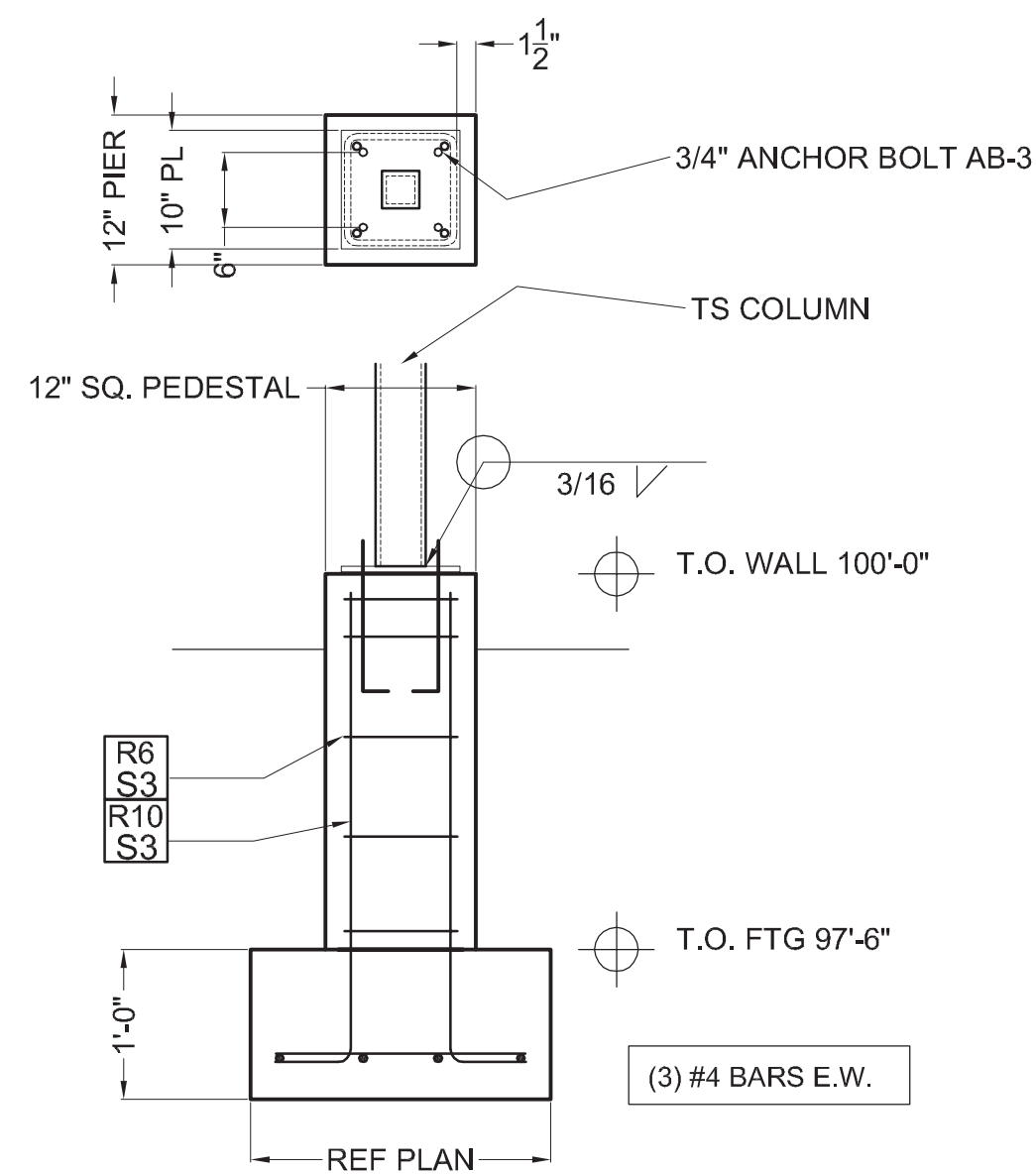


SEE DETAIL FOR EXC. & BACKFILL (1) S3

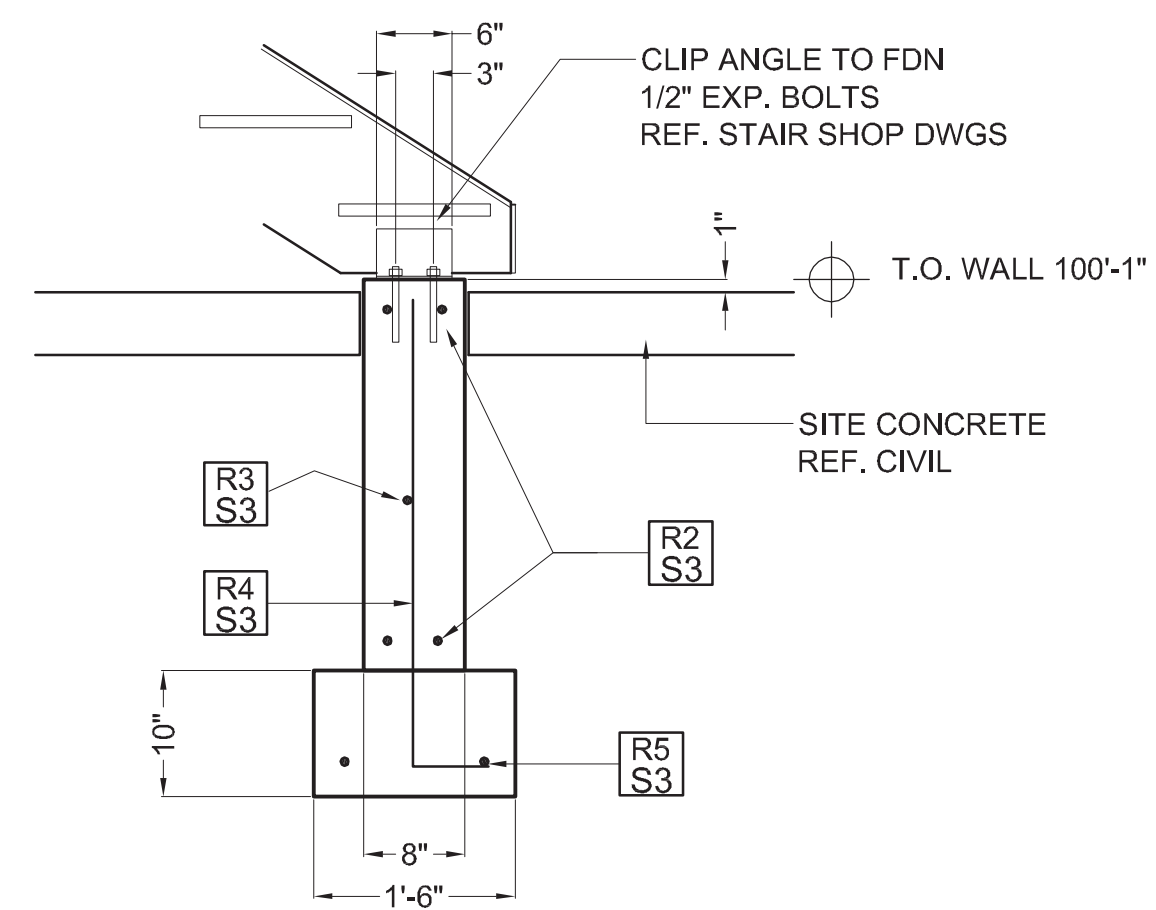


A1
S5 ISOLATED PAD AT EQUIPMENT CANOPY
NOT TO SCALE

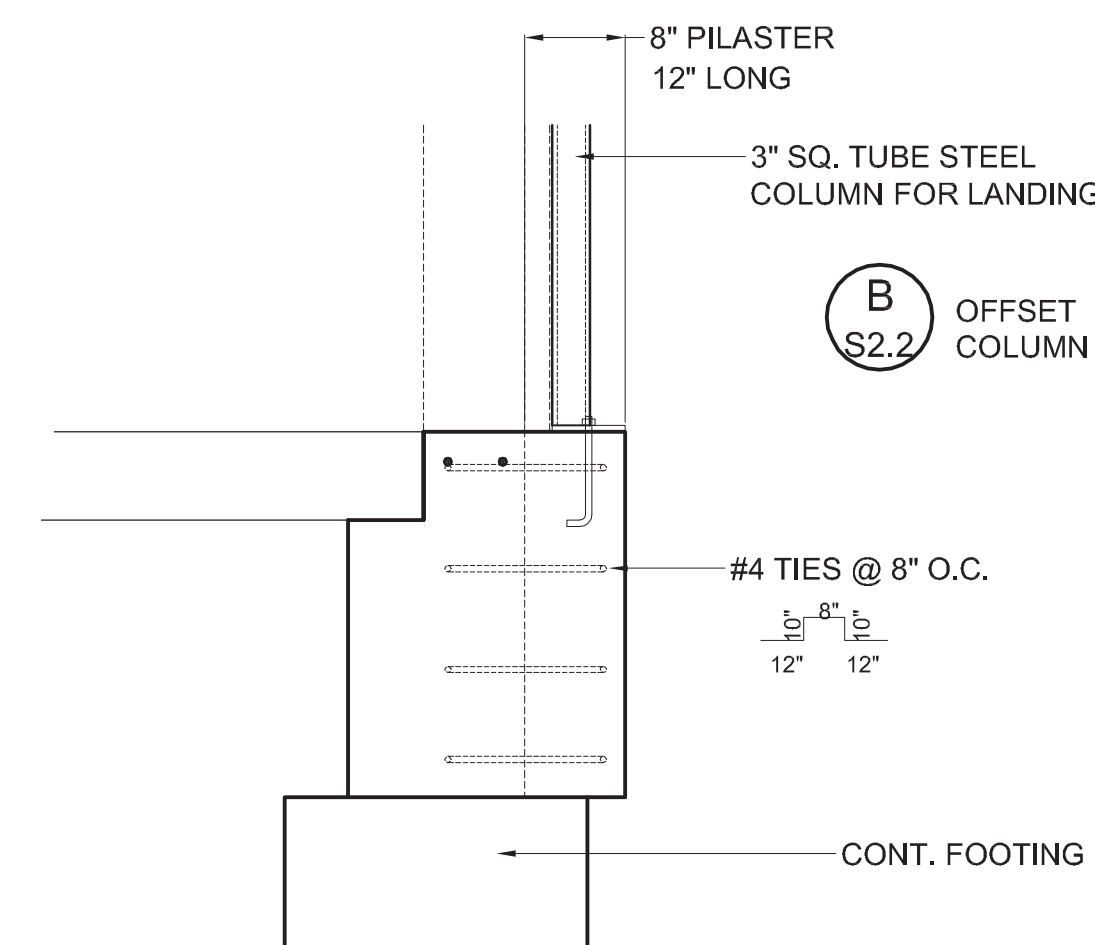
B1
S5 PIER AT AWNING PORTAL FRAMES
NOT TO SCALE



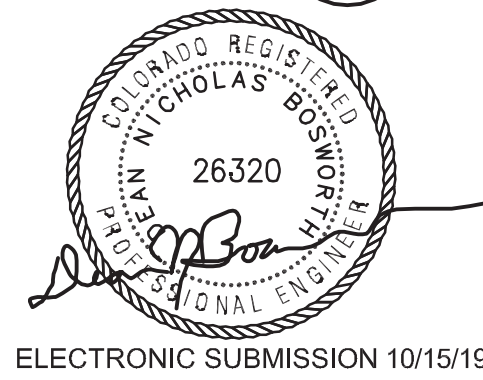
C1
S5 ISOLATED PAD AT EXT. STEEL COLUMN
NOT TO SCALE



D
S5 EXT. STAIR FDN DETAIL
NOT TO SCALE



E
S5 COLUMN PILASTER AT LANDING
NOT TO SCALE



ELECTRONIC SUBMISSION 10/15/19

REF. METAL BUILDING SHOP DRAWINGS FOR BOLT LOCATIONS, BOLT SIZE, EMBEDMENT & PROJECTION. VERIFY COMPATIBILITY OF DETAIL PRIOR TO CONCRETE PLACEMENT

DRAWING ISSUES	
02/28/19	50% CD
03/20/19	RFP
08/15/19	GMP
10/15/19	REV 1 PERMIT SET

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10/15/19
FOUNDATION
DETAILS
S5

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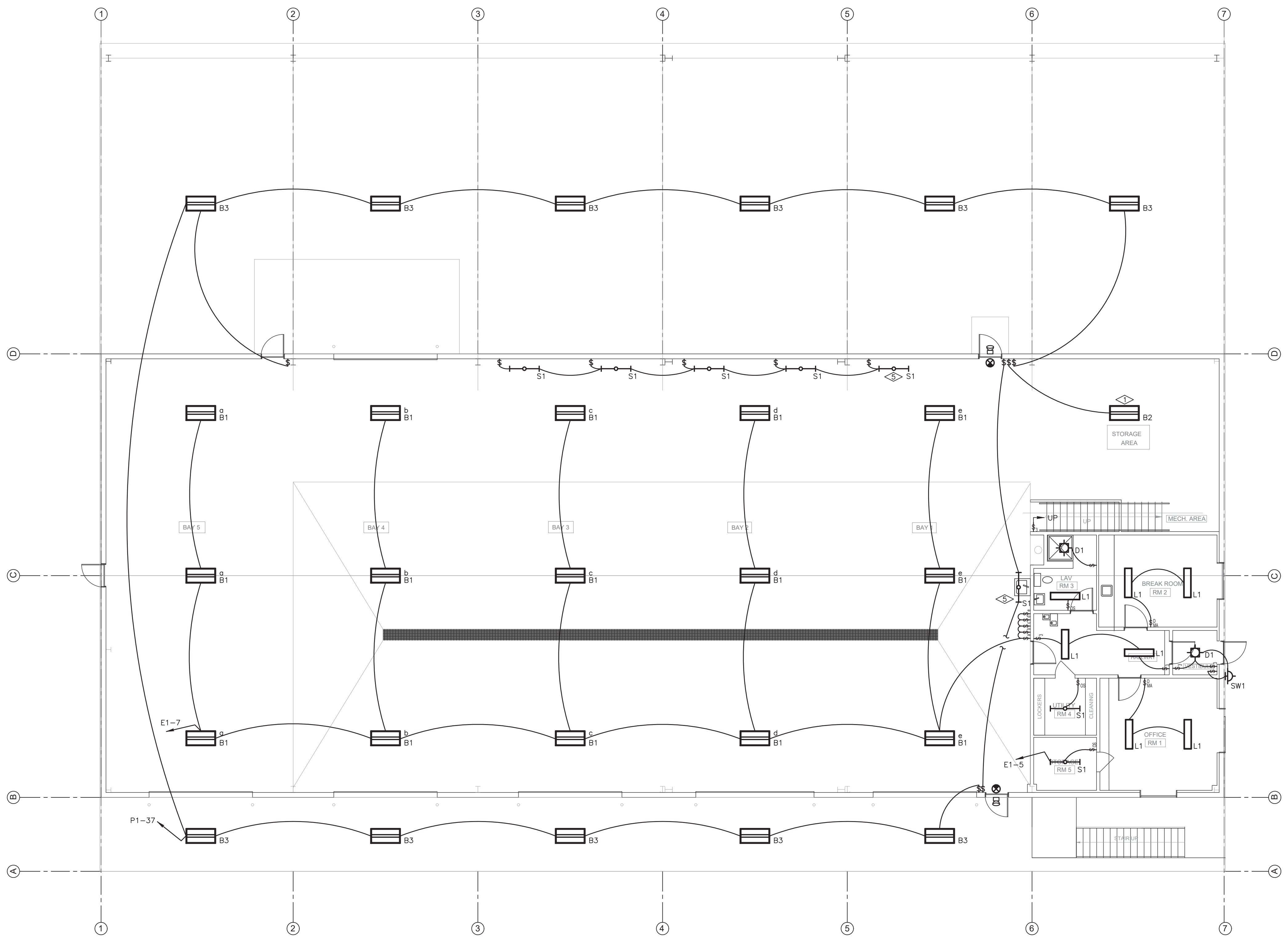
Bighorn Consulting Engineers, Inc.
 Mechanical & Electrical Engineers
 386 Indian Road
 Grand Junction, CO 81501
 Phone: 970-241-8709

**TOWN OF HOTCHKISS
 PUBLIC WORKS FACILITY**
 TBD BARROW MESA RD
 HOTCHKISS, COLORADO

DATE:	ISSUED FOR:
03/21/19	REVISED 50% DD
06/28/19	REVISED DRAWINGS
08/16/19	100% CD

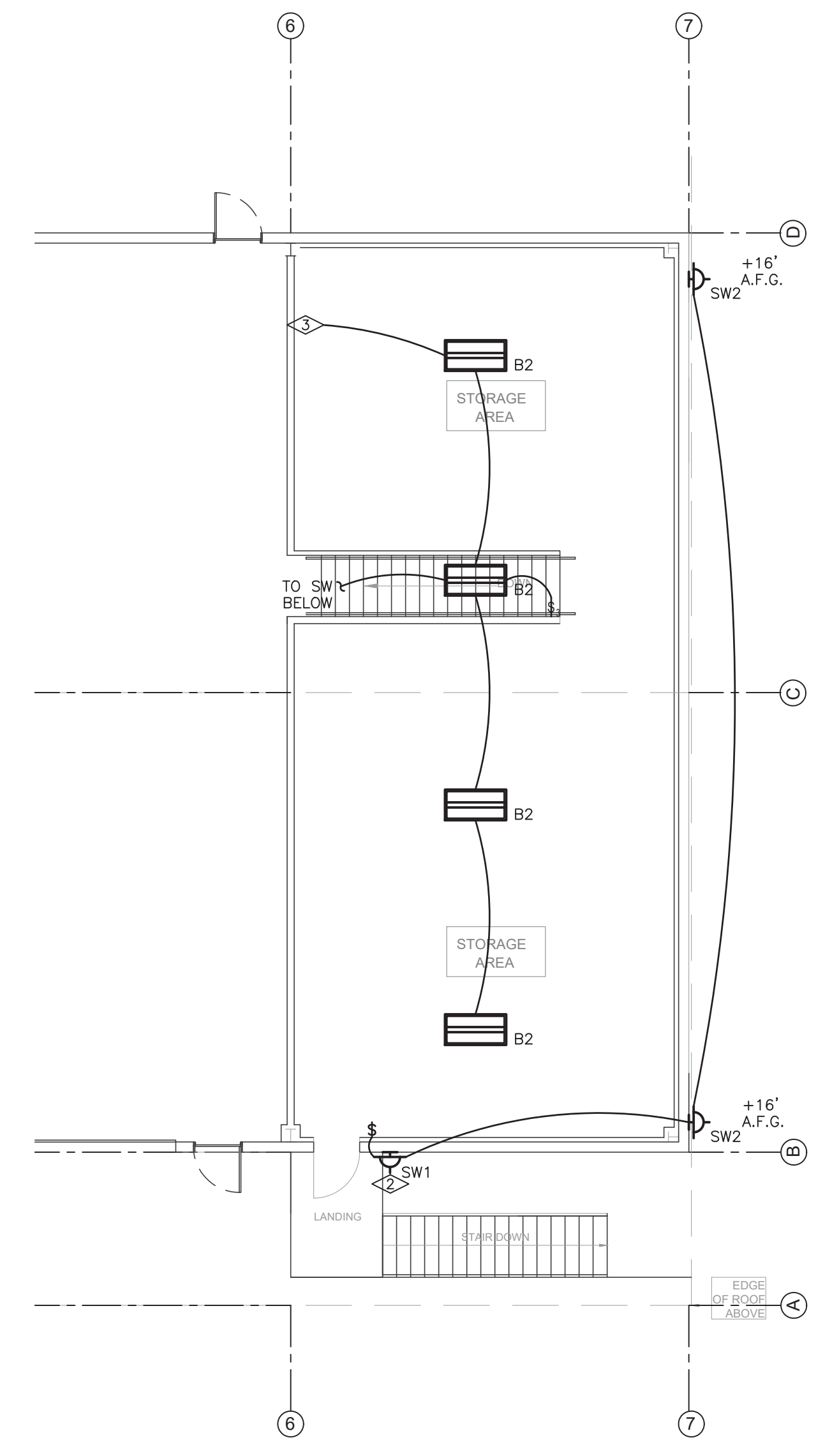


DATE:	03/21/19
JOB NO.:	18-159
DRAWN BY:	BCE
CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	E1-1



LIGHTING - SHOP FLOOR PLAN
 SCALE: 1/8"=1'-0"
 NORTH

- FLAG NOTES:**
- ◊ FIXTURE LOCATED ON THE UNDERSIDE OF THE MEZZANINE LEVEL.
 - ◊ SW1 FIXTURE LOCATED 7' ABOVE SECOND FLOOR LANDING. CIRCUITED WITH THE OFFICE AREA LIGHTING P1-35.
 - ◊ CONTINUED FROM BAY LIGHTING CIRCUIT P1-33
 - ◊ CONTINUE TO FRONT DOOR LIGHT TO BE CIRCUITED WITH OFFICE AREA LIGHTING P1-35
 - ◊ PROVIDE SUPPORT BRACKETS TO SUSPEND TYPE S1 FIXTURES 8 FT A.F.F. LOCATED OVER WORKBENCHES, COORDINATE WITH OWNER FOR EXACT LOCATIONS; CIRCUIT WITH OFFICE AREA LIGHTING: P1-35.



LIGHTING - MEZZANINE FLOOR PLAN
 SCALE: 1/8"=1'-0"
 NORTH

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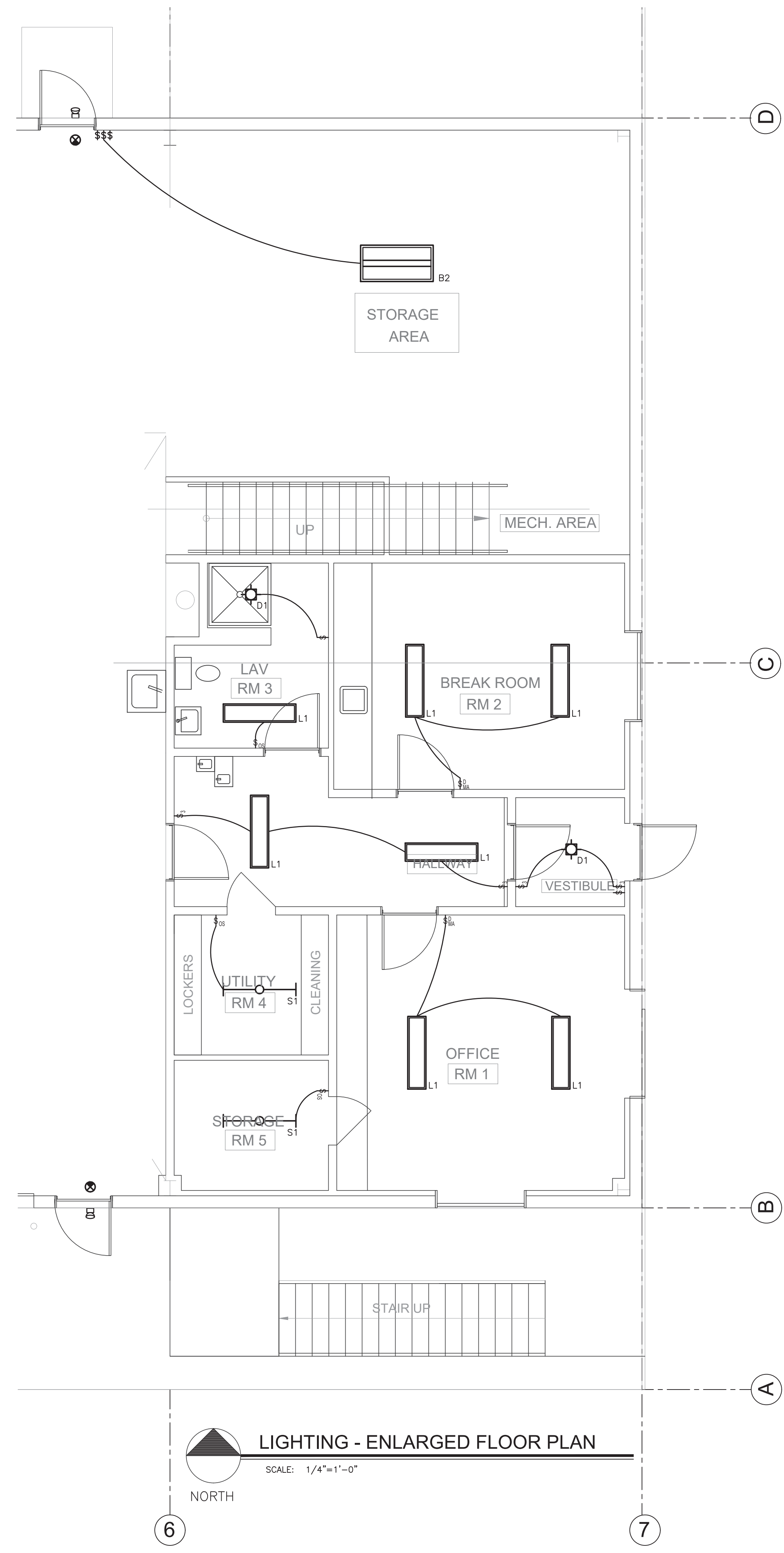
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JOB NO.:	18-159
DRAWN BY:	BCE
CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	E1-2



LIGHTING - ENLARGED FLOOR PLAN
SCALE: 1/4"=1'-0"
NORTH

LIGHTING LEGEND

NOTES:
SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON THE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED.

A LOWER CASE LETTER NEXT TO LIGHT FIXTURE OR SWITCH INDICATES A SWITCH DESIGNATION.
AN UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE TYPE OF SWITCH. SEE THE LIST BELOW
AN UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE. REFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS.

ELECTRICAL EQUIPMENT

- BRANCH CIRCUIT PANELBOARD
- LA-7 CIRCUITRY HOMERUN: PANEL LA - CIR. #7
- CONDUIT OR WIRE CONCEALED IN WALL/CLG.
- CONDUIT OR WIRE UNDERFLOOR/UNDERGRND.
- ⊙ CEILING JUNCTION BOX - SURFACE/FLUSH
- ⊙-1 WALL JUNCTION BOX - SURFACE/FLUSH

SWITCHES

- § SINGLE POLE SWITCH
- §2 TWO POLE SWITCH
- §3 THREE-WAY SWITCH
- §4 FOUR-WAY SWITCH
- §0 DIMMER SWITCH
- §30 3 WAY DIMMER SWITCH - (40 INDICATES A 4WAY DIMMER)
- §05 WALL MOUNTED DUAL TECHNOLOGY VACUITY SENSOR SWITCH
- §LV LOW VOLTAGE LIGHT SWITCH
- §MA MANUAL ON / AUTO OFF LIGHT SWITCH
- §MA MANUAL ON / AUTO OFF DIMMING LIGHT SWITCH
- ⊙S CEILING MOUNTED MOTION SENSOR

LIGHT FIXTURES

ALL FIXTURES:
A-UPPER CASE LETTER INDICATES FIXTURE TYPE
REFERENCE LUMINAIRE SCHEDULE FOR SPECIFICATIONS
G-LOWER CASE LETTER INDICATES SWITCHING CIRCUIT.

ACTUAL FIXTURE ON PLANS MAY VARY SLIGHTLY FROM THE SYMBOL SHOWN HERE

- A 2'x4' LED HIGH BAY TYPE FIXTURE, SUSPENDED MOUNTED
- A 1'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
- A 2'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
- A 2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
- A WALL BRACKET LIGHT FIXTURE
- A RECESSED DOWNLIGHT CAN FIXTURE
- EX1 SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
- EX2 DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
- EM WALL MOUNTED EMERGENCY LIGHT
- EMR EMERGENCY EXTERIOR EGRESS FIXTURE

ABBREVIATIONS

E1 DRAWING KEYED NOTE

ROOM NAME ROOM DESIGNATION, NAME AND NUMBER

- NL NIGHT/SECURITY LIGHT - DO NOT SWITCH
- WP WEATHERPROOF
- A.F.F. ABOVE FINISHED FLOOR
- A.F.G. ABOVE FINISHED GRADE
- GFCI OR GF GROUND FAULT CIRCUIT INTERRUPTER
- EM EMERGENCY FUNCTION NON-SWITCHED FIXTURE FOR 44" MOUNTING HEIGHT - A.F.F. OR A.F.G. TO CENTERLINE
- A.C. ITEM TO BE MOUNTED ABOVE COUNTER HEIGHT

Not sure if occupancy sensors are shown

Ck with Town, think awning lights are by switch

GENERAL LIGHTING NOTES

1. **LUMINAIRES:**
 - 1.1. LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.
 - 1.2. THE ELECTRICAL CONTRACTOR IS TO CONFIRM THE LIGHT FIXTURES ORDERED WILL BE COMPATIBLE WITH THE CEILING TYPES AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING THE FIXTURES.
 - 1.3. COORDINATE THE LOCATION OF LIGHTING EQUIPMENT INCLUDING BUT NOT LIMITED TO THE LUMINAIRES, SWITCHES AND CONTROL COMPONENTS WITH THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND ALL OTHER TRADES AS REQUIRED.
 - 1.4. VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT MOUNTED FIXTURES PRIOR TO ORDERING.
 - 1.5. ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND CONTROLS BEING PROVIDED.
 - 1.6. THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH ARCHITECTS AND ENGINEERS AS APPROVED EQUAL BEFORE BID. NO LIGHT FIXTURE SHALL BE ORDERED UNTIL THE LIGHT FIXTURE SUBMITTAL PACKAGE HAS BEEN APPROVED IN WRITING BY THE ARCHITECT, GENERAL CONTRACTOR AND ELECTRICAL ENGINEER. COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING ORDER.
2. **EMERGENCY AND EXIT LIGHTS:**
 - 2.1. PROVIDE EMERGENCY AND EXIT SIGNS AS PER ALL LOCAL CODES.
 - 2.1. EXIT SIGNS CONNECTED TO A REMOTE EMERGENCY HEAD REQUIRES EXTRA BATTERY CAPACITY TO OPERATE THE REMOTELY LOCATED EMERGENCY HEAD FOR EGRESS AWAY FROM THE BUILDING.
 - 2.2. REFER TO THE PLANS FOR THE NUMBER OF FACES REQUIRED AT EACH EXIT. FIELD ADJUST THE LOCATION OF THE EXIT SIGNS FOR THE BEST VISIBILITY POSSIBLE.
 - 2.3. ALL LIGHTING FIXTURES DENOTED WITH "EM" SHALL BE PROVIDED WITH AN ENGINEER APPROVED EMERGENCY LED DRIVER OR BALLAST TO OPERATION THE FIXTURE IN AN EMERGENCY MODE TO MEET ALL CURRENT LOCAL CODES AND WILL BE CIRCUITED TO THE UNSWITCHED SIDE OF THE LIGHTING CIRCUIT.
 - 2.4. ALL LIGHT FIXTURES DESIGNATED WITH "EM" OR SPECIFIED WITH AN EM FUNCTION SHALL BE PROVIDE WITH ONE OF THE FOLLOWING:
 - 2.4.1. INTEGRAL TEST SWITCH;
 - 2.4.2. REMOTE INFRARED HAND HELD DEVICE;
 - 2.4.3. INTEGRAL ELECTRONIC DEVICE THAT AUTOMATICALLY PERFORMS CODE REQUIRED TESTS.
 - 2.5. ALL STAIRWELLS AND PATHS OF EGRESS TO THE EXTERIOR DOORS, AND THE EXTERIOR PATH OF EGRESS AWAY FROM THE BUILDING SHALL RECEIVE EMERGENCY LIGHTING PER CODE.
3. **LIGHTING CONTROLS:**
 - 3.1. ALL LIGHTS IN: RESTROOMS, STORAGE CLOSETS, JANITORS CLOSETS AND STAIRWELLS ARE TO BE SWITCHED WITH A MOTION SENSOR ON/OFF SWITCH WITH A TIME DELAY. SET THE TIME DELAY LENGTH AS DIRECTED BY THE OWNER.
 - 3.1.1. EXCEPTION: IN AREAS WHERE THE SWITCH IS LOCATED OUTSIDE THE AREA THE LIGHT IS LOCATED IN.
 4. OFFICES WITH MORE THAN ONE FIXTURE WILL BE SWITCHED WITH A MANUAL ON/AUTO OFF DIMMING SWITCH.
 5. SWITCHING FOR LIGHTS IN LARGE COMMON AREA ARE AS SHOWN ON PLAN.
6. **GENERAL NOTES:**
 - 6.1. FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES.
7. **WIRING:**

ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING. FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN.

 - 7.1. ALL WIRE IS TO BE #12 UNLESS NOTED OTHERWISE.
 - 7.2. ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE SIZE LARGER.
 - 7.3. ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC AND ALL APPLICABLE LOCAL CODES.

INTERIOR LUMINAIRE SCHEDULE

TYPE	MANUFACTURER CATALOG NO.	MANUFACTURER CATALOG NO.	VOLTAGE MOUNTING # OF LAMPS	BALLAST LAMP TYPE LAMP CAT. #	DESCRIPTION
B1	LITHONIA LIGHTING IBG 15000LM SEF ACL GND MVOLT G210 40K 80CRI	APPROVED EQUIVALENT	120-277V SUSPENDED CEILING 1	LED DRIVER 97W, 80CRI 14059LM, 4000K	24"Lx16"Wx5"H SUSPENDED HIGH BAY LED LIGHTING, LM-80 80,000 HOUR LIFESPAN, DAMP LISTED 5 YEAR WARRANTY, -40°C STARTING TEMPERATURE.
B2	LITHONIA LIGHTING IBG 8000LM SEF ACL WD MVOLT G210 40K 80CRI	APPROVED EQUIVALENT	120-277V SUSPENDED CEILING 1	LED DRIVER 55W, 80CRI 7384LM, 4000K	24"Lx16"Wx5"H SUSPENDED HIGH BAY LED LUMINAIRE LM-80 80,000 HOUR LIFESPAN, DAMP LISTED 5 YEAR WARRANTY
B3	LITHONIA LIGHTING IBG 15000LM SEF ACL GND MVOLT G210 40K 80CRI LA02U	APPROVED EQUIVALENT	120-277V SUSPENDED CEILING 1	LED DRIVER 14059LM, 4000K	24"Lx16"Wx5"H SUSPENDED HIGH BAY LED LIGHTING, LM-80 80,000 HOUR LIFE, DAMP LISTED, 5 YEAR WARRANTY INTEGRAL OCCUPANCY SENSOR, -40°C STARTING TEMPERATURE
D1	LITHONIA LIGHTING 6JBK-RD-40K-90CRI-MW	APPROVED EQUIVALENT	120-277V SURFACE CEILING 1	LED DRIVER 13W, 80CRI 1000LM, 4000K	4" DIAx5"H SURFACE MOUNTED LUMINAIRE WET LISTED, 5 YEAR WARRANTY
L1	LITHONIA LIGHTING BLTX 48L ADP E21 LPB40	APPROVED EQUIVALENT	120-277V SURFACE CEILING 1	LED DIMMING DRIVER 45W, 80CRI 5267LM, 4000K	12"Lx48"Wx5"H SURFACE ARCHITECTURAL LINEAR LIGHT LONG LIFE LED, DAMP LISTED 5 YEAR WARRANTY
S1	LITHONIA LIGHTING ZL1D L48 5000LM FST MVOLT 40K 80CRI	APPROVED EQUIVALENT	120-277V STRIP LIGHT 1	LED DIMMING DRIVER 41W, 80CRI 5541LM, 4000K	48"Lx3"Wx2"H STRIP LIGHT LONG LIFE LED 5 YEAR WARRANTY
□	LITHONIA LIGHTING EU2C	APPROVED EQUIVALENT	120/277 SURFACE WALL/CEILING 2	NONE REQUIRED LED WITH UNIT	11"Wx3.5"Dx7.5"H IMPACT RESISTANT THERMO-PLASTIC, BATTERY
⊙	LITHONIA LIGHTING ECC LED HO M6	APPROVED EQUIVALENT	120/277 WALL/CEILING N/A	NONE REQUIRED LED WITH UNIT	14"Wx8"H COMBO EXIT EGRESS LIGHT NICAD BATTERY, UNIVERSAL MOUNTING, 5 YEAR WARRANTY FIELD CONFIGURABLE INDICATION, REMOTE HEAD CAPABLE
⊙	LITHONIA LIGHTING ELA LED WP M12	APPROVED EQUIVALENT	120/277 WALL/CEILING N/A	NONE REQUIRED LED WITH UNIT	6.5"Wx10.5"Hx4"D EXTERIOR EGRESS LIGHTING WET LOCATION RATED,
SW1	LITHONIA LIGHTING OLWX1 20W 40K PE	APPROVED EQUIVALENT	120-277V WALL MOUNT 1	LED DRIVER 20W, 80CRI 2697LM, 4000K	48"Lx24"Wx2"H EXTERIOR WALL PACK LONG LIFE LED, -20°C STARTING TEMPERATURE IP 65 RATED, FULL CUTOFF, 5 YEAR WARRANTY
SW2	LITHONIA LIGHTING TWH LED ALO 40K T3M MVOLT PE	APPROVED EQUIVALENT	120-277V WALL MOUNT 1	LED DRIVER 78W, 70CRI 9214LM, 4000K	16"Hx16"Wx8"D EXTERIOR WALL PACK LONG LIFE LED, -20°C STARTING TEMPERATURE IP 65 RATED, 5 YEAR WARRANTY

- NOTES:**
1. OCCUPANCY SENSORS ARE DIAGRAMMATICALLY DISPLAYED ON THE PLANS, FIELD ADJUST UNITS TO MEET THE MANUFACTURER'S RECOMMENDED SPACING REQUIREMENTS.
 2. THE EXIT LIGHT SYMBOL USED IN THIS SCHEDULE IS A GENERIC SYMBOL TO INDICATE AN EXIT LIGHT FIXTURE. REFER TO THE PLANS FOR THE NUMBER OF FACES REQUIRED AT EACH EXIT. FIELD ADJUST THE LOCATION OF THE EXIT SIGNS FOR THE BEST VISIBILITY POSSIBLE. ALL EXIT LIGHTS SHALL COMPLY WITH ALL LOCAL BUILDING CODES.
 3. EXIT AND EMERGENCY EGRESS LIGHTING TO BE CIRCUITED TO THE UNSWITCHED SIDE OF THE SPACE IN WHICH IT IS LOCATED.
 4. EXTERIOR FIXTURES UNDER THE AWNING ARE TO BE CONTROLLED WITH A PHOTOCCELL, PROVIDE A SNAP SWITCH IN SERIES TO CONTROL NORTH AWNING AND SOUTH AWNING INDEPENDENTLY OF EACH OTHER.
 5. PROVIDE A MEANS FOR AUTOMATIC OFF CONTROL FOR THE FIXTURES IN THE SHOP AREA; SET TIME DELAY PER OWNER.

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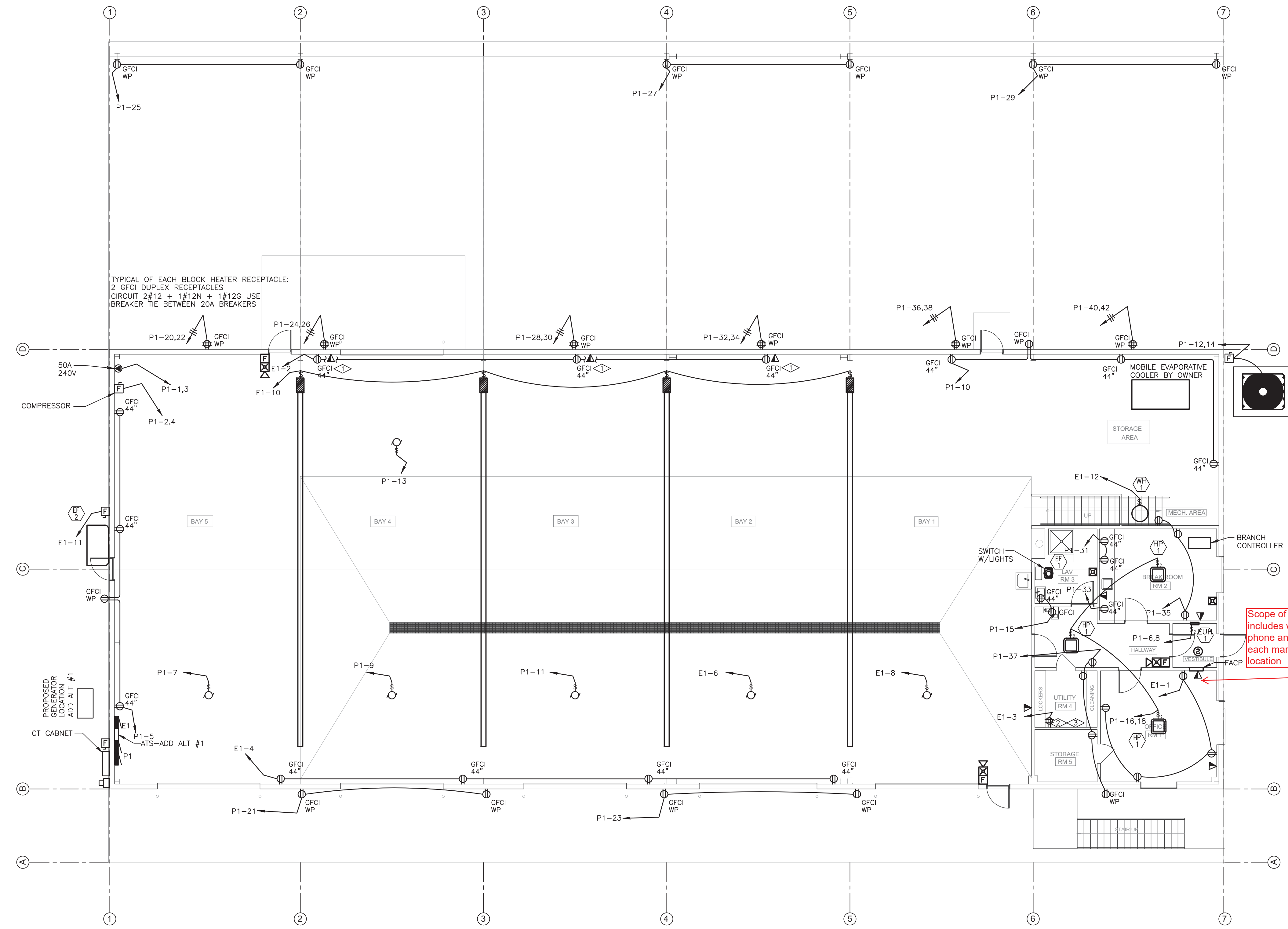
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CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	E2-1



I think we had said we wanted those 4' high

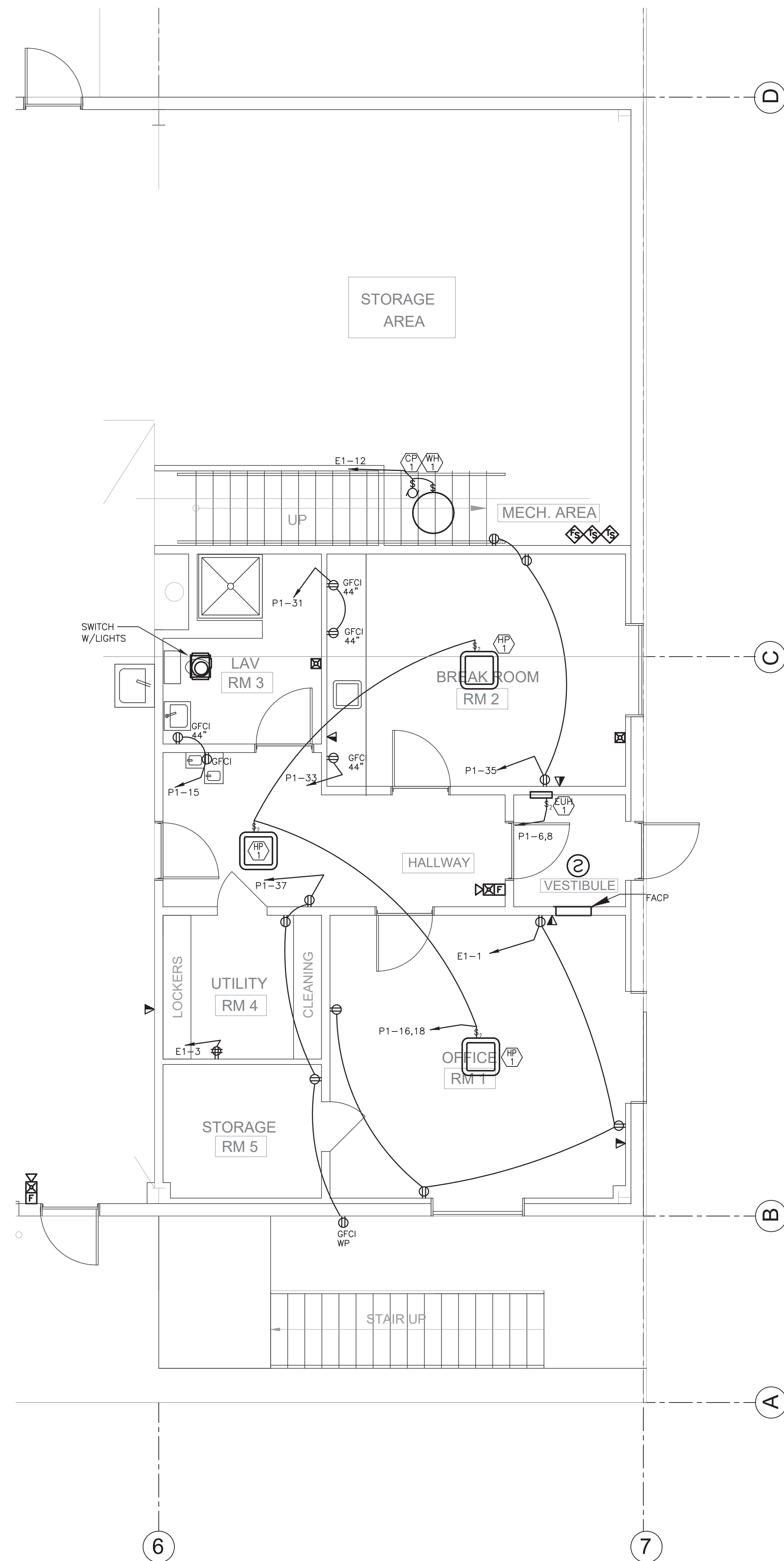
- FLAG NOTES:**
- COORDINATE MOUNTING OF ELECTRICAL AND DATA OUTLETS WITH WORK BENCH
 - TERMINATION OF PHONE UTILITY TO BE BY 66 PUNCH DOWN BLOCK WITH BRACKET; LOCATE AS DIRECTED BY OWNER. PROVIDE A #6 BARE COPPER GROUND TO THE SERVICE GROUNDING BUS OF PANEL P1.
 - TERMINATION OF CAT 6 DATA CONNECTIONS THROUGHOUT BUILDING TO BE IN 12 PORT PATCH PANEL 110 STYLE; LOCATE AS DIRECTED BY OWNER.

Scope of work includes wiring for phone and data to each marked location

Data & Phone entry / terminal board w ground and router.

ELECTRICAL - SHOP FLOOR PLAN
SCALE: 1/8"=1'-0"
NORTH

ELECTRICAL - MEZZANINE FLOOR PLAN
SCALE: 1/8"=1'-0"
NORTH



ELECTRICAL - OFFICE FLOOR PLAN

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

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SCALE:	AS SHOWN
SHEET NUMBER:	E2-2

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Bighorn Consulting Engineers, Inc.
Mechanical & Electrical Engineers
386 Indian Road
Grand Junction, CO 81501
Phone: 970-241-8709

**TOWN OF HOTCHKISS
PUBLIC WORKS FACILITY**
TBD BARROW MESA RD
HOTCHKISS, COLORADO

DATE: ISSUED FOR:
03/21/19 REVISED 50% DD
06/28/19 REVISED DRAWINGS
08/16/19 100% CD



DATE: 03/21/19
JOB NO: 18-159
DRAWN BY: BCE
CHECKED BY: BCE
SCALE: AS SHOWN
SHEET NUMBER:

E2-3

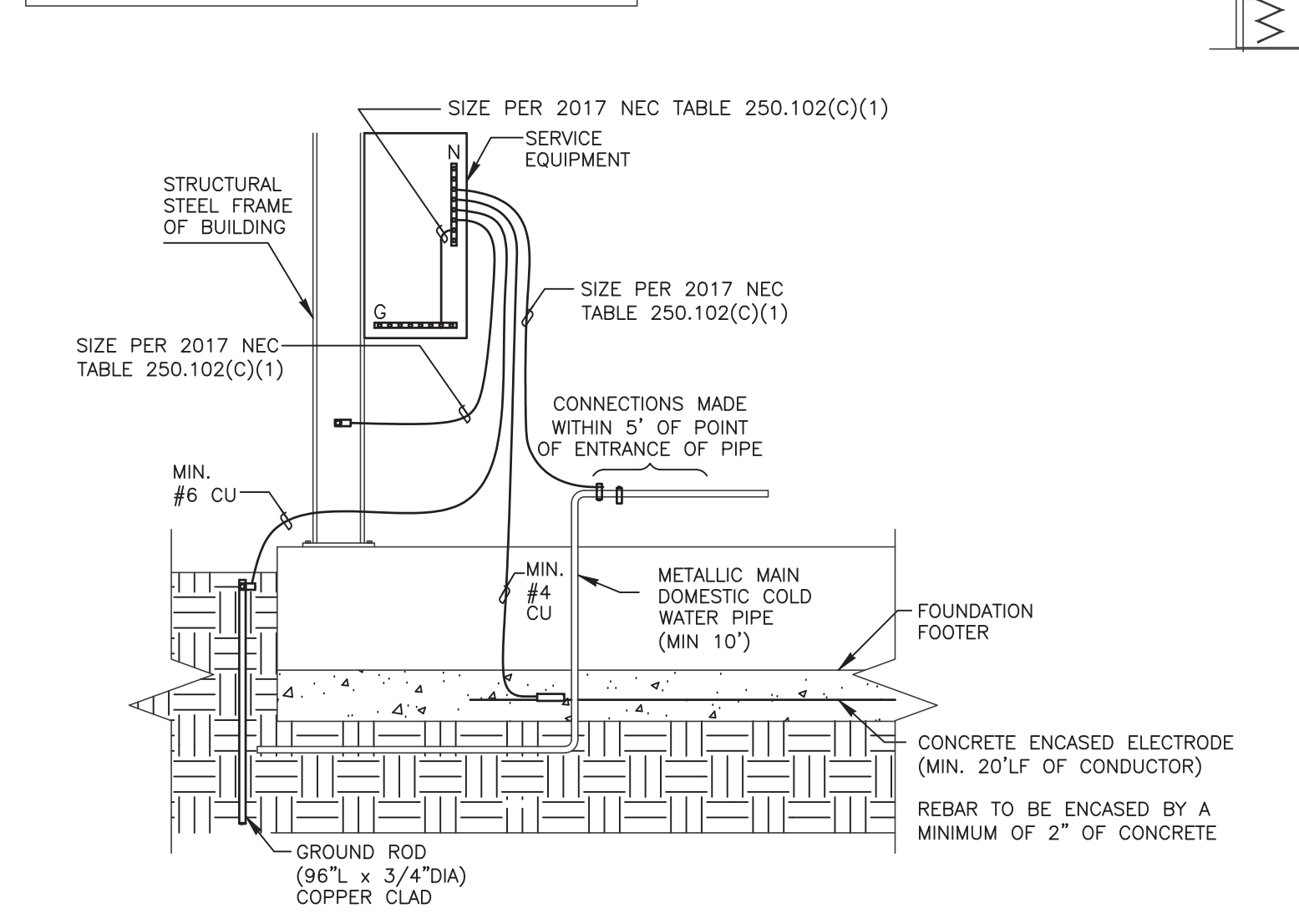
PANEL SCHEDULE -- P1		TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD 120/240 NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:	600 NONE SURFACE	PHASES: WIRES: 3 SC RATING: 22000	NEUTRAL BUS: YES GROUND BUS: YES	
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	Ø	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
PROCESS	SHOP OUTLET	50A 2P	1 4800	A	2 4000	50A 2P	MOTOR	AIR COMPRESSOR
PROCESS	---	---	3 4800	B	4 4000	---	MOTOR	---
RECEPTACLE	SHOP OUTLETS	20A 1P	5 720	A	6 1000	20A 2P	MECH HEATING	UNIT EUH-1
PROCESS	DOOR OPENER	20A 1P	7 1500	B	8 1000	---	MECH HEATING	---
PROCESS	DOOR OPENER	20A 1P	9 1500	A	10 720	20A 1P	RECEPTACLE	SHOP OUTLET
PROCESS	DOOR OPENER	20A 1P	11 1500	B	12 5040	45A 2P	MECH YEAR ROUND	UNIT CU-1
PROCESS	DOOR OPENER	20A 1P	13 1500	A	14 5040	---	MECH YEAR ROUND	---
RECEPTACLE	BATHROOM OUTLETS	20A 1P	15 360	B	16 250	20A 2P	MECH YEAR ROUND	HP UNITS
RECEPTACLE	MEZZANINE OUTLETS	20A 1P	17 540	A	18 250	---	MECH YEAR ROUND	---
RECEPTACLE	MEZZANINE OUTLETS	20A 1P	19 540	B	20 1000	20A 1P	RECEPTACLE	BLOCK HEATER 1 PROVIDE BREAKER TIE WITH P1-22
RECEPTACLE	EXTERIOR OUTLETS	20A 1P	21 360	A	22 1000	20A 1P	RECEPTACLE	BLOCK HEATER 1 PROVIDE BREAKER TIE WITH P1-20
RECEPTACLE	EXTERIOR OUTLETS	20A 1P	23 360	B	24 1000	20A 1P	RECEPTACLE	BLOCK HEATER 2 PROVIDE BREAKER TIE WITH P1-26
RECEPTACLE	AWNING POLE OUTLET	20A 1P	25 360	A	26 1000	20A 1P	RECEPTACLE	BLOCK HEATER 2 PROVIDE BREAKER TIE WITH P1-24
RECEPTACLE	AWNING POLE OUTLET	20A 1P	27 360	B	28 1000	20A 1P	RECEPTACLE	BLOCK HEATER 3 PROVIDE BREAKER TIE WITH P1-30
RECEPTACLE	AWNING POLE OUTLET	20A 1P	29 360	A	30 1000	20A 1P	RECEPTACLE	BLOCK HEATER 3 PROVIDE BREAKER TIE WITH P1-28
RECEPTACLE	BREAK ROOM COUNTER OUTLET	20A 1P	31 360	B	32 1000	20A 1P	RECEPTACLE	BLOCK HEATER 4 PROVIDE BREAKER TIE WITH P1-34
RECEPTACLE	BREAK ROOM COUNTER OUTLET	20A 1P	33 360	A	34 1000	20A 1P	RECEPTACLE	BLOCK HEATER 4 PROVIDE BREAKER TIE WITH P1-32
RECEPTACLE	BREAK ROOM OUTLETS	20A 1P	35 360	B	36 1000	20A 1P	RECEPTACLE	BLOCK HEATER 5 PROVIDE BREAKER TIE WITH P1-38
RECEPTACLE	CONVENIENCE OUTLETS	20A 1P	37 720	A	38 1000	20A 1P	RECEPTACLE	BLOCK HEATER 5 PROVIDE BREAKER TIE WITH P1-36
LIGHTING	EXTERIOR LIGHTING	20A 1P	39 1200	B	40 1000	20A 1P	RECEPTACLE	BLOCK HEATER 6 PROVIDE BREAKER TIE WITH P1-42
SPARE	UNALLOCATED FUTURE	20A 1P	41 200	A	42 1000	20A 1P	RECEPTACLE	BLOCK HEATER 6 PROVIDE BREAKER TIE WITH P1-40
SPARE	UNALLOCATED FUTURE	20A 1P	43 200	B	44 200	20A 1P	SPARE	UNALLOCATED FUTURE
SPACE	---	---	45 0	A	46 200	20A 1P	SPARE	UNALLOCATED FUTURE
SPACE	---	---	47 0	B	48 0	---	SPACE	---
SPACE	---	---	49 0	A	50 0	---	SPACE	---
SUBFEED	PANEL E1	100A 2P	51 4640	B	52 0	---	SPACE	---
SUBFEED	---	---	53 5976	A	54 0	---	SPACE	---

PANEL SCHEDULE -- E1		TYPE: VOLTAGE: ENCLOSURE:	PANELBOARD 120/240 NEMA1	BUS SIZE: MAIN BRKR: MOUNTING:	100 SURFACE	PHASES: WIRES: 3 SC RATING: 10000	NEUTRAL BUS: YES GROUND BUS: YES	
LOAD TYPE	LOAD DESCRIPTION	AMPS POLES	CKT# LOAD	Ø	CKT# LOAD	AMPS POLES	LOAD TYPE	LOAD DESCRIPTION
RECEPTACLE	OFFICE OUTLETS	20A 1P	1 720	A	2 720	20A 2P	RECEPTACLE	SHOP OUTLETS
RECEPTACLE	COMMS CABINET	20A 1P	3 500	B	4 720	20A 1P	RECEPTACLE	SHOP OUTLETS
LIGHTING	OFFICE LIGHTING	20A 1P	5 1000	A	6 1500	20A 1P	MOTOR	DOOR OPENER
LIGHTING	BAY LIGHTING	20A 1P	7 1400	B	8 1500	20A 1P	MOTOR	DOOR OPENER
MISCELLANEOUS	FACP	20A 1P	9 300	A	10 400	20A 1P	MECH HEATING	SHOP HEATER
MOTOR	UNIT EF-2	20A 1P	11 1656	B	12 200	20A 1P	MECH YEAR ROUND	WATER HEATER & CIRC PUMP
SPACE	---	---	13 0	A	14 0	---	SPACE	---
SPACE	---	---	15 0	B	16 0	---	SPACE	---
SPACE	---	---	17 0	A	18 0	---	SPACE	---
SPACE	---	---	19 0	B	20 0	---	SPACE	---
SPACE	---	---	21 0	A	22 0	---	SPACE	---
SPACE	---	---	23 0	B	24 0	---	SPACE	---
SPACE	---	---	25 0	A	26 0	---	SPACE	---
SPACE	---	---	27 0	B	28 0	---	SPACE	---
SPACE	---	---	29 0	A	30 0	---	SPACE	---

MECHANICAL EQUIPMENT SCHEDULE										
UNIT NO	FUNCTION (NOTES)	LOAD	VOLTS	Ø	FULL LOAD AMPS	BRANCH CONDUIT SIZE	CIRCUIT NO.	GRND WIRE SIZE	BRKR SIZE	START DISC FUSE
CU-1	CONDENSING UNIT		240	1	42 A	3/4"	2	8 10	50A	NR 60 50
EF-1	EXHAUST FAN		120	1	1.0A	1/2"	2	12 12	20A	NR
EF-2	EXHAUST FAN	3/4HP	120	1	13.8A	1/2"	2	12 12	20A	NR
HP-1	INDOOR AC EQUIPMENT		240	1	0.3A	1/2"	2	12 12	20A	NR
IR-1	RADIANT HEATER		120	1	1.0A	1/2"	2	12 12	20A	NR
LR-1	MOTORIZED LOUVER		120	1	1.0A	1/2"	2	12 12	20A	NR

ABBREVIATIONS AND NOTATIONS	
A.C.	ABOVE COUNTER -- VERIFY HEIGHT
A.F.C.	ABOVE FINISHED CEILING
A.F.F.	ABOVE FINISHED FLOOR
A.F.G.	ABOVE FINISHED GRADE
AIC	AMPS INTERRUPTING CAPACITY
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO/VIDEO
AWG	AMERICAN WIRE GAGE
CB	CIRCUIT BREAKER
CCT	CIRCUIT
CT	CURRENT TRANSFORMER
CU	COPPER
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
FLA	FULL LOAD AMPS
G	GROUND
GEC	GROUNDING ELECTRODE CONDUCTOR
GFI	GROUND FAULT INTERRUPTER
HP	HORSEPOWER
IG	ISOLATED GROUND
MCA	MINIMUM CIRCUIT CAPACITY
MCB	MAIN CIRCUIT BREAKER
MLO	MAIN LUGS ONLY
N	NEUTRAL
NL	NIGHT LIGHT
OCP	OVERCURRENT PROTECTION
QL	OVERLOAD
SC	SHORT CIRCUIT
TR	TEMPER RESISTANT
TTB	TELECOMMUNICATIONS TERMINAL BACKBOARD
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
WPIU	WEATHERPROOF IN-USE
XFMR	TRANSFORMER

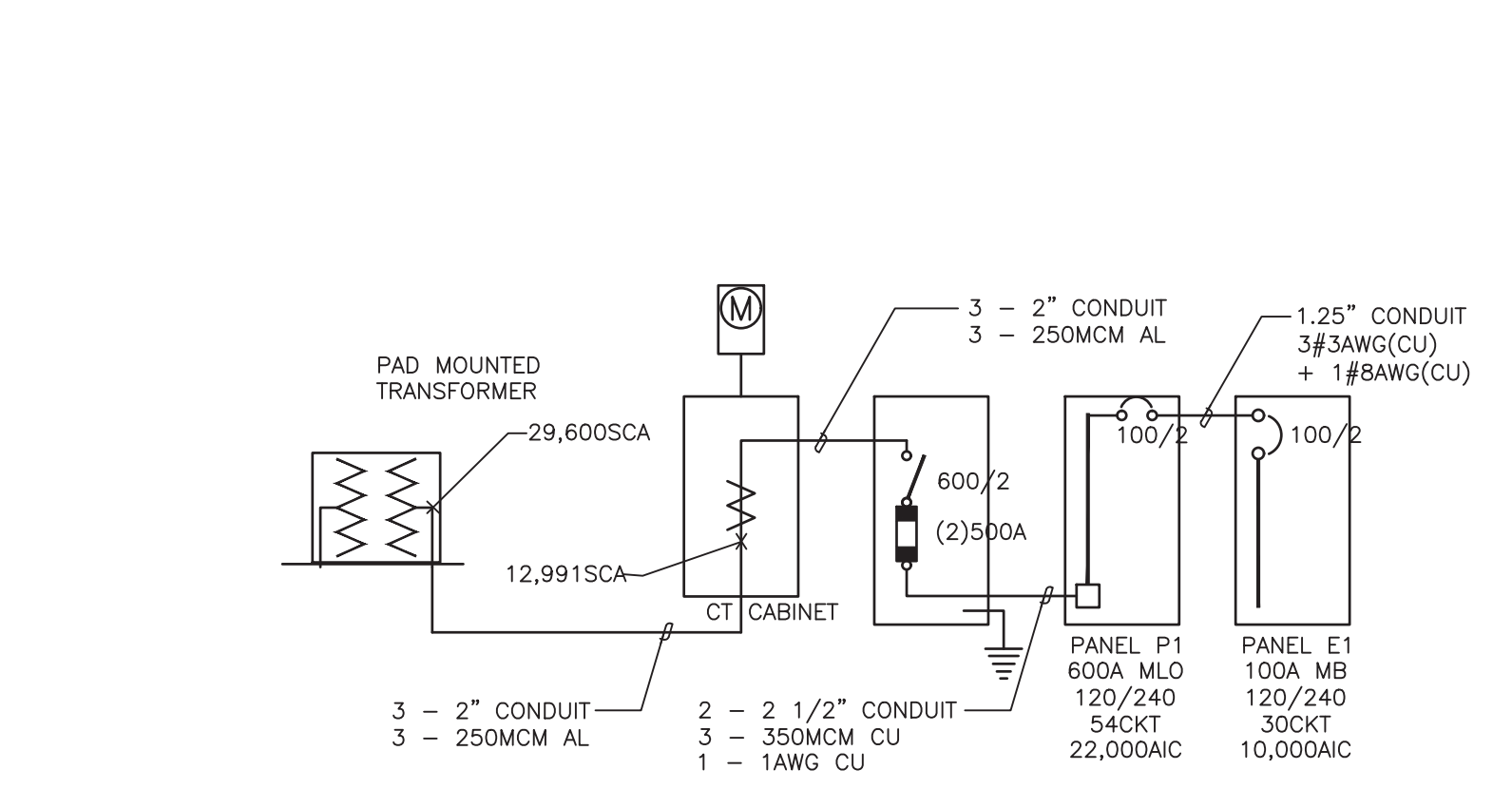
SCHEMATIC WIRING SYMBOLS	
	TRANSFORMER
	ELECTRICAL POWER PANEL
	MAIN LUG ONLY/MAIN CIRCUIT BREAKER
	GROUND
	CURRENT TRANSFORMER
	CIRCUIT BREAKER, MOLDED-CASE
	FUSED DISCONNECT SWITCH
	METER



SCALE: NOT TO SCALE

NOTES:

- SEE ONE LINE DIAGRAM FOR GROUNDING CONDUCTOR SIZES REQUIRED.
- PROVIDE A MINIMUM OF TWO SEPARATE GROUND SOURCES, U.O.N. ON ONE LINE DIAGRAM.
- CADWELD ALL ENCASED GROUND CONNECTIONS



ONE-LINE DIAGRAM

NOT TO SCALE

ONE LINE NOTES:

- PROVIDE GROUNDING AND LABELING PER NEC REQUIREMENTS
- PROVIDE A #6 COPPER CONDUCTOR TO A 10" BY 5/8" DRIVEN ROD.
- CT TO BE INSTALLED BACK TO BACK WITH PANEL P1
- PROVIDE A #6 COPPER TO THE IT CABINET FOR GROUNDING

KAIC CALCULATIONS:

100KVA 120/240V 1Ø TRANSFORMER INFORMATION
29,600 kAIC

UTILIZING POINT TO POINT METHODS:

f FACTOR

$$f = \frac{2 \times L \times I}{N \times C \times E(L-L)}$$

L = WIRE LENGTH = 200' ESTIMATED
I = FAULT CURRENT = 29,600 AMPS
N = NUMBER OF CONDUCTORS PER PHASE = 3
C = CONSTANT INVERSE IMPEDANCE PER FOOT = 250kcmil : 12862

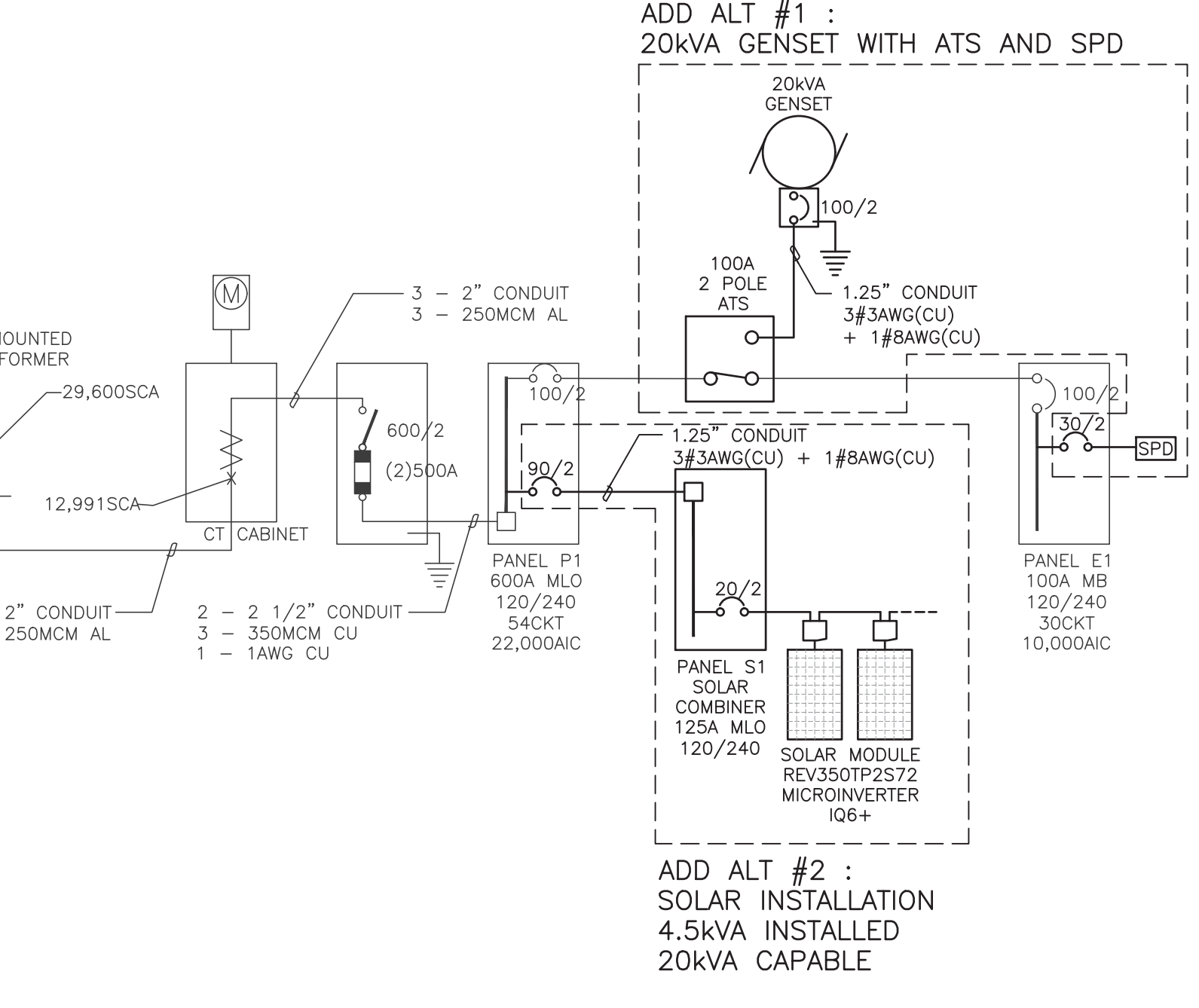
$$E(L-L) = \text{VOLTAGE (LINE TO LINE)} = 240 \text{ VOLTS}$$

$$f = \frac{400 \times 29600}{3 \times 12862 \times 240} = 3.835$$

MULTIPLIER

$$M = \frac{1}{1 + f} = \frac{1}{1 + 1.219} = .439$$

FAULT CURRENT

$$I(F) = I(SC) \times M = 29600 \times .439 = 12991$$


ONE-LINE DIAGRAM OF ADD ALT #1&2

NOT TO SCALE

ADD ALT NOTES:

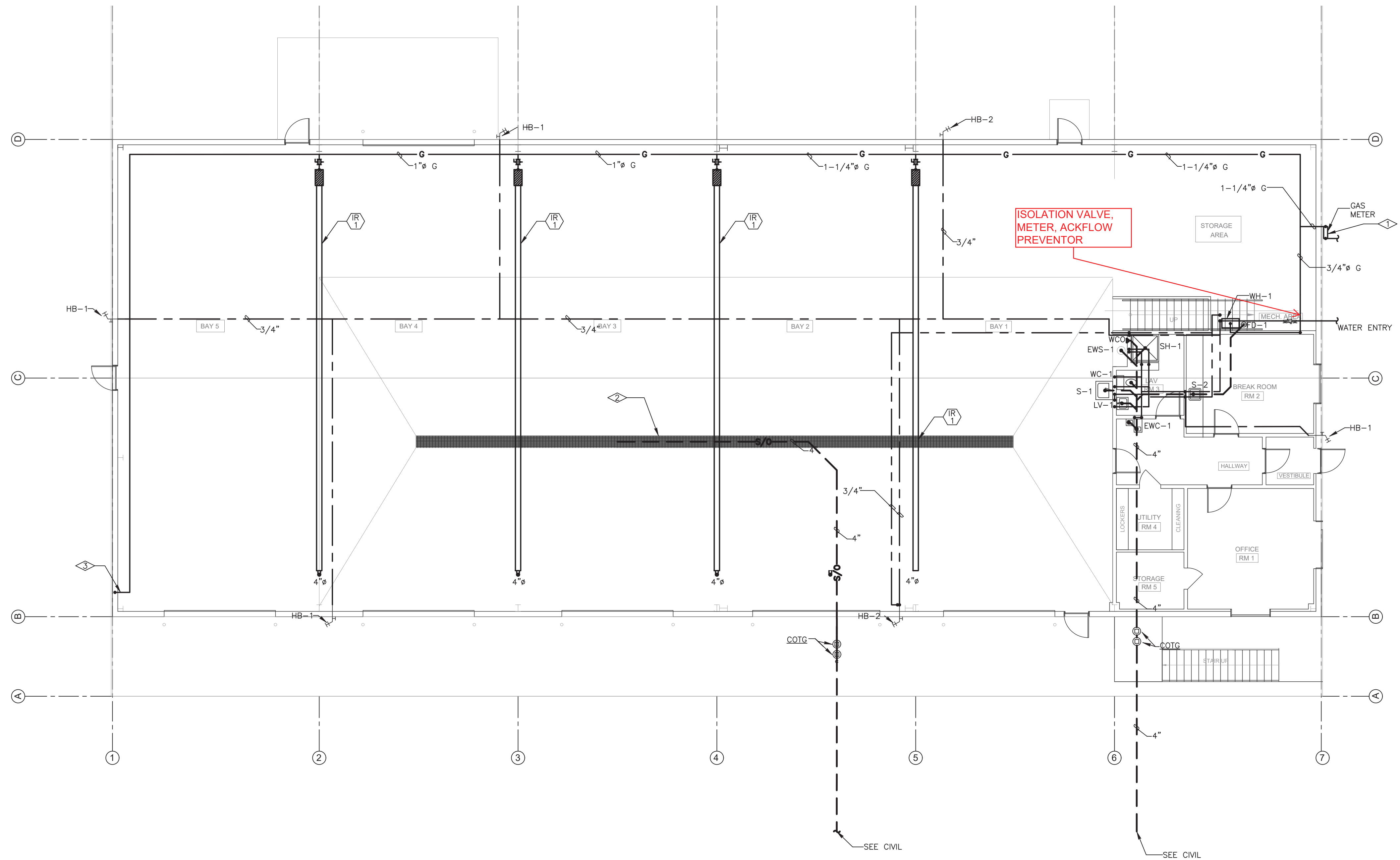
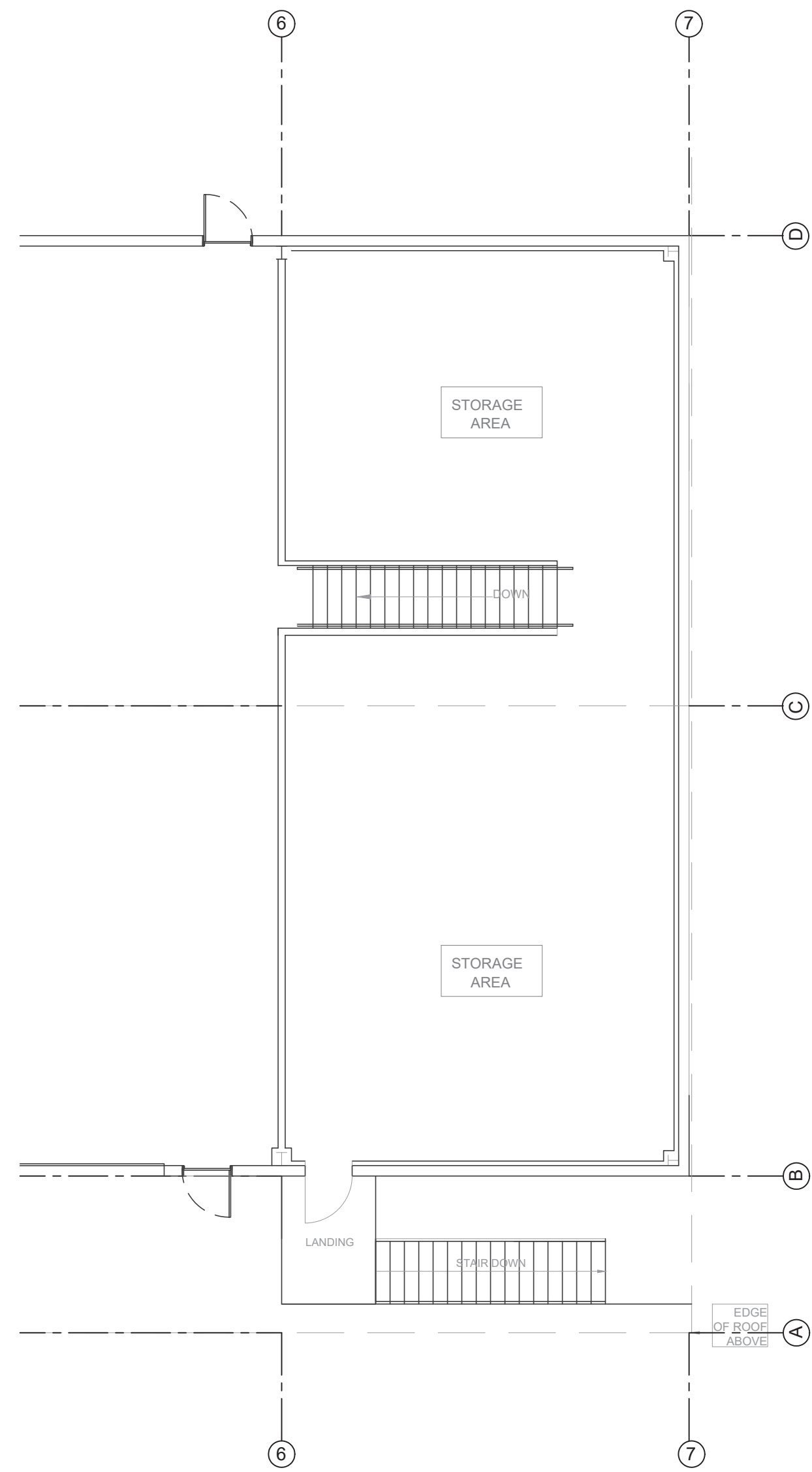
ADD ALT #1:

- PROVIDE 20kW GENERATOR AND 100A TRANSFER SWITCH.
- PROVIDE SURGE SUPPRESSION ON PANEL E1

ADD ALT #2:

- SOLAR PANEL INSTALLATION TO MEET ALL APPLICABLE SECTIONS OF NEC ARTICLE 690.
- SOLAR PANEL INSTALLATION TO MEET ALL LABELING AND DISCONNECT REQUIREMENTS OF DMEA.

SHEET UPDATED 8/23/19
MOST OF SHEET MODIFIED
TO REFLECT TWO PANELS



ISOLATION VALVE, METER, ACKFLOW PREVENTOR

PLUMBING - MEZZANINE FLOOR PLAN
 SCALE: 1/8"=1'-0"
 NORTH

- FLAG NOTES:**
- TRENCH DRAIN GRATE TO BE TRAFFIC RATED AND SLOPED PER IPC, SEE CIVIL.
 - NEW GAS METER, ASSUMED MEDIUM PRESSURE GAS (I.E. 2PSI), TOTAL APPROXIMATE LOAD 1,246MBH (~1,520 CFH), LONGEST LENGTH IS APPROXIMATELY 200 FT LONG.
 - 3/4" (2PSI) GAS LINE STUB FOR FUTURE GENERATOR, PROVIDE WITH ISOLATION VALVE AND CAP ON INTERIOR OF BUILDING.
- GENERAL NOTES:**
- PROVIDE GAS REGULATORS AT GAS FIRED EQUIPMENT.

PLUMBING - SHOP FLOOR PLAN
 SCALE: 1/8"=1'-0"
 NORTH

VENTING CAN BE GROUPED AND ROUTED TO THE EAST HORIZONTALLY IN THE FIRST FLOOR CEILING SPACE TO THE EAST EXTERIOR WALL AND ROUTED UP THE INTERIOR WALL AND ACROSS THE MEZZANINE CEILING SPACE TO THE ROOF ON A SLOPE ON ALL "HORIZONTAL" RUNS . THE ONLY OTHER FIXTURE THAT WOULD NEED VENTING IS THE TRENCH DRAIN AND THIS CAN BE ROUTED UP THE INTERIOR OF THE SOUTH WALL AND TO THE ROOF. If 8/23/19

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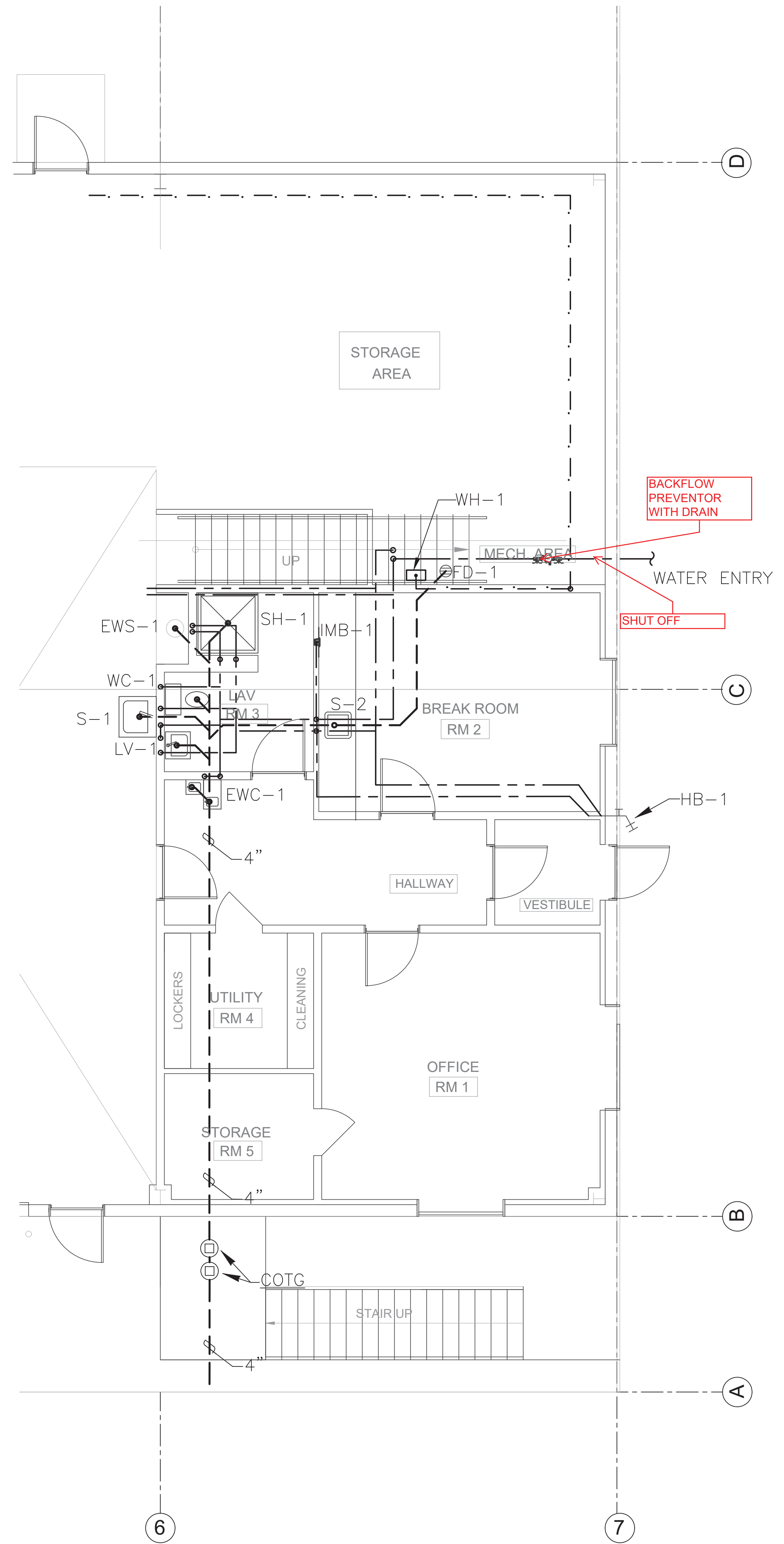
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08/16/19	100% CD



DATE:	ISSUED FOR:
03/21/19	18-159
DRAWN BY:	BCE
CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	P1-1



PLUMBING - OFFICE FLOOR PLAN
 SCALE: 1/4"=1'-0"
 NORTH

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JOB NO:	18-159
DRAWN BY:	BCE
CHECKED BY:	BCE
SCALE:	AS SHOWN
SHEET NUMBER:	P1-2

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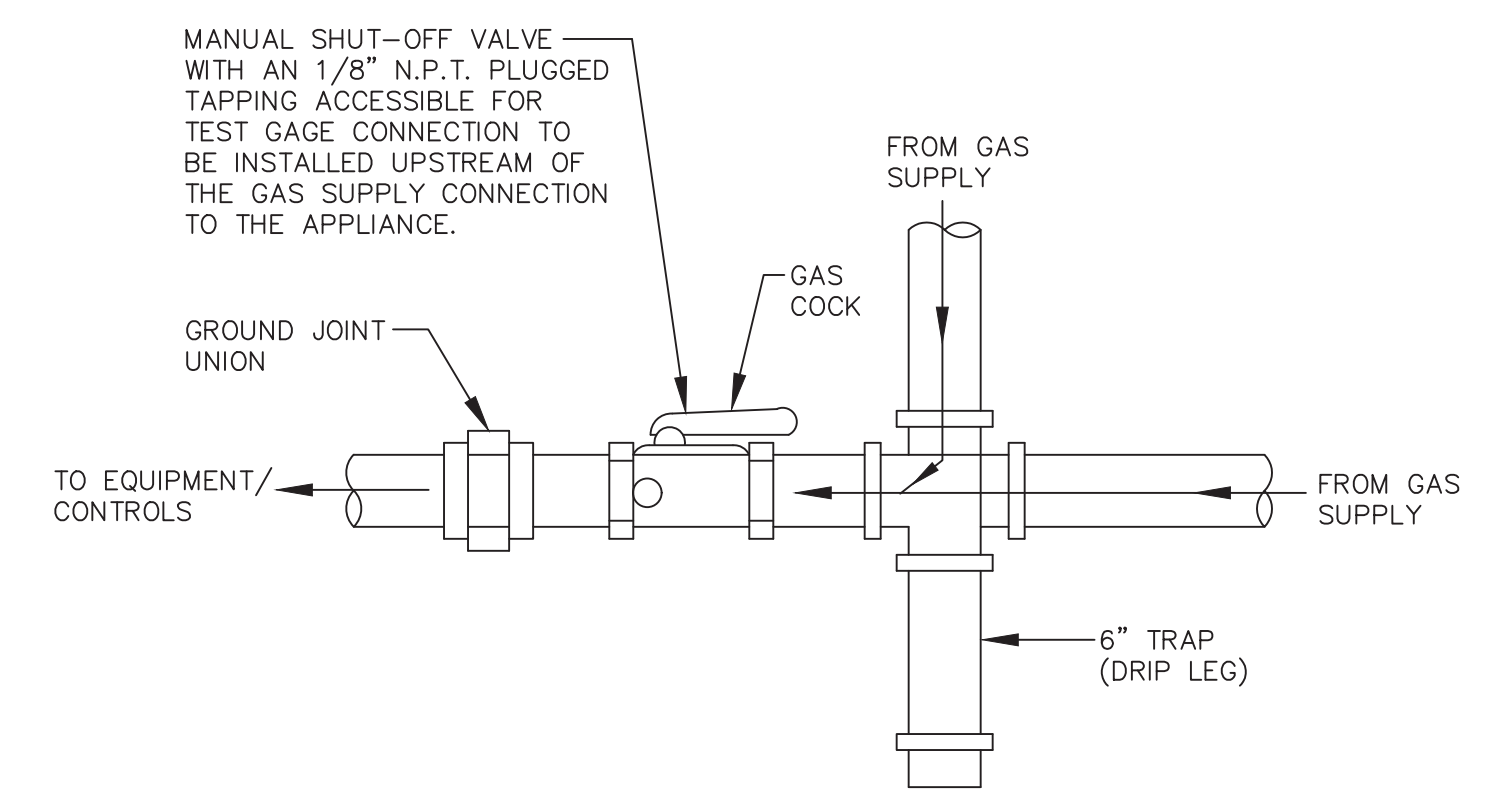
FIXTURE NO.	DESCRIPTION	MANUFACTURER	MODEL	TRIM	PIPING CONNECTIONS				OPTIONS-ACCESSORIES
					S/W	VENT	C.W.	HW	
EWC-1	ELECTRIC WATER COOLER	ELKAY	LZSVR8L		1-1/2"	1-1/2"	1/2"	1/2"	PROVIDE WITH WALL CARRIER, WALL MOUNT ADA VANDAL RESISTANT, 8 GPH. POWER 115V/60HZ, FLA 5 AMPS, 370 WATT.
EWS-1	EYE WASH STATION	GUARDIAN	G1814P	WALL MOUNTED EYE WASH	-	-	3/4"	3/4"	FLOOR MOUNTED, PROVIDE WITH MIXING VALVE, FLOOR DRAIN, HAND PADLE OPERATION. WATER DELIVERED SHOWER SHALL BE TEPID MINIMUM 60°F TO 100°F.
FD-1	FLOOR DRAIN	SILOUX CHIEF	832-4PNR	BRONZE	4"	2"	-	-	PROVIDE NICKEL BRONZE STRAINER, MECHANICAL TRAP SEAL SIMILAR TO J.R. SMITH QUAD CLOSE.
HB-1	FREEZE PROOF HOSE BIB	WOODFORD	B67		-	-	3/4"	1/2"	PROVIDE LOCKING BOX WITH ANTI-SIPHON AND VACUMN BREAKER, FREEZE PROOF.
HB-2	FREEZE PROOF HOSE BIB	WOODFORD	V22		-	-	3/4"	1/2"	PROVIDE LOCKING BOX WITH ANTI-SIPHON AND VACUMN BREAKER, FREEZE PROOF.
LV-1	WALL MOUNTED BATHROOM SINK	AMERICAN STANDARD-REGALYN	4867.008	PROVIDE AMERICAN STANDARD MONTERREY .35 GPM FAUCET	1 1/2"	1 1/2"	1/2"	1/2"	GRID DRAIN, P TRAP, LOCAL MIXING VALVE, WALL HANGER KIT.
S-1	24"X24" TERRAZZO BASIN	FIAT	TSB100	PROVIDE PROFLOW PF1118 UTILITY FAUCET	1-1/2"	1-1/2"	1/2"	1/2"	PROVIDE WITH TOP MOUNT UTILITY FAUCET WITH INTEGRAL VACUUM BREAKER, HOT COLD STEMS, STAINLESS STEEL CAPS, SILICONE SEALANT, WALL GAURDS.
S-2	1 COMPARTMENT SINK COUNTER MOUNTED	JUST	SLN-1815-A-GR	JUST JV-174-A COUNTER MOUNTED SINK	1-1/2"	1-1/2"	1/2"	1/2"	SINK STRAINER, P-TRAP, LOCAL MIXING VALVE, ADDITIONAL ACCESSORIES COORDINATE WITH OWNER.
SH-1	ADA SHOWER ENCLOSURE	CHICAGO FAUCETS	SH-PB1-00-013	ADA TERRAZO BASIN, TILE WITH GREEN BOARD.	1-1/2"	1-1/2"	1/2"	1/2"	TERRAZO BASIN, PRESSURE BALANCED MIXING VALVE POLYPROPYLENE WALLS, CURTAIN ROD, SIONGLE LEVER VALVE, GRID FLOOR DRAIN, GRAB BARS, SEAT.
WC-1	ADA WATER CLOSET	AMERICAN STANDARD-CHAMPION	2034.314	1.6 GPF FLUSH TANK WATER CLOSET	4"	2"	3/4"	-	VACUUM BREAKER, COORDINATE COLOR WITH OWNER, PROVIDE ELONGATED SEAT.

INSTANTANEOUS GAS FIRED WATER HEATER SCHEDULE						
EQUIPMENT NO	RECOVERY @70 DEG F. RISE (GPM)	BTU PER HR.	GAS CONN.	WATER CONN.	MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
WH-1	5.5	199,000	3/4"	3/4"	RINNAI - RU199IN	NOTE-1

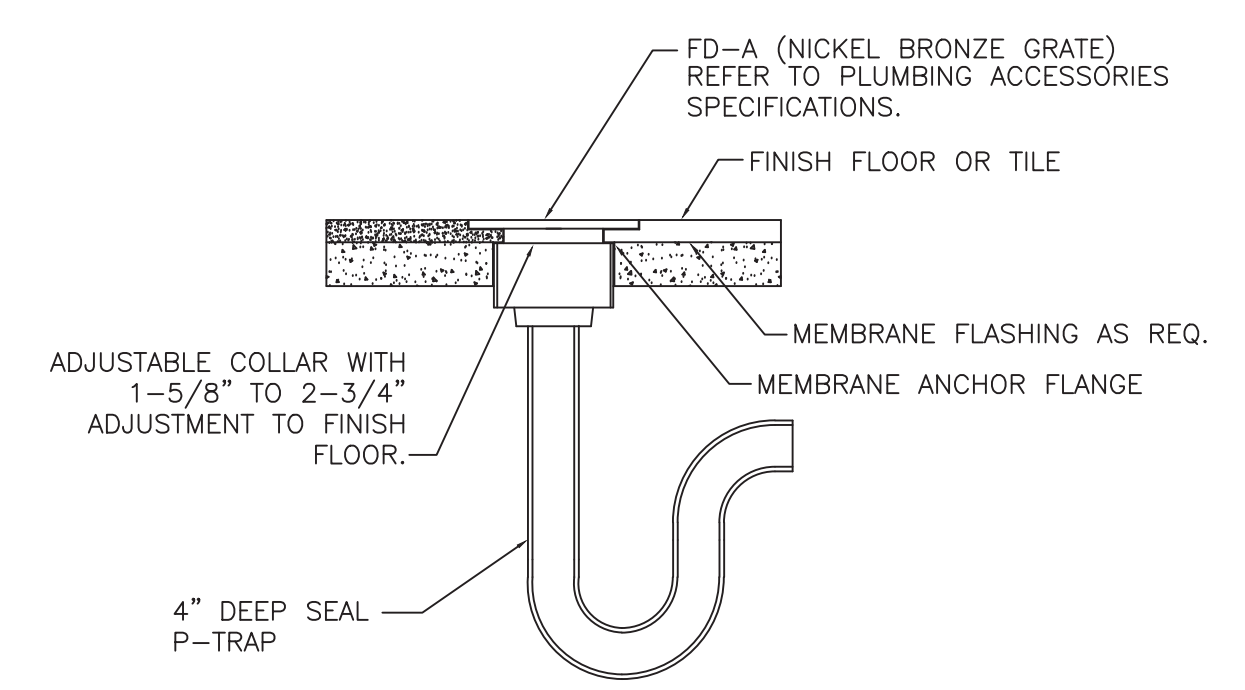
NOTES:
1. ASME RELIEF VALVE, HIGH ALTITUDE KIT SIZED PER LOCATION ELEVATION AND DIRECT VENT KIT.

PLUMBING SPECIFICATION.

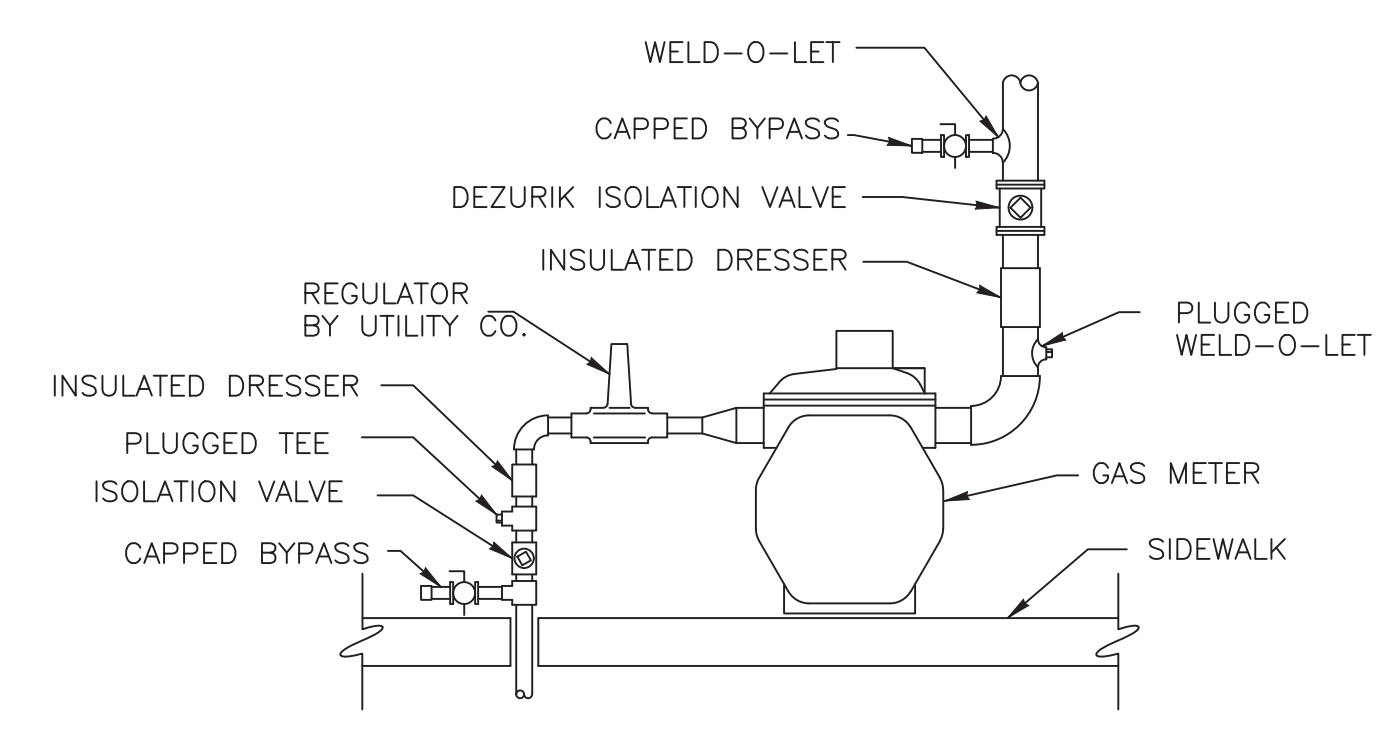
- SCOPE OF WORK
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
 - ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION), ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
 - THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
 - ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.
 - PERMITS
 - THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.
 - SHOP DRAWINGS
 - SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.
 - DOMESTIC WATER SUPPLY PIPING
 - UNDERGROUND: PROVIDE TYPE "K" SOFT DRAWN COPPER TUBING WITH BRAZED CONNECTIONS.
 - ABOVE GRADE: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI SOLDER JOINTS, COPPER OR BRASS FITTINGS. ALL SOLDER TO BE "NO LEAD" TYPE.
 - ALL HOT WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.
 - ALL COLD WATER PIPING TO BE INSULATED WITH 1/2" FOAM INSULATION.
 - SANTARY/STORM DRAINAGE AND VENT PIPING.
 - ABOVE GRADE:
 - 2" BELOW: SCH.40 GALV. STL. PIPE WITH SCREWED ENDS OR SCH. 40PVC WITH SOLVENT JOINTS OR DWV COPPER WITH SOLDER JOINTS. ALL SOLDER TO BE "NO LEAD" TYPE.
 - 3" AND ABOVE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SCH 40 PVC WITH SOLVENT JOINTS.
 - BELOW GRADE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SCH 40 PVC WITH SOLVENT JOINTS.
 - PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILINGS AND SHALL NOT CROSS FIRE RATED WALLS, CEILINGS, OR FLOORS.
 - DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.
 - DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST 1/8" PER FOOT. AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN 1/8" PER FOOT.
 - ALL VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.
 - ALL STUB-INS AND/OR SLAB OR WALL PENETRATION TO BE PER INTERNATIONAL PLUMBING CODE (LATEST EDITION).ALL PIPING PENETRATIONS OF BUILDING FOUNDATIONS OR FOOTINGS SHALL BE SLEEVED.
- PIPE SUPPORTS
 - ABOVE GRADE
 - ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE AND PERFORATED METAL TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL BE AS SPECIFIED IN INTERNATIONAL PLUMBING CODE (LATEST EDITION).
 - BELOW GRADE
 - EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH.
 - INTERIOR: THE PIPE SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE AT ANY POINT.
 - EXTERIOR: THE WATER PIPE SHALL HAVE A MINIMUM OF 60" OF COVER AND THE SANITARY WASTE PIPE SHALL HAVE A MINIMUM OF 24" OF COVER.
- MISCELLANEOUS
 - COORDINATE INSTALLATION OF ALL ROOFS FLASHING AT ROOF PENETRATION.
 - DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS AND DIMENSIONS AT THE JOB SITE.
 - THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURE'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT THE AVAILABLE SPACE.
- TESTING
 - PLUMBING SYSTEM SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION).
- GUARANTEE
 - MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
 - FOR THE SAME PERIOD, THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.



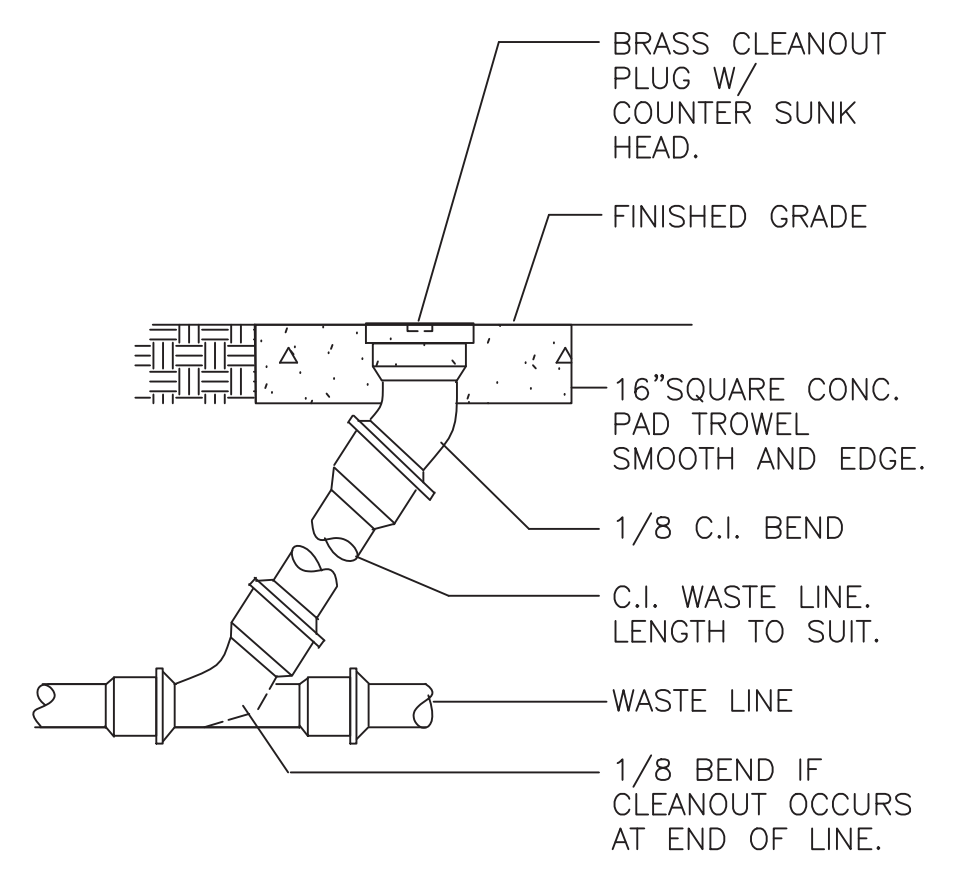
GAS CONNECTION TO EQUIPMENT DETAIL
NOT TO SCALE



TOILET AREA FLOOR DRAIN
NOT TO SCALE



GAS METER DETAIL
NOT TO SCALE



CLEANOUT TO GRADE
NOT TO SCALE

**TOWN OF HOTCHKISS
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ABBREVIATIONS

AAV	AUTOMATIC AIR VENT	DN	DOWN	FTR	FINNED TUBE RADIATION	NC	NORMALLY CLOSED	RM	ROOM
ABV	ABOVE	DWG	DRAWING	FV	FACE VELOCITY	NEG	NEGATIVE	ROD	ROOF OVERFLOW DRAIN
ADR	AREA DRAIN (SEE SYMBOLS)	DX	DIRECT EXPANSION	FXC	FLEXIBLE CONNECTION	NIC	NOT IN CONTRACT	RPM	REVOLUTIONS PER MINUTE
AFF	ABOVE FINISHED FLOOR	EA	EACH	GA	GAUGE	NO	NUMBER	SA	SUPPLY AIR
ALUM	ALUMINUM	EAT	ENTERING AIR TEMPERATURE	GAL	GALLON	NO	NORMALLY OPEN	SAD	SUPPLY AIR DIFFUSER
AP	ACCESS PANEL	EC	ELECTRICAL CONTRACTOR	GALV	GALVANIZED	NOM	NOMINAL	SCH	SCHEDULE
ATC	AUTOMATIC TEMPERATURE CONTROL	ECC	ECCENTRIC	GC	GENERAL CONTRACTOR	NTS	NOT TO SCALE	SCHEM	SCHEMATIC
AVER	AVERAGE	EFF	EFFICIENCY	GPM	GALLONS PER MINUTE	OA	OUTSIDE AIR	SH	SENSIBLE HEAT
AWT	AVERAGE WATER TEMPERATURE	EJ	EXPANSION JOINT	GR	GRILLE	OB	OFF BOTTOM	SP	STATIC PRESSURE
BDD	BACK DRAFT DAMPER	EL	ELEVATION	GRS/LB	GRAINS PER POUND	OD	OUTSIDE DIMENSION	SPEC	SPECIFICATION
BFP	BACK FLOW PREVENTOR	ELEC	ELECTRIC	HT	HEIGHT	OC	ON CENTER	SQ	SQUARE
BLDG	BUILDING	ELEV	ELEVATOR	H ₂ O	WATER	OCC	OCCUPIED	SS	STAINLESS STEEL
BLW	BELOW	ENT	ENTERING	HB	HOSE BIBB	OGH	OUTSIDE GROUND HYDRANT	STD	STANDARD
BSMT	BASEMENT	EQ	EQUAL	HD	HEAD (SEE SCHEDULES)	OPG	OPENING	STL	STEEL
BTU	BRITISH THERMAL UNIT	HP	HORSEPOWER	HP	HORSEPOWER	OT	OFF TOP	STM	STEAM
CAP	CAPACITY	HR	HOUR	HR	HOUR	OZ	OUNCE	STR	STRUCTURAL
CBV	CIRCUIT BALANCING VALVE	ER	EXHAUST REGISTER	HTR	HEATER	PART	PARTIAL	SUCT	SUCTION
CFH	CUBIC FEET PER HOUR	ES	END SWITCH	HZ	HERTZ	PDR	PLENUM DRAIN	SYS	SYSTEM
CFM	CUBIC FEET PER MINUTE	EWT	ENTERING WATER TEMPERATURE	ID	INTERNAL DIAMETER	PD	PRESSURE DROP (SEE SCHEDULE)	TAD	TRANSFER AIR DUCT
CHP	CONCRETE HOUSEKEEPING PAD	EX	EXHAUST	IN	INCHES	PERF	PERFORATED	TDH	TOTAL DYNAMIC HEAD
CI	CAST IRON	EXPAN	EXPANSION	INCL	INCLUDING	PH	PHASE	TEMP	TEMPERATURE
CL	CENTER LINE	EXT	EXTERNAL	INT	INTERNAL	PNEU	PNEUMATIC	THT	TOTAL HEAT
CLG	CEILING	*F	DEGREES FAHRENHEIT	INV	INVERT	POS	POSITIVE	TP	TOTAL PRESSURE
CMU	CONCRETE MASONRY UNIT	FA	FROM ABOVE	KW	KILOWATT	PRESS	PRESSURE	TT	TEMPERATURE TRANSMITTER
CO	CLEAN OUT	FB	FROM BELOW	L	LENGTH	PS	PRESSURE SWITCH	TP	TYPICAL
COL	COLUMN	FC	FAIL CLOSED	LAT	LEAVING AIR TEMPERATURE	PSI	POUNDS PER SQUARE INCH	UC	UNDERCUT
COMP	COMPRESSOR	FCV	FLOW CONTROL VALVE	LB	POUND	PT	PRESSURE TRANSMITTER	UNOCC	UNOCCUPIED
CON	CONCENTRIC	FD	FLOOR DRAIN	LD	LINEAR DIFFUSER	PV	PLUG VALVE	V	VOLTS
CONC	CONCRETE	F/D	FIRE DAMPER	LIN	LINEAR	PVC	POLYVINYL CHLORIDE	VA	VALVE
COND	CONDENSATE	FIN	FINISHED	LIQ	LIQUID	QUAN	QUANTITY	VB	VACUUM BREAKER
CONN	CONNECTION	FL	FLANGE	LRA	LOCK ROTOR AMPS	R	REGISTER	VEL	VELOCITY
CONT'N	CONTINUATION	FLA	FULL LOAD AMPS	LVG	LEAVING	RA	RETURN AIR	VI	VIBRATION ISOLATOR
CONTR	CONTRACTOR	FLEX	FLEXIBLE	LVR	LOUVER	RD	ROOF DRAIN	VOLT	VOLTAGE
DA	DIRECT ACTING	FLR	FLOOR	LWT	LEAVING WATER TEMPERATURE	RE	ROUNDED ENTRANCE/EXIT	VTR	VENT THRU ROOF
DAMP	DAMPER	FO	FAIL OPEN	MC	MECHANICAL CONTRACTOR	REL	RELIEF	W	WIDTH
DB	DRY BULB	FP	FIRE PROTECTION	MBH	THOUSANDS OF BTU PER HOUR	REQD	REQUIRED	W/O	WITHOUT
DEPT	DEPARTMENT	FPM	FEET PER MINUTE	MED	MEDIUM	RET	RETURN	WB	WET BULB
DIA	DIAMETER	FPS	FEET PER SECOND	MFR	MANUFACTURER	RH	RELATIVE HUMIDITY	WC	WATER COLUMN
DIAG	DIAGRAM	FRICT	FRICTION	MH	MANHOLE	RICW	RUN IN CASEWORK	WG	WATER GAUGE
DIFF	DIFFERENTIAL	FS	FLOW SWITCH	MIN	MINIMUM	RIE	RUN IN ENCLOSURE		
DISCH	DISCHARGE	F/S/D	FIRE/SMOKE DAMPER WITH ACCESS DOOR	MISC	MISCELLANEOUS	RIW	RISE IN WALL		
DIV	DIVISION			MTD	MOUNTED	RLA	RATED LOAD AMPS		
DIW	DOWN IN WALL	FT	FEET						
DL	DOOR LOUVER								

ABBREVIATIONS (CONTINUED)

AC	AIR CONDITIONING UNIT	ESP	EXTERNAL STATIC PRESSURE	NC	NORMALLY CLOSED
AD	ACCESS DOOR	ET	EXPANSION TANK	NO	NORMALLY OPEN
AFF	ABOVE FINISHED FLOOR	EWT	ENTERING WATER TEMPERATURE	NIC	NOT IN CONTRACT
AH	AIR HANDLER (SPLIT REFRIG)	EWC	ELECTRIC WATER COOLER	NK	NECK
AHU	AIR HANDLING UNIT	FA	FREE AREA	OA	OUTSIDE AIR
AL	ACOUSTICAL LINING	FX	FLEXIBLE CONNECTION	OAI	OUTSIDE AIR INTAKE
AP	ACCESS PANEL	FC	FAN COIL UNIT	OAT	OUTSIDE AIR TEMPERATURE
BB	ELECTRIC BASEBOARD RADIATION	FD	FIRE DAMPER	OC	ON CENTER
B	BOILER	FLR	FLOOR	OD	OUTSIDE DIAMETER
BDD	BACK DRAFT DAMPER	FOB	FLAT ON BOTTOM	OBD	OPPOSED BLADE DAMPER
BFC	BELOW FINISHED CEILING	FOT	FLAT ON TOP	PBD	PARALLEL BLADE DAMPER
BOB	BOTTOM OF BEAM	FOP	FUEL OIL PUMP	PRV	PRESSURE REDUCING VALVE
BOD	BOTTOM OF DUCT	FP	FIRE PUMP	PTAC	PACKAGED TERMINAL AIR CONDITIONER
BOP	BOTTOM OF PIPE	FPM	FEET PER MINUTE	RA	RETURN AIR
C	CHILLER	FTR	FINNED TUBE RADIATION	RAG	RETURN AIR GRILLE
CD	CEILING DIFFUSER	GC	GENERAL CONTRACTOR	RAR	RETURN AIR REGISTER
CFM	CUBIC FEET PER MINUTE	GPH	GALLONS PER HOUR	RCP	REFLECTED CEILING PLAN
CHWP	CHILLED WATER PUMP	GPM	GALLONS PER MINUTE	RHC	REHEAT COIL
CHWR	CHILLED WATER RETURN	HD	HAND DAMPER	RF	RETURN FAN
CHWS	CHILLED WATER SUPPLY	HP	HEAT PUMP	SA	SUPPLY AIR
CO	CLEAN OUT	HV	HEATING AND VENTILATING UNIT	SAR	SUPPLY AIR REGISTER
CP	CONDENSATE PUMP	HWC	HOT WATER CONVERTER	SCG	SMOKE CONTROL GRILLE
CWR	CONDENSER WATER RETURN	HWP	HOT WATER PUMP	SD	SMOKE DAMPER
CWS	CONDENSER WATER SUPPLY	HWR	HEATING HOT WATER RETURN	SEF	SMOKE EXHAUST FAN
CT	COOLING TOWER	HWS	HEATING HOT WATER SUPPLY	SF	SUPPLY FAN
CU	CONDENSING UNIT	HX	HEAT EXCHANGER	SP	STATIC PRESSURE
CUH	CABINET UNIT HEATER	HZ	HERTZ	TG	TRANSFER GRILLE
CVB	CONSTANT VOLUME BOX	ID	INSIDE DIAMETER	TYP	TYPICAL
CWP	CONDENSER WATER PUMP	LAT	LEAVING AIR TEMPERATURE	UH	UNIT HEATER
DB	DUCT SILENCER	LWT	LEAVING WATER TEMPERATURE	UON	UNLESS OTHERWISE NOTED
DS	DUCT SILENCER	LD	LINEAR DIFFUSER	VAV	VARIABLE AIR VOLUME UNIT
DWP	DOMESTIC WATER PUMP	LF	LINEAR FEET	VD	VOLUME DAMPER
EAT	ENTERING AIR TEMPERATURE	MC	MECHANICAL CONTRACTOR	VTR	VENT THRU ROOF
EC	ELECTRICAL CONTRACTOR	MTD	MOUNTED	WB	WET BULB
EJ	EXPANSION JOINT	MOD	MOTOR OPERATED DAMPER	WMS	WIRE MESH SCREEN
EJ	EXPANSION JOINT	MUA	MAKE-UP AIR UNIT		
ER	EXHAUST REGISTER				

PLUMBING LEGEND

LINE DESIGNATIONS

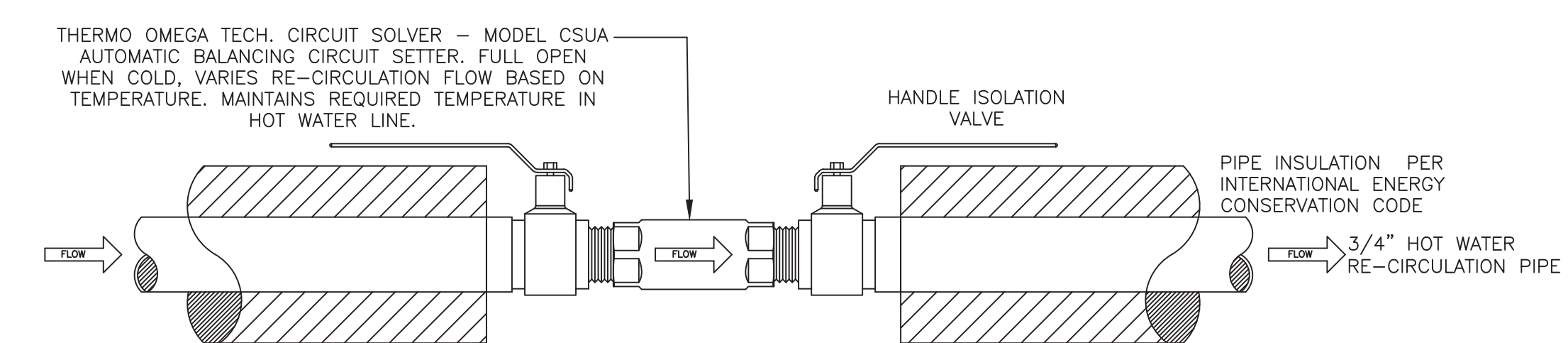
(E)(NAME)	EXISTING PIPING TO REMAIN	G	NATURAL GAS
(NAME)	EXISTING PIPING TO BE REMOVED	PG	PROPANE GAS
----	DOMESTIC COLD WATER (CW)	DIS	DISTILLED WATER SUPPLY
----	DOMESTIC HOT WATER (HW)	DIR	DISTILLED WATER RETURN
----	DOMESTIC HOT WATER RECIR. (HWR)	DES	DEIONIZED WATER SUPPLY
----	SANITARY DRAIN BELOW GRADE	DER	DEIONIZED WATER RETURN
----	SANITARY VENT	WFS	WATER FOR INJECTION SUPPLY
----	EQUIPMENT DRAIN	WFR	WATER FOR INJECTION RETURN
----	LAB WASTE	USPS	USP PURIFIED WATER SUPPLY
----	LAB VENT	PHWR	PROCESS HOT WATER RECIR.
----	FIRE MAIN	PW	PUMPED WASTE
----	PURE STEAM	PV	PROCESS VENT
----	PURE STEAM CONDENSATE	HE	HELIUM
----	COMPRESSED AIR	N2	NITROGEN
----	SPRINKLER PIPE	O2	OXYGEN
----	STORM WATER	H2	HYDROGEN
----	OVERFLOW STORM WATER	N2O	NITROUS OXIDE
----	HIGH PRESSURE STEAM	MA	MEDICAL AIR
----	HIGH PRESSURE CONDENSATE	VAC	VACUUM
----	LOW PRESSURE STEAM	DC	DECONTAMINATION PIPING
----	LOW PRESSURE CONDENSATE		
----	TOWER WATER SUPPLY		
----	TOWER WATER RETURN		

PIPING ELEMENTS/VALVING

	PRESSURE REDUCING VALVE (PRV)		PIPE RISING UP
	GATE VALVE		PIPE DROPPING DOWN
	GLOBE VALVE		UNION - SCREWED OR FLANGED
	PLUG VALVE		FLOW SWITCH
	BUTTERFLY VALVE		TEMPERATURE TRANSMITTER
	VALVE IN RISE OR DROP		PRESSURE TRANSMITTER OR PRESSURE SWITCH
	BALL VALVE		THERMOMETER/TEMPERATURE INDICATOR
	SWING CHECK VALVE		GAUGE WITH GAUGE COCK/PRESSURE INDICATOR
	LIFT CHECK VALVE		BACKFLOW PREVENTOR (REDUCED ZONE)
	GATE VALVE, ANGLE		BACKFLOW PREVENTOR (DOUBLE CHECK VALVE ASSEMBLY)
	THREE WAY CONTROL VALVE		WATER HAMMER ARRESTOR
	TWO WAY CONTROL VALVE		CIRCUIT SETTING BALANCING VALVE
	SOLENOID VALVE		HOSE BIBB
	TEMPERATURE AND PRESSURE RELIEF VALVE		ROOF DRAIN
	RELIEF/SAFETY VALVE		OPEN SITE DRAIN
	GAS COCK		FLOOR DRAIN
	GAS PRESSURE REGULATOR		AREA DRAIN
	STRAINER		CLEANOUT
	STRAINER WITH BLOW OFF VALVE		WALL CLEAN OUT
	FLEXIBLE-CONNECTION		
	SPRINKLER HEAD		

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	SOIL OR WASTE PIPE (BELOW GROUND)		VACUUM BREAKER
	SOIL OR WASTE PIPE (ABOVE GROUND)		ROOF DRAIN
	VENT PIPE (V)		PRESSURE GAGE
	COLD WATER PIPE (CW)		TEMPERATURE GAGE
	HOT WATER PIPE (HW)		WATER METER
	HOT WATER RETURN (HWR)		PRESSURE REDUCING VALVE
	TEMPERED HOT WATER LINE (THW)		GAS COCK
	NATURAL GAS PIPE		VENT THROUGH ROOF
	STORM DRAIN PIPE		LAVATORY
	FLOOR DRAIN		WATER CLOSET
	CLEAN-OUT(FLOOR)		URINAL
	CLEAN-OUT(WALL)		DRINKING FOUNTAIN
	HOT WATER HEATER		SHOWER
	GATE VALVE		A.D. ACCESS DOOR
	CHECK VALVE		SS SAFETY SHOWER
	TEMP./PRESS. RELIEF VALVE		
	FIXTURE ISOLATION VALVE		



CIRCUIT SOLVER - AUTOMATIC CIRCUIT SETTER DETAIL
NOT TO SCALE

PLUMBING - LEGEND

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Bighorn Consulting Engineers, Inc.
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386 Indian Road
Grand Junction, CO 81501
Phone: 970-241-8709

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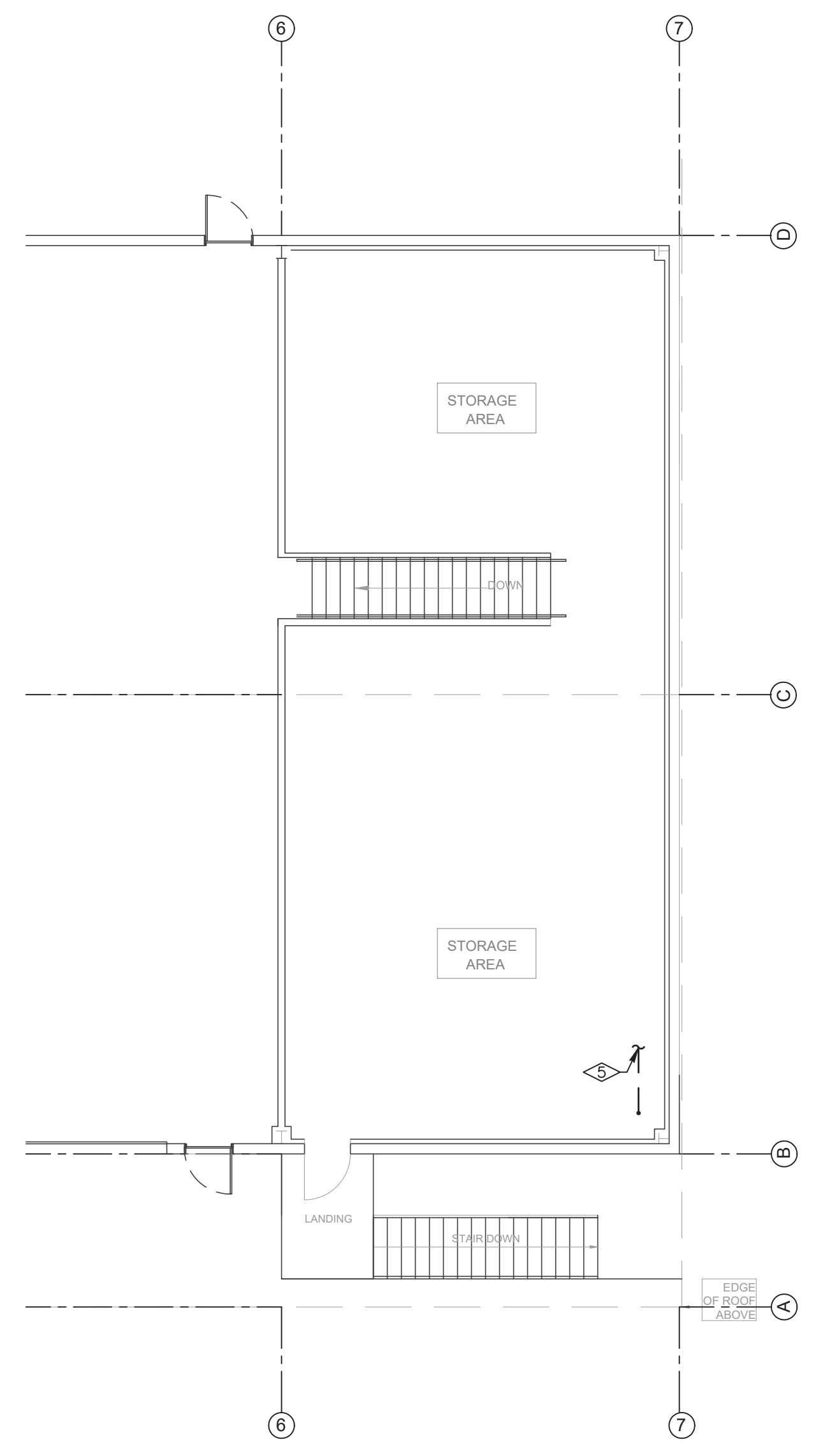
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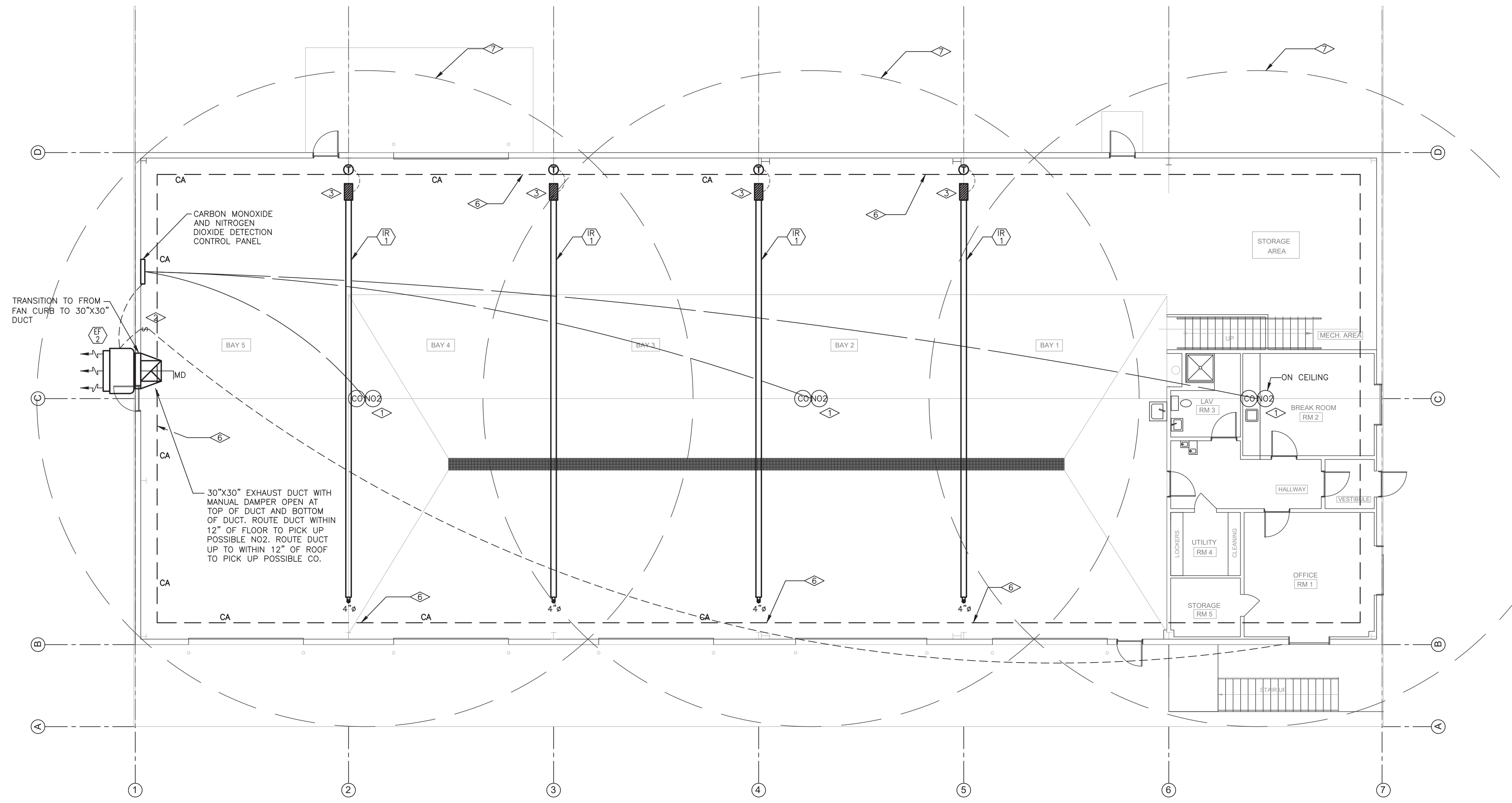
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MECHANICAL - MEZZANINE FLOOR PLAN
 SCALE: 1/8"=1'-0"
 NORTH



MECHANICAL - SHOP FLOOR PLAN
 SCALE: 1/8"=1'-0"
 NORTH

MECHANICAL GENERAL NOTES:

- DRAWING IS DIAGRAMMATIC IN NATURE. LOCATIONS AND SIZES MAY VARY DURING FIELD COORDINATION & INSTALLATION OF MECHANICAL, PLUMBING, & ELECTRICAL. DRAWINGS DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK. VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
- ALL REFRIGERANT LINES ARE TO BE LIMITED TO 75' EQUIVALENT LINE LENGTH. ALL REFRIGERANT LINES SHALL BE INSULATED PER IECC REQUIREMENTS. ALL REFRIGERANT LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATION.
- INDOOR HEAT PUMPS SHALL BE PROVIDED WITH AUXILIARY CONDENSATE PUMP, 240V/1PH/60HZ "ASPEN-PUMP". CONDENSATE SHALL BE ROUTED THROUGH 3/4" TYPE L COPPER TO NEAREST PLUMBING FIXTURE GROUP. DISCHARGE INDIRECTLY THROUGH AIR GAP SIZED PER IPC.

FLAG NOTES:

- MACURCO CM-6, TX-6-ND CARBON MONOXIDE & NITROGEN DIOXIDE SENSORS. SENSORS TO BE INTERLOCKED WITH EF-2 AND LR-1. EXHAUST FANS SHALL TURN ON AT DETECTION OF 10PPM FOR CO & 50 PPB FOR NO2. ALARMS SHALL BE TRIGGERED AT DETECTION OF 25 PPM FOR CO & 100 PPB FOR NO2. LOUVERS TO OPEN UPON ACTIVATION OF EXHAUST FAN. LOUVERS ARE TO FAIL OPEN. INSTALL CO & NO2 DETECTORS PER MANUFACTURER'S INSTRUCTIONS, EACH SENSOR COVERS A CIRCULAR AREA OF APPROXIMATELY 5,000 SQ. FT. RADIUS OF 39'. INSTALL PER MANUFACTURER'S REQUIREMENTS.
- EF-2 TO BE INTERLOCKED WITH VARIABLE SPEED WALL MOUNTED SWITCH.
- INFRARED HEATER, MAINTAIN MANUFACTURER'S REQUIRED CLEARANCES FROM ALL COMBUSTIBLES. INSTALL INFRARED HEATER PER MANUFACTURER'S RECOMMENDATIONS.
- ROUTE COMPRESSED AIR TO MEZZANINE
- COMPRESSED AIR FROM LOOP BELOW. PROVIDED WITH QUICK CONNECT FITTING.
- COMPRESSED AIR DROP.
- CIRCLE TO SHOW THE EFFECTIVE RANGE OF CO AND NO2 SENSORS.

Need a manual override with timer so town can use the exhaust fans when they want

require black iron pipe above 8' and aluminum quick connect below 8'

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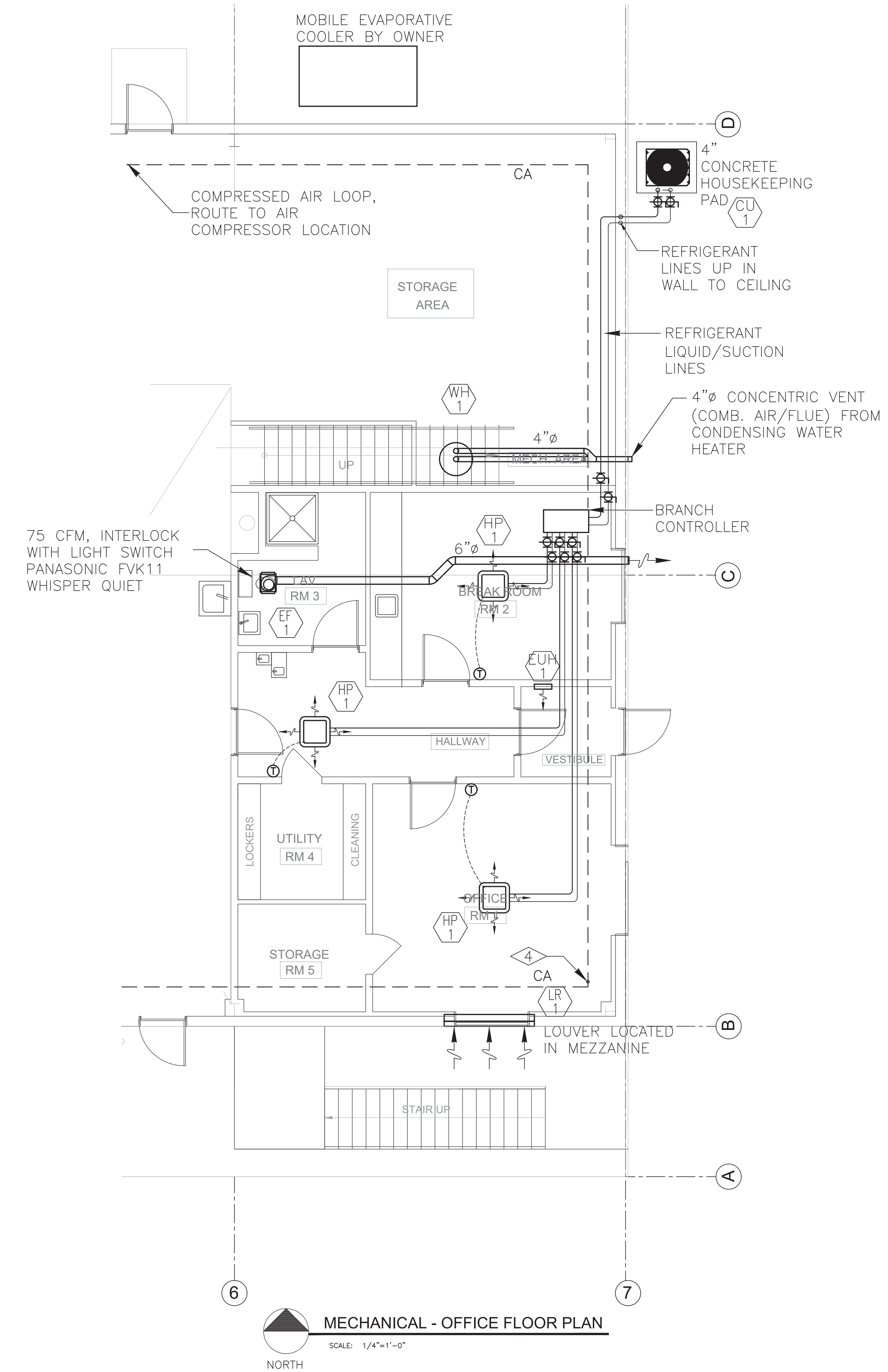
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MECHANICAL - OFFICE FLOOR PLAN
 SCALE: 1/4"=1'-0"
 NORTH

MECHANICAL PROVISIONS

1. SCOPE OF WORK

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

- A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

- A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. FLEXIBLE DUCT WORK

- A. FLEXIBLE TYPE DUCT SHALL BE OF TWO ELEMENT SPIRAL CONSTRUCTION COMPOSED OF A CORROSION RESISTANT METAL SUPPORTING SPIRAL AND COATED FABRIC WITH A MINERAL BASE. FLEXIBLE DUCT CONNECTORS SHALL BE LISTED BY U.L., CLASS 1 DUCTS, AND SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50.
- B. USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO NO MORE THAN 6 LINEAR FEET PER RUN.
- C. CONTRACTOR SHALL BE CAREFUL SO AS NOT TO KINK OR COLLAPSE FLEXIBLE DUCT.

5. REFRIGERENT

- A. PIPING CONTRACTOR SHALL PROVIDE AND INSTALL REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND IN SUCH A WAY AS TO BE INCONSPICUOUS AND FREE FROM ANY POSSIBLE CONDENSATION.
- B. INSULATE REFRIGERANT LINES WITH ARMOUR-FLEX TYPE INSULATION. SHALL BE TYPE "M" COPPER TUBING, WITH WROUGHT COPPER SOLDER TYPE FITTINGS SUITABLE FOR CONNECTION WITH SILVER SOLDER.

6. DUCTWORK

- A. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS.
- B. ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.
- C. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.
- D. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS, SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
- E. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
- F. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.
- G. ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1-1/2" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOIL FACING.
- H. ALL SUPPLY AND RETURN DUCTWORK 15 FEET DOWNSTREAM OF THE HVAC UNIT SHALL BE INTERNALLY LINED WITH A 1/2" ACOUSTICAL DUCT LINER UNLESS OTHERWISE NOTED ON THE DRAWINGS.

7. DRAINAGE PIPING

- A. (CONDENSATE) SHALL BE SCHEDULE 40 PVC OR TYPE L COPPER PER ASTM B306 PIPE WITH SOLVENT JOINTS.
- B. PITCH HORIZONTAL LINES 1" IN 10'-0". CONDENSATE DRAINS SHALL BE ROUTED TO FLOOR DRAIN, ROOF DRAIN OR INDIRECT WASTE DRAIN.

8. HVAC CONTROLS

- A. CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.

9. ELECTRICAL

- A. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.

10. PIPE SUPPORTS

- A. ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE OR METAL STRAP TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL NOT EXCEED 8 FEET FOR ALL PIPING. PLASTIC PIPING TO BE SUPPORTED EVERY 4 FEET.

11. GAS PIPING

- A. PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH MALLEABLE IRON FITTINGS.
- WHERE GAS PIPE CONNECTS TO EQUIPMENT, IT SHALL BE PROVIDED WITH A DRIP LEG THE FULL SIZE OF THE RUNOUT, A 100% SHUT-OFF VALVE AND A UNION. GAS PIPING CONTAINING PRESSURE GREATER THAN 9" W.G. SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH WELDED JOINTS.

12. MISCELLANEOUS

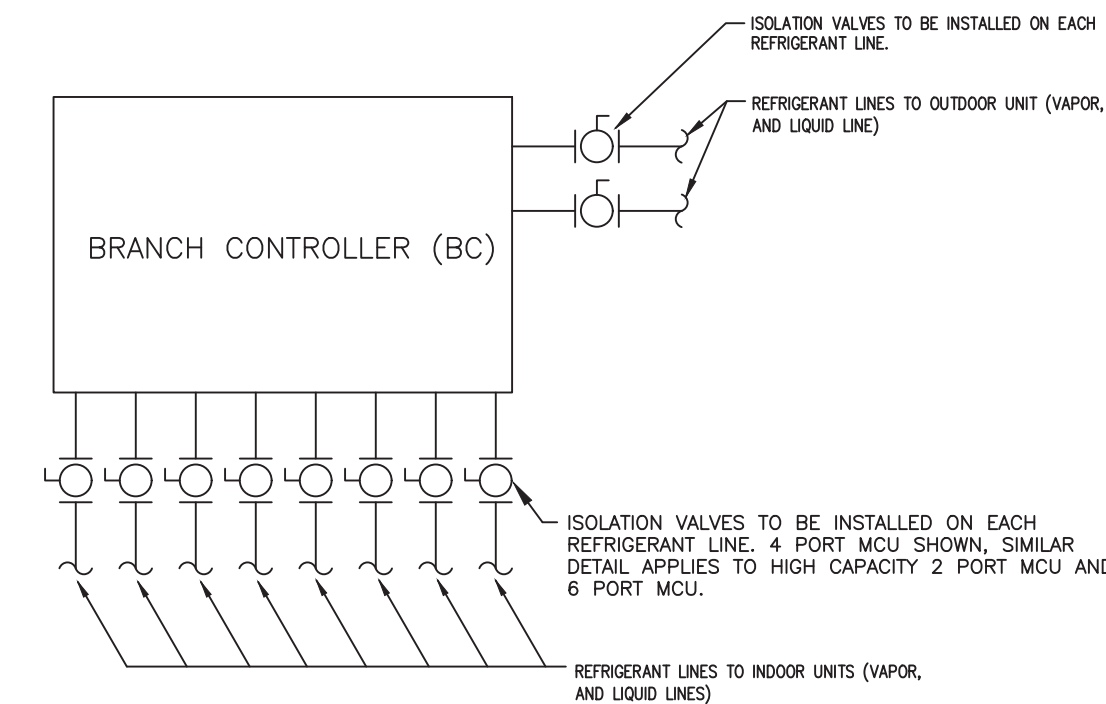
- A. ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE, TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.
- B. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS.
- C. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
- D. THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT.
- E. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.

13. TESTING AND BALANCING

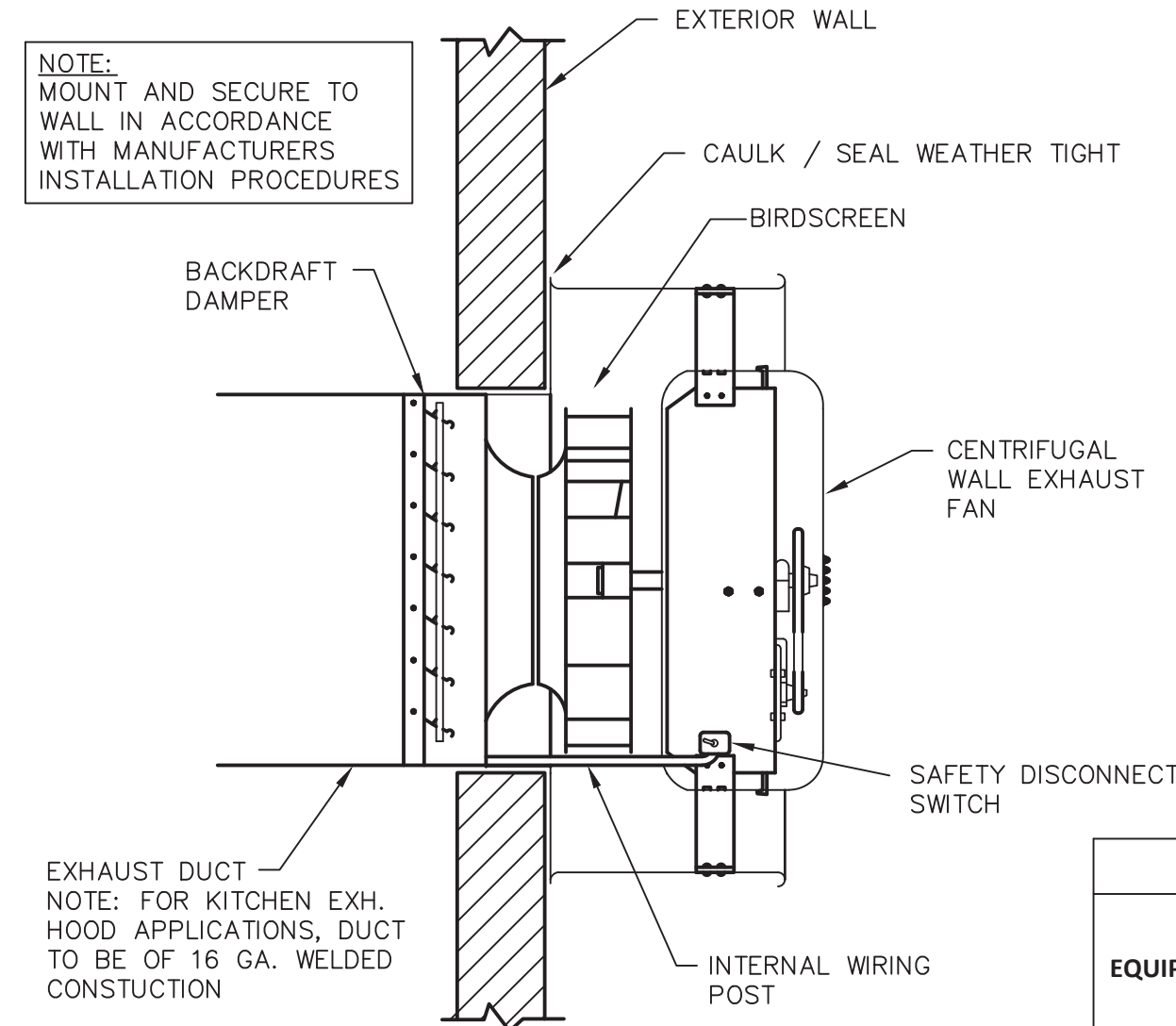
- A. THE HVAC SYSTEM SHALL BE TESTED AND AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE TEST REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.

14. GUARANTEE

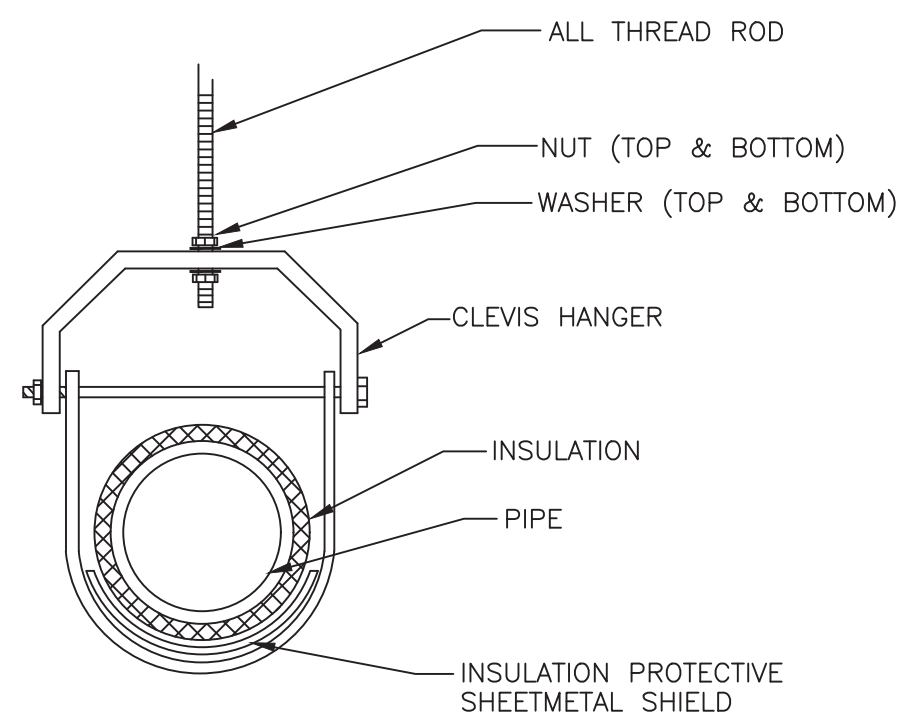
- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.



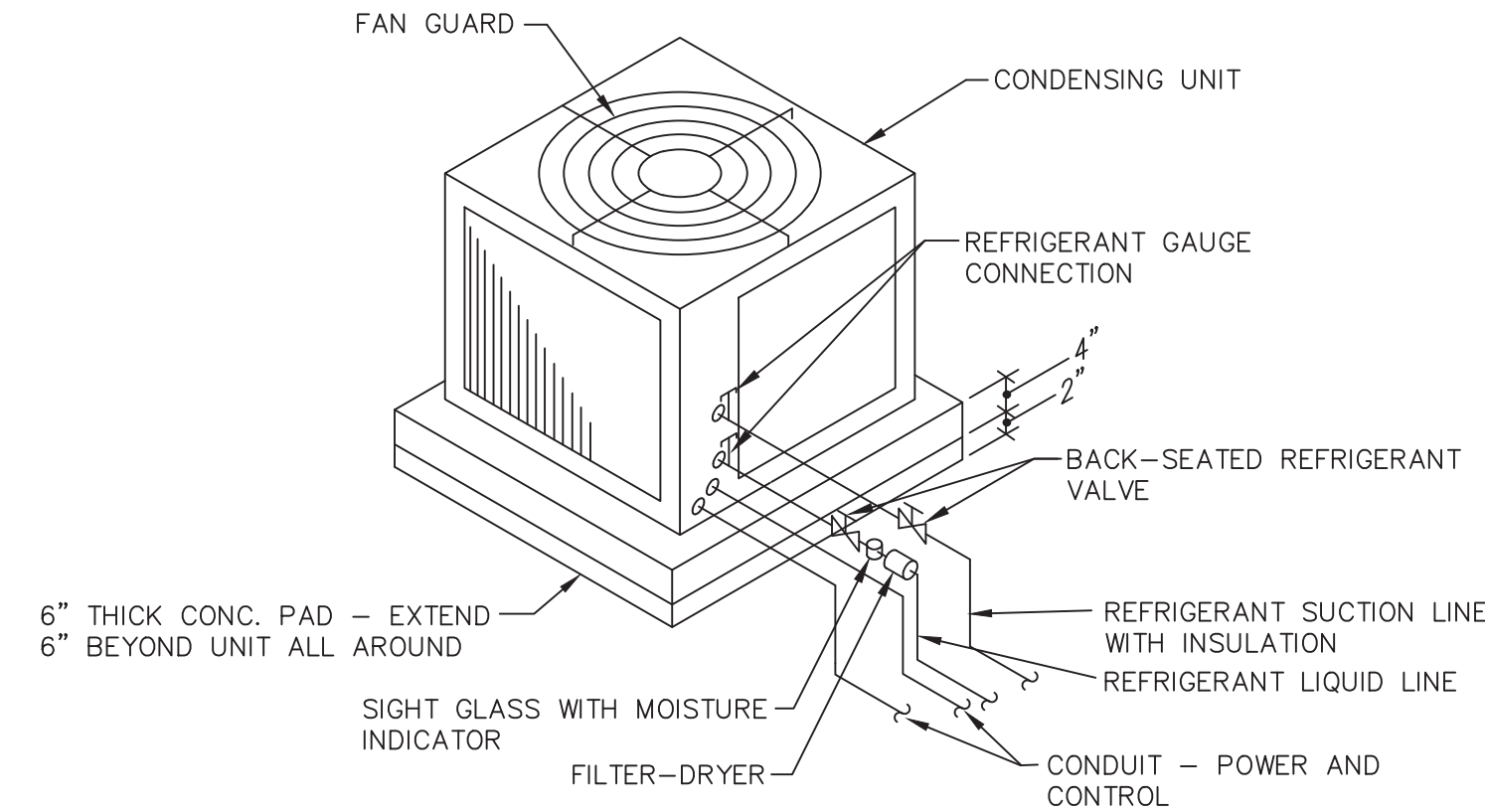
TYPICAL BRANCH CONTROLLER UNIT VALVE LAYOUT
NOT TO SCALE



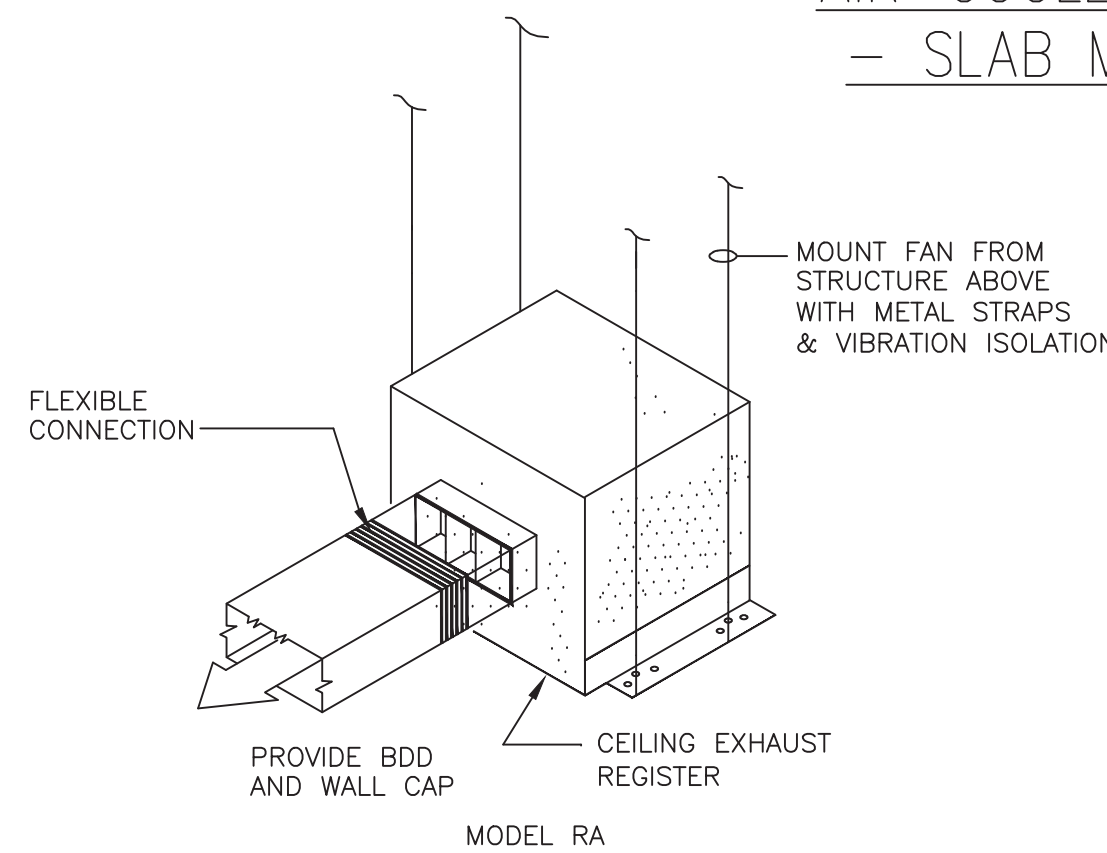
CENTRIFUGAL WALL EXHAUST FAN DETAIL
N.T.S.



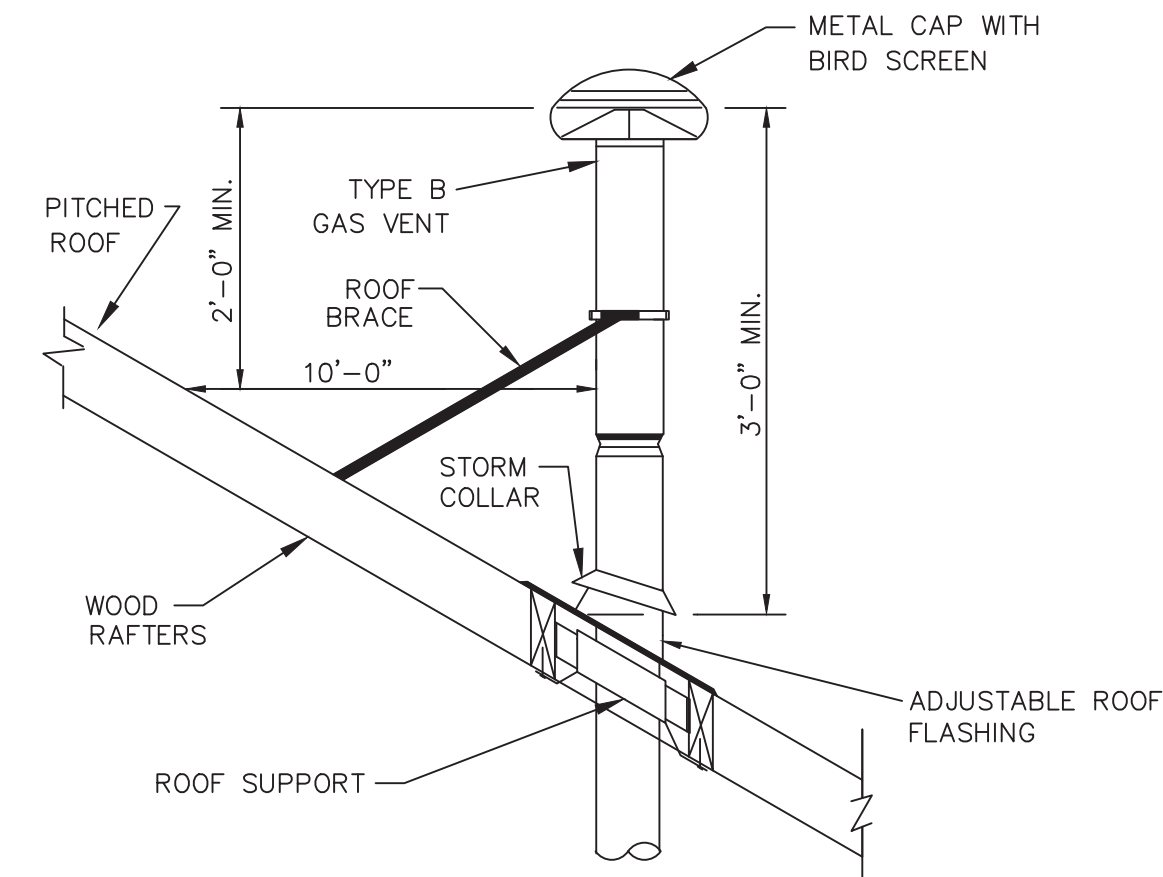
TYPICAL CLEVIS HANGER DETAIL
NOT TO SCALE



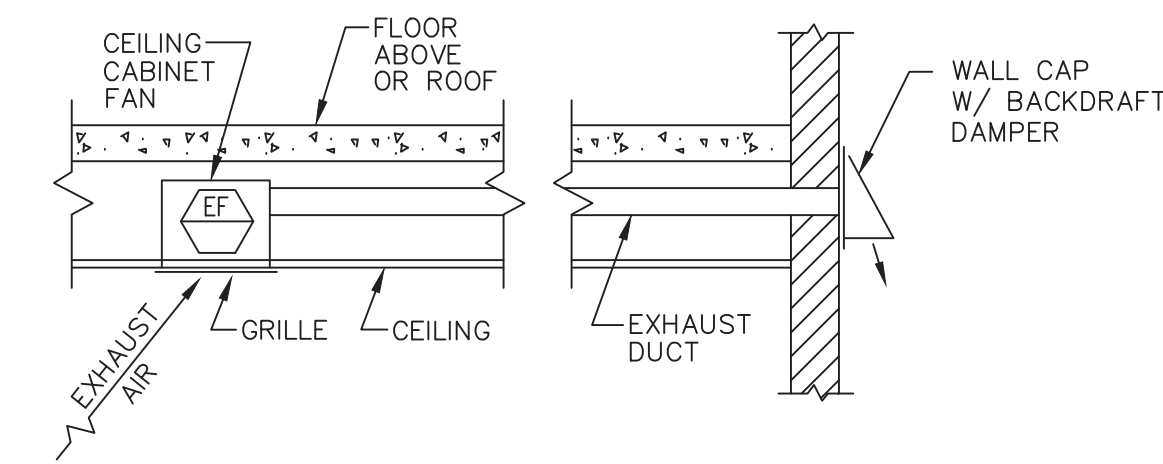
AIR-COOLED CONDENSING UNIT - SLAB MOUNTED AT GRADE
N.T.S.



CEILING EXHAUST FAN DETAIL
NOT TO SCALE



GAS VENT THROUGH PITCHED ROOF DETAIL
NOT TO SCALE



CEILING MOUNTED EXHAUST FAN DETAIL - SIDEWALL DISCHARGE
N.T.S.

RADIANT HEATER SCHEDULE													
EQUIPMENT NO.	SERVICE	HEATING			IGNITION TYPE	TUBE LENGTH(FT)	TUBE DIAMETER	MIN. EFFICIENCY	V./PH./HZ.	ELECTRICAL		MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
		FUEL TYPE	INPUT CAPACITY (MBH)	OUTPUT CAPACITY (MBH)						AMPS			
IR-1	BAY	NATURAL GAS	205	164	DIRECT SPARK	50	4"	78%	120/1/60	1.0	SUPERIOR RADIANT PRODUCTS, UXR-205	NOTE-1	

NOTES:
1. PROVIDE WITH TERMINATION VENT KIT, POWER DISCONNECT, GAS SHUT-OFF VALVE, REFLECTORS, WALL MOUNTED INFRARED SENSOR/THERMOSTAT, HEAT TREATED ALUMINIZED STEEL HEAT EXCHANGER AND BURNER CONTROLS.

AIR CONDITIONING EQUIPMENT SCHEDULE											
EQUIPMENT NO.	SERVICE	NOMINAL COOLING CAPACITY (BTU/HR.)	NOMINAL HEATING CAPACITY (BTU/HR.)	CFM	EER (EFFICIENCY)	REFRIGERANT PIPING		ELECTRICAL		MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
						LIQUID	SUCTION	MCA (AMPS)	V./PH./HZ.		
HP-1	OFFICE	12,000	13,000	335	12	1/4	3/8	0.3	208-230/1/60	mitsubishi - SLZ-KF12NA	NOTE-1

NOTES:
1. PROVIDE WITH WALL MOUNTED 7-DAY PROGRAMMABLE THERMOSTAT, POWER DISCONNECT, CONDENSATE PUMP, OUTSIDE AIR SENSOR, GRILLE, DRAIN PAN LEVEL SENSOR, VIBRATION ISOLATION MOUNTING KIT.

AIR COOLED CONDENSING UNIT SCHEDULE											
EQUIPMENT NO.	SERVICE	NOMINAL COOLING CAPACITY (BTUH)	NOMINAL HEATING CAPACITY (BTUH)	SEER	REFRIG. PIPING		ELECTRIC		MANUFACTURER & MODEL	OPTIONS/ACCESSORIES	
					LIQUID	VAPOR	V/PH/HZ	MOC(P) (A)			
CU-1	OFFICE	48,000	54,000	19	3/8	5/8"	208-230/1/60	50	42	MITSUBISHI - MXZ-8C48NAHZ	NOTE-1

NOTES:
1. PROVIDE LINE SET AS RECOMMENDED BY MANUFACTURER, POWER DISCONNECT, CONCRETE HOUSEKEEPING PAD, HYPER-HEAT OPERATION, 18" TALL ANGLE IRON STAND, VIBRATION ISOLATION, 5 PORT BRANCH BOX. SEER = 18.9, EER = 12.0, HSPF = 11.

EXHAUST FAN SCHEDULE										
EQUIPMENT NO.	SERVICE	LOCATION	CFM	EXTERNAL STATIC PRESS (IN. W.G.)	MOTOR				MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
					WATTS	HP	RPM	VOLT/PH/HZ		
EF-1	RESTROOM	CEILING	75	0.25	10.00		814	115/1/60	PANASONIC FV-05-11VK1	NOTE - 1
EF-2	RESTROOM	SIDEWALL	9272	0.375		3/4	305	115/1/60	GREENHECK - CUBE-420	NOTE - 2

NOTES:
1. PROVIDE WITH POWER DISCONNECT, VIBRATION ISOLATION, GRAVITY BACKDRAFT DAMPER, INTERLOCK OPERATION WITH LIGHTSWITCH, EXHAUST TERMINATION WITH UL LISTED CAP.
2. PROVIDE WITH POWER DISCONNECT, HINGED CURB, BIRD SCREEN, ALUMINUM CONSTRUCTION, PERMATECTOR COATED, MECHANICAL BACKDRAFT DAMPER, MOTOR STARTER, VARIABLE SPEED BELT DRIVEN MOTOR, INTERLOCK OPERATION WITH WALL MOUNTED CO & NO2 MACURACO DETECTION CONTROL PANEL (FAN SHALL RAMP UP TO FULL SPEED AFTER RECEIVING SIGNAL FROM CONTROL PANEL), INTERLOCK OPERATION WITH WALL MOUNTED VARIABLE SPEED SWITCH.

LOUVER SCHEDULE								
EQUIPMENT NO.	SERVICE	WIDTH (IN)	HEIGHT (IN)	THICKNESS OF LOUVER	MATERIAL	INSECT/BIRD SCREEN	MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
LR-1	OUTSIDE/EXHAUST	72"	72"	4"	STEEL	1/2" BIRD	GREENHECK FDS-402	NOTE - 1, 2

NOTES:
1. DRAINABLE LOUVER, PROVIDE BIRDSCREEN AND KYNAR FINISH WITH COLOR TO BE SELECTED BY THE ARCHITECT.
2. PROVIDE LOW LEAKAGE MOTORIZED DAMPER IN SLEEVE BEHIND LOUVER. INTERLOCK DAMPER OPERATION WITH EF-2. LOUVER SHALL OPEN WHEN EF-2 IS ENERGIZED.

DO NOT REPRODUCE THESE DRAWINGS AND SPECIFICATIONS WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE DESIGNER. THE DRAWINGS AND SPECIFICATIONS ARE INSTRUMENTS OF THE SERVICE AND SHALL REMAIN THE PROPERTY OF THE DESIGNER. WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXCLUDED OR NOT, THESE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY ANYONE ON ANY OTHER PROJECTS FOR ADDITIONS TO THIS PROJECT BY OTHERS EXCEPT BY THE EXPRESSED WRITTEN PERMISSION OF THE DESIGNER.

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TOWN OF HOTCHKISS
PUBLIC WORKS FACILITY
TBD BARROW MESA RD
HOTCHKISS, COLORADO

DATE: 03/21/19
ISSUED FOR: REVISED 50% DD
06/28/19 REVISED DRAWINGS
08/16/19 100% CD



DATE: 03/21/19
JOB NO: 18-159
DRAWN BY: BCE
CHECKED BY: BCE
SCALE: AS SHOWN
SHEET NUMBER:

M1-3