

PROJECT INFORMATION

APPLICABLE BUILDING CODES

2020 MINNESOTA BUILDING CODE (2018 IBC)
 2020 MINNESOTA MECHANICAL CODE (2018 IMC)
 2020 MINNESOTA FUEL GAS CODE (2018 IFGC)
 2020 MINNESOTA ENERGY CODE (2018 BECC)
 2020 MINNESOTA FIRE CODE (2018 FIC)
 2020 MINNESOTA PLUMBING CODE (2018 UPC)
 2020 MINNESOTA ACCESSIBILITY CODE (2009 ICC/ANSI A117.1)
 2020 NATIONAL ELECTRICAL CODE

BUILDING SIZE

TOTAL AREA 10,419 S.F.

NUMBER OF STORIES

2020 MBC TABLE 504.4 MAX. (2) STORIES PER MOST RESTRICTIVE OCCUPANCY

TOTAL STORIES = (1)

CONSTRUCTION CLASSIFICATION

2020 MBC SECTION 602.5 TYPE (B) CONSTRUCTION

ENTIRE BUILDING IS FULLY EQUIPPED W/ AN AUTOMATIC SPRINKLER SYSTEM PER N.F.P.A. 13

OCCUPANCY CLASSIFICATIONS

NON-SEPARATED USES W/ MIXED OCCUPANCY
 BUILDING IS DESIGNED FOR GROUP I-4 OCCUPANCY (MOST RESTRICTIVE)

OCCUPANCY CLASSIFICATIONS WITHIN BUILDING INCLUDE:
 INSTITUTIONAL GROUP I-4 2020 MBC SECTION 308.5 - GROUP I-4, DAYCARE FACILITIES

ALLOWABLE HEIGHT & AREAS

2020 MBC TABLE 504.3 MAXIMUM ALLOWABLE BUILDING HEIGHT = 60'-0"

TOTAL BUILDING HEIGHT = 18'-0"

2020 MBC TABLE 506.2 MAXIMUM ALLOWABLE BUILDING AREA (A) = 36,000 S.F. PER FLOOR

TOTAL AREA = 10,419 S.F.

MEANS OF EGRESS

2020 MBC TABLE 1017.2 250 FT. EXIT ACCESS TRAVEL DISTANCE (SPRINKLERED)

2020 MBC SECTION 1005.3.2 EGRESS WIDTH PER OCCUPANT SERVED = 0.2" (SPRINKLERED)
 (300) TOTAL OCCUPANTS x 0.2" = 60" EGRESS WIDTH REQUIRED
 PROVIDED EGRESS WIDTH = 540"

EXTERIOR WALL OPENINGS

2020 MBC TABLE 705.8 BUILDING PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS DUE TO FIRE SEPARATION DISTANCE TO PROPERTY LINE IS GREATER THAN 30 FT.

2020 MBC 602 BUILDING PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS DUE TO EXTERIOR BEARING, NON-BEARING, AND STRUCTURAL FRAME IS NOT REQD TO BE FIRE-RESISTANCE RATED

OCCUPANT LOADS

OCCUPANT LOADS BASED ON 2020 MBC TABLE 1004.5

ROOM OR SPACE DESIGNATION	CLASSIFICATION OF OCCUPANCY FOR USE	FLOOR AREA (S.F.)	DENSITY SF/PERSON	OCCUPANT LOAD BY CALCULATION	OCCUPANT LOAD BY ACTUAL NO.
DAYCARE	DAYCARE	6,666	35 NET	190.5	191
STORAGE / MECHANICAL	ACCESSORY STORAGE AREAS	300	300 GROSS	1.0	1
OFFICE	BUSINESS AREAS	786	150 GROSS	5.2	6
GROSS MOTOR ROOM	ASSEMBLY UNCONCENTRATED	531	50 NET	10.6	11

TOTAL OCCUPANT LOAD OF THE BUILDING = 209 OCCUPANTS

SANITARY FIXTURES

PLUMBING FIXTURE FACTORS BASED ON 2020 MBC TABLE 2902.1

OCCUPANCY TYPE	CAPACITY	WATER CLOSETS		LAVATORIES		DRINK FOUNTAINS		
		FACTORS	# M. FIX.	# F. FIX.	FACTORS	# FIX.	FACTORS	# FIX.
DAYCARE	202 PERSONS	1/15	6.73	6.73	1/50	4.04	1/100	2.02
B GROUP (OFFICE)	6 PERSONS	1/25 (FIRST 50) 1/50 (AFTER)	0.12	0.12	1/40 (FIRST 80) 1/80 (AFTER)	0.15	1/100	0.06
S GROUP (STORAGE)	1 PERSONS	1/100	0.01	0.01	1/100	0.01	1/1000	0.001
TOTAL	210 PERSONS		6.9	6.9		4.22		2.08
PROVIDED FIXTURES			6 CHLD 3 ADULT	6 CHLD 4 ADULT		32		3



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COLLABORATION



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
 TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

AD2 MAR. 23, 2023
 AD3 APR. 19, 2023

JOB NUMBER

2255300

SHEET NUMBER

T1.1

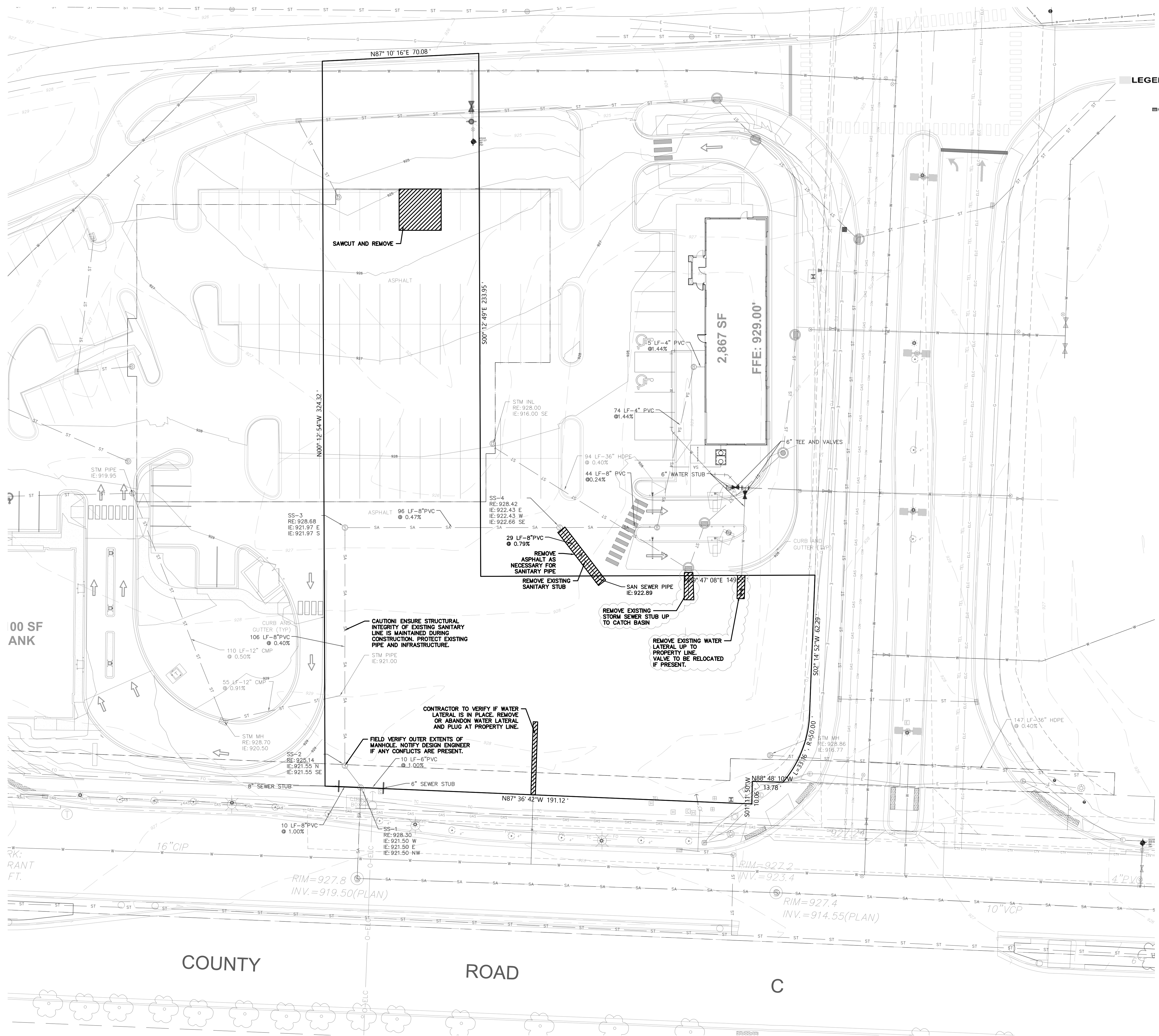


LIFE SAFETY PLAN

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



PROJECT INFORMATION



SPECIFICATION NOTE:
SEE SHEET CO.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

- LEGEND:**
- ⊙ SANITARY MANHOLE
 - ⊙ STORM MANHOLE
 - ⊙ CATCH BASIN
 - ⊙ GATE VALVE
 - ⊙ HYDRANT
 - ⊙ SPRINKLER BOX
 - ⊙ ELECTRIC MANHOLE
 - ⊙ SEMAPHORE
 - ⊙ PEDESTRIAN POST
 - ⊙ TRAFFIC CONTROL BOX
 - ⊙ GUY WIRE
 - ⊙ UTILITY POLE
 - ⊙ ELECTRIC BOX
 - ⊙ HANDHOLE
 - ⊙ COMMUNICATION BOX
 - ⊙ GAS VALVE
 - ⊙ SIGN
 - ⊙ GAS SIGN
 - ⊙ TELEPHONE SIGN
- CHAIN LINK CONSTRUCTION FENCE
 - SA SANITARY SEWER
 - ST STORM SEWER
 - W WATERMAIN
 - E UNDERGROUND ELECTRIC
 - GHW OVERHEAD WIRE
 - TC UNDERGROUND TELECOMMUNICATION
 - UG UNDERGROUND GAS
- ⊕ BENCHMARK
 - ⊕ SPOT ELEVATION
 - EXISTING CONTOUR LINE
 - ⊙ TREE
 - BITUMINOUS SURFACE
 - CONCRETE SURFACE
 - PAVERS SURFACE

SURVEY PROVIDED BY EGAN, FIELD & NOWAK, INC. ON JULY 27, 2022.

MASTER GRADING PLAN PROVIDED BY KIMLEY HORN & ASSOCIATES.

FIELD VERIFY CURRENT STATE OF SITE AS CONSTRUCTION WAS IN PROGRESS AT TIME OF SITE DESIGN.

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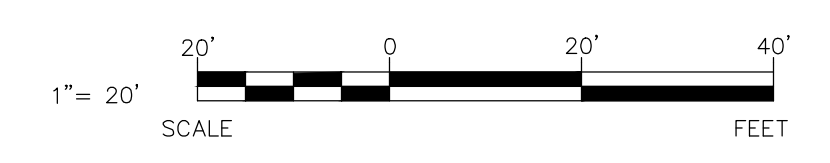
REVISIONS

CB2 JUNE 5, 2023
CB4 JUNE 14, 2023

JOB NUMBER
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SHEET NUMBER

C1.0



CIVIL EXISTING SITE AND DEMOLITION PLAN

SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN
SPECIFICATIONS AND REQUIREMENTS

SITE INFORMATION:

LEGAL DESCRIPTION: **Lot 2 of Twin Lakes 4th Addition Plat**

PROPERTY AREA: AREA = 37,319 S.F. (0.86 ACRES).

EXISTING ZONING: MU-2B COMMUNITY MIXED USE

PROPOSED ZONING: MU-2B COMMUNITY MIXED USE

AREA OF SITE DISTURBANCE: 0.52 ACRES

SETBACKS: BUILDING: FRONT = 0-25' BUILD-TO LINE
SIDE = 6'
REAR = 0'

PROPOSED BUILDING HEIGHT: 18'

PARKING REQUIRED: 1 SPACE PER EMPLOYEE (22 EMPLOYEES) + 1 PER
10 STUDENTS OF MAX. CAPACITY. (147 STUDENTS)
(37 SPACES REQ.)

PARKING PROVIDED: 37 SPACES (2 H.C. ACCESSIBLE)

HANDICAP STALLS REQUIRED: 2, HANDICAP STALLS PROVIDED: 2

EXISTING SITE DATA

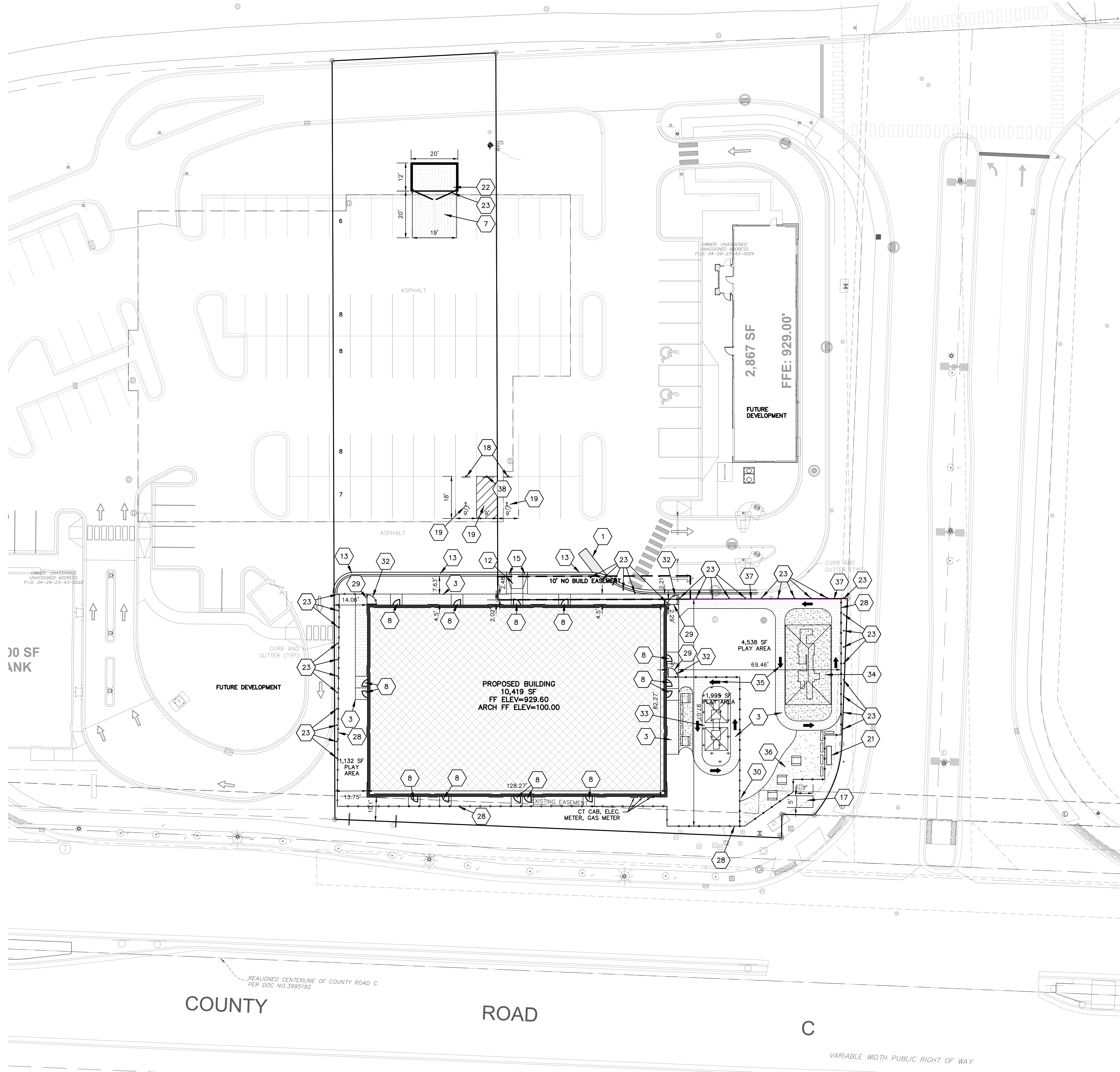
	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	0.86	37,319	
BUILDING FLOOR AREA	0.00	0	0.0%
PAVEMENT (ASP. & CONC.)	0.30	13,088	35.1%
TOTAL IMPERVIOUS	0.30	13,088	35.1%
LANDSCAPE/ OPEN SPACE	0.56	24,231	64.9%

PROPOSED SITE DATA

	AREA (AC)	AREA (SF)	RATIO
PROJECT SITE	0.86	37,319	
BUILDING FLOOR AREA	0.24	10,419	27.9%
PAVEMENT (ASP. & CONC.)	0.32	14,138	37.9%
TOTAL IMPERVIOUS	0.56	24,557	65.8%
LANDSCAPE/ OPEN SPACE	0.29	12,762	34.2%

SITE PLAN KEYNOTES

- 1 REPLACE ASPHALT AND GRAVEL BASE IN KIND FOR REPLACEMENT OF SANITARY PIPE
- 3 CONCRETE SIDEWALK (TYP.)
- 7 DUMPSTER PAD/APRON CONCRETE (TYP)
- 8 CONCRETE STOOP (TYP.) SEE ARCH. PLANS FOR DETAILS.
- 12 CURB RAMP (TYP.)
- 13 B612 CURB & GUTTER (TYP.)
- 15 CURB TAPER (TYP.)
- 17 CONCRETE TRANSFORMER PAD BY UTILITY SUPPLIER (CONTRACTOR TO VERIFY FINAL LOCATION & DESIGN PRIOR TO CONSTRUCTION)
- 18 HANDICAP SIGN (TYP.)
- 19 HANDICAP STALL & STRIPING PER STATE CODES.
- 21 MONUMENT SIGN (DETAILS, FINAL LOCATION, & APPROVAL BY SIGN VENDOR)
- 22 DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
- 23 6" CONCRETE BOLLARDS (SEE DETAIL ON ARCH. PLAN)
- 28 6' HIGH WROUGHT IRON PERIMETER FENCE
- 29 FENCE GATE
- 30 4' HIGH INTERMEDIATE FENCE
- 32 FENCE GATE WITH PANIC HARDWARE
- 33 POURED RUBBER PLAYGROUND SURFACE OVER 4-6" CLEAR STONE AGGREGATE BASE (FOLLOW DESIGN SPECS. BY SUPPLIER)
- 34 WOOD FIBER SURFACE BY PLAYGROUND VENDOR
- 35 TRAFFIC ARROWS (TYP.)
- 36 DECOMPOSED GRANITE
- 37 6' HIGH WROUGHT IRON PERIMETER FENCE WITH OPAQUE SCREENING
- 38 NO PARKING SIGN (PER ANSI A117.1, SECTION 502.4.4 MARKING)



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PROFESSIONAL SEAL

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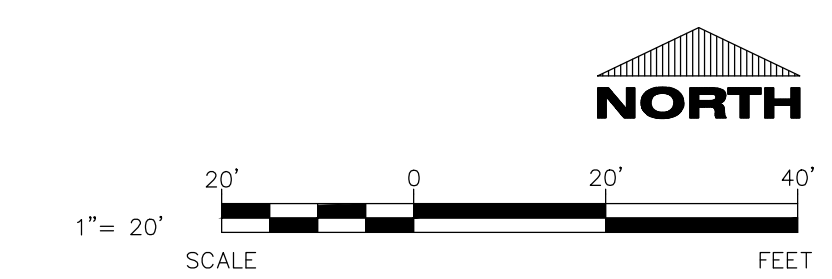
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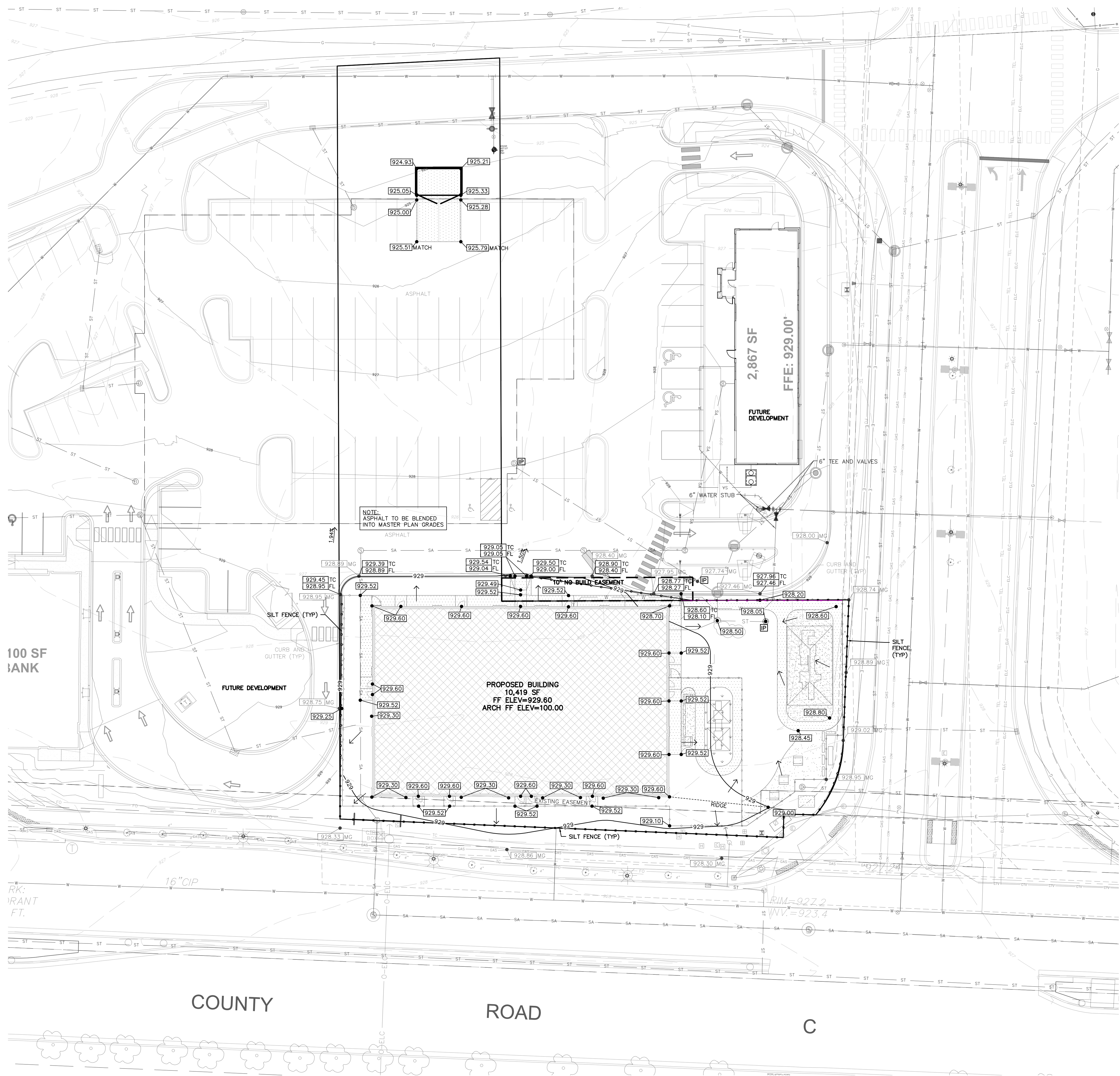
AD2 MAR. 23, 2023
CB2 JUNE 5, 2023
CB4 JUNE 14, 2023
UPDATED BACKGROUND

JOB NUMBER
2255300

SHEET NUMBER
C1.1



CIVIL SITE PLAN



SPECIFICATION NOTE:
SEE SHEET C0.1 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

- NOTES:**
- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
 - ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.

INLET PROTECTION NOTE:

IP CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

STABILIZED CONSTRUCTION ENTRANCE NOTE:

CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.

CONCRETE WASHOUT NOTE:

CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.

SPOT ELEVATION NOTE:

SPOT ELEVATIONS NOTED WITH "MG" REFERS TO MASTER GRADING PER SITE DEVELOPMENT PLANS PROVIDED BY KIMLEY-HORN.

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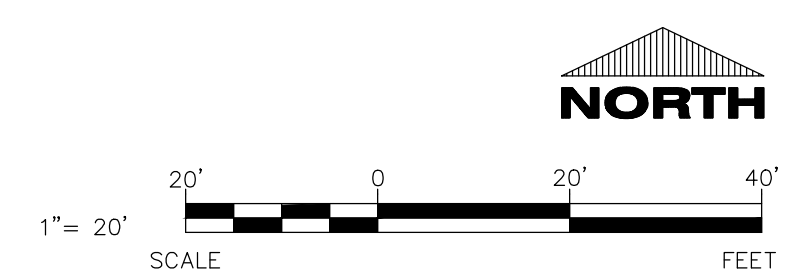
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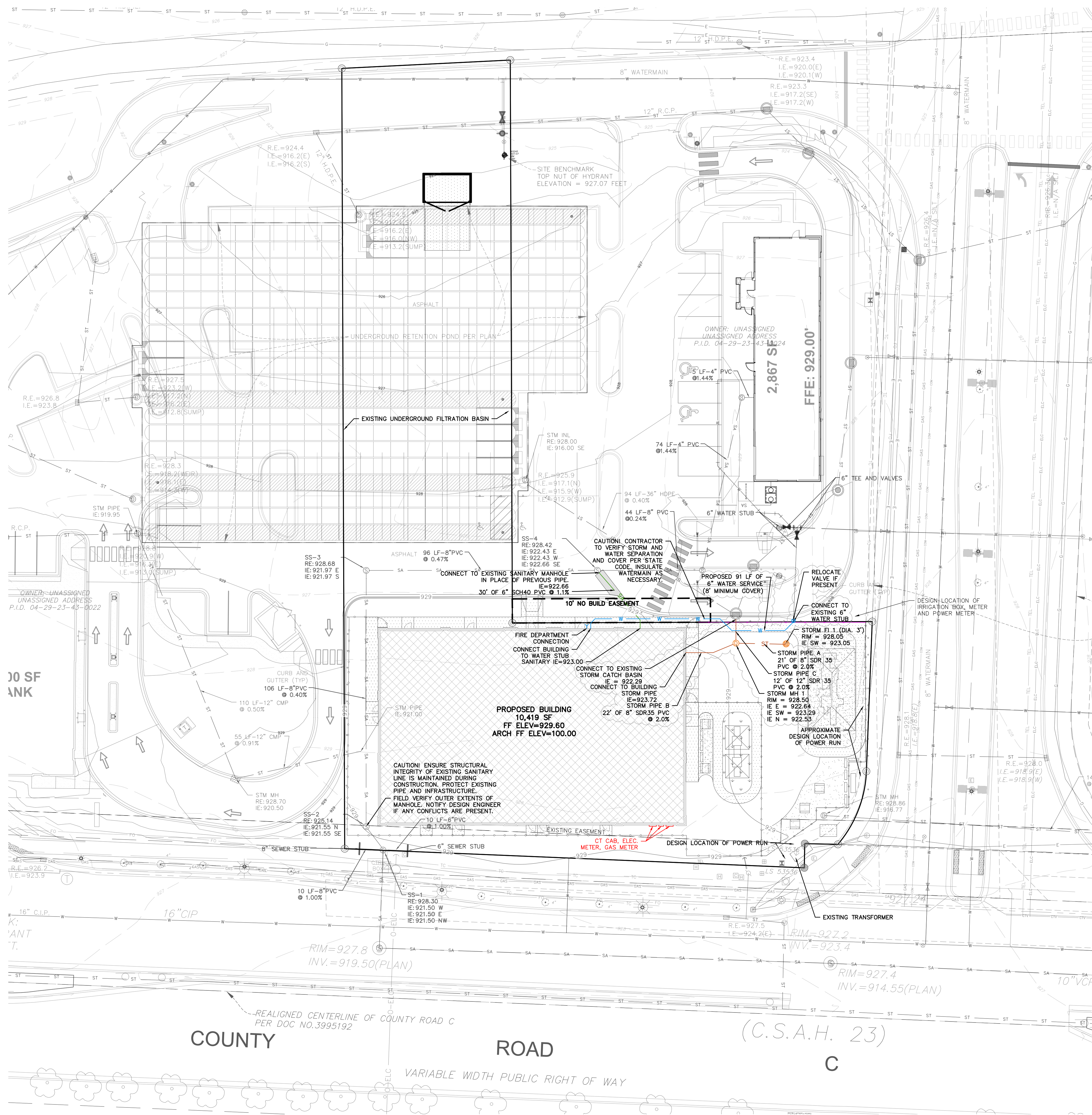
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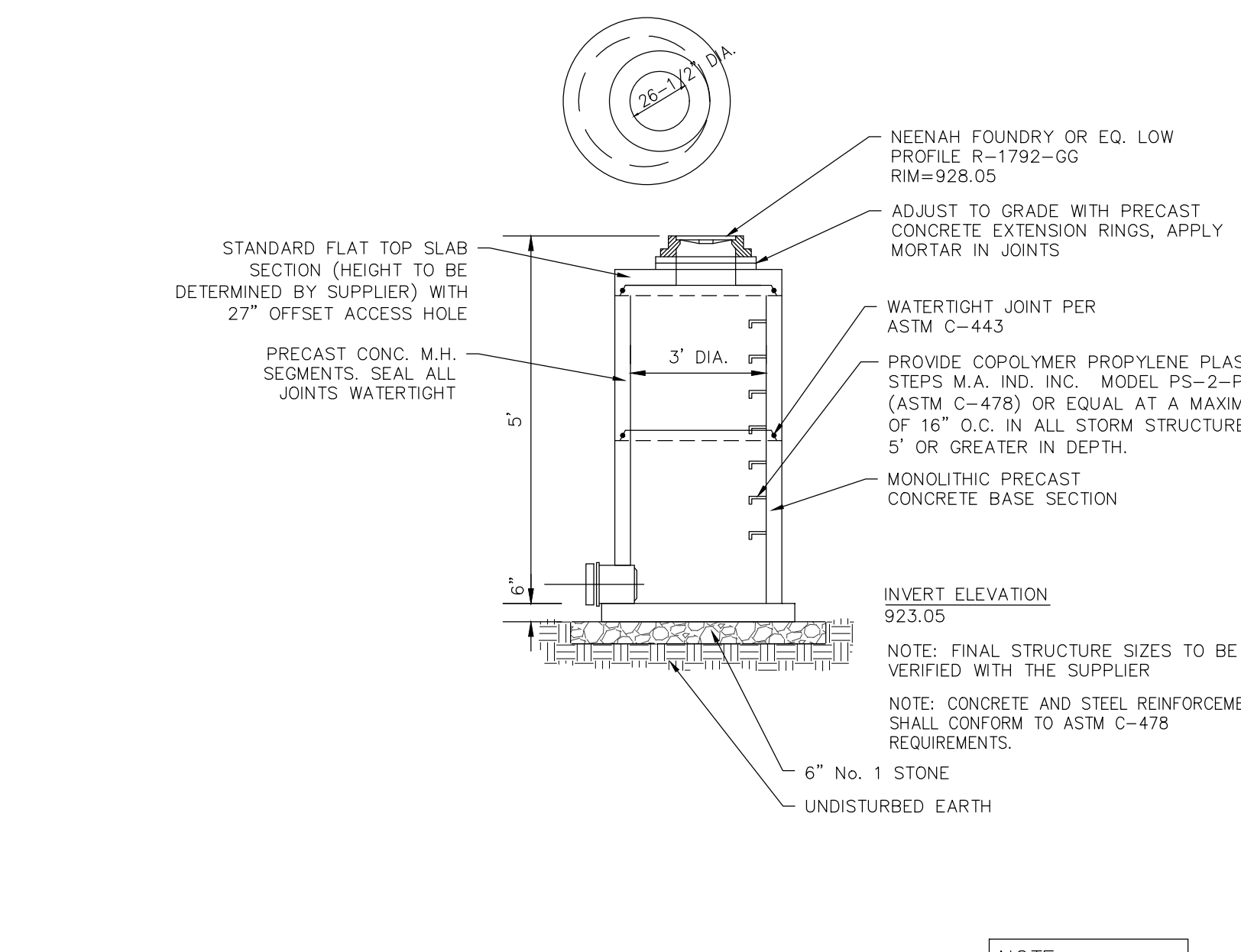
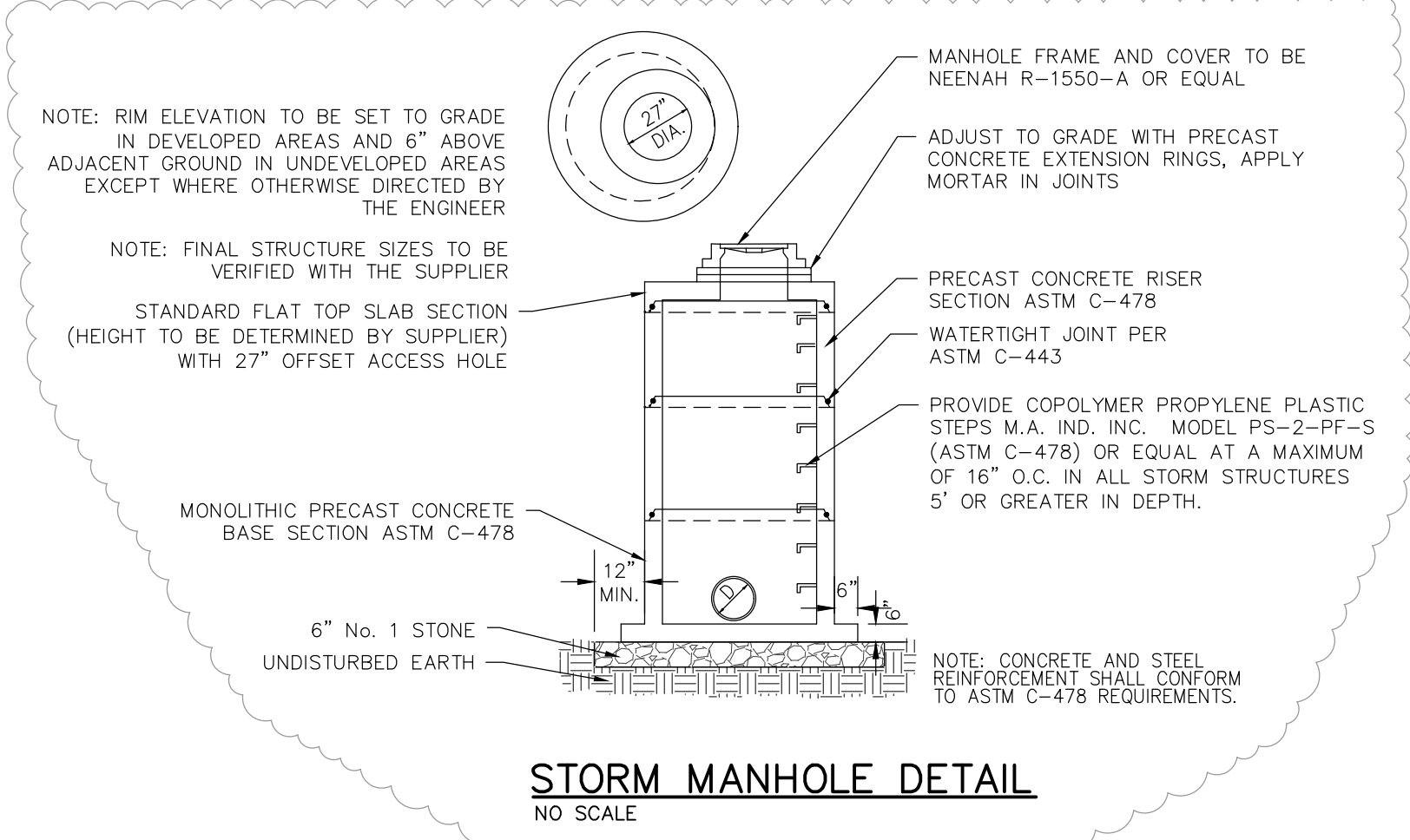
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SPECIFICATION NOTE:
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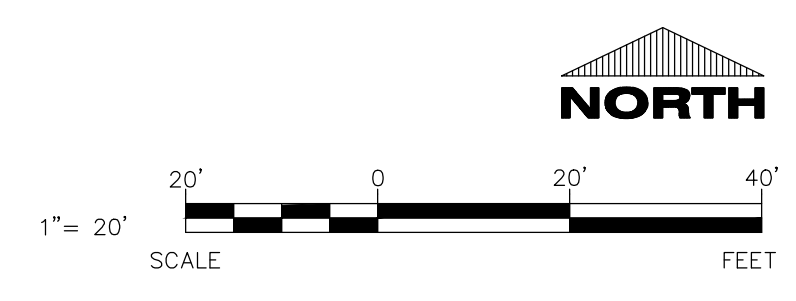
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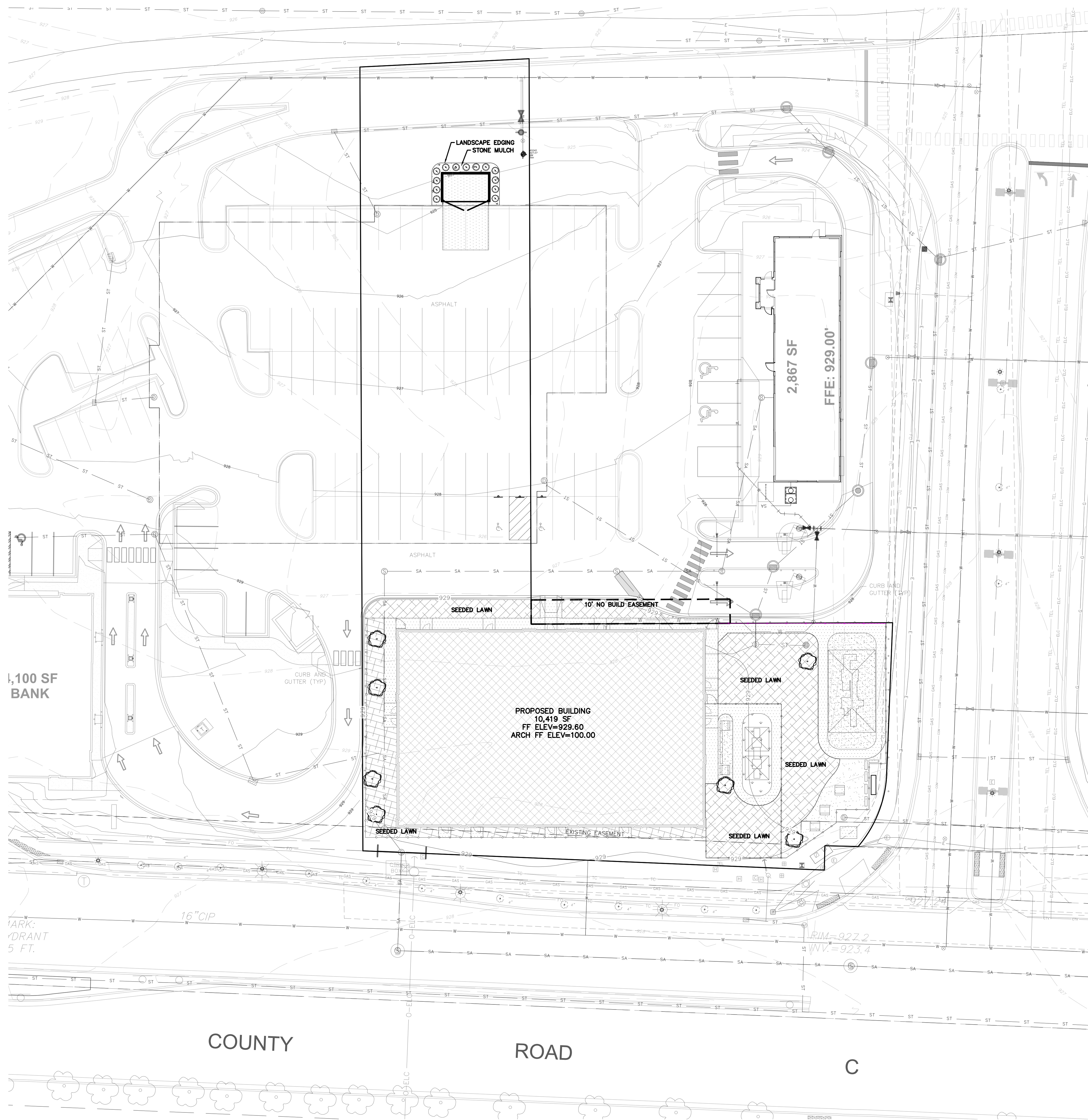
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SHEET NUMBER

C1.3





SPECIFICATION NOTE:
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SPECIFICATIONS AND REQUIREMENTS

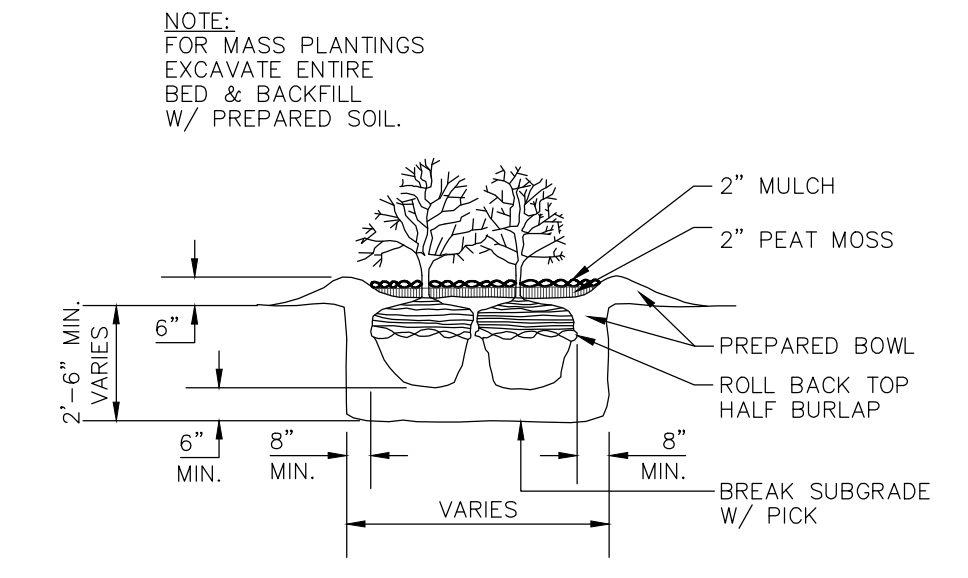
Landscape Planting Schedule				
SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
DECIDUOUS TREES				
☉	Skyline Honeylocust	Gleditsia triacanthos 'Skyline'	0'-2"	7
EVERGREEN SHRUBS				
☉	Arborvitae Sunkist	Thuja occidentalis 'Sunkist'	2'-0"	13

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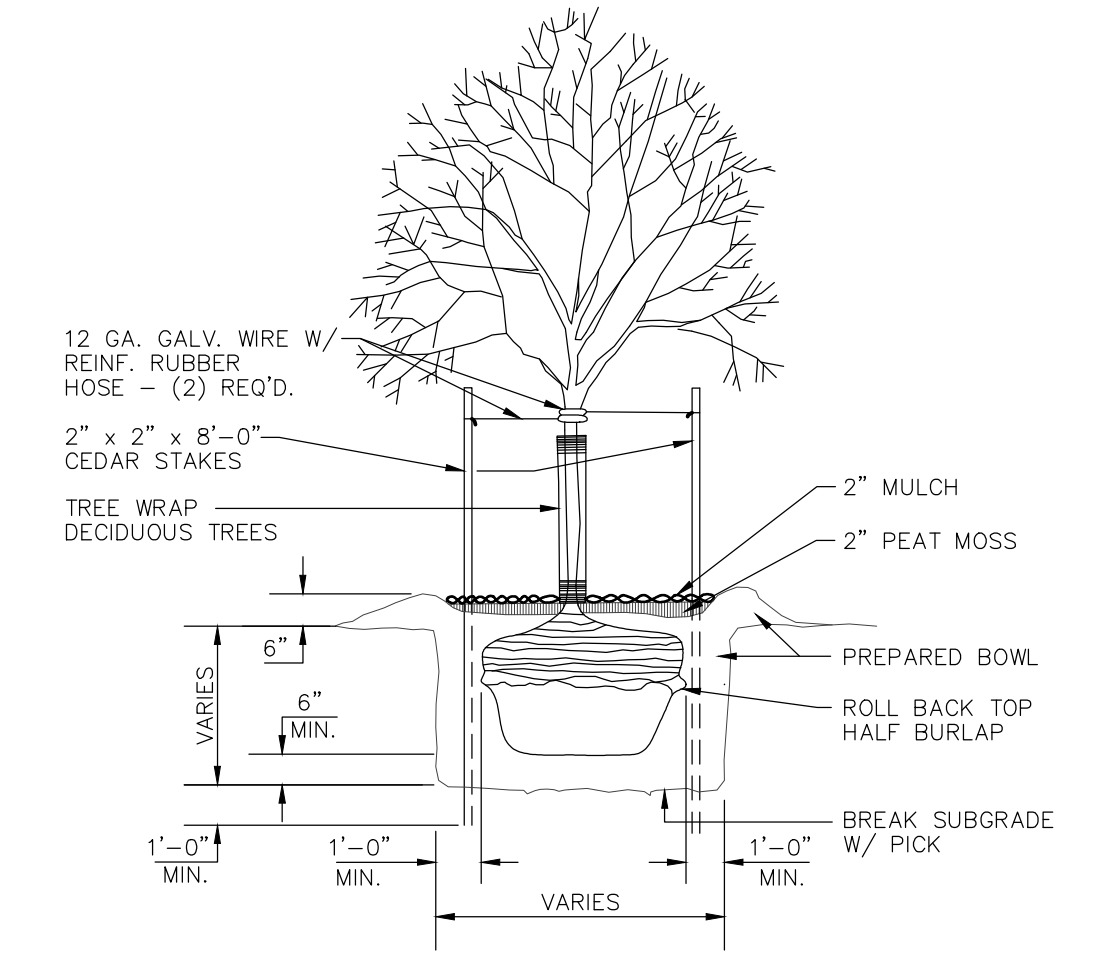
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SHRUB PLANTING DETAIL
NO SCALE



TREE PLANTING DETAIL
NO SCALE

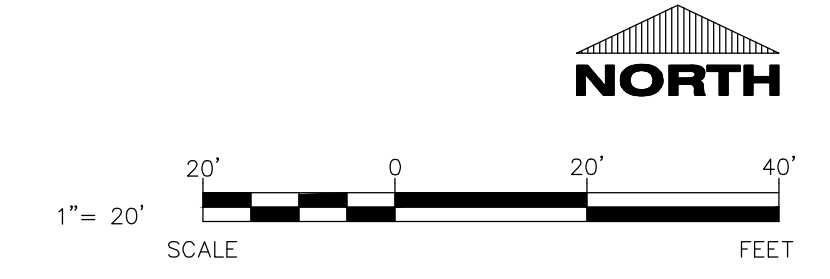
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SHEET NUMBER

C1.4



SPECIFICATION NOTE:
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SPECIFICATIONS AND REQUIREMENTS

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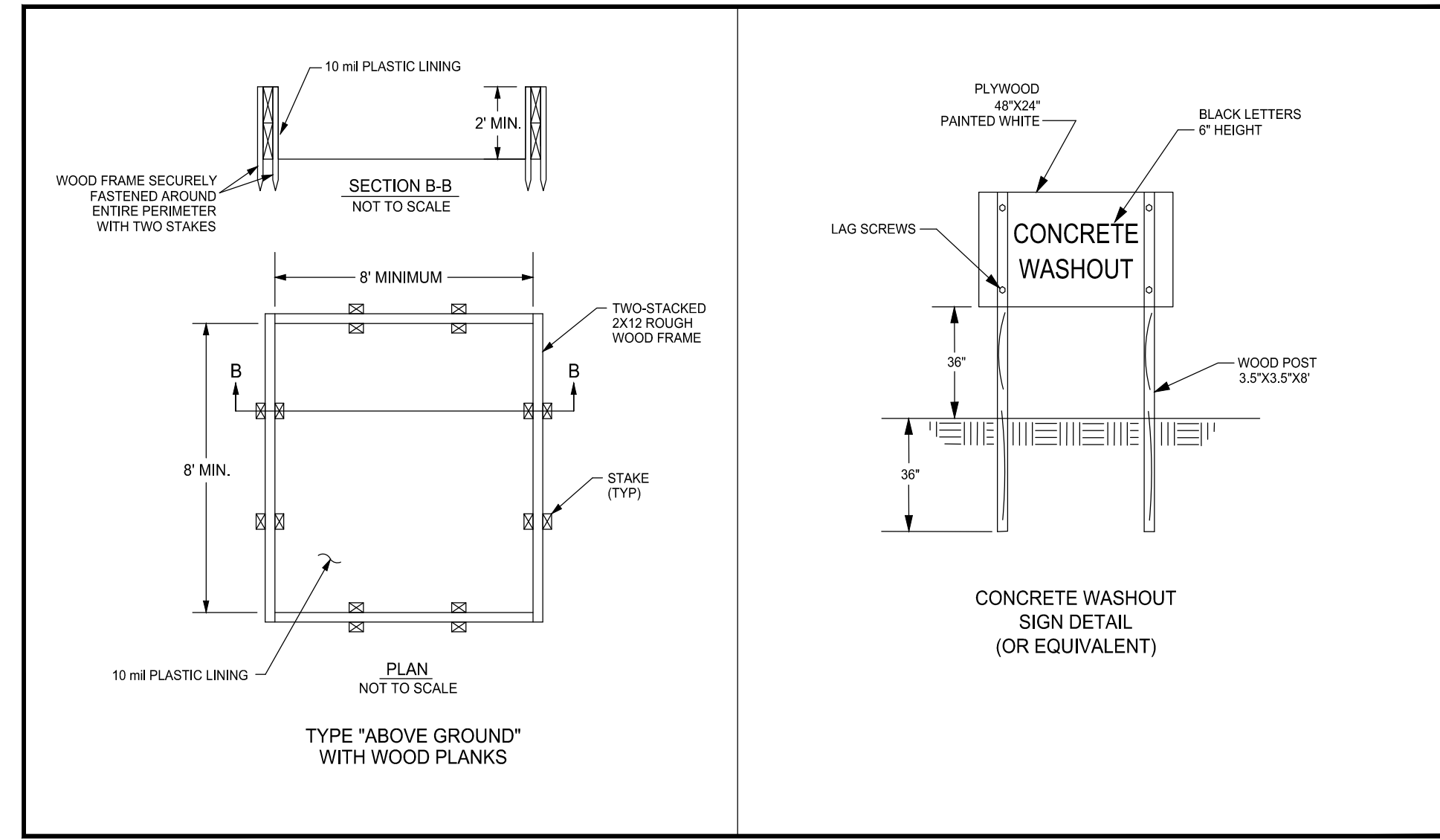
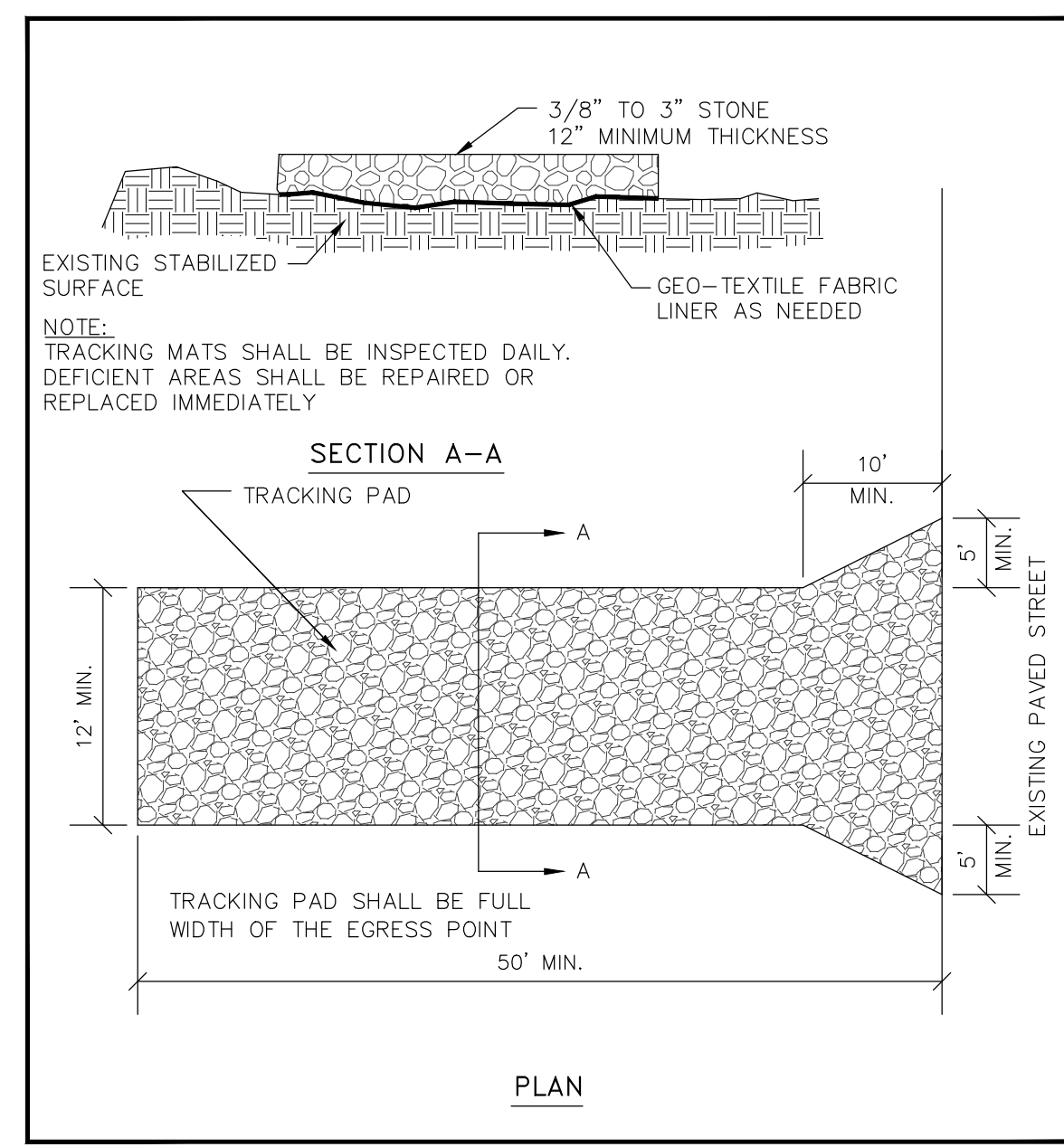
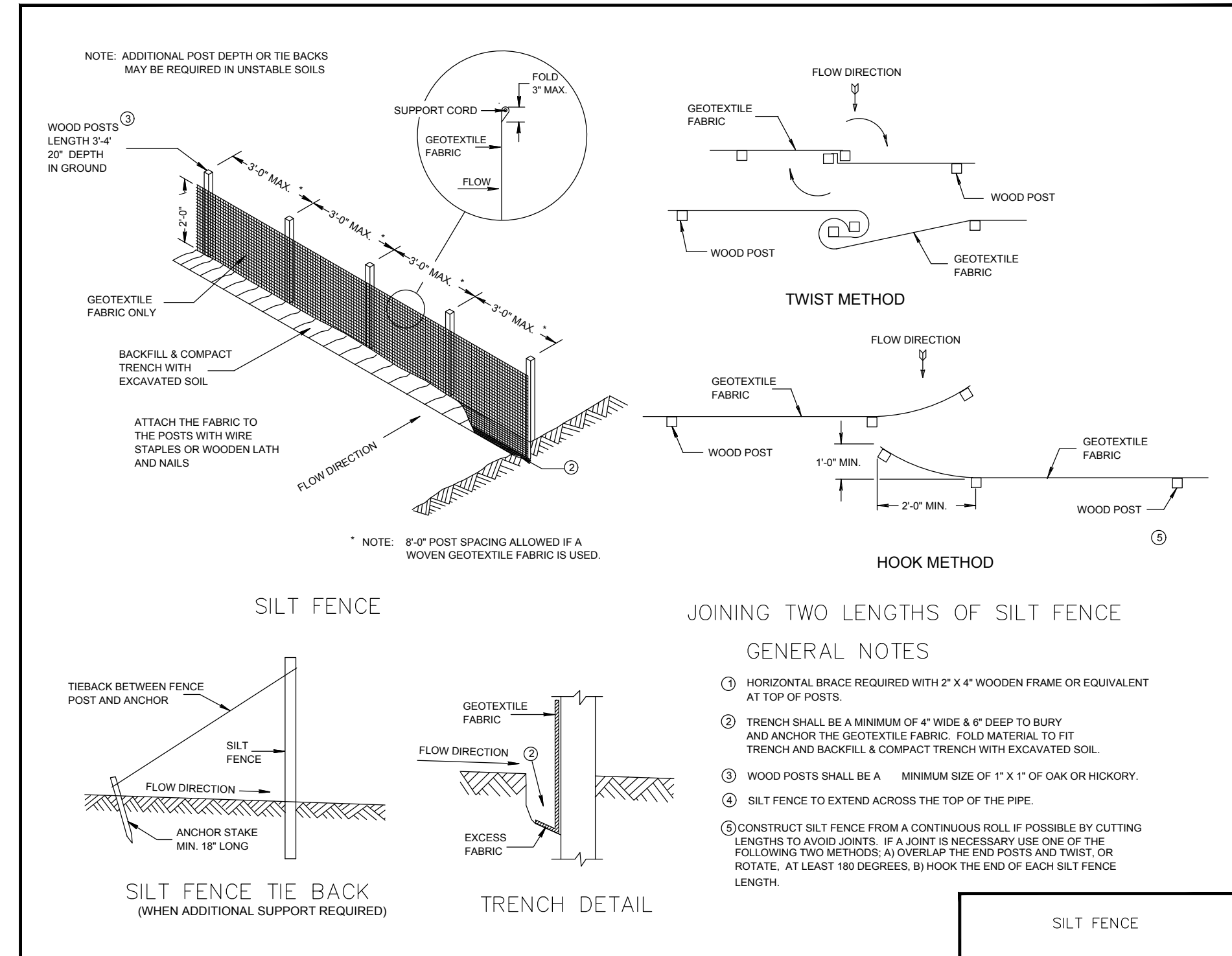
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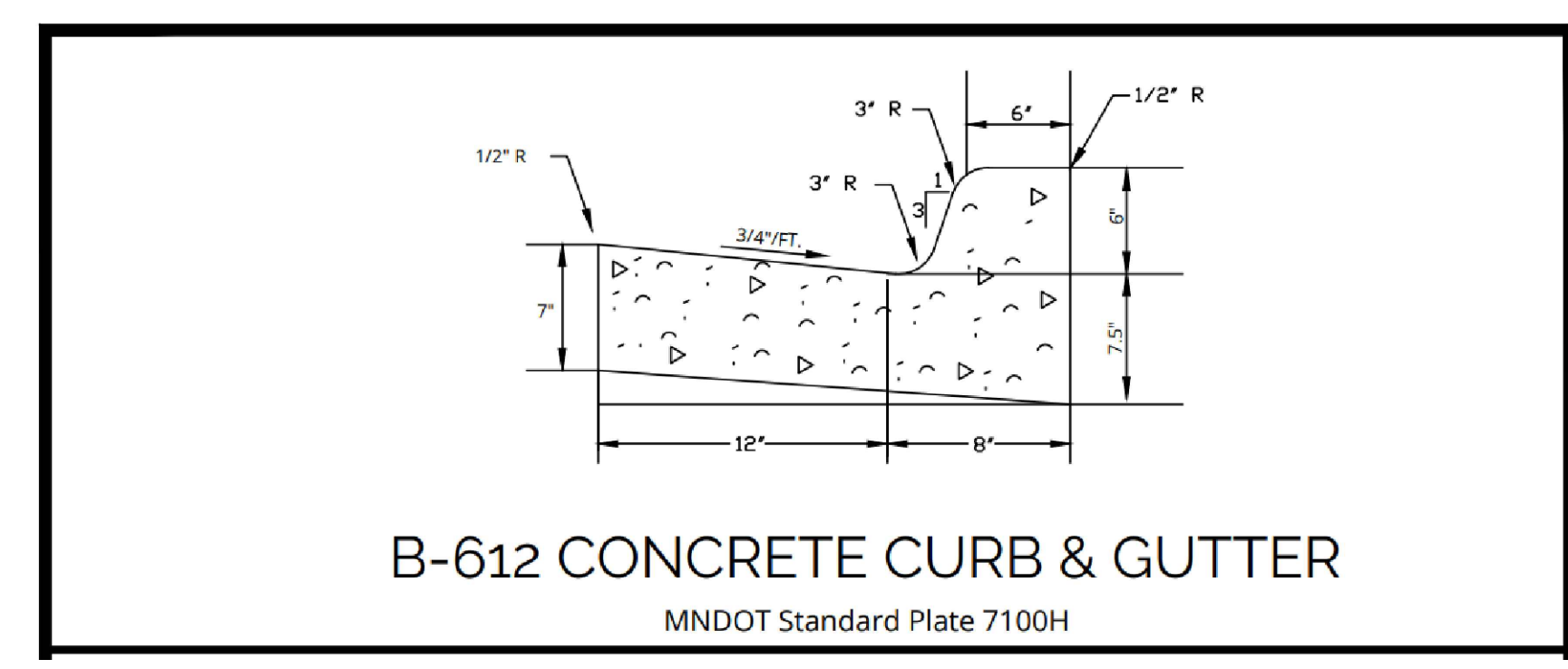
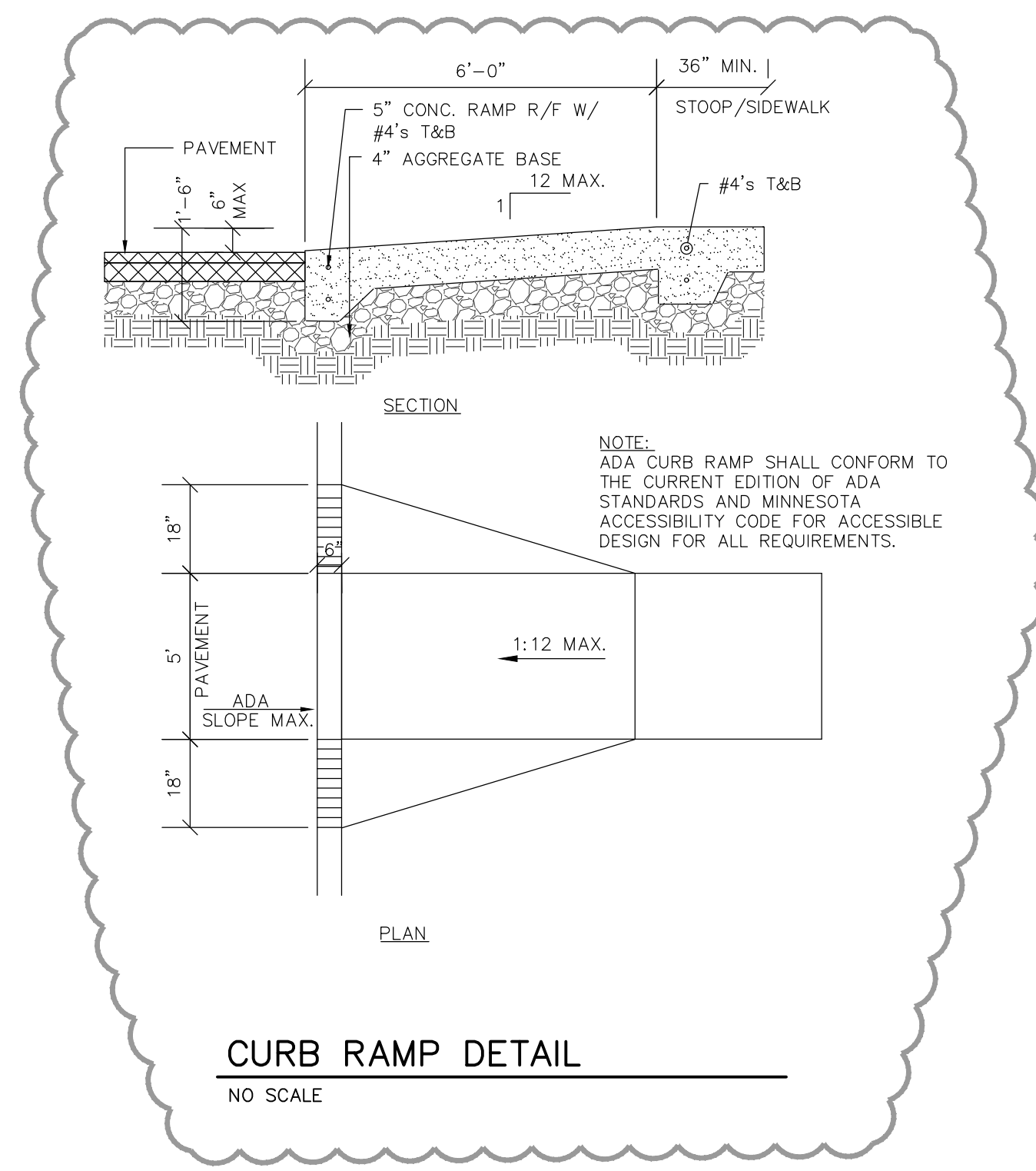
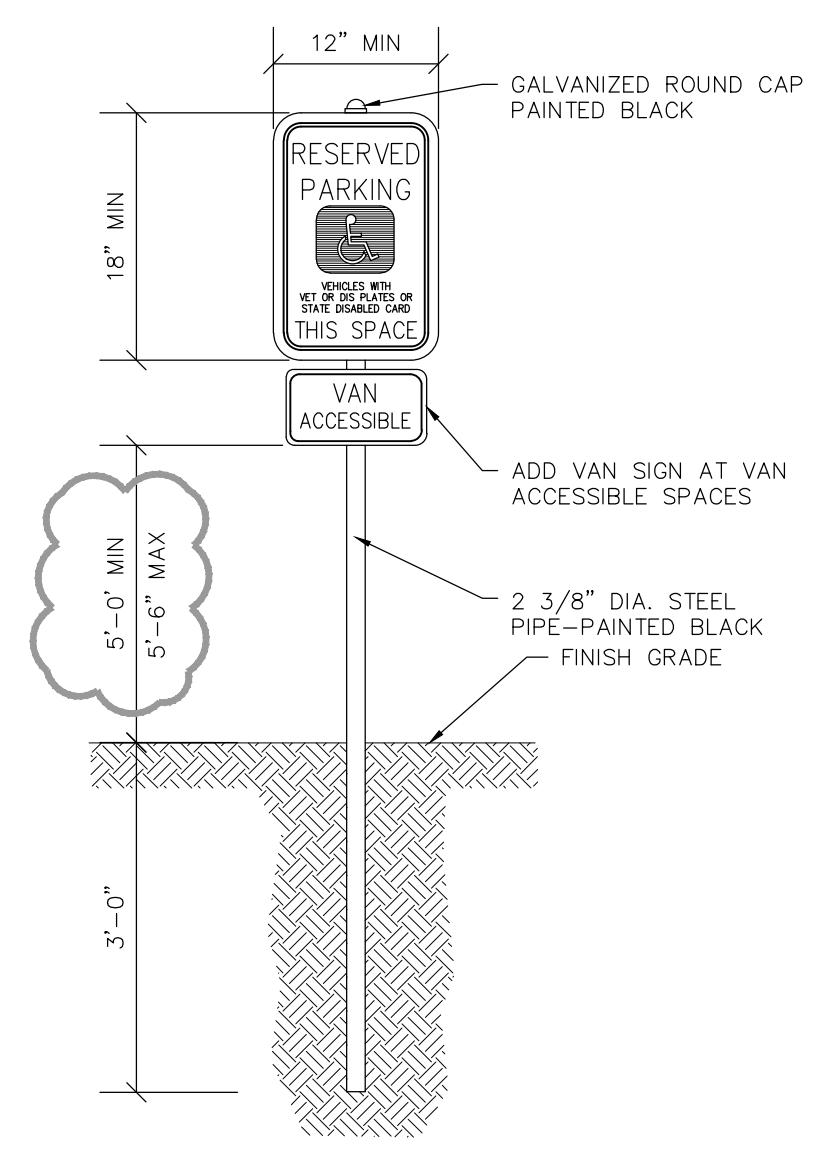
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C2.0



CONTRACTOR TO ADHERE TO NYS STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (BLUE BOOK) DATED NOVEMBER 2016



18" CONCRETE CURB & GUTTER DETAIL
NO SCALE

ARCHITECTURAL SPECIFICATIONS (CONT)

- ii. 2 COATS S-W PROMAR 200 ZERO VOC INTERIOR LATEX FLAT B30-2600 @ 1.4 MILS DFT/COAT.
- b. ACRYLIC SEMI-GLOSS
 - i. 1 COAT S-W PREPRITE BLOCK FILLER B25W25- WHITE.
 - j. 2 COATS S-W PROMAR 200 ZERO VOC INTERIOR LATEX SEMI-GLOSS B31-2600 @ 1.5 MILS DFT/COAT.
- 7. PRECAST CONCRETE (PA):
 - a. ACRYLIC EG-SHEL
 - i. 1 COAT S-W LOXON CONCRETE MASONRY PRIMER LX02 @ 2.0-3.5 MILS DFT.
 - j. 2 COAT S-W PROMAR 200 ZERO VOC INTERIOR LATEX EG-SHEL B20 SERIES @ 1.7 MILS DFT/COAT.
 - b. ACRYLIC FLAT
 - i. 1 COAT S-W LOXON CONCRETE MASONRY PRIMER LX02 @ 2.0-3.5 MILS DFT.
 - j. 2 COATS S-W PROMAR 200 ZERO VOC INTERIOR LATEX FLAT B30-2600 @ 1.4 MILS DFT/COAT.
 - c. ACRYLIC SEMI-GLOSS
 - i. 1 COAT S-W PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER B28W2600 @ 1.2-1.5 MILS DFT.
 - j. 2 COATS S-W PROMAR 200 ZERO VOC INTERIOR LATEX SEMI-GLOSS B31-2600 @ 1.5 MILS DFT/COAT.

DIVISION 10 SPECIALTIES

10 14 00 SIGNAGE

- A. REQUIREMENTS:
 1. CONTRACTOR TO FURNISH AND INSTALL SIGNAGE PER LOCAL, STATE, AND FEDERAL CODES AND PER ADDITIONAL DETAILS ON PLANS.
 2. COORDINATE STYLE AND COLOR WITH OWNER UNLESS SPECIFICALLY INDICATED ON PLANS.
 3. ALL SIGNAGE SHALL MEET THE REQUIREMENTS OF THE A.D.A. AND ANSI.
 4. WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL.
 5. MOUNTING HEIGHT SHALL BE 60" ABOVE FINISH FLOOR TO THE CENTERLINE OF THE SIGN UNLESS INDICATED OTHERWISE.
 6. PROVIDE HANDICAP PARKING SIGNS AS INDICATED ON PLANS AND AS REQUIRED BY LOCAL, STATE, AND FEDERAL CODES.

10 44 00 FIRE EXTINGUISHERS

- A. REQUIREMENTS:
 1. FURNISH AND INSTALL EXTINGUISHERS PER LOCAL, STATE, AND FEDERAL CODES, AND N.F.P.A. NO.10-1978.
 2. MOUNT FIRE EXTINGUISHER NOT HIGHER THAN 48" ABOVE FINISH FLOOR UNLESS LOCAL REGULATIONS REQUIRE DIFFERENT HEIGHT.
 3. ALL FIRE EXTINGUISHERS AND CABINETS TO MEET THE REQUIREMENTS OF THE A.D.A. AND ANSI A117.1.

DIVISION 21 FIRE SUPPRESSION

21 10 00 FIRE PROTECTION WORK

- A. SEE FIRE PROTECTION PLANS FOR SPECIFICATIONS.

DIVISION 22 PLUMBING

22 05 00 PLUMBING WORK

- A. SEE PLUMBING PLANS FOR SPECIFICATIONS

AND VENTILATING AND AIR CONDITIONING

23 05 00 HEATING AND VENTILATION WORK

- A. SEE HVAC PLANS FOR SPECIFICATIONS.

DIVISION 26 ELECTRICAL

26 05 00 ELECTRICAL WORK

- A. SEE ELECTRICAL PLANS FOR SPECIFICATIONS.

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING

- A. SEE CIVIL PLANS FOR SPECIFICATIONS.

31 20 00 EARTH MOVING

- A. SEE CIVIL PLANS FOR SPECIFICATIONS.

31 30 00 EROSION CONTROL

- A. SEE CIVIL PLANS FOR SPECIFICATIONS.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 GRANULAR BASE AND ASPHALT PAVEMENT

- A. SEE CIVIL PLANS FOR SPECIFICATIONS.

32 20 00 CONCRETE AND AGGREGATE BASE

- A. SEE CIVIL PLANS FOR SPECIFICATIONS.

32 30 00 LANDSCAPING AND SITE STABILIZATION

- A. SEE CIVIL PLANS FOR SPECIFICATIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

- SEE CIVIL PLANS FOR SPECIFICATIONS.



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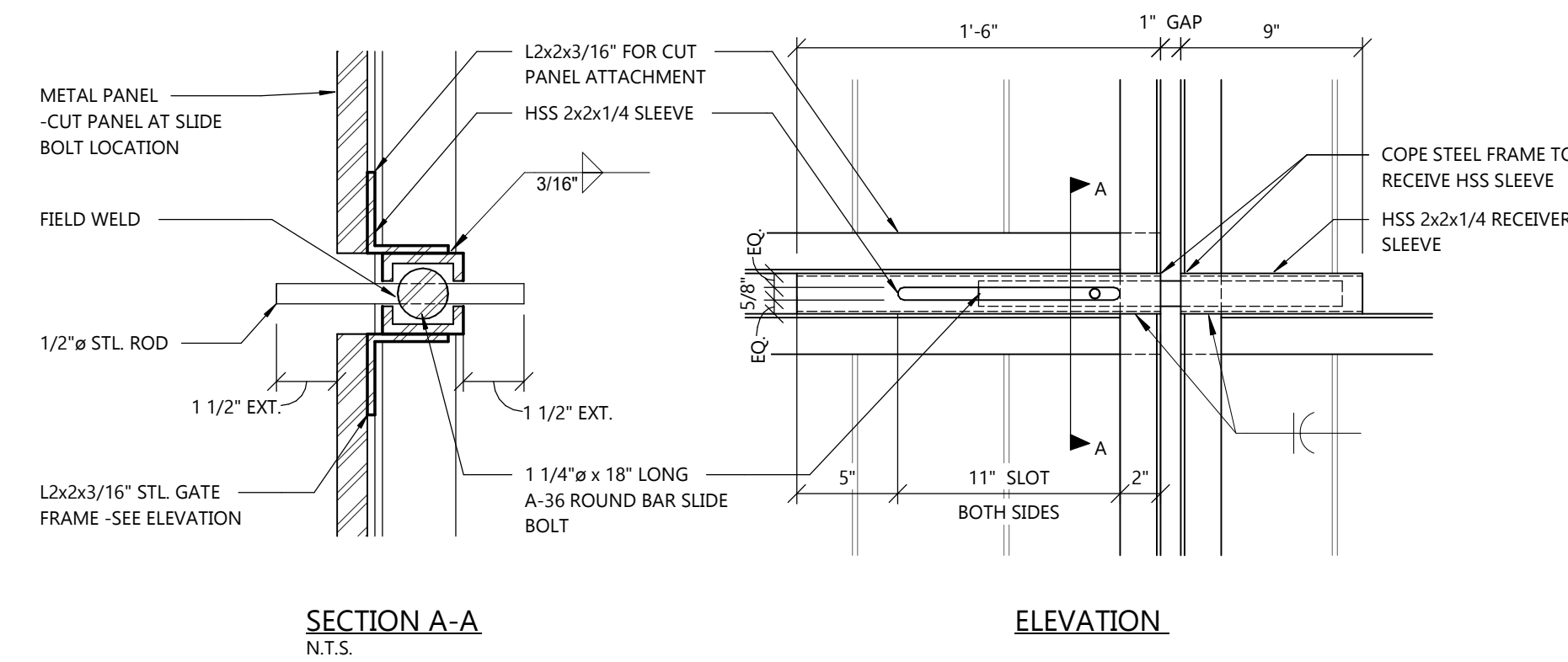
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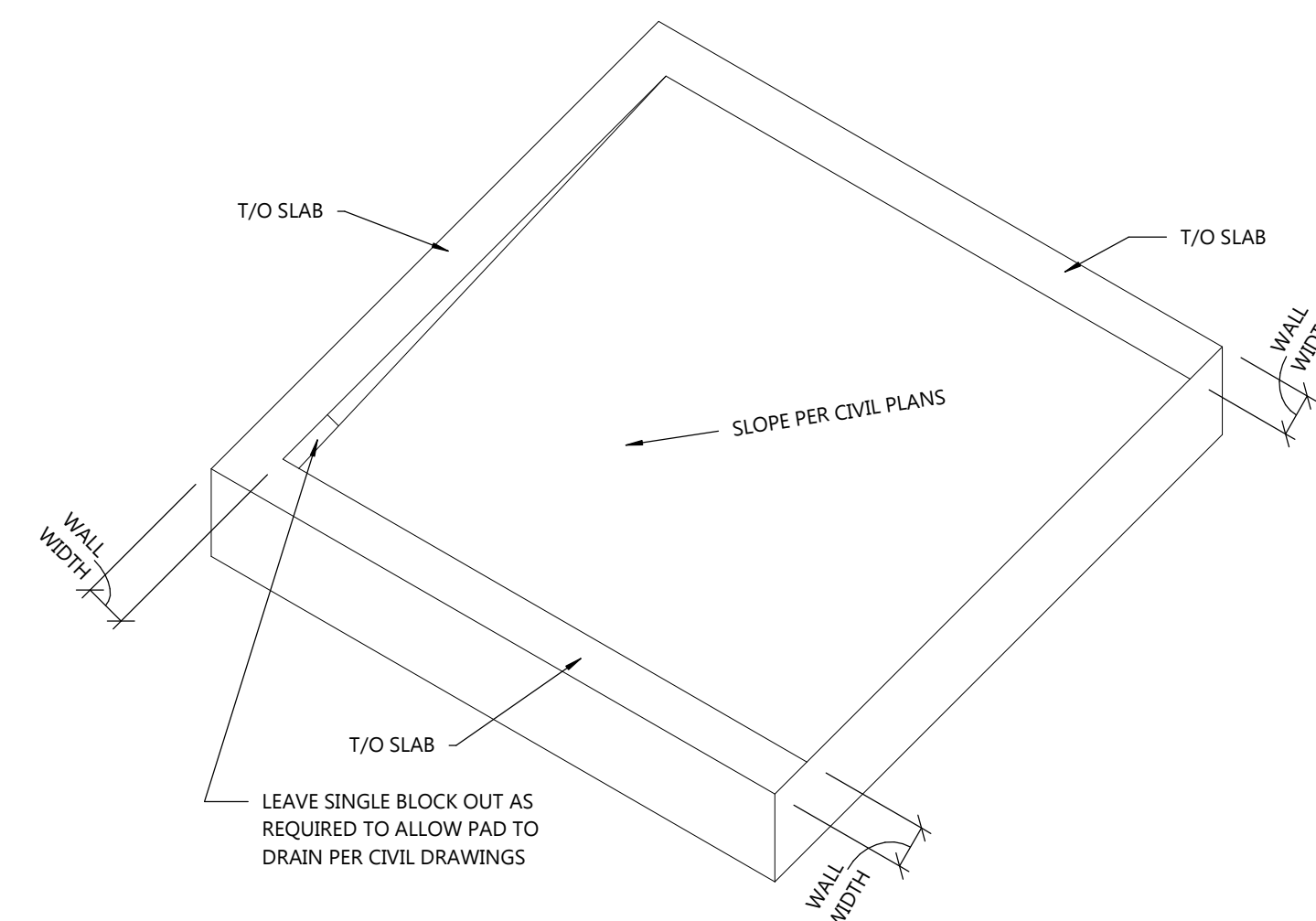
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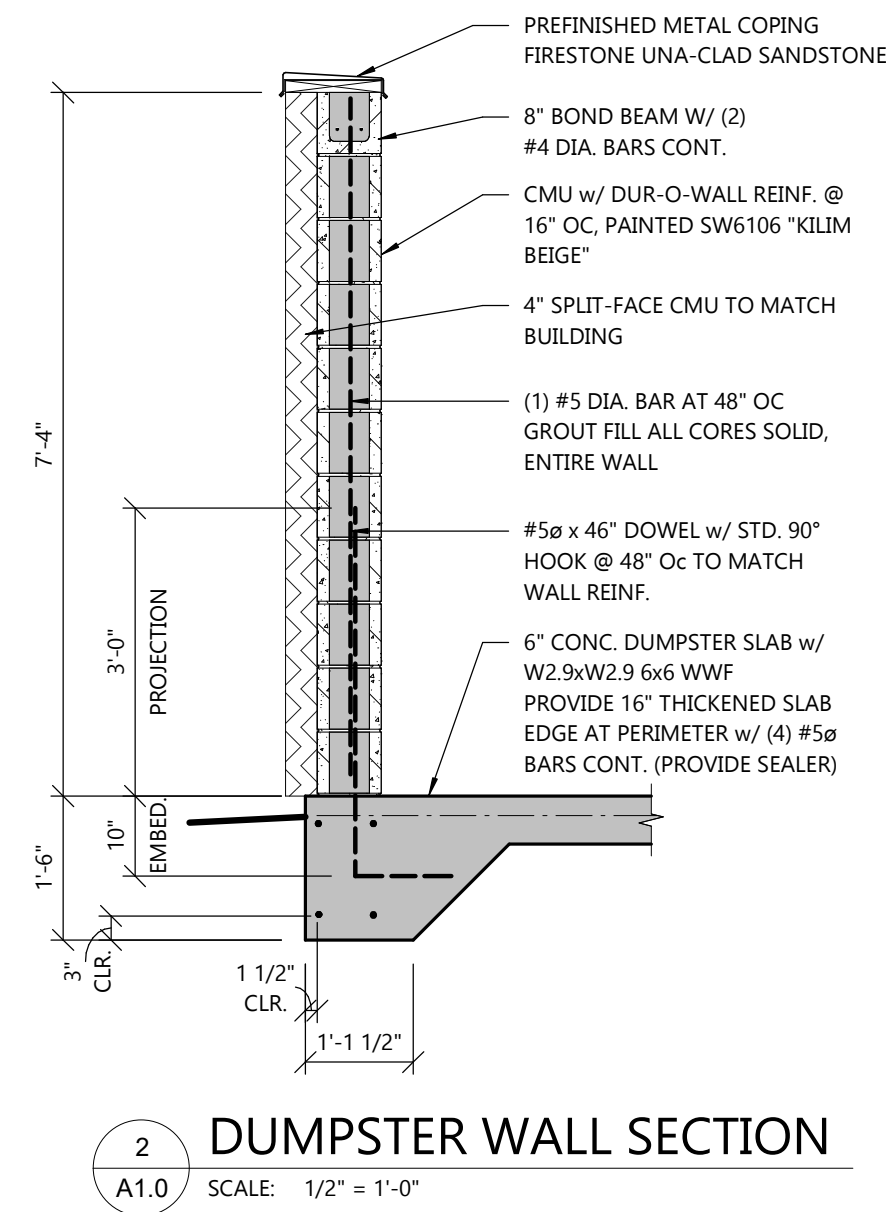
A0.3



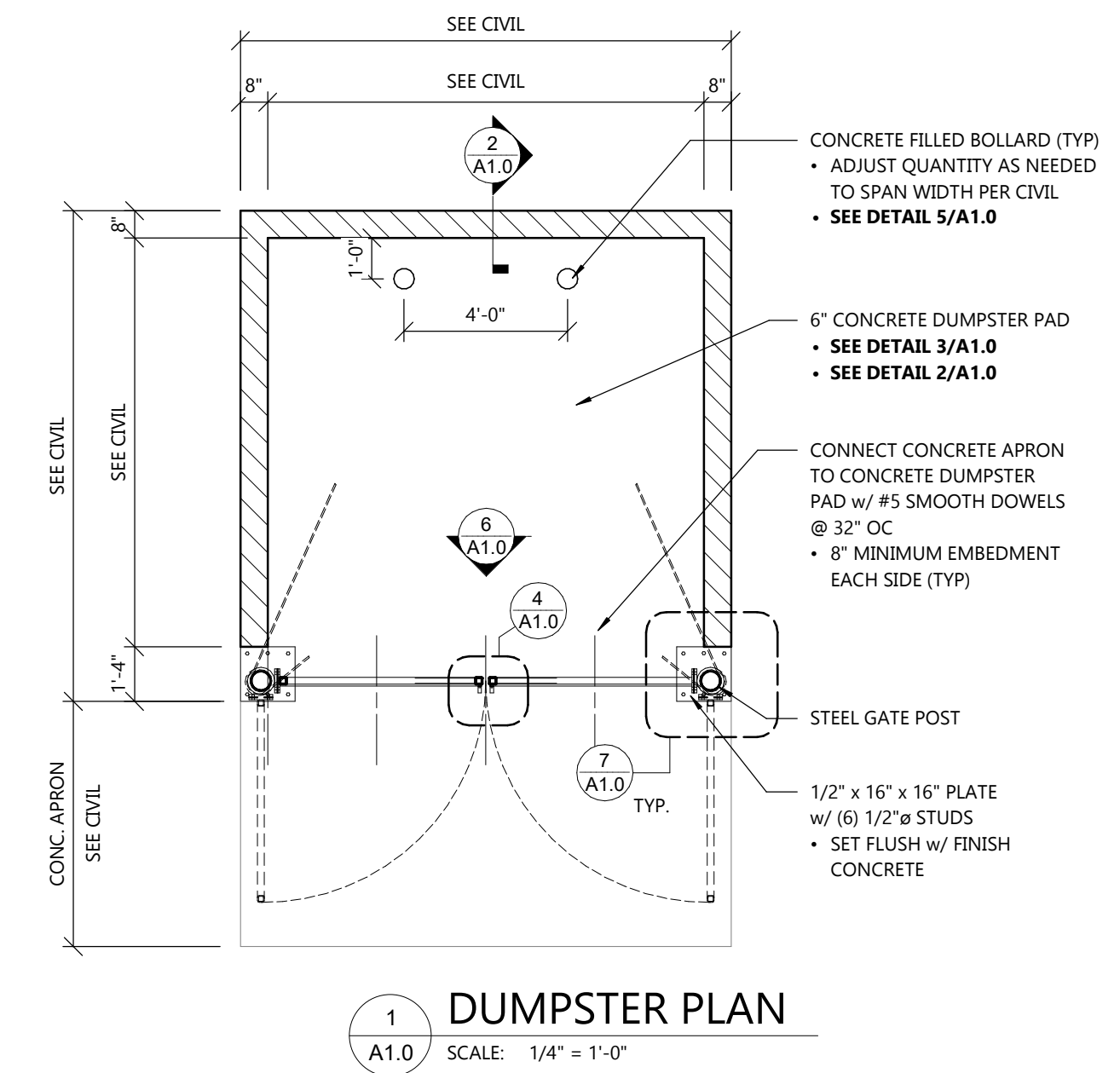
4 GATE SLIDE BOLT
A1.0 SCALE: 1 1/2" = 1'-0"



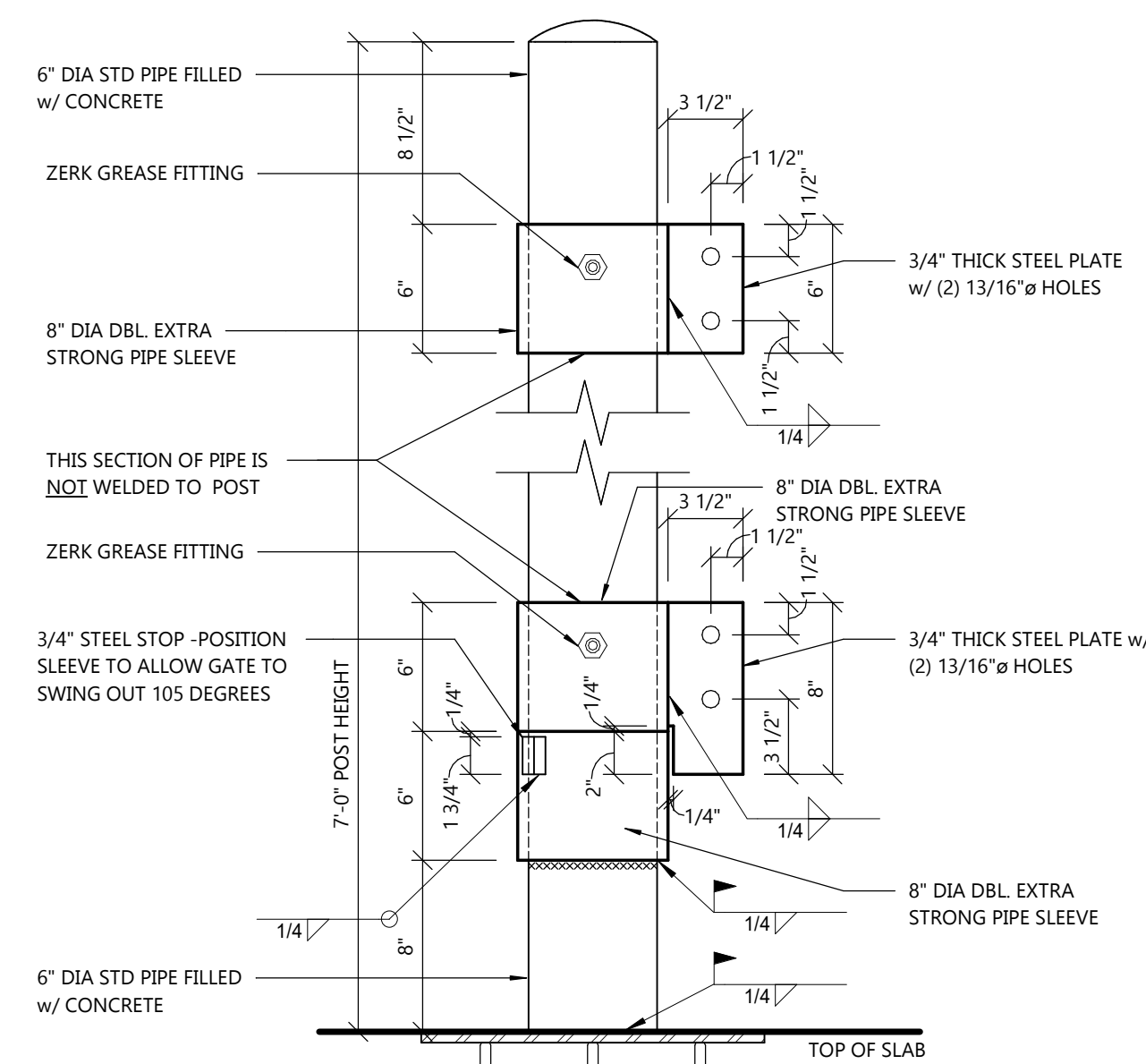
3 DUMPSTER PAD DETAIL
A1.0 SCALE: 1/2" = 1'-0"



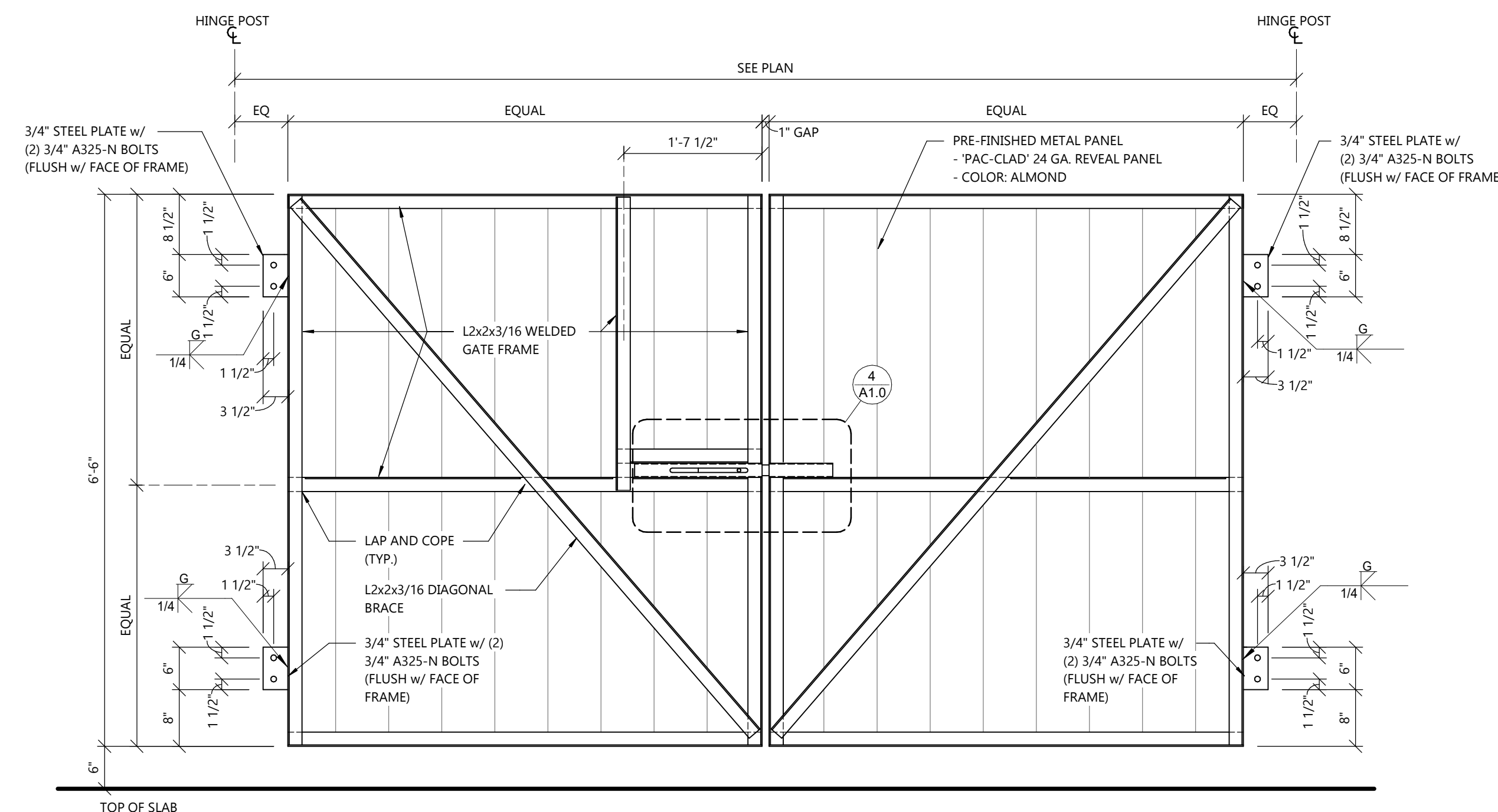
2 DUMPSTER WALL SECTION
A1.0 SCALE: 1/2" = 1'-0"



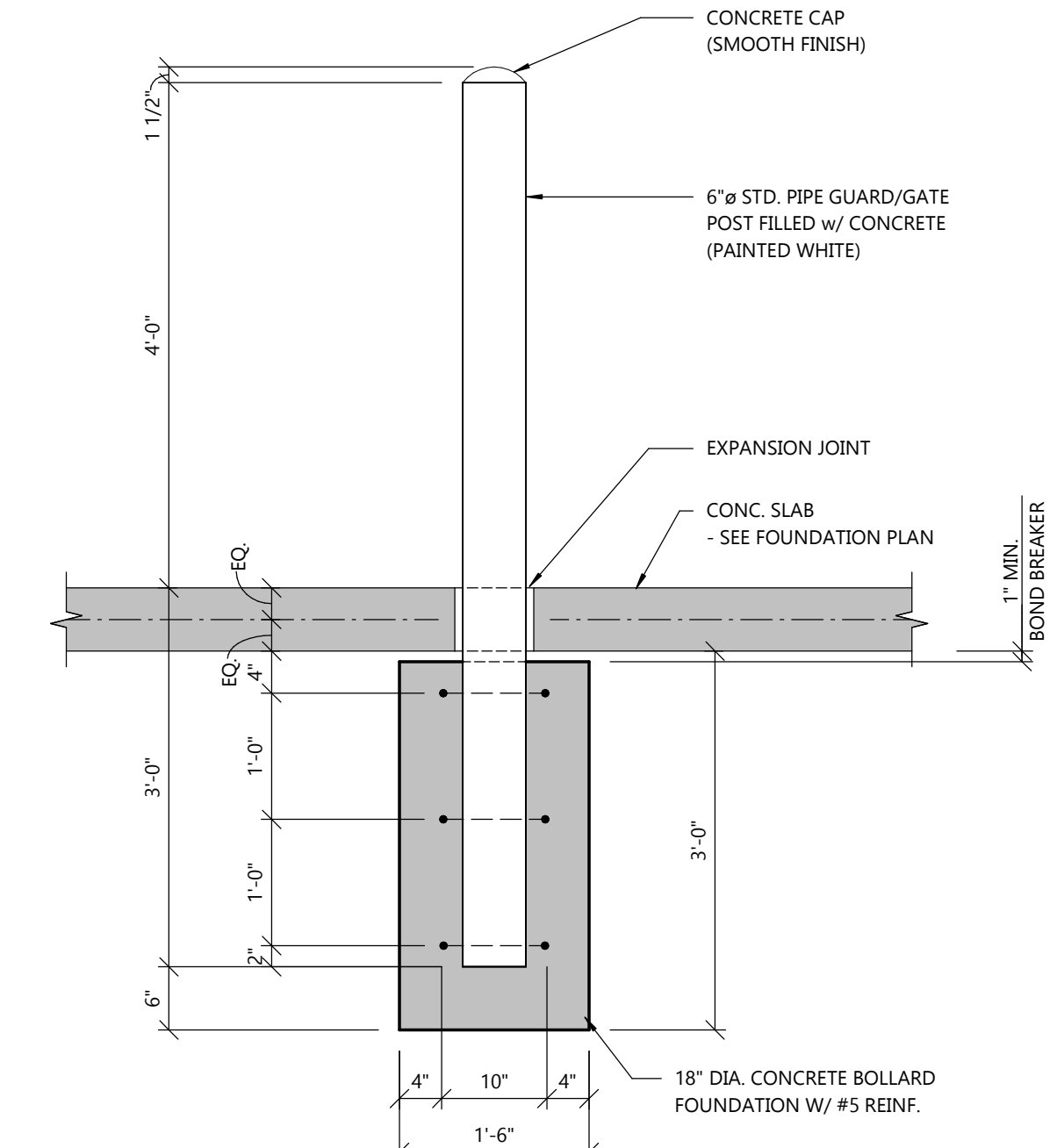
1 DUMPSTER PLAN
A1.0 SCALE: 1/4" = 1'-0"



7 GATE HINGE DETAIL
A1.0 SCALE: 1 1/2" = 1'-0"



6 DUMPSTER GATE ELEVATION
A1.0 SCALE: 3/4" = 1'-0"



5 BOLLARD DETAIL
A1.0 SCALE: 3/4" = 1'-0"



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100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

COLLABORATION



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

AD1	FEB. 28, 2023
AD2	MAR. 23, 2023
AD3	APR. 19, 2023
CB2	JUNE 5, 2023
CB5	JUNE 21, 2023

JOB NUMBER

2255300

SHEET NUMBER

A1.1

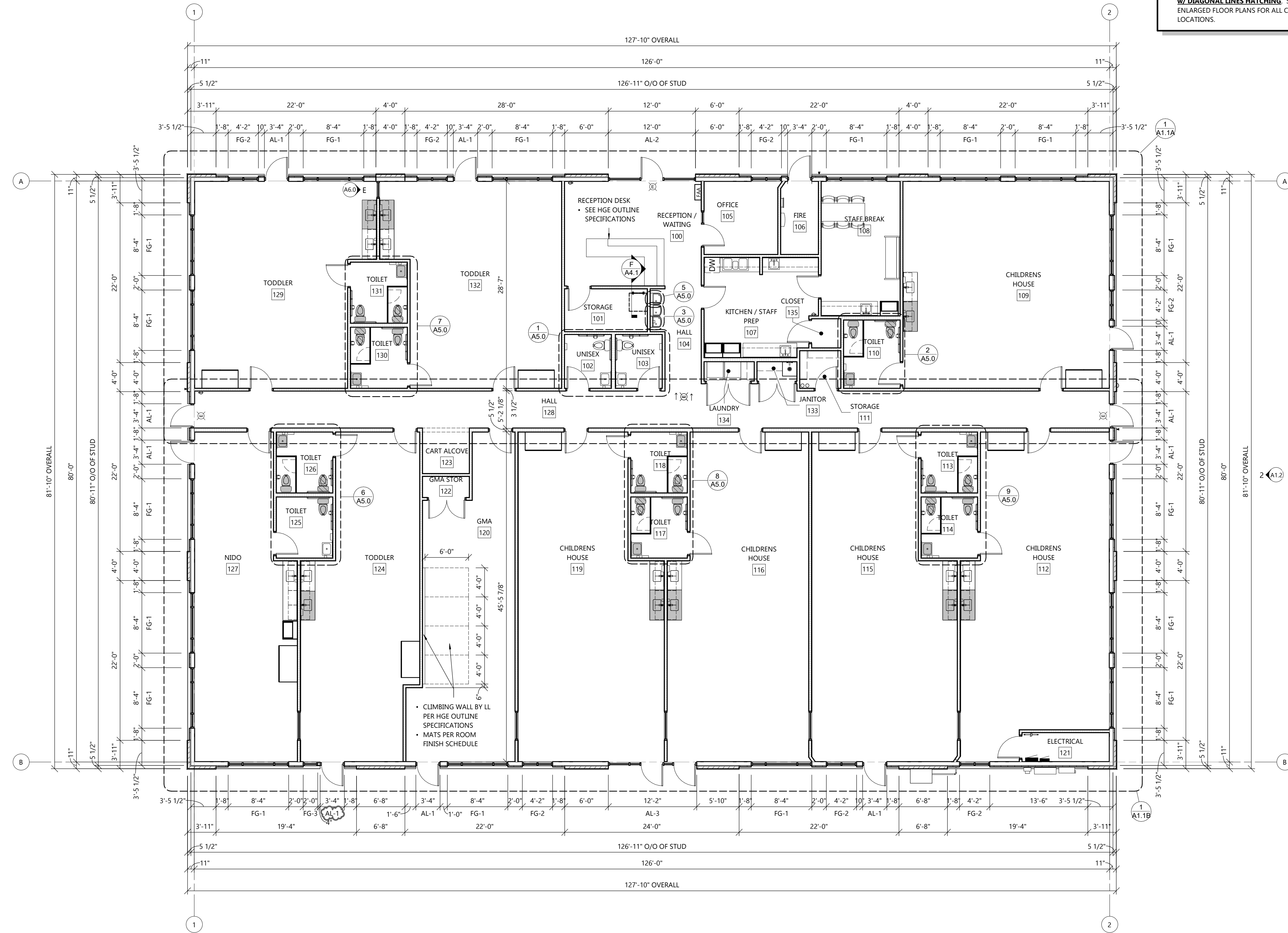
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SYMBOLS LEGEND

- SEE SHEET A1.1A FOR WALL TYPES
- EXIT SIGNAGE
- FIRE EXTINGUISHER
• SEE DETAIL 4/A5.0
- STUD WALL
- MASONRY VENEER
- SEE PLAN FOR ALL WALL WIDTHS
- NEW DOOR

GENERAL NOTES

- ALL INTERIOR DIMS. ARE FROM FACE-OF-STUD TO FACE-OF-STUD.
- ALL INTERIOR WALLS TO BE 2x4 OR 2x6 @ 16" O.C. (SEE FLOOR PLAN FOR SIZE) W/ 1/2" OR 5/8" GYPSUM BOARD BOTH SIDES - EXTEND TO BOTTOM CHORD OF TRUSSES / UNDERSIDE OF DECK.
- PROVIDE 3 1/2" SOUND BATT INSULATION AROUND PERIMETER OF TOILET ROOM AND OFFICE WALLS.
- PROVIDE WOOD BLOCKING FOR ANY FURNISHINGS BY OWNER. (VERIFY LOCATIONS)
- ALL EXTERIOR WINDOWS TO HAVE GYPSUM BOARD RETURNS AT HEAD AND JAMBS AND PLASTIC LAMINATE COVERED WOOD SILL.
- ALL CABINETS AND COUNTERTOPS TO HAVE PLASTIC LAMINATE FRONTS AND TOPS.
- ALL CABINERY AND EQUIPMENT BY OTHERS - SEE EQUIPMENT DRAWING BY INTERIOR DESIGNER FOR REQUIREMENTS.
- CHILD HEIGHT FIXTURES INDICATED ON PLAN BY **GRAY/GRAY** W/ **DIAGONAL LINES HATCHING**. SEE FLOOR PLANS & ENLARGED FLOOR PLANS FOR ALL CHILD HEIGHT FIXTURE LOCATIONS.



FLOOR PLAN
SCALE: 1/8" = 1'-0"
ARCHITECTURAL FIRST FLOOR PLAN

SHEET ISSUE	FEB. 14, 2023
REVISIONS	
AD1	FEB. 28, 2023
AD2	MAR. 23, 2023
AD3	APR. 19, 2023

2255300

A1.1A

GENERAL KEYNOTES

- △ WIRE SHELVING PER HGE OUTLINE SPECIFICATIONS.

GENERAL NOTES

- ALL INTERIOR DIMS. ARE FROM FACE-OF-STUD TO FACE-OF-STUD.
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- CHILD HEIGHT FIXTURES INDICATED ON PLAN BY **GRAY/GRAY** w/ **DIAGONAL LINES HATCHING**. SEE FLOOR PLANS & ENLARGED FLOOR PLANS FOR ALL CHILD HEIGHT FIXTURE LOCATIONS.

EXTERIOR WALL TYPE - EW1

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

CONCRETE BRICK OVER WOOD STUD:

- CONCRETE BRICK - SEE ELEVATIONS
- 1" MIN AIR GAP
- LIQUID APPLIED AIR & MOISTURE BARRIER
- 1/2" EXTERIOR SHEATHING
- 2x6 WOOD STUD FRAMING
- VAPOR RETARDER
- 5/8" GYP BOARD

EXTERIOR WALL TYPE - EW2

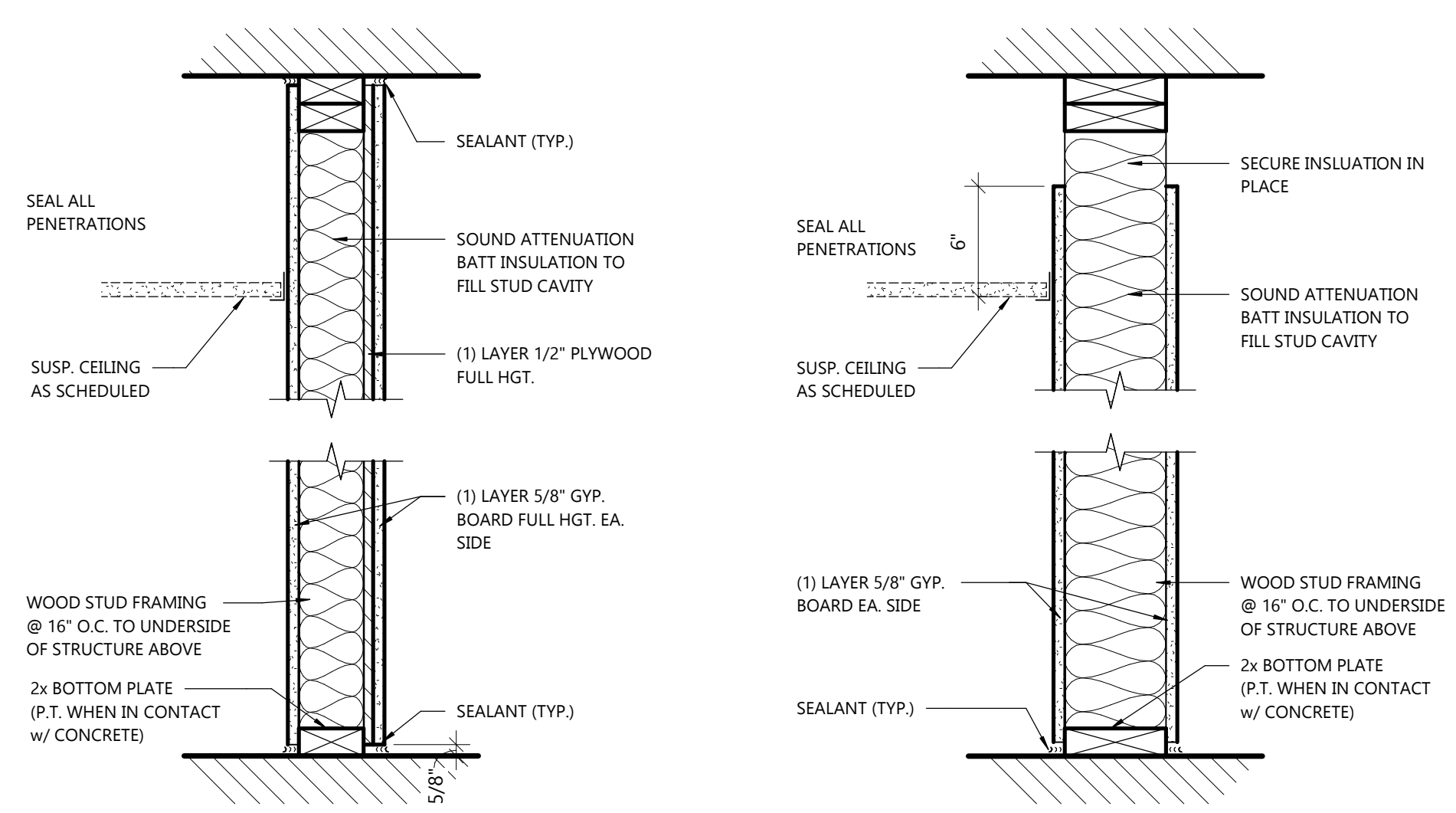
SCALE: 1 1/2" = 1'-0"

EIFS OVER WOOD STUD:

- EIFS INSTALLED PER MFR SPECIFICATIONS w/ 3" RIGID INSULATION & INTEGRATED DRAINAGE PLANE - SEE ELEVATIONS
- LIQUID APPLIED AIR & MOISTURE BARRIER
- 1/2" EXTERIOR SHEATHING
- 2x6 WOOD STUD FRAMING
- VAPOR RETARDER
- 5/8" GYP BOARD

EXTERIOR WALL TYPE - EW3

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



- 4W31 2x4 WOOD STUD (1) LAYER GYPSUM BOARD ON (2) SIDES OVER 1/2" PLYWOOD ON (1) SIDE ONLY
- 4W31A SIM. TO 4W31 BUT NO ACOUSTICAL INSULATION

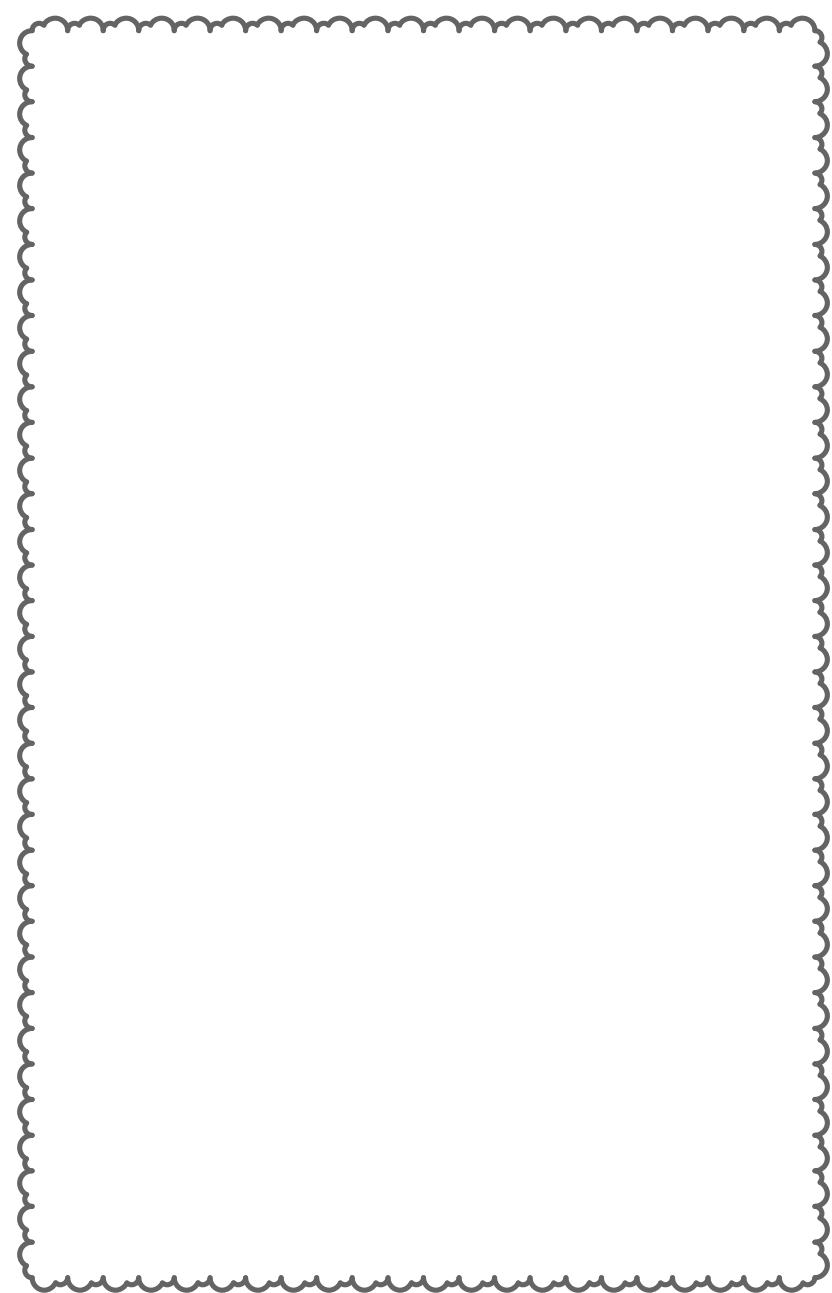
INTERIOR WALL TYPE - 4W31

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

- 6W21 2x6 WOOD STUD (1) LAYER GYPSUM BOARD ON (2) SIDES
- 6W21A SIM. TO 6W21 BUT NO ACOUSTICAL INSULATION
- 6W21R SIM. TO 6W21 GYPSUM BOARD SHALL BE ABUSE RESISTANT ON CORRIDOR SIDE OF WALL

INTERIOR WALL TYPE - 6W21

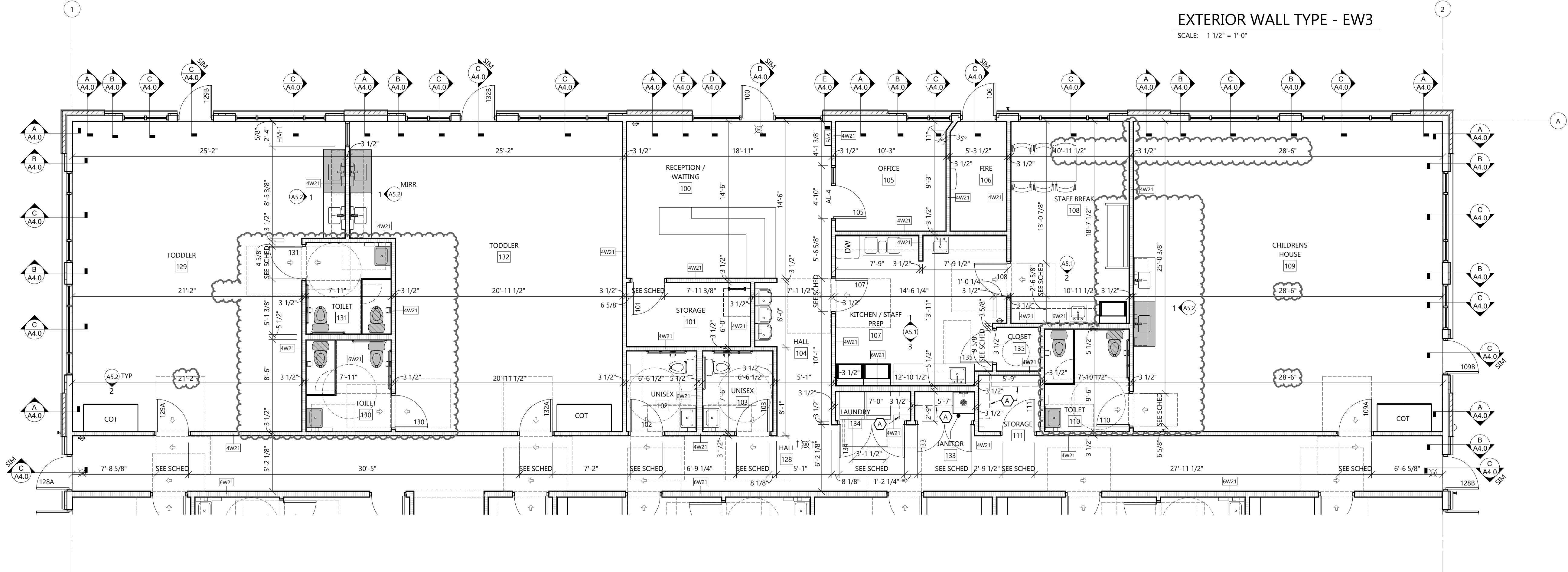
SCALE: 1 1/2" = 1'-0"



- 4W21 2x4 WOOD STUD (1) LAYER GYPSUM BOARD ON (2) SIDES
- 4W21A SIM. TO 4W21 BUT NO ACOUSTICAL INSULATION
- 4W21R SIM. TO 4W21 GYPSUM BOARD SHALL BE ABUSE RESISTANT ON CORRIDOR SIDE OF WALL

INTERIOR WALL TYPE - 4W21

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



ENLARGED FLOOR PLAN - NORTH

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

ENLARGED FLOOR PLAN - NORTH & INT/EXT WALL TYPES



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COLLABORATION



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PROFESSIONAL SEAL

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JOB NUMBER

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SHEET NUMBER

A1.1B

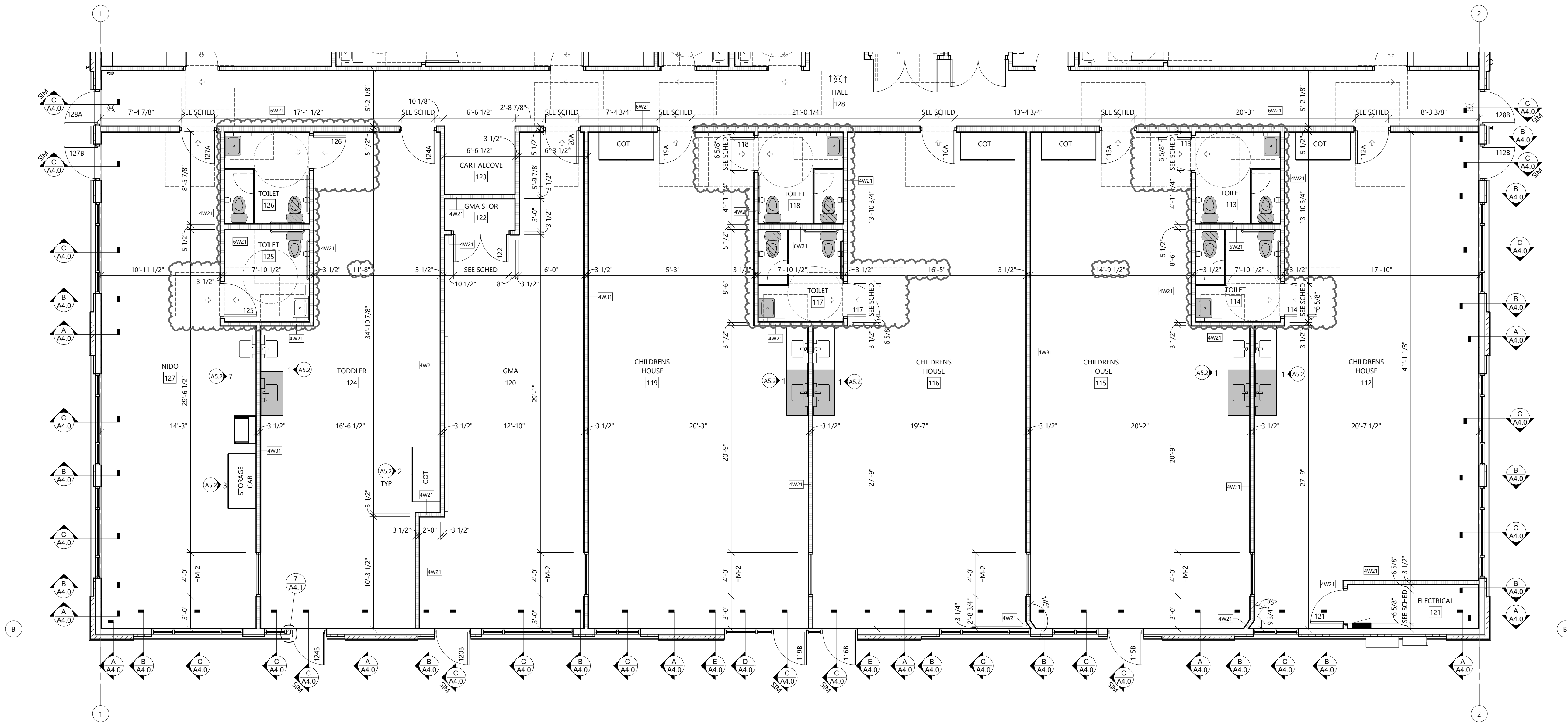
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SYMBOLS LEGEND

- SEE SHEET A1.1A FOR WALL TYPES
- EXIT SIGNAGE
- FIRE EXTINGUISHER
• SEE DETAIL 4/A5.0
- STUD WALL
- MASONRY VENEER
- SEE PLAN FOR ALL WALL WIDTHS
- NEW DOOR

GENERAL NOTES

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- CHILD HEIGHT FIXTURES INDICATED ON PLAN BY **GRAY/GRAY** W/ **DIAGONAL LINES HATCHING**. SEE FLOOR PLANS & ENLARGED FLOOR PLANS FOR ALL CHILD HEIGHT FIXTURE LOCATIONS.



1 ENLARGED FLOOR PLAN - SOUTH

A1.1B SCALE: 3/16" = 1'-0"

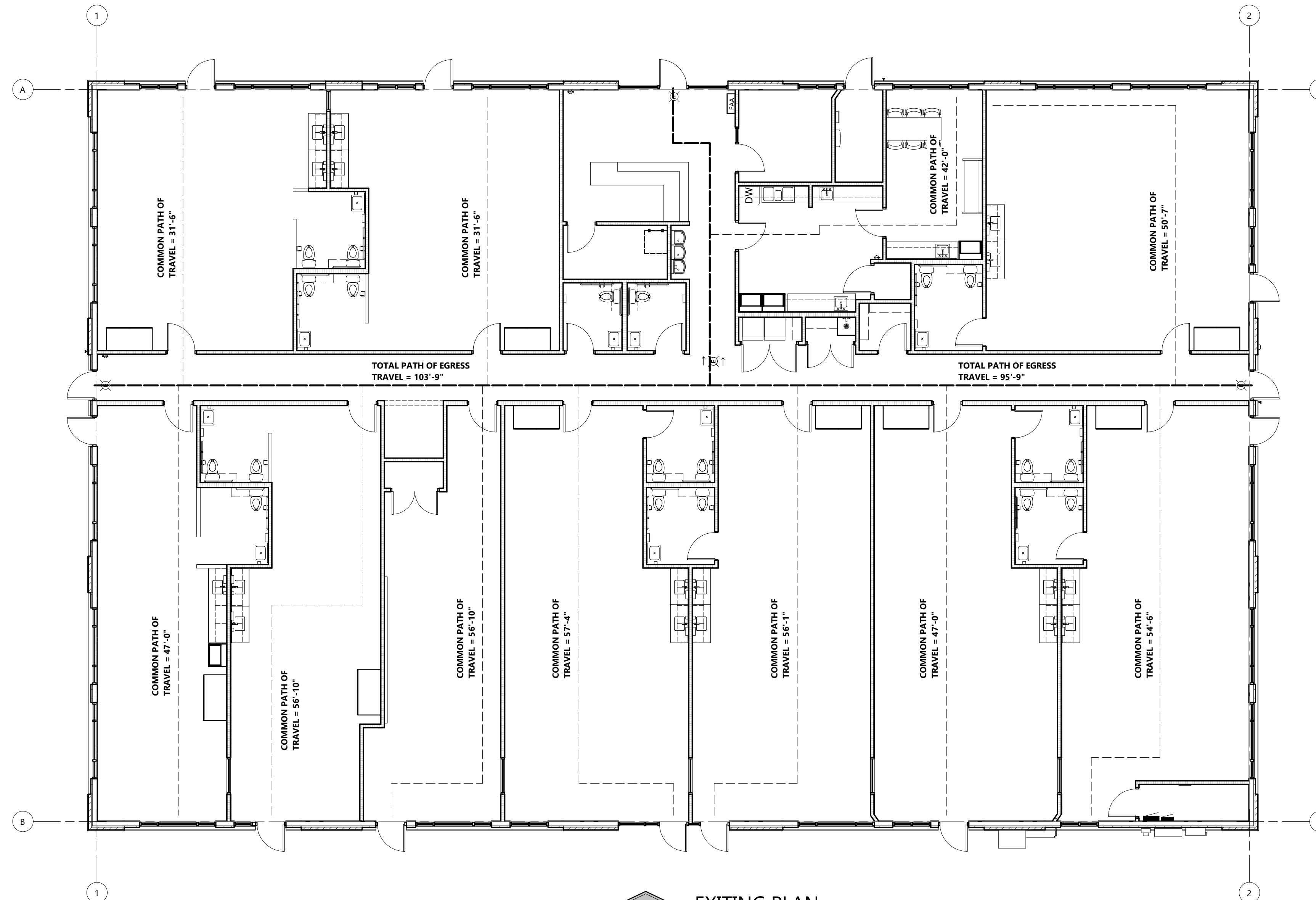


ENLARGED FLOOR PLAN - SOUTH



DISTANCE TO ACTUAL VIEWING OF RTU'S IS APPROXIMATELY 236'-0" (NORTH PROPERTY LINE)
- EYE LEVEL USED = 5'-6"

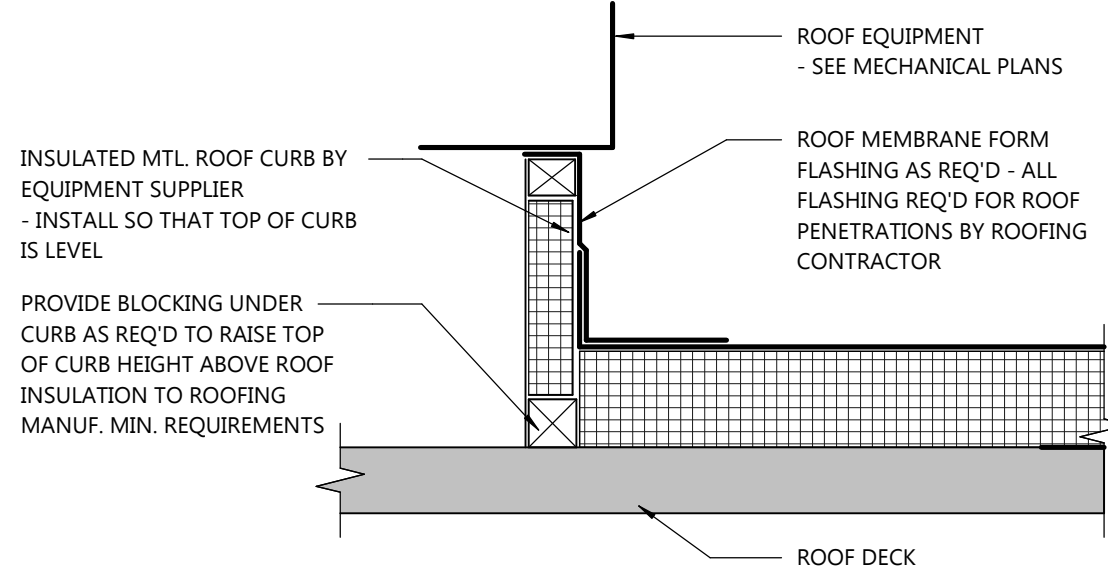
2 LINE OF SIGHT ELEVATION
A1.2 SCALE: 3/32" = 1'-0"



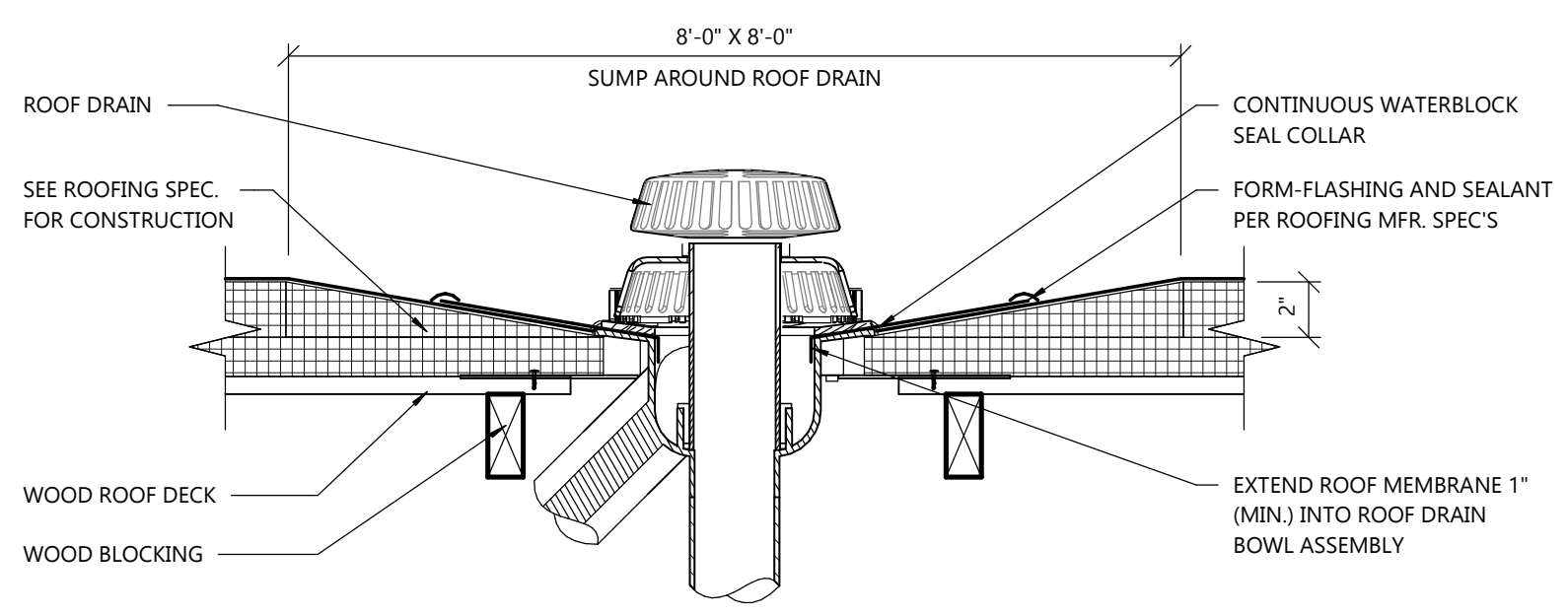
NORTH EXITING PLAN
SCALE: 1/8" = 1'-0"



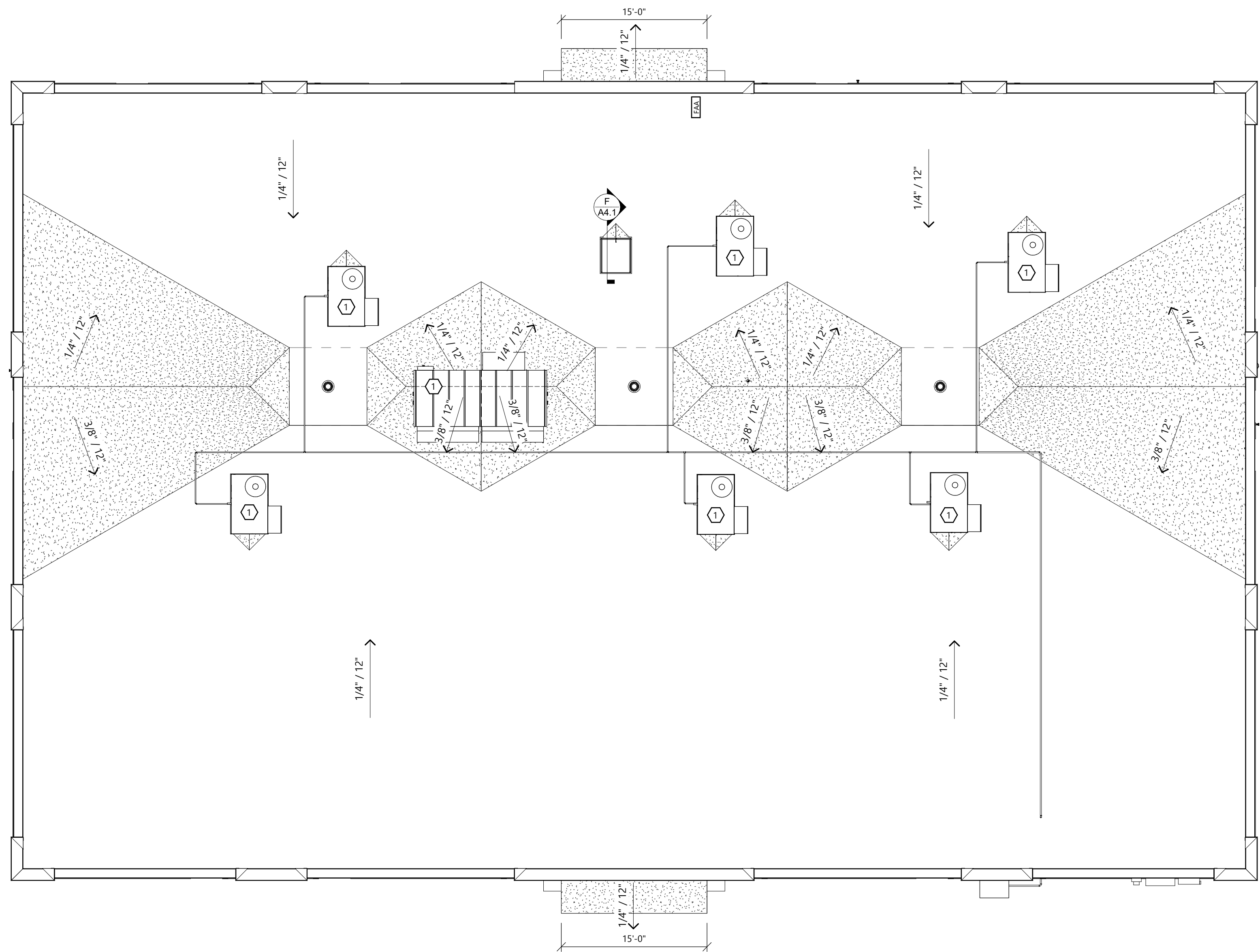
ROOF SPECIFICATION TYPE "TPO - A"	
DECK	• WOOD
THERMAL BARRIER	• 1/2" GLASS MAT SHEATHING
VAPOR RETARDER	• NONE
INSULATION	<ul style="list-style-type: none"> • MINIMUM TWO LAYERS OF POLYISOCYANURATE (R=26.1) STAGGER JOINTS. • TAPERED INSULATION IS ADDITION TO LISTED R VALUE. • BASE LAYER MECH. FASTENED. SECOND LAYER FULLY ADHERED. • ALL INSULATION JOINTS TO BE TIGHT.
TAPERED INSULATION	• WHERE SHOWN ON PLANS, 1/4" PER FOOT PERPENDICULAR TO VALLEY. POLYISOCYANURATE TO MATCH BASE INSULATION.
COVERBOARD	<ul style="list-style-type: none"> • 1/2" GLASS MAT SHEATHING OVER EXPANDED POLYSTYRENE INSULATION PER MFR REQUIREMENTS. • UL CLASS RATING: NONE
MEMBRANE	<ul style="list-style-type: none"> • CARLISLE SURE-WELD, FIRESTONE - ULTRAPLY, VERSICO - VERSIWELD • 60 MIL ADHERED WHITE THERMOPLASTIC POLYOLEFIN (TPO) • WELDED SEAMS. • PROVIDE TPO WHITE WALKWAY ROLLS BY MEMBRANE MFR WITH RAISED TREAD PATTERN. WELD TO TPO ROOFING. • INSTALL PER MFRS INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. • PROVIDE 12" X 12" MEMBRANE SAMPLE WITH SHOP DRAWING SUBMITTAL • AT CONTRACTOR OPTION, THE USE OF A FACTORY APPLIED ADHESIVE ACROSS ENTIRE SURFACE OF THE MEMBRANE ROLL IS ACCEPTABLE.
WARRANTY	<ul style="list-style-type: none"> • PROVIDE 20 YEAR TOTAL SYSTEM, LABOR AND MATERIAL WARRANTY, NO DOLLAR LIMIT FOR LEAKS, COMMENCING WITH THE DATE OF FINAL INSPECTION AND ACCEPTANCE BY ROOF MANUFACTURER. ALL PORTIONS OF ROOFING SYSTEM MUST MEET MFRS REQUIREMENTS FOR WARRANTY. • PROVIDE 2 YEAR CONTRACTORS WARRANTY ON MATERIALS (EXCLUDING MEMBRANE) AND WORKMANSHIP.
<ul style="list-style-type: none"> • SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS • INSTALL MATERIALS IN ORDER OF LISTING FROM DECK TO MEMBRANE. 	



2 ROOF TOP EQUIPMENT CURB DETAIL
A1.3 SCALE: 1 1/2" = 1'-0"



1 BI-FUNCTIONAL ROOF DRAIN - WOOD DECK
A1.3 SCALE: 1 1/2" = 1'-0"



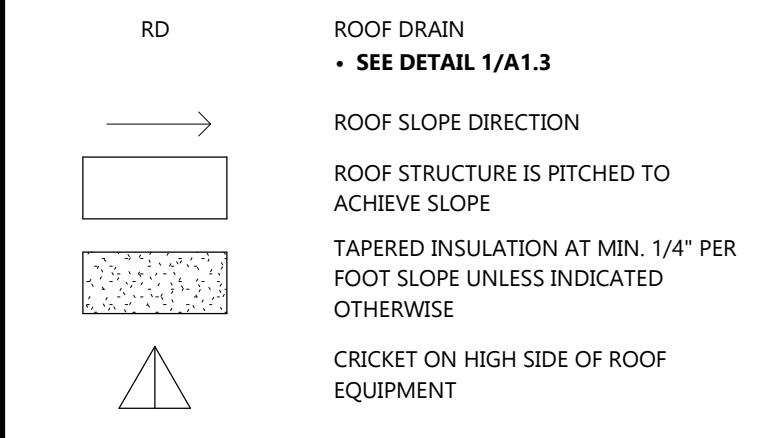
GENERAL ROOF NOTES:

- ROOFING CONTRACTOR SHALL PROVIDE MEMBRANE FORM FLASHING FOR ALL ROOF PENETRATIONS PER ROOF MEMBRANE MANUFACTURER'S REQUIREMENTS.
- SEE MECHANICAL DRAWINGS FOR LOCATION AND SIZE OF ALL ROOF PENETRATIONS AND CURBS REQUIRED FOR MECHANICAL EQUIPMENT.
- PIPE STANDS NOT INSTALLED ON CURBS SHALL BE INSTALLED ON SLEEPERS OR CONCRETE PADS 6" LARGER THAN EQUIPMENT.
- PROVIDE SINGLE PLY ROOFING MEMBRANE NOT ADHERED TO ROOF UNDER ALL FREE STANDING PIPE AND EQUIPMENT STANDS 6" LARGER THAN STANDS.
- PROVIDE WALKWAY FROM ROOF ACCESS TO ALL MOTORIZED EQUIPMENT AND SIDES OF EQUIPMENT REQUIRING ACCESS. PROVIDE PRICE PER FOOT. FIELD VERIFY.

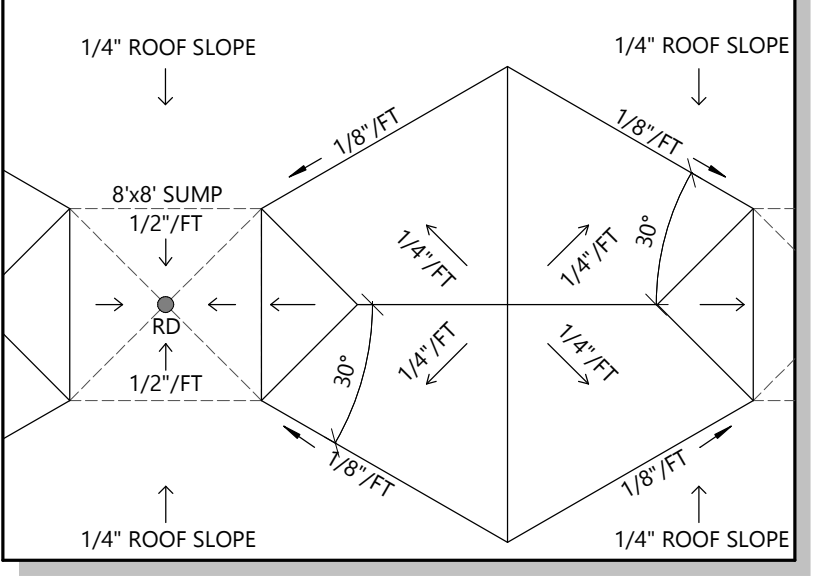
KEYNOTES

- 1 CURB MOUNTED MECHANICAL EQUIPMENT. SEE DETAIL 2/A1.3

ROOF LEGEND



ROOF CRICKET



VENTED SOFFIT SPECIFICATIONS:

- MANUFACTURER:**
- ROLLEX OR EQUIVALENT
- PRODUCT:**
- A-SYS312CV SYSTEM 3 ALUMINUM VENTED SOFFIT SYSTEM
 - INSTALL PER ALL MANUF. SPECIFICATIONS AND DETAILS
 - 12" WIDE, 0.019" THICK ALUMINUM PANELS
 - PROVIDE NECESSARY TRIM, CLIPS, AND FASTENERS OF MATCHING COLOR AS REQ'D FOR A COMPLETE INSTALLATION
 - COLOR SELECTED BY ARCHITECT/OWNER (PROVIDE COLOR SAMPLES FOR APPROVAL)
- WARRANTY:**
- LIMITED LIFETIME WARRANTY
 - 25 YEAR CHALK AND FADE COVERAGE

EXCEL

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Fond du Lac, WI 54935
920-926-9800
excelengineer.com

COLLABORATION

Quattro
Development

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
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SHEET ISSUE FEB. 14, 2023

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AD2 MAR. 23, 2023

JOB NUMBER

2255300

SHEET NUMBER

A1.3

ROOF PLAN
SCALE: 1/8" = 1'-0"
ARCHITECTURAL ROOF PLAN

PROJECT INFORMATION

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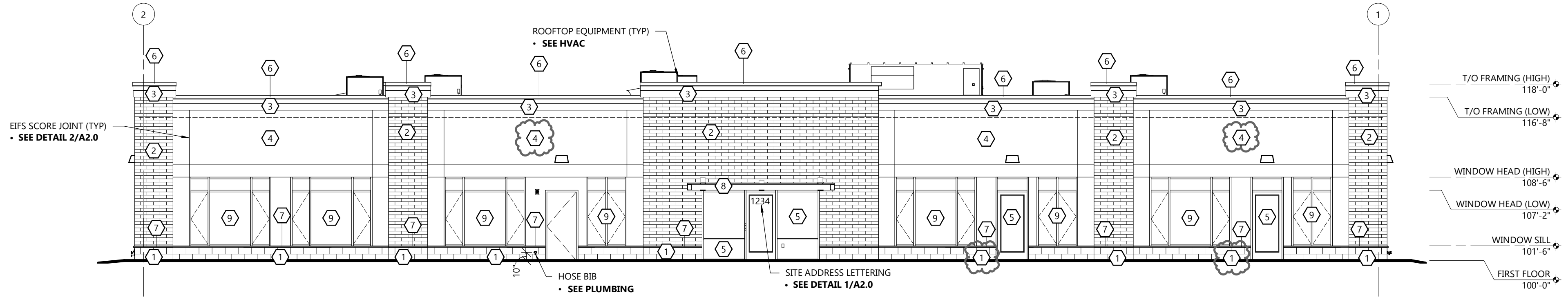
JOB NUMBER
2255300

SHEET NUMBER

A2.0

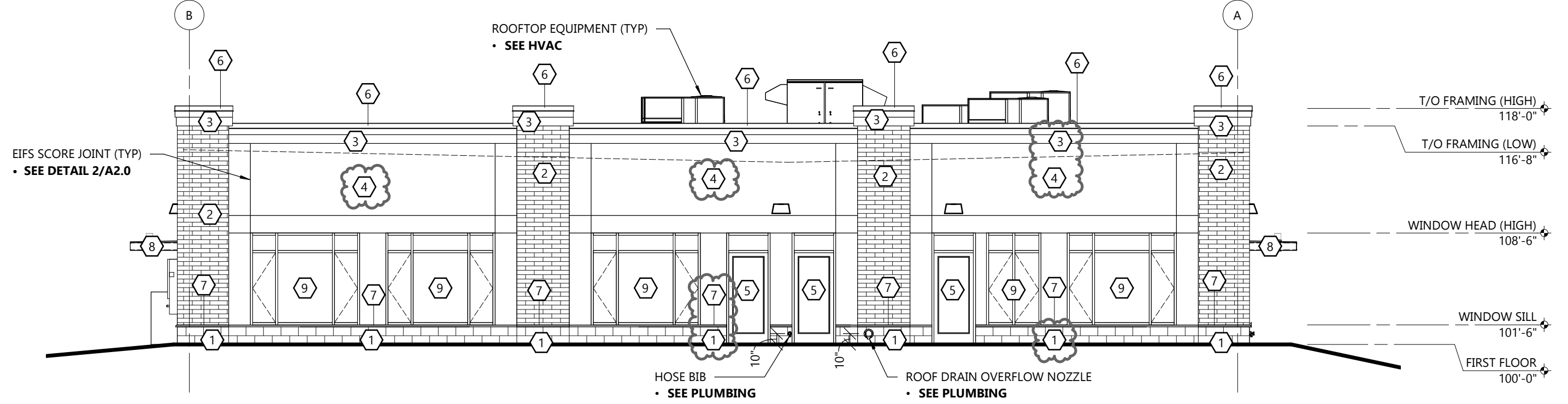
EXTERIOR FINISH KEY

- 9 FIBERGLASS CASEMENT WINDOW
MFR: PELLA
PRODUCT: IMPERVIA
COLOR: WHITE
- 8 PREFINISHED METAL FASCIA
MFR: FIRESTONE
PRODUCT: UNI-CLAD
COLOR: DARK BRONZE
- 7 PRECAST CONCRETE SILL
MFR: STONECAST
PRODUCT: LIMESTONE
- 6 PREFINISHED METAL COPING
MFR: FIRESTONE
PRODUCT: UNA-CLAD
COLOR: SANDSTONE
- 5 ALUM. STOREFRONT WINDOW
GLASS: 1" INSUL. LOW-E GLASS
FRAMES: CLEAR ANODIZED
- 4 EXTERIOR INSULATION SYSTEM
MFR: DRYVIT
STYLE: OUTSULATION LCMO SYSTEM 3
COLOR: MATCH SW 7548 PORTICO
- 3 EXTERIOR INSULATION FINISH SYSTEM
MFR: DRYVIT
STYLE: OUTSULATION LCMO SYSTEM 3
COLOR: MATCH SW 7567 NATURAL TAN
- 2 4"x16" CONCRETE BRICK
MFR: COUNTY MATERIALS
COLOR: COFFEE
- 1 SPLIT-FACED CMU
MFR: COUNTY MATERIALS
COLOR: MOCHA



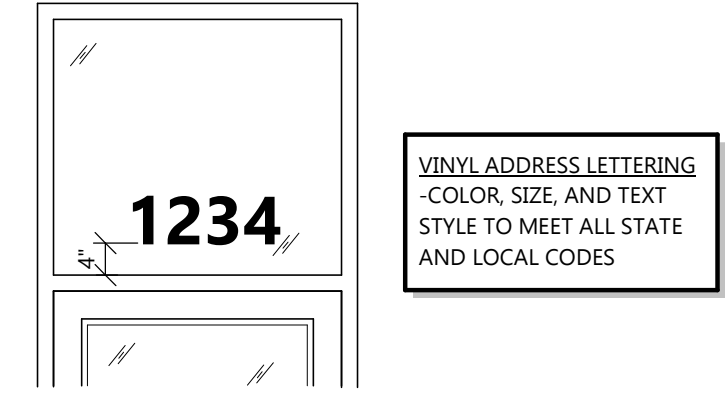
NORTH ELEVATION

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



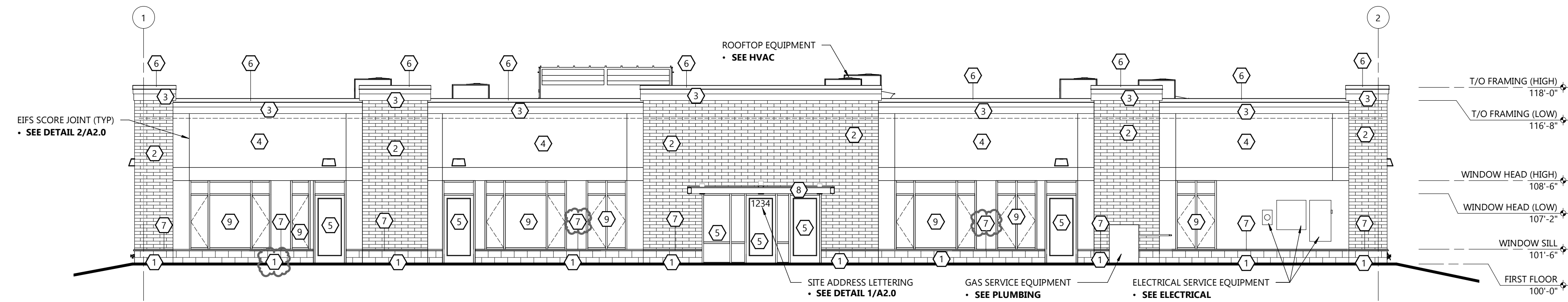
EAST ELEVATION

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



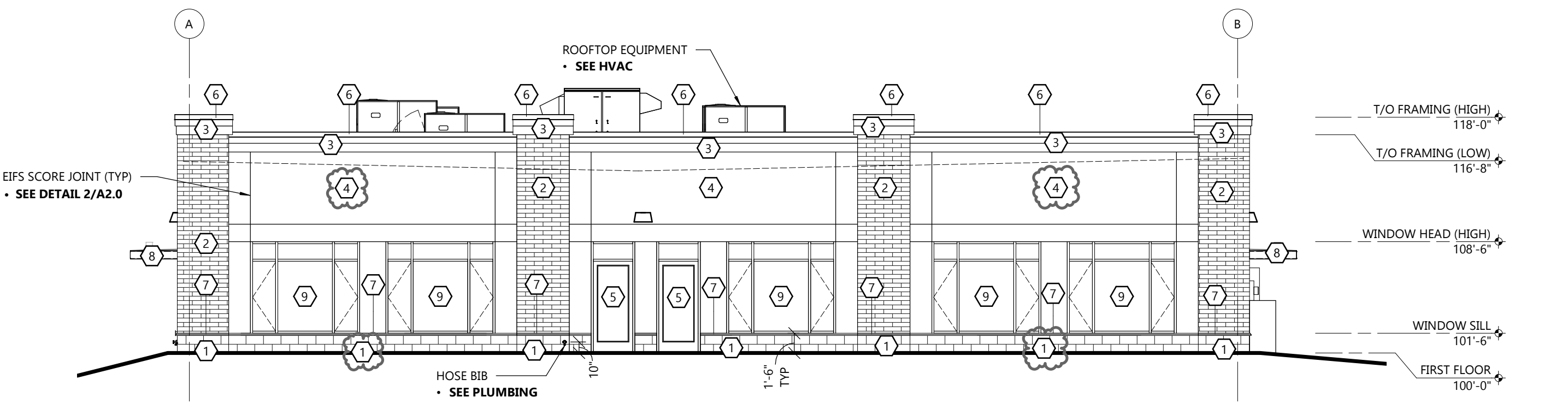
1 ADDRESS DETAIL

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



SOUTH ELEVATION

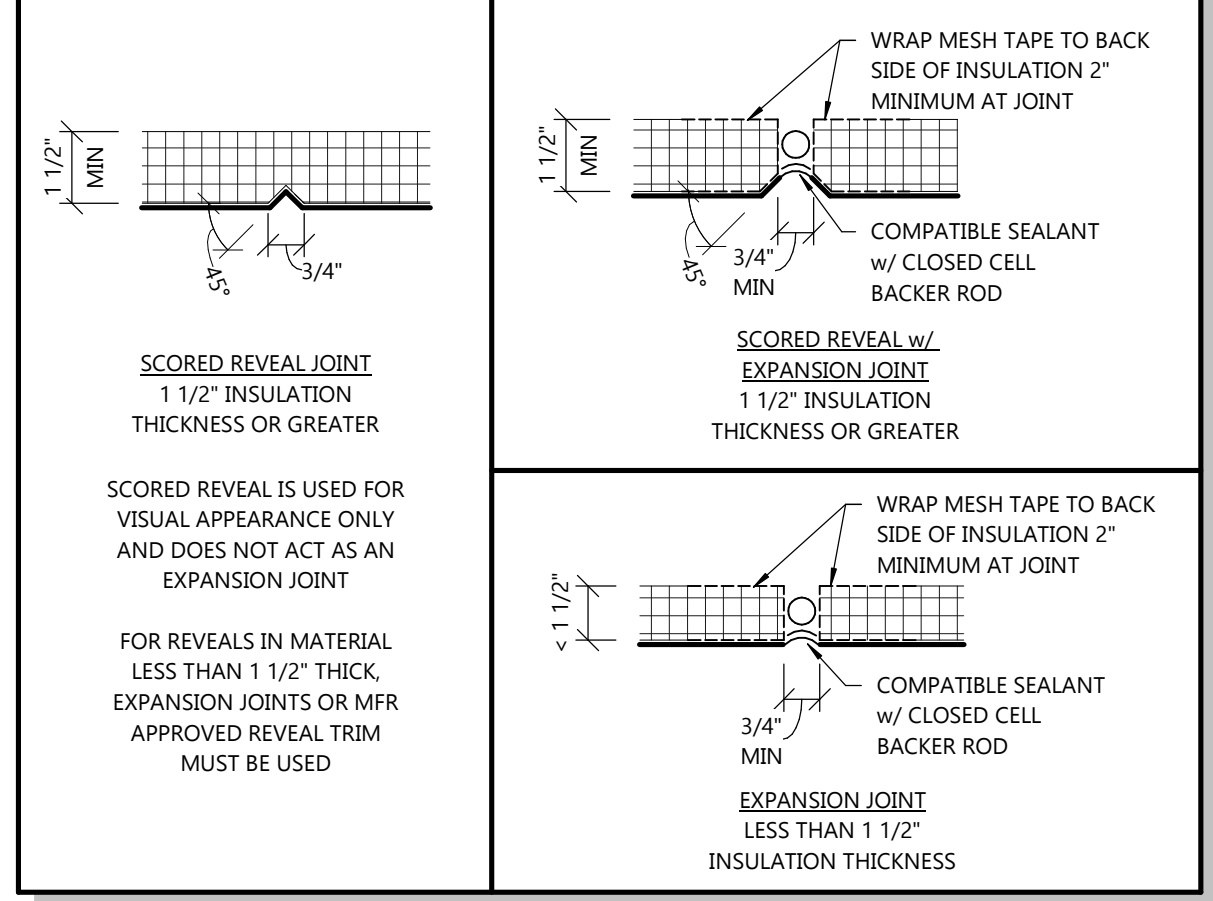
SCALE: 1/8" = 1'-0"



WEST ELEVATION

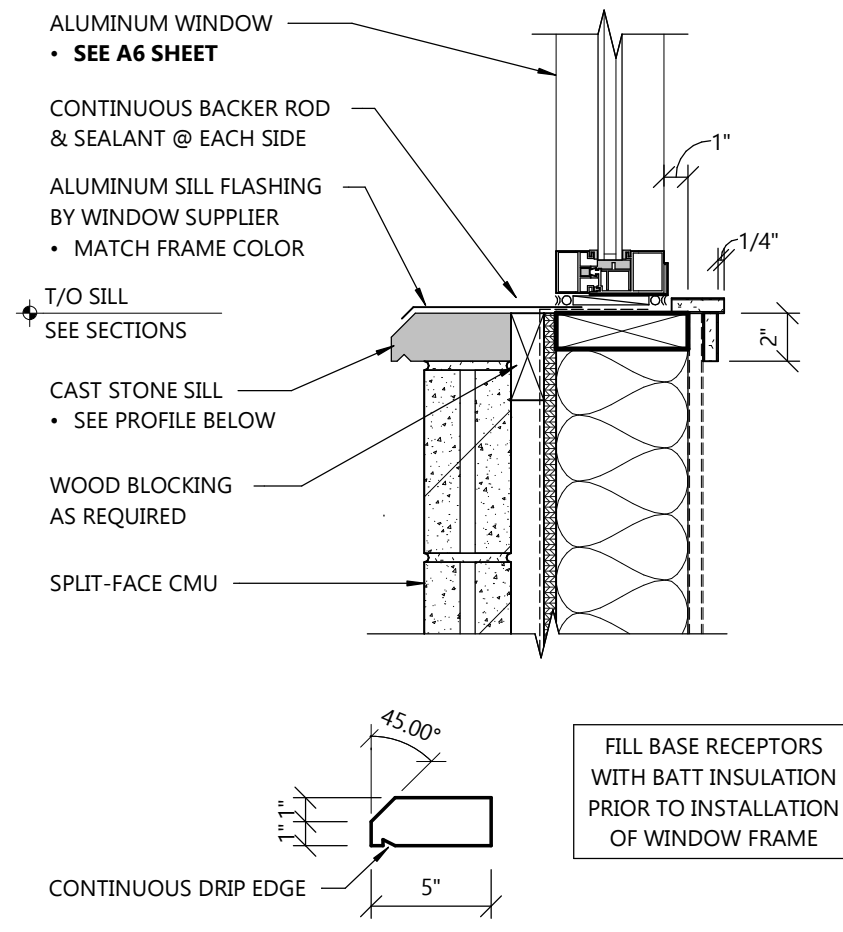
SCALE: 1/8" = 1'-0"

- EIFS EXPANSION JOINTS REQUIRED AT THE FOLLOWING LOCATIONS**
- WHERE THEY EXIST IN THE SUBSTRATE OR SUPPORT CONSTRUCTION
 - WHERE THE EIFS ADJOINS DISSIMILAR CONSTRUCTION OR MATERIALS
 - AT CHANGES IN BUILDING HEIGHT OR OTHER AREAS OF ANTICIPATED BUILDING MOVEMENT
 - AT FLOOR LINES IN MULTI-LEVEL WOOD FRAME CONSTRUCTION
 - WHERE PREFABRICATED PANELS ABUT ONE ANOTHER
 - WHERE THE SUBSTRATE CHANGES
 - IN CONTINUOUS ELEVATIONS AT INTERVALS NOT EXCEEDING 75'-0"
 - WHERE REQUIRED PER MFR RECOMMENDATIONS
- VERIFY FINAL LOCATIONS w/ A/E PRIOR TO INSTALL

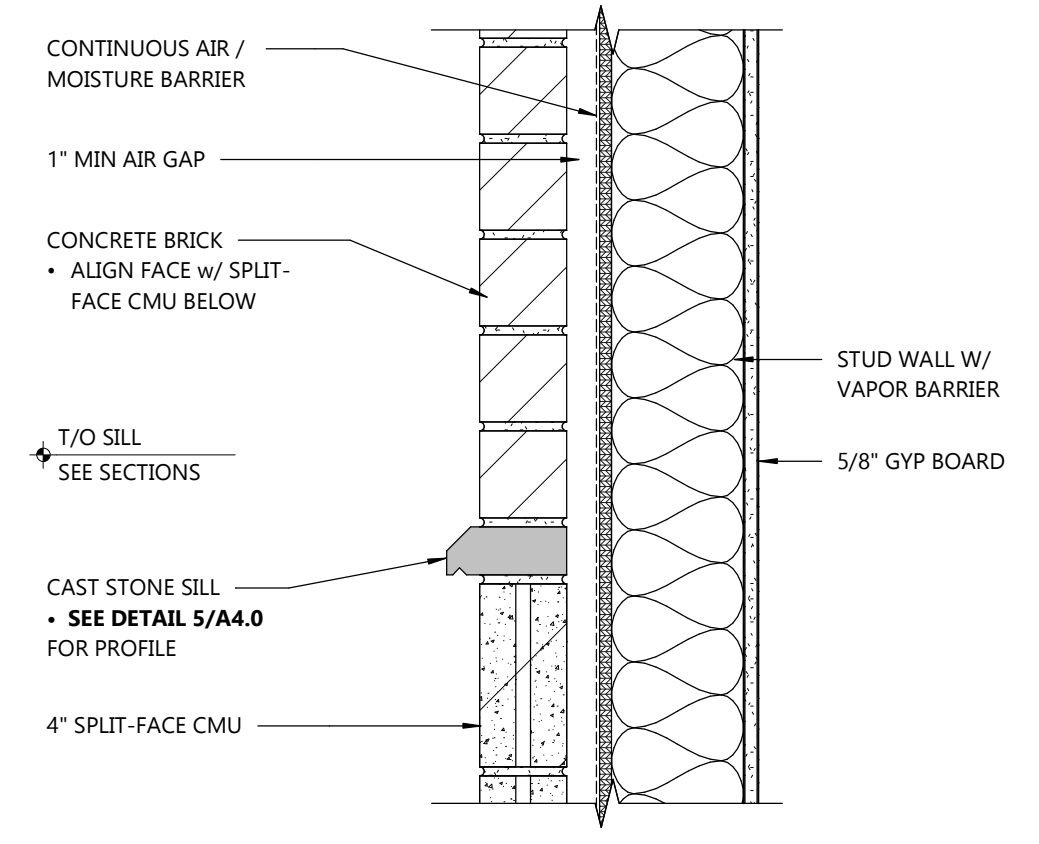


2 EIFS JOINT DETAILS

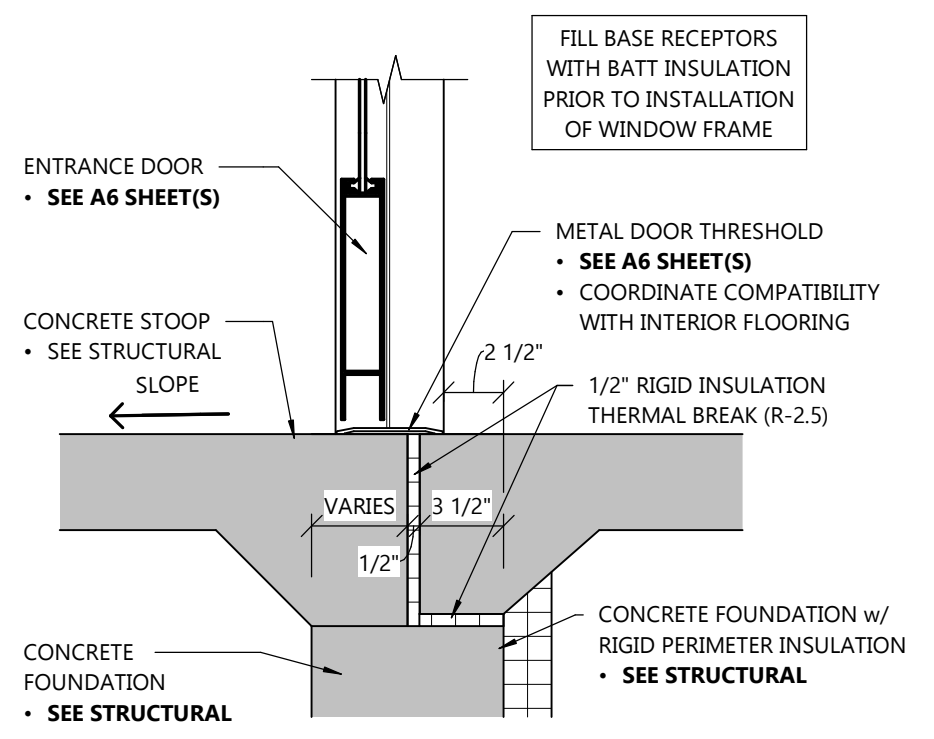
SCALE: 3" = 1'-0"



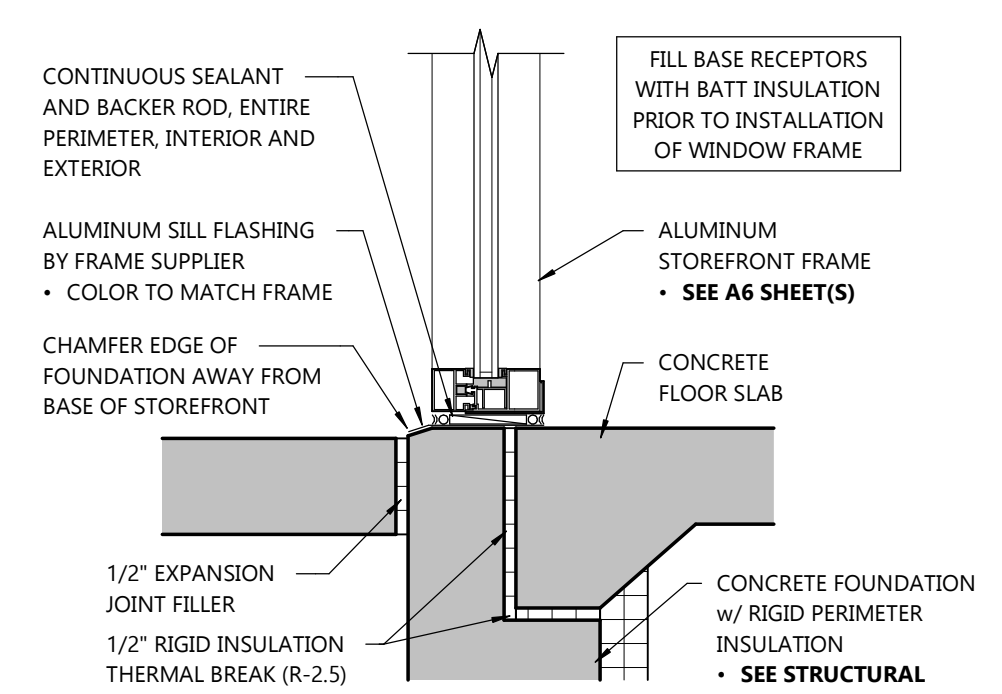
5 WINDOW SILL DETAIL
A4.0 SCALE: 1 1/2" = 1'-0"



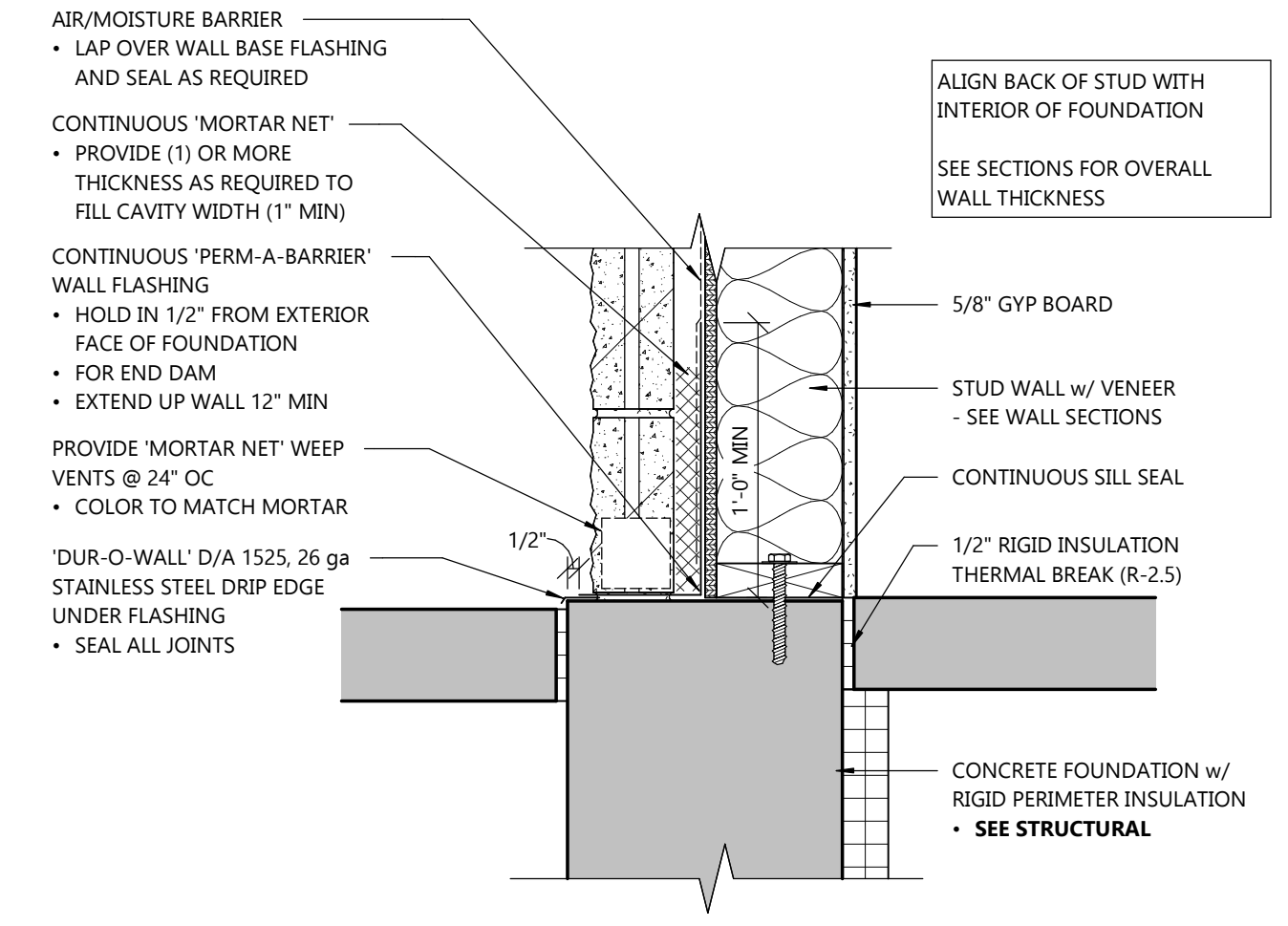
4 STONE SILL DETAIL
A4.0 SCALE: 1 1/2" = 1'-0"



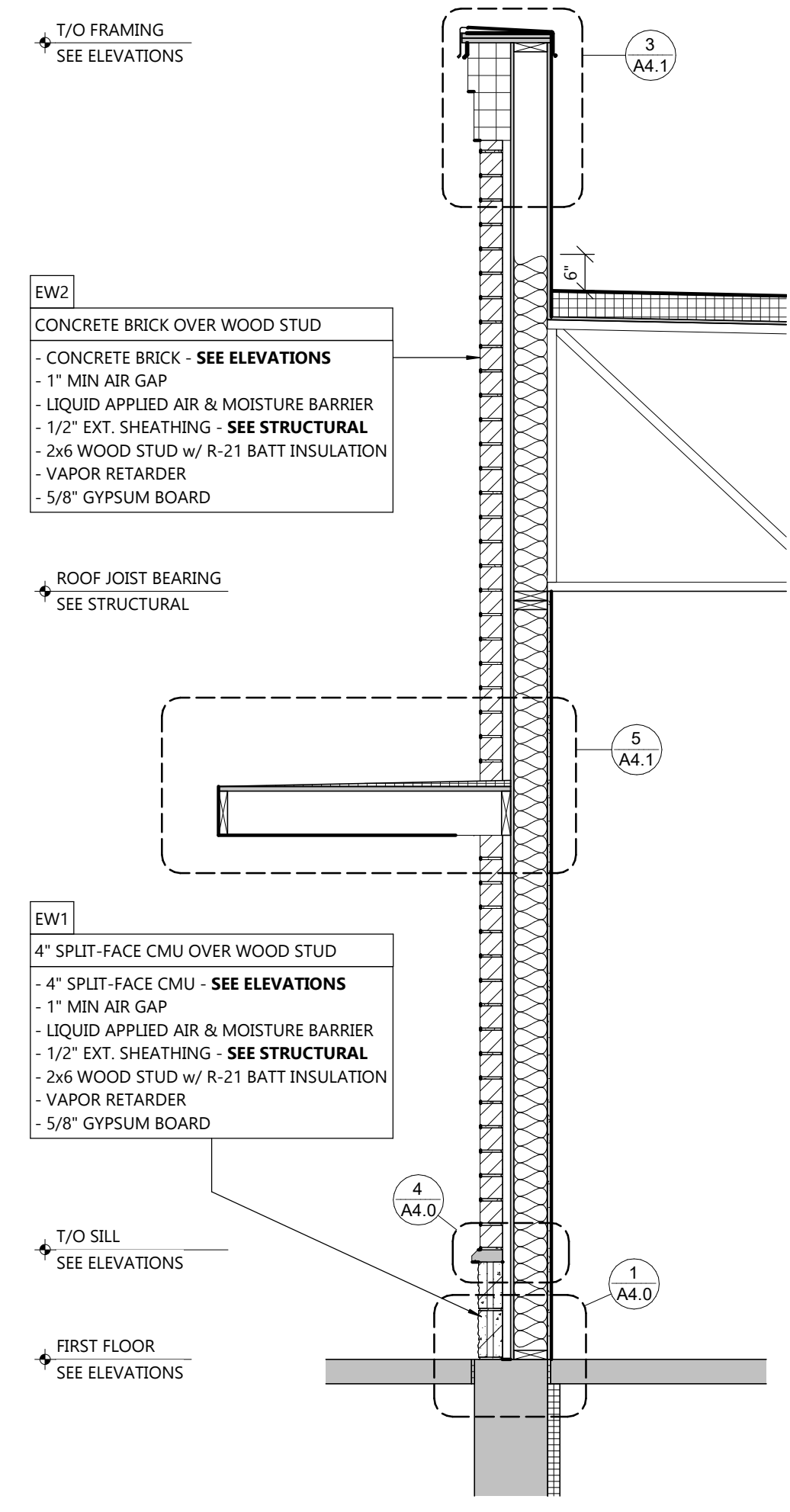
3 ALUMINUM DOOR BASE
A4.0 SCALE: 1 1/2" = 1'-0"



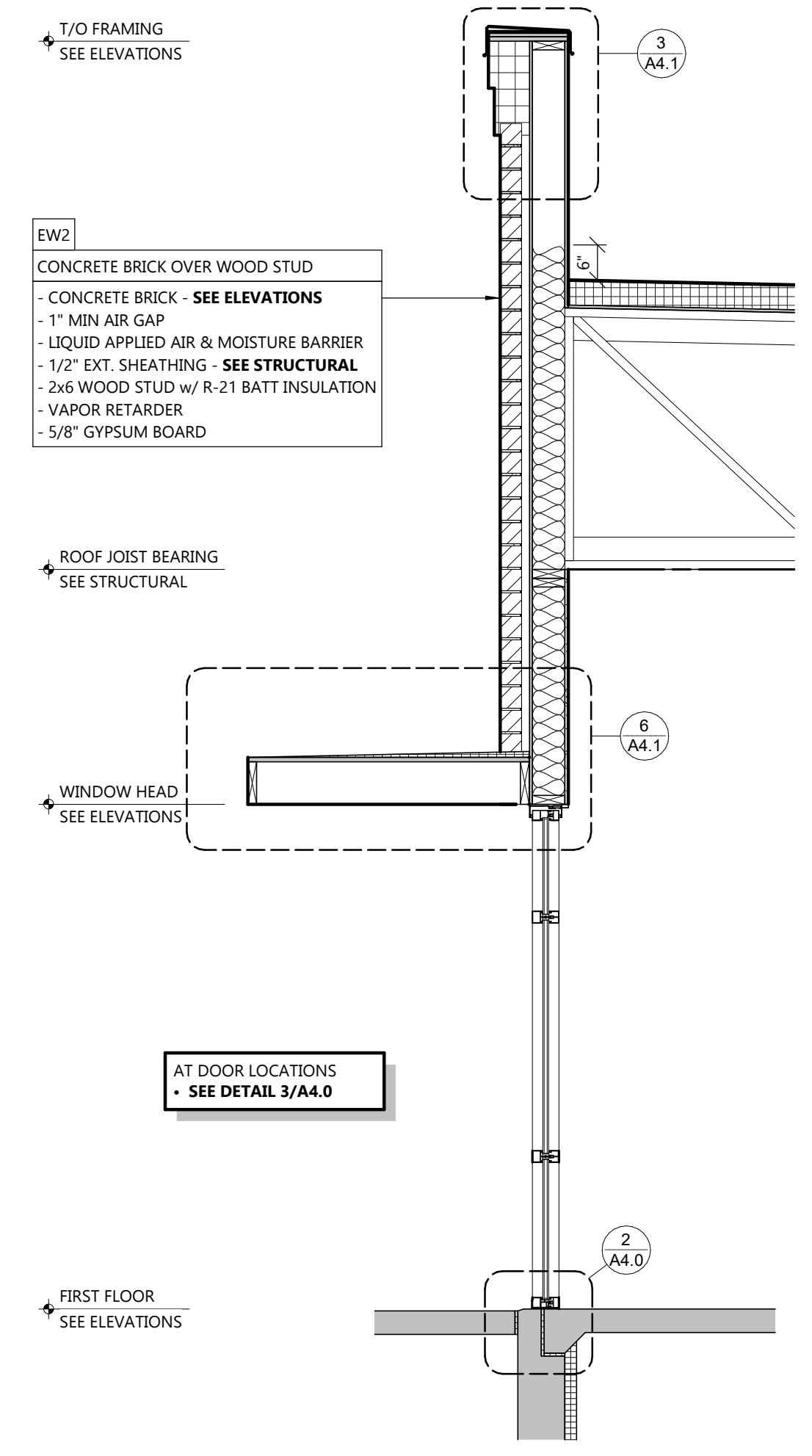
2 STOREFRONT BASE
A4.0 SCALE: 1 1/2" = 1'-0"



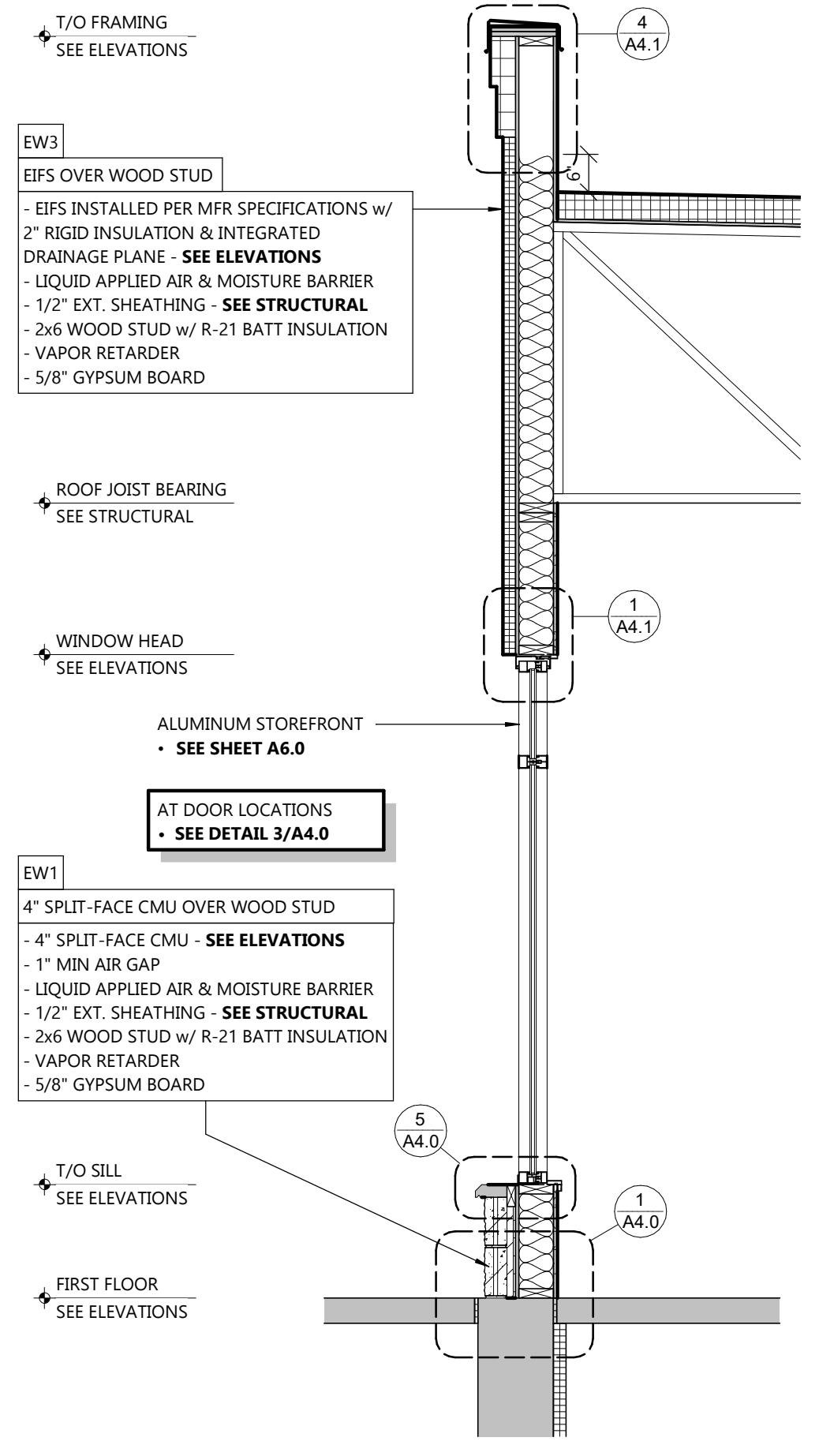
1 BASE FLASHING DETAIL
A4.0 SCALE: 1 1/2" = 1'-0"



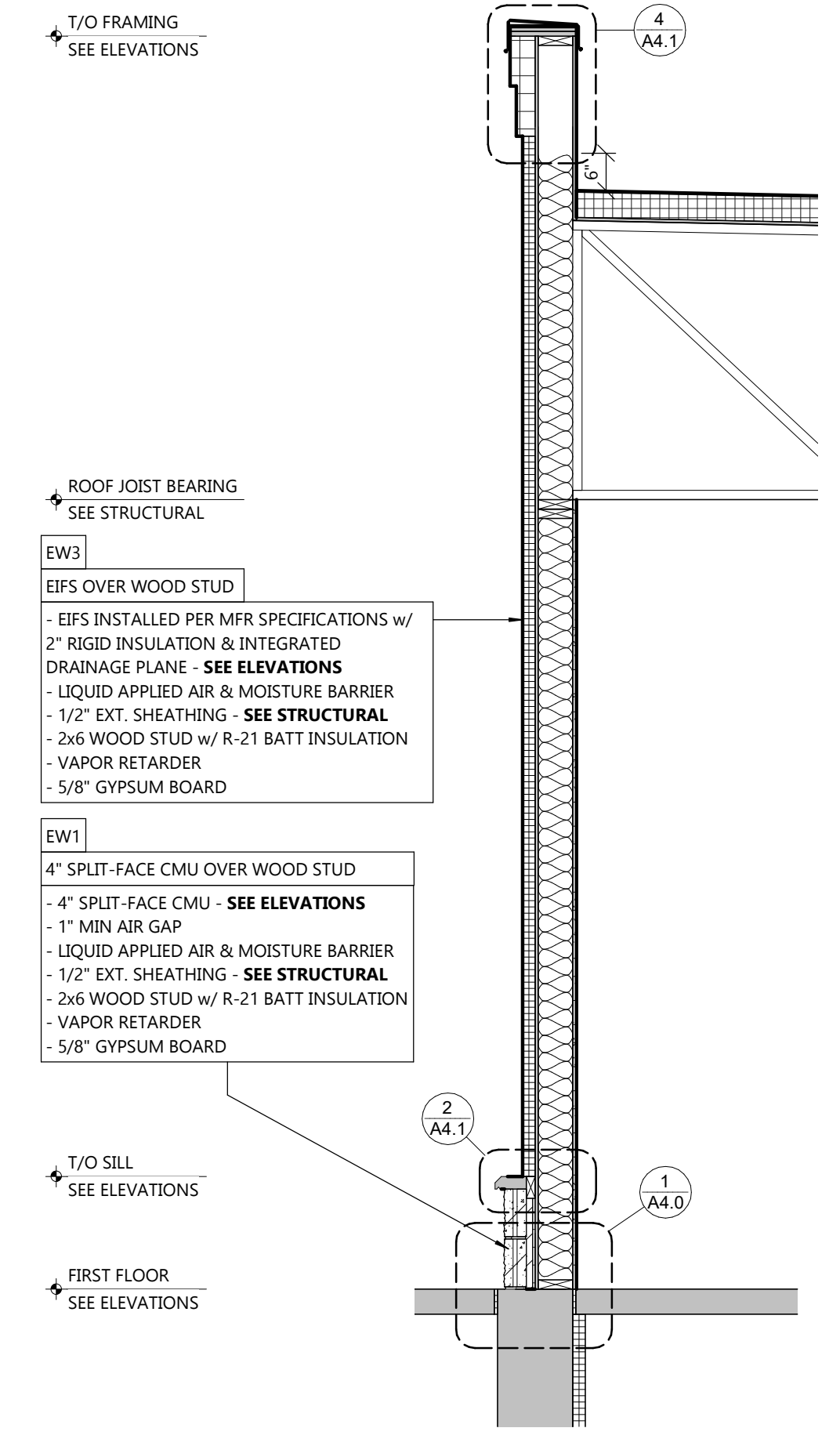
E WALL SECTION
A4.0 SCALE: 1/2" = 1'-0"



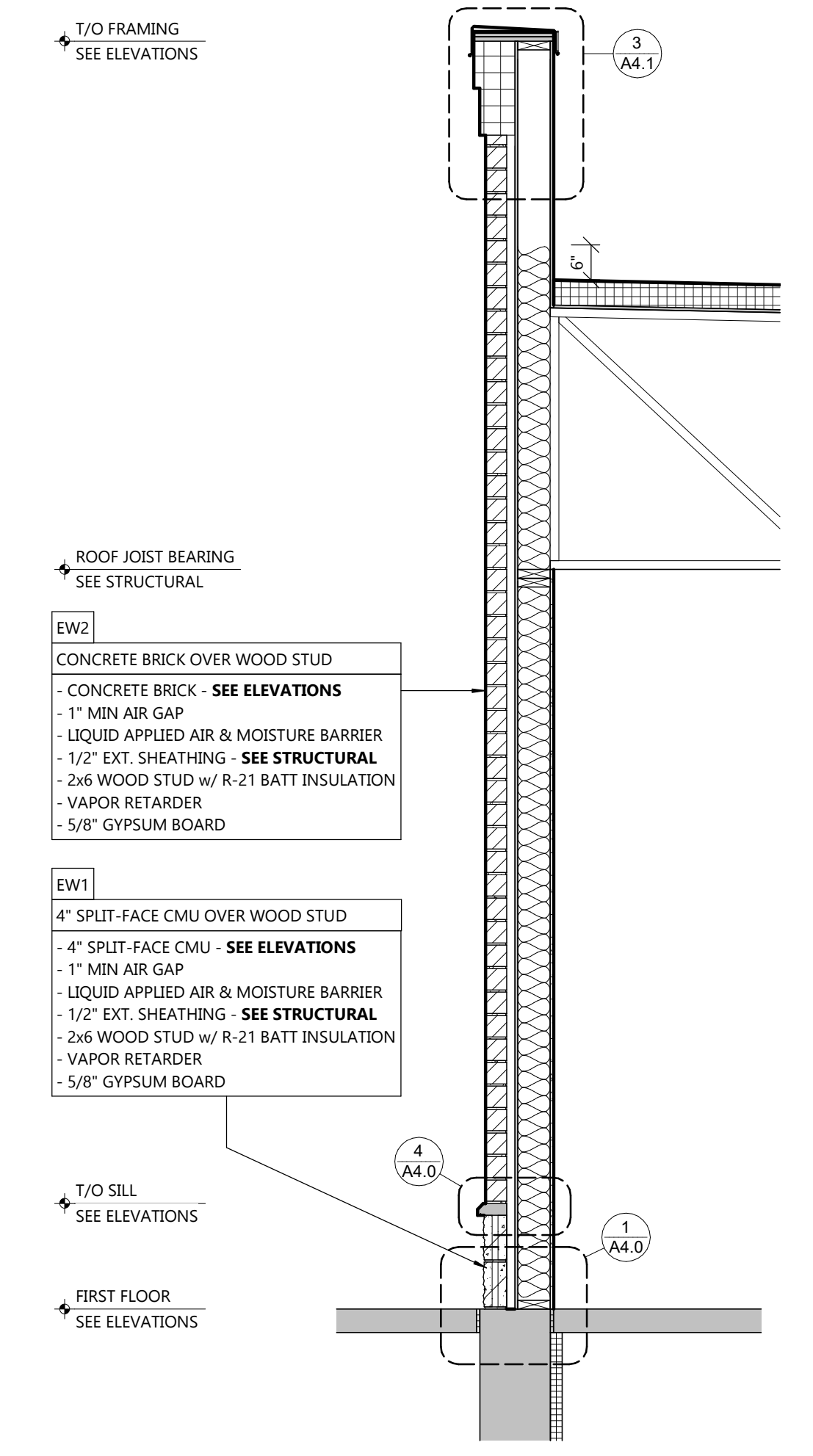
D WALL SECTION
A4.0 SCALE: 1/2" = 1'-0"



C WALL SECTION
A4.0 SCALE: 1/2" = 1'-0"



B WALL SECTION
A4.0 SCALE: 1/2" = 1'-0"



A WALL SECTION
A4.0 SCALE: 1/2" = 1'-0"

NO.	DESCRIPTION

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SHEET DATES

SHEET ISSUE FEB. 14, 2023

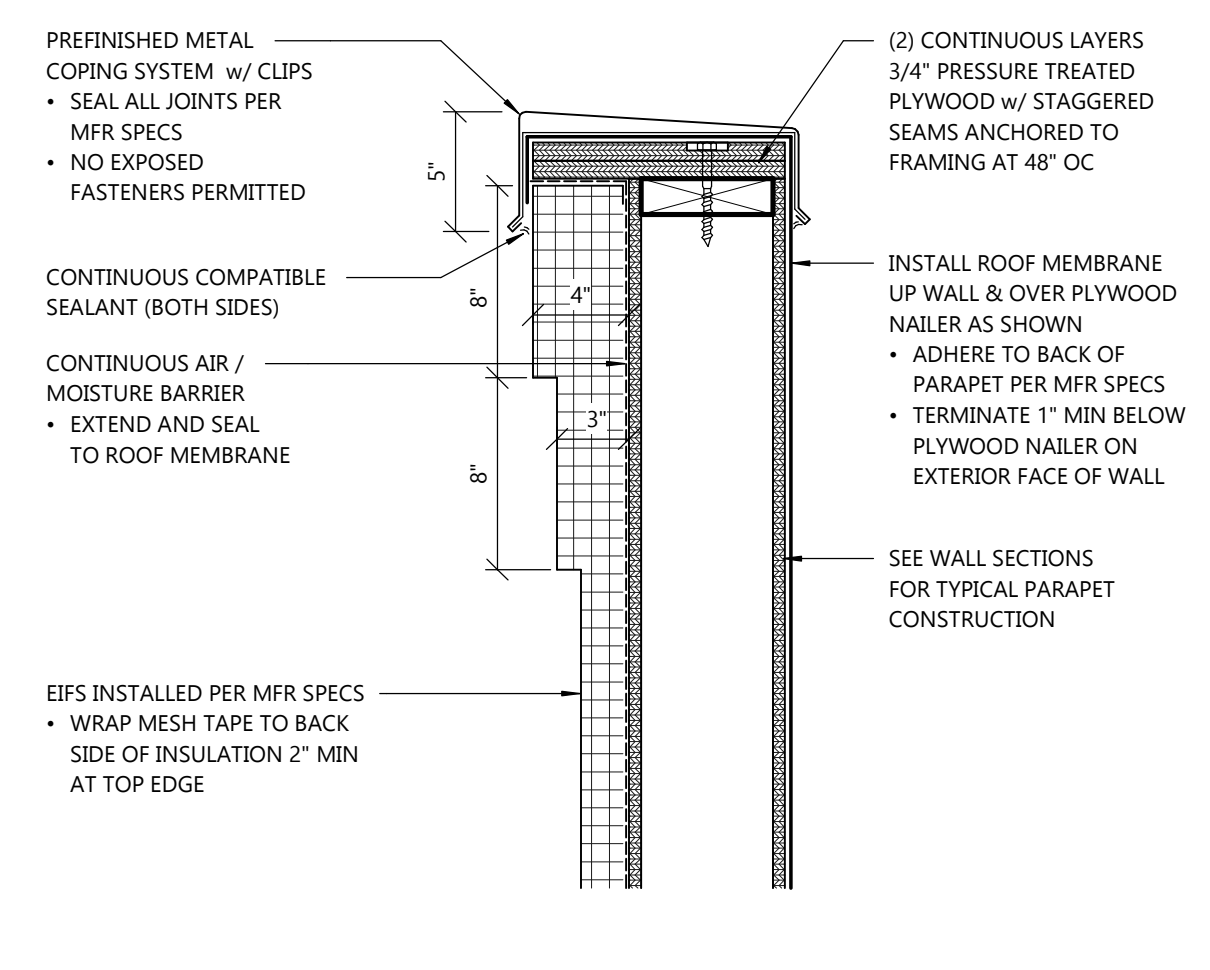
REVISIONS

NO.	DESCRIPTION

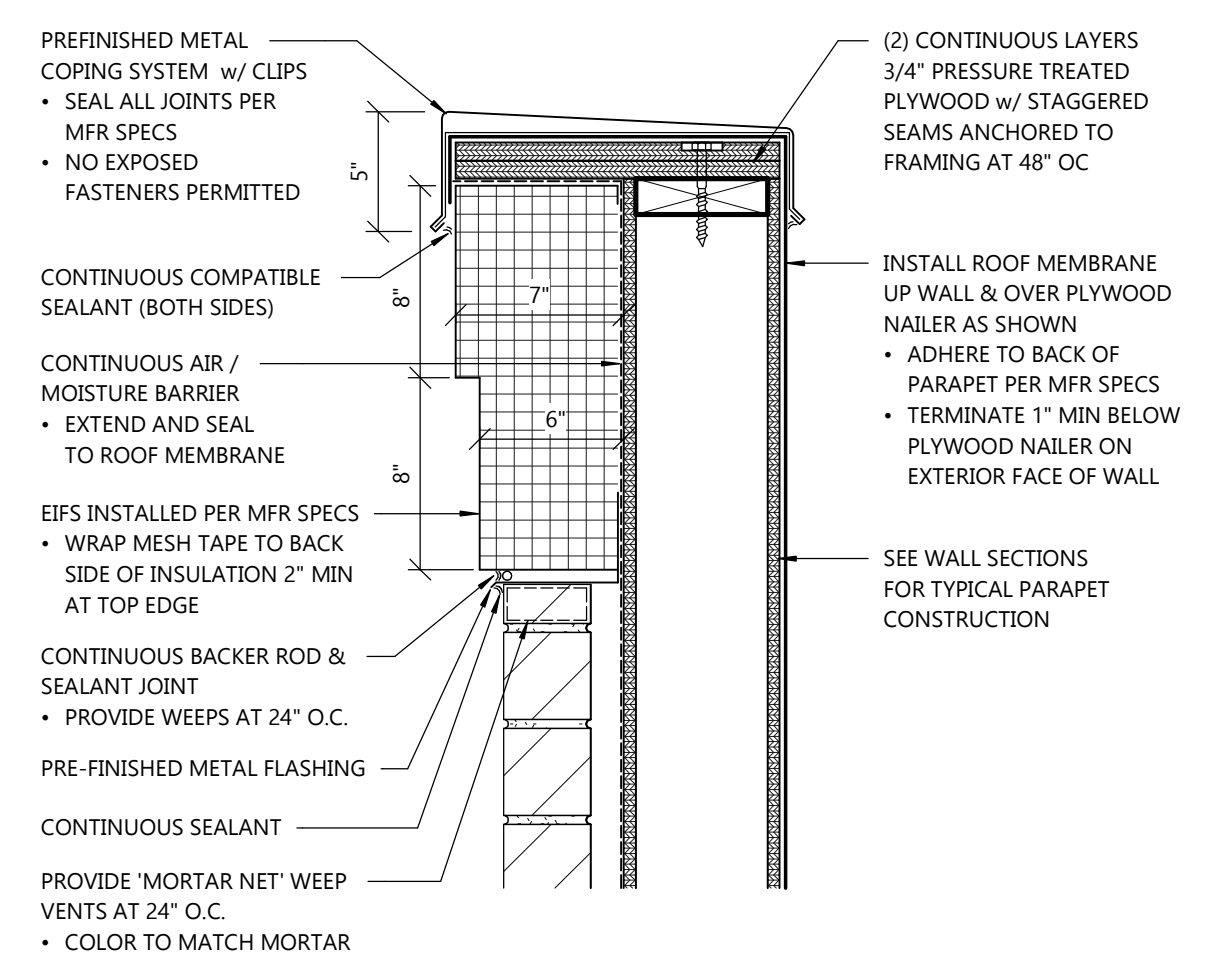
JOB NUMBER
2255300

SHEET NUMBER

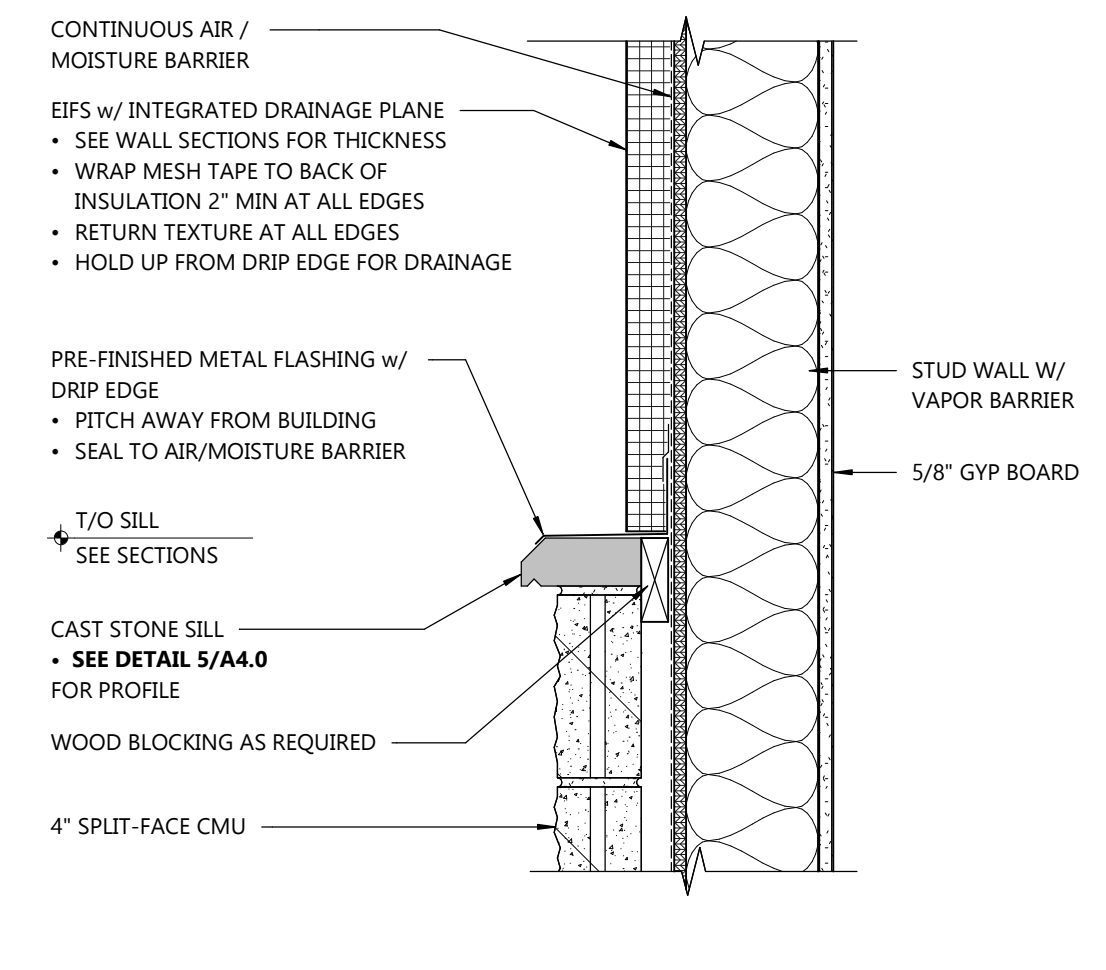
A4.1



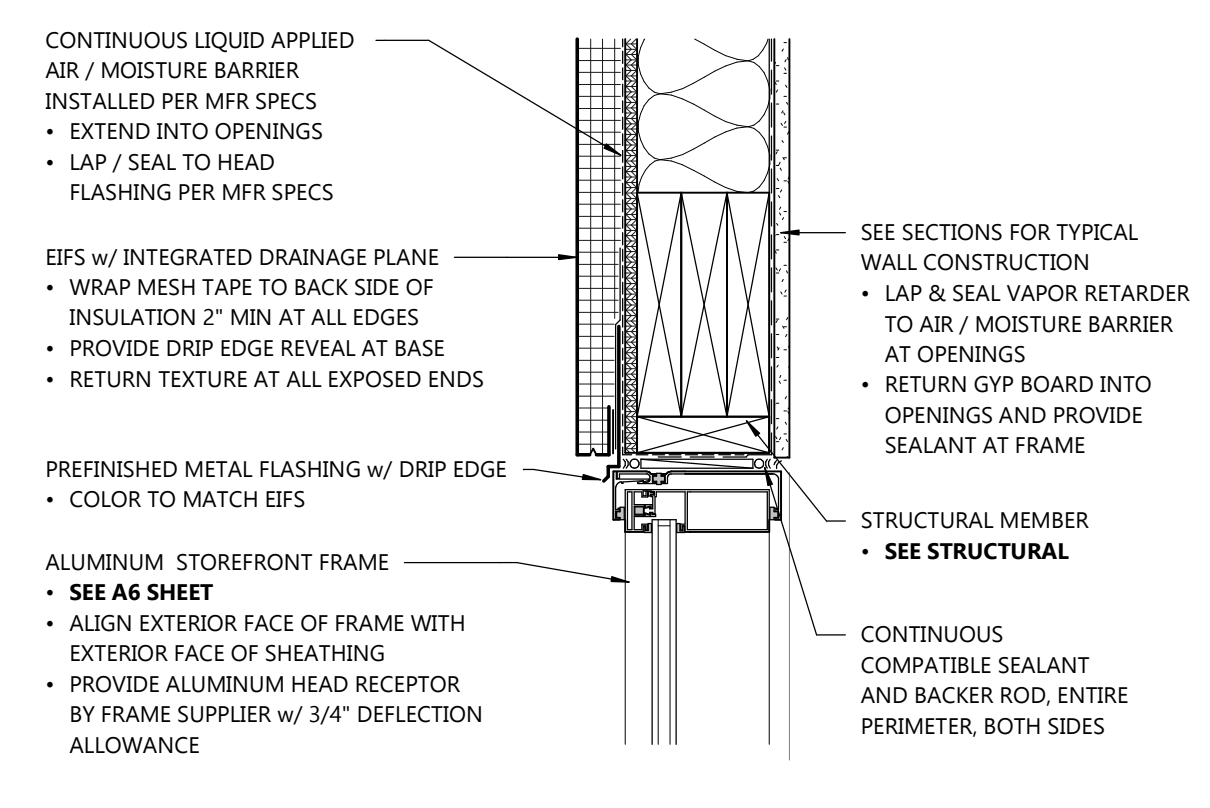
4 COPING DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



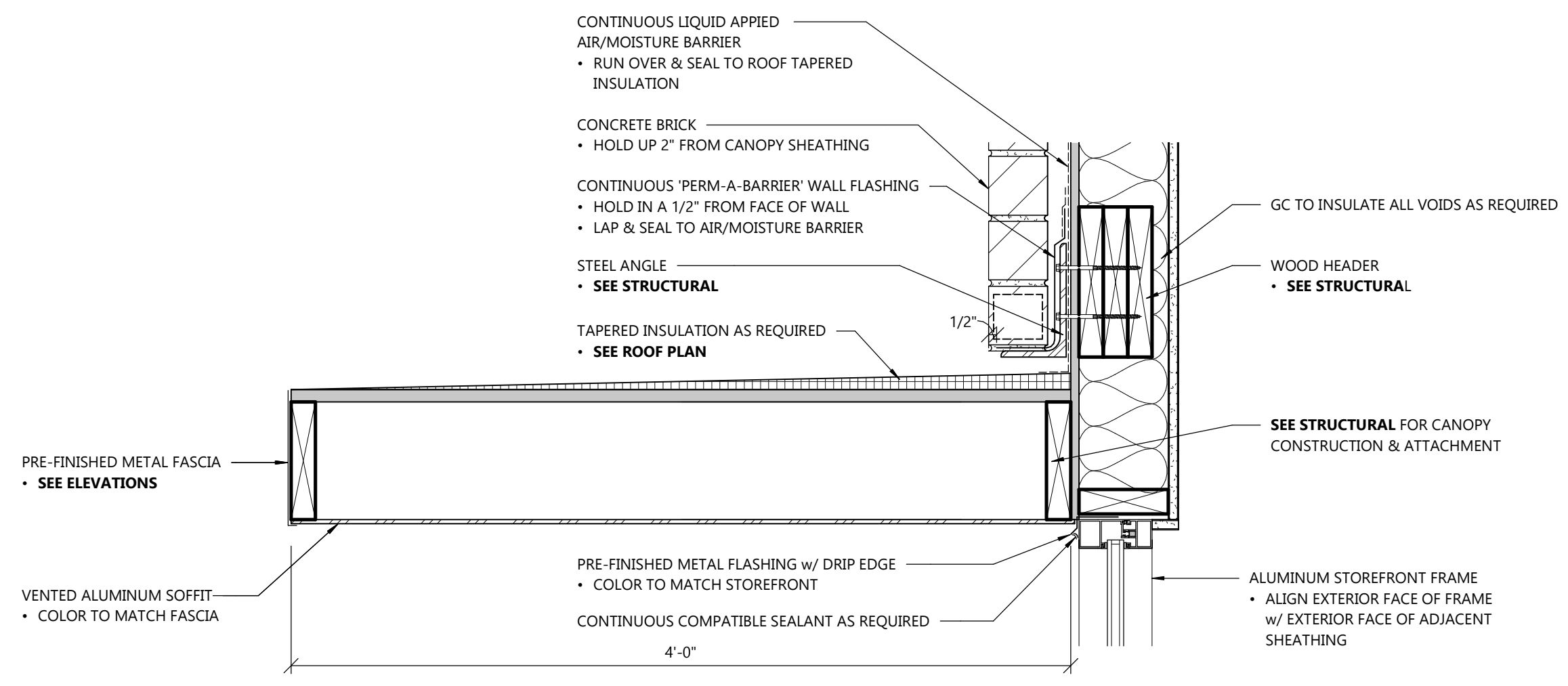
3 COPING DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



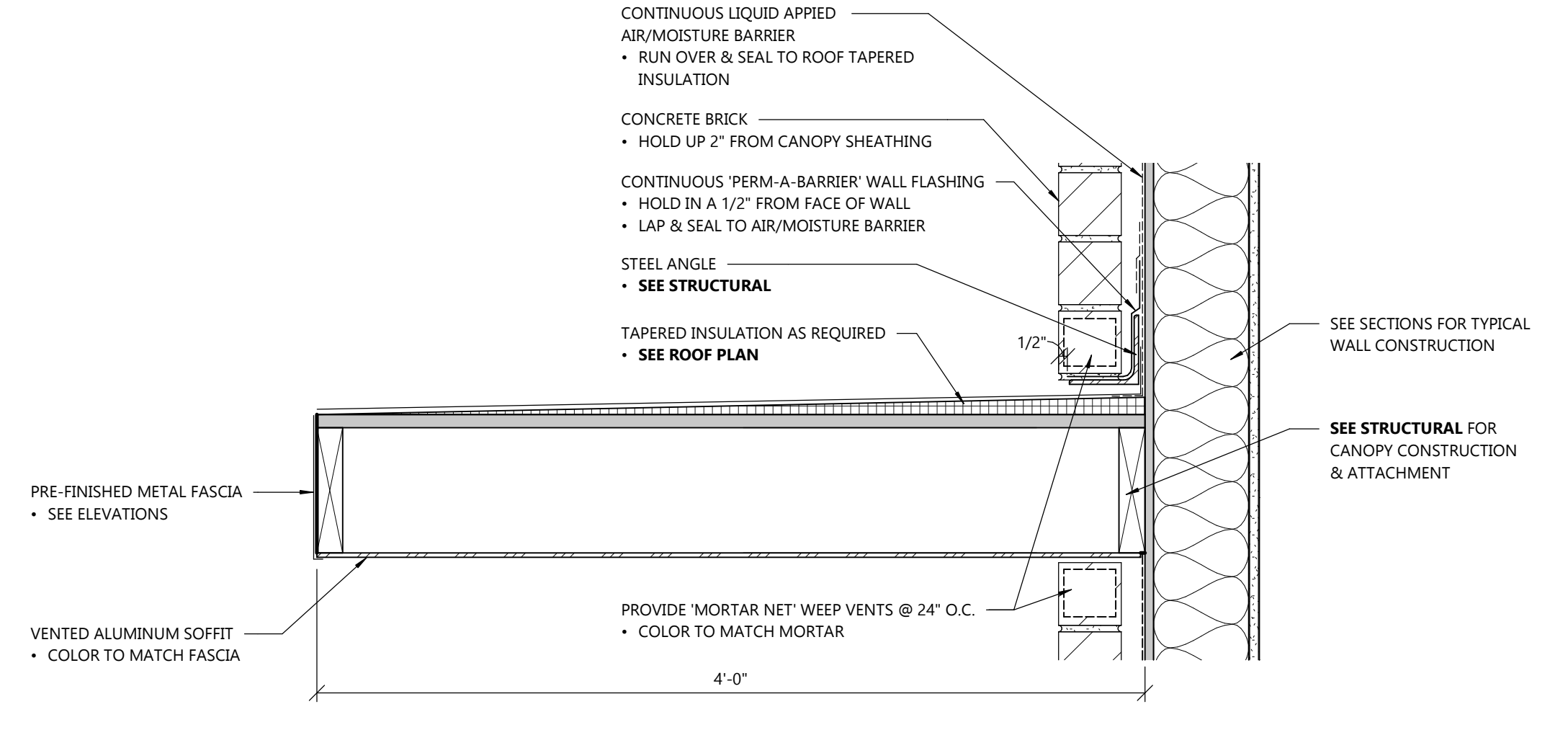
2 STONE SILL DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



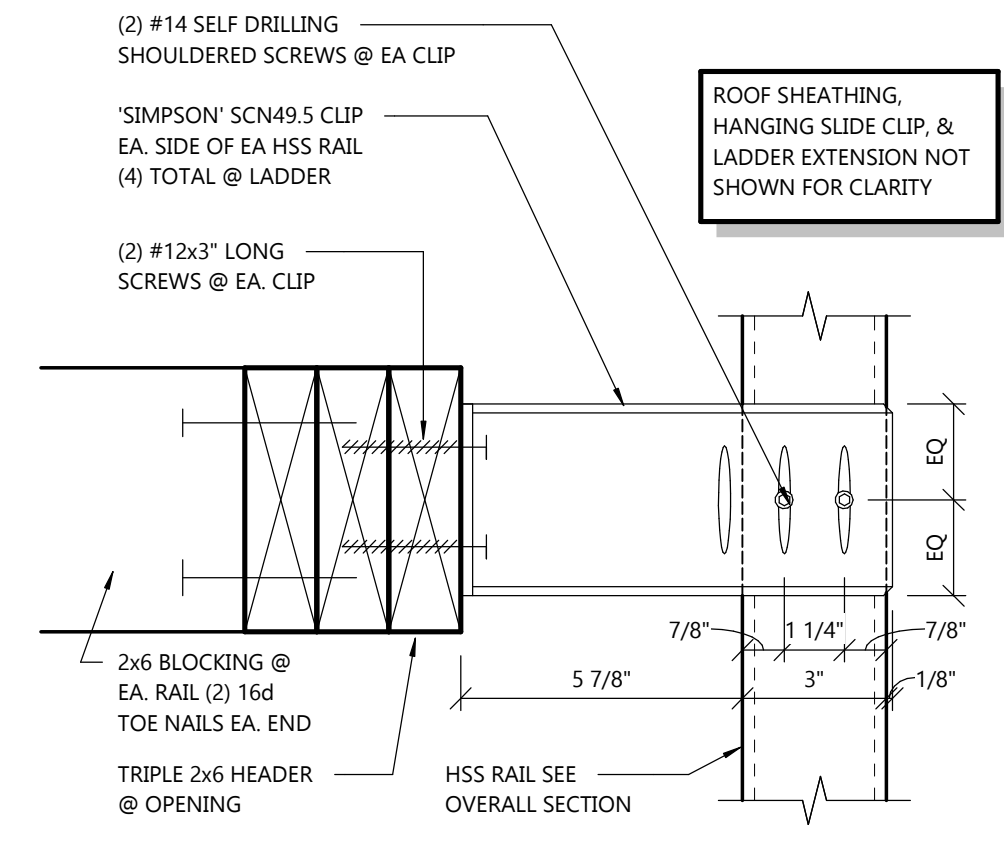
1 HEAD FLASHING DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



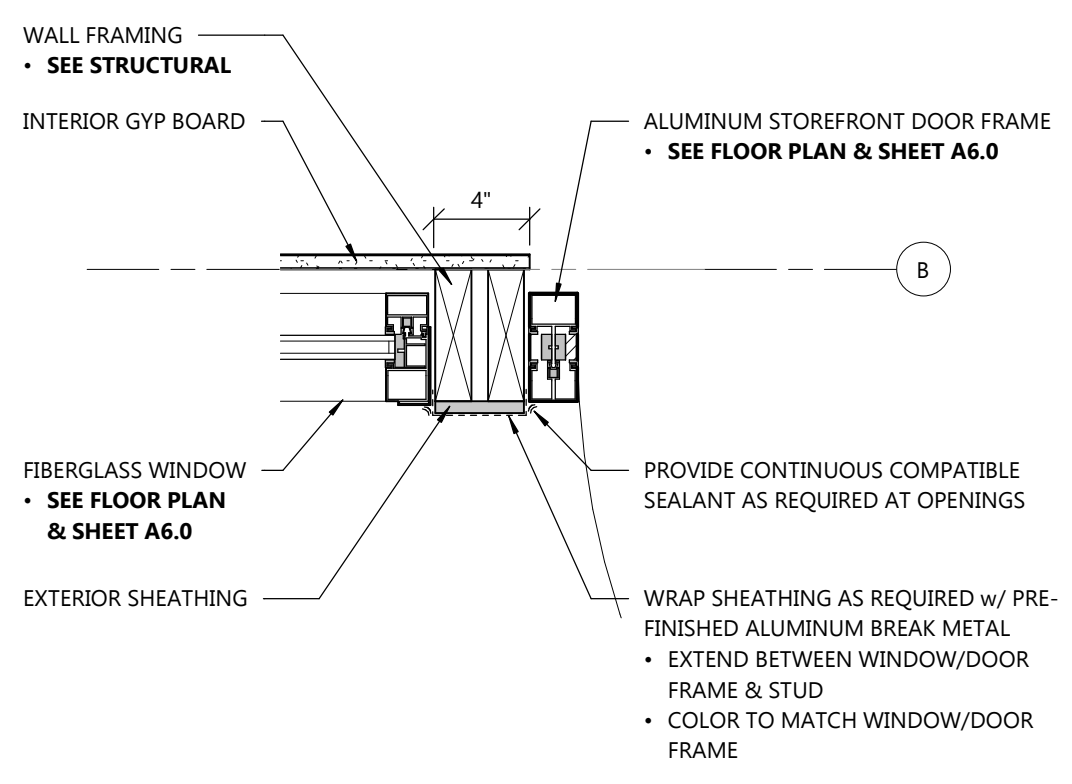
6 CANOPY FLASHING DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



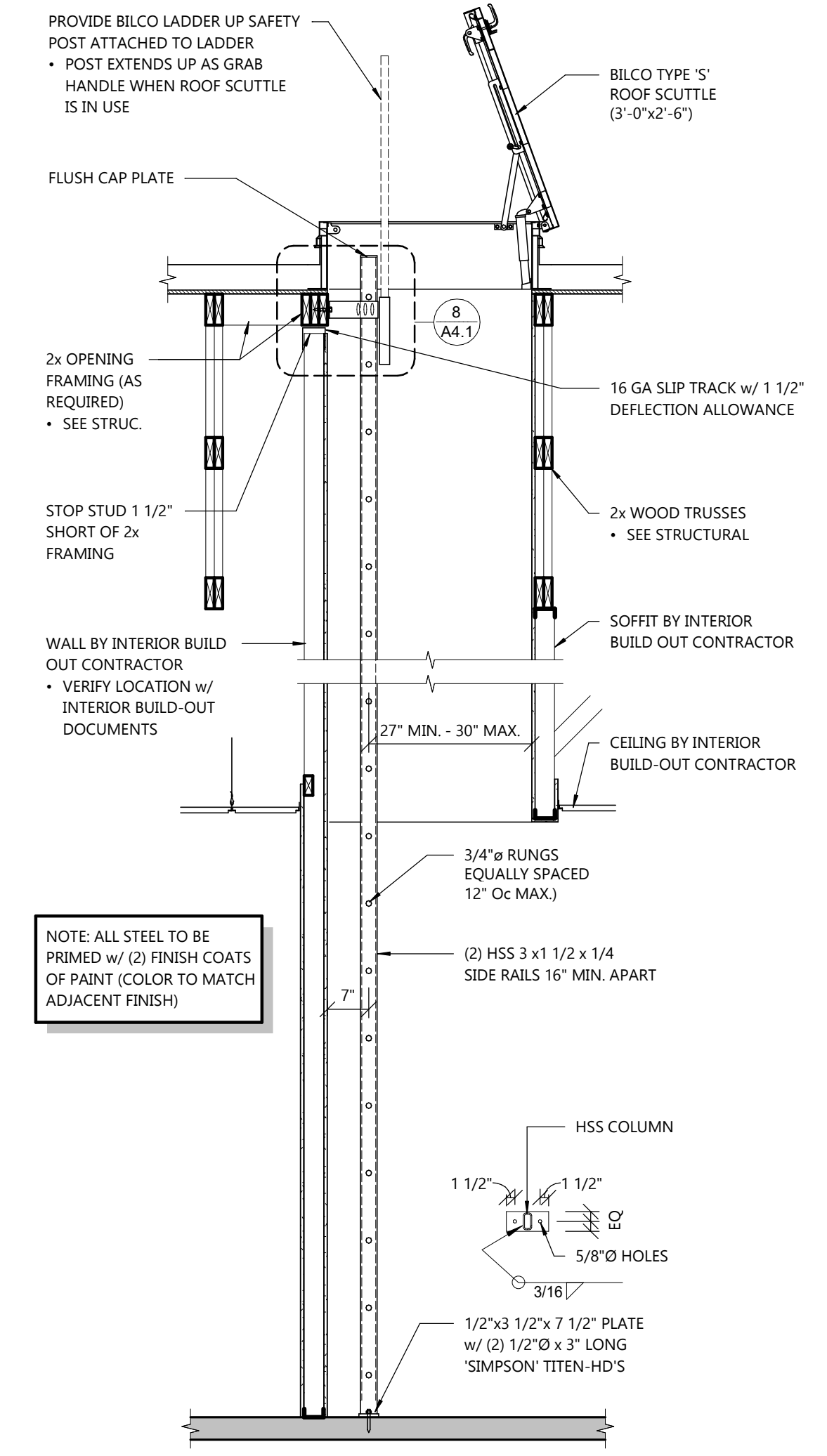
5 CANOPY FLASHING DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



8 LADDER TOP CONNECTION
A4.1 SCALE: 3" = 1'-0"



7 PLAN DETAIL
A4.1 SCALE: 1 1/2" = 1'-0"



F ROOF HATCH/ACCESS LADDER
A4.1 SCALE: 1/2" = 1'-0"

WALL DETAILS

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE	FEB. 14, 2023
REVISIONS	
AD2	MAR. 23, 2023
AD3	APR. 19, 2023
CB2	JUNE 5, 2023

JOB NUMBER
2255300

SHEET NUMBER

A5.0

TOILET ROOM ACCESSORY SPECIFICATIONS:

GENERAL NOTES:

SEE KEYED TOILET ROOM ACCESSORY LEGEND FOR MODEL NUMBERS, FINISH, AND COLORS
GENERAL CONTRACTOR SHALL PROVIDE BLOCKING AS REQ'D AT ALL ACCESSORY LOCATIONS
GENERAL CONTRACTOR SHALL VERIFY ROUGH OPENING REQ'S FOR ALL RECESSED EQUIPMENT/ACCESSORIES
MANUFACTURER: BOBRICK WASHROOM EQUIPMENT, INC.
PRODUCTS: GRAB BARS, TISSUE DISPENSERS, TOWEL DISPENSERS, MIRRORS, SOAP DISPENSERS, ETC.

MANUFACTURER: ALL AMERICAN METAL CORP.

PRODUCT: TOILET PARTITIONS AND URINAL SCREENS

PANEL AND DOORS: STEEL SHEETS w/ COLOR COATED FINISH LAMINATED TO DOUBLE FACED HONEYCOMB CORE THICKNESS = 1"

PILASTERS: STEEL SHEETS w/ COLOR COATED FINISH LAMINATED TO DOUBLE FACED HONEYCOMB CORE THICKNESS = 1 1/4"

ALL HARDWARE AND FITTINGS TO BE HEAVY ZAMAC CASTING OR STAINLESS STEEL AS PER MANUFACTURERS STANDARD CONSTRUCTION

PROVIDE BAKED ENAMEL FINISH OVER GALVANIZED AND BONDERIZED STEEL

PROVIDE STAINLESS STEEL FINISH

PROVIDE SELF-CLOSING HINGES

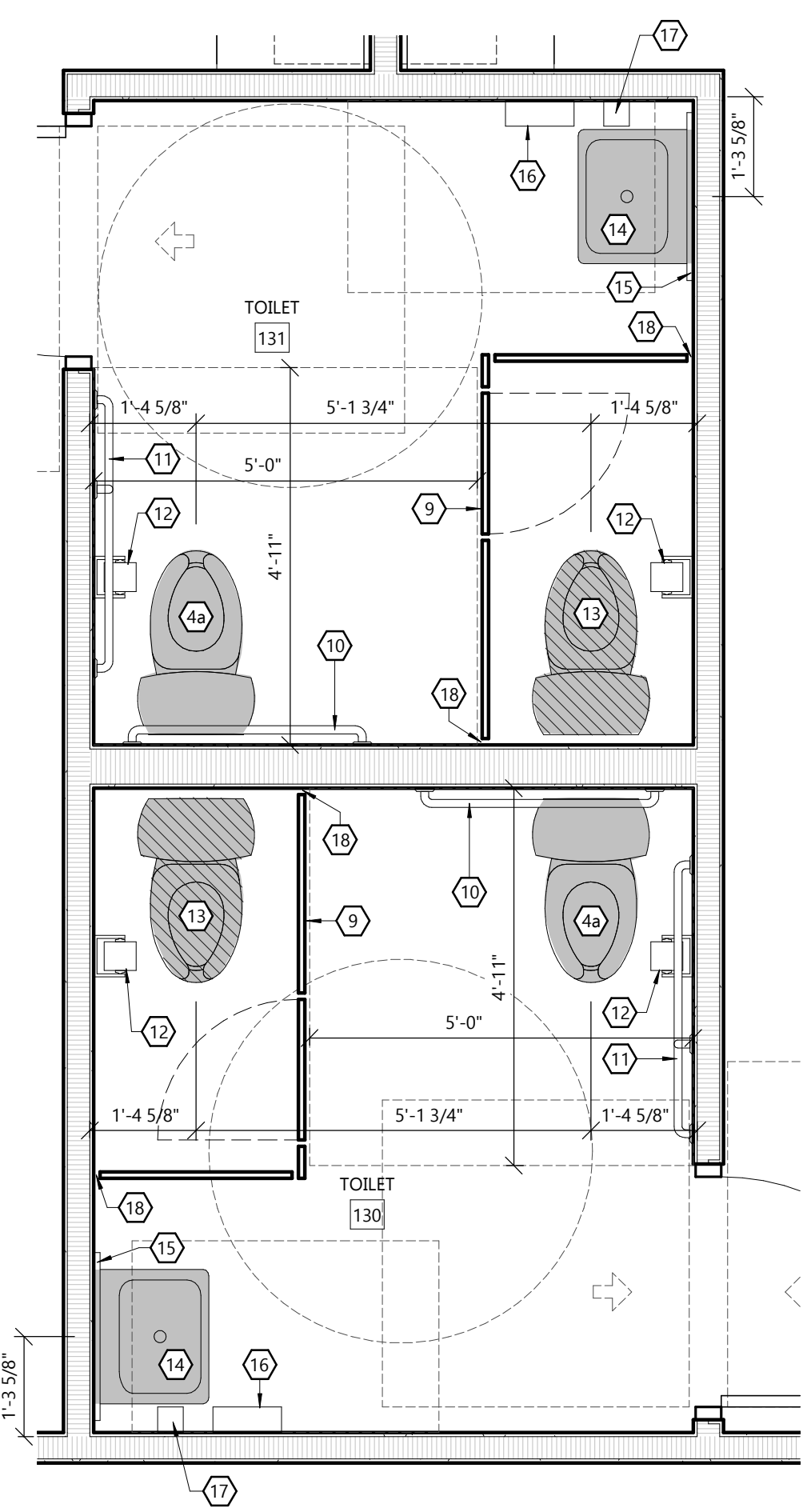
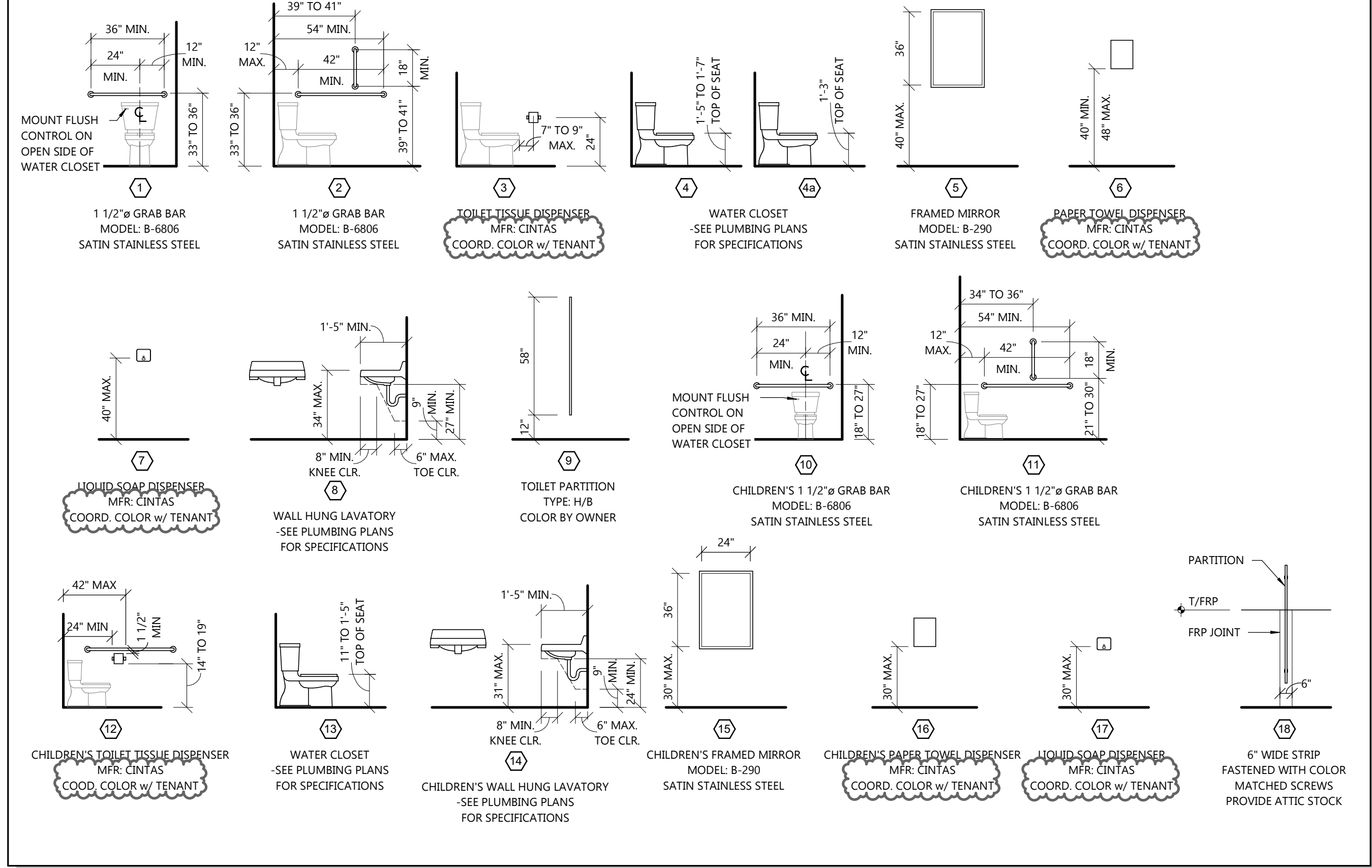
PROVIDE INTERNAL REINFORCEMENT OF PANELS FOR HARDWARE, ACCESSORIES, AND GRAB BARS

WARRANTY: 1 YEAR

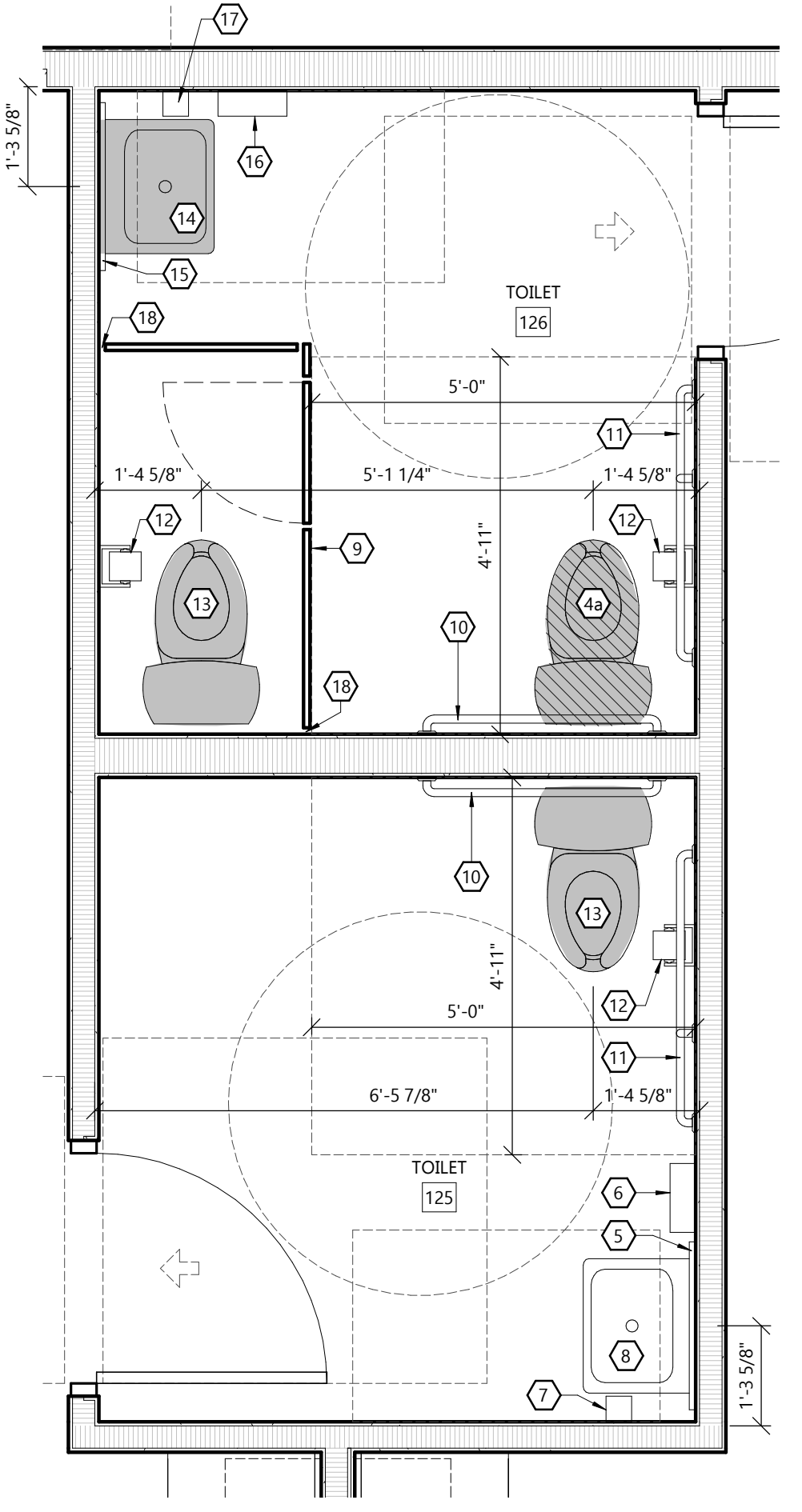
TOILET ROOM NOTES:

- 6 1/2" MAXIMUM SINK DEPTH
- INSULATE PIPES BELOW COUNTERTOPS (WATER AND WASTE LINES) w/ PVC MOLDED PROTECTION (BY PLUMBING CONTRACTOR)
- ALL DIMENSIONS SHOWN ARE FROM STUD TO STUD

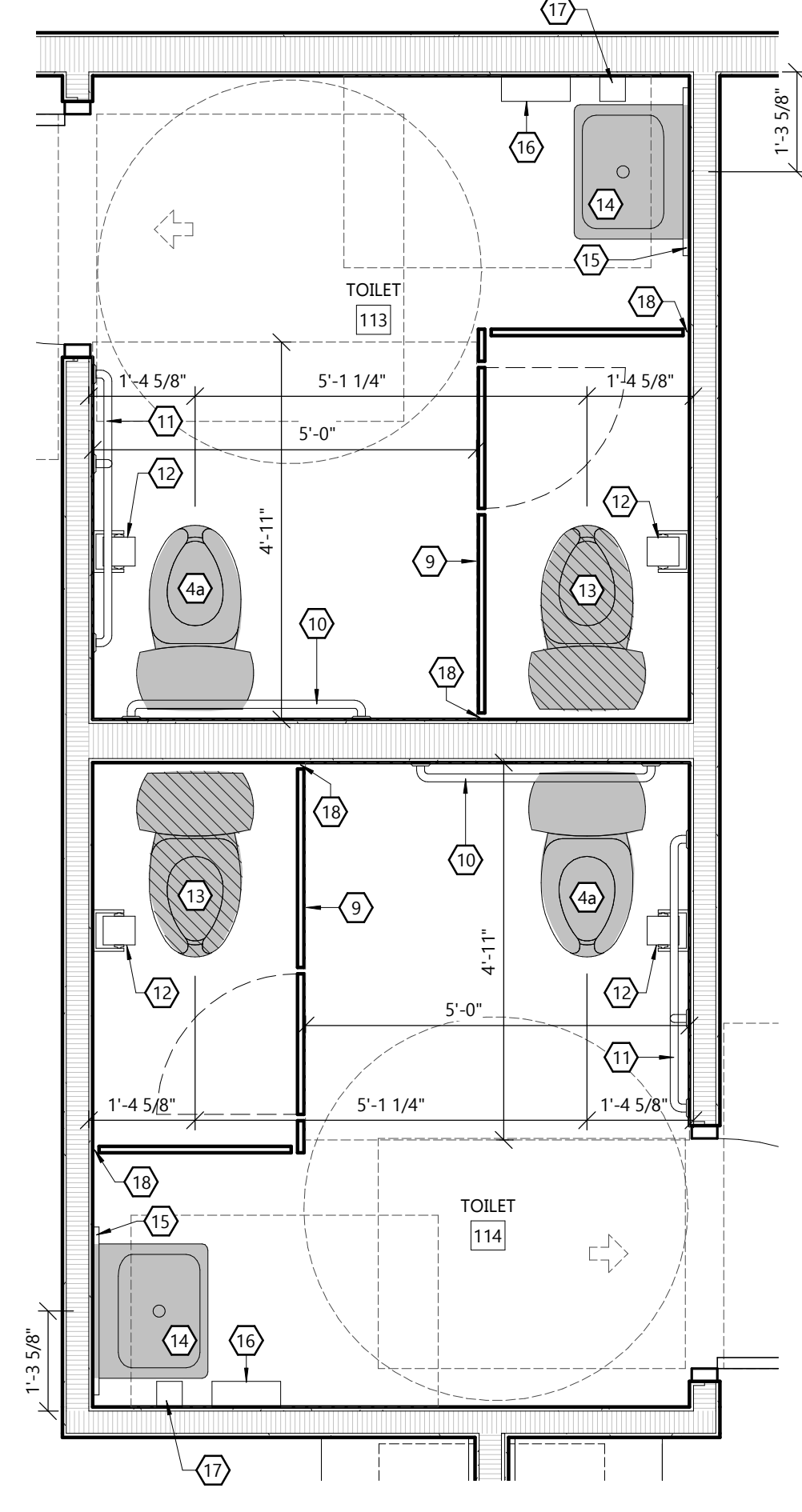
KEYED TOILET ROOM ACCESSORY LEGEND



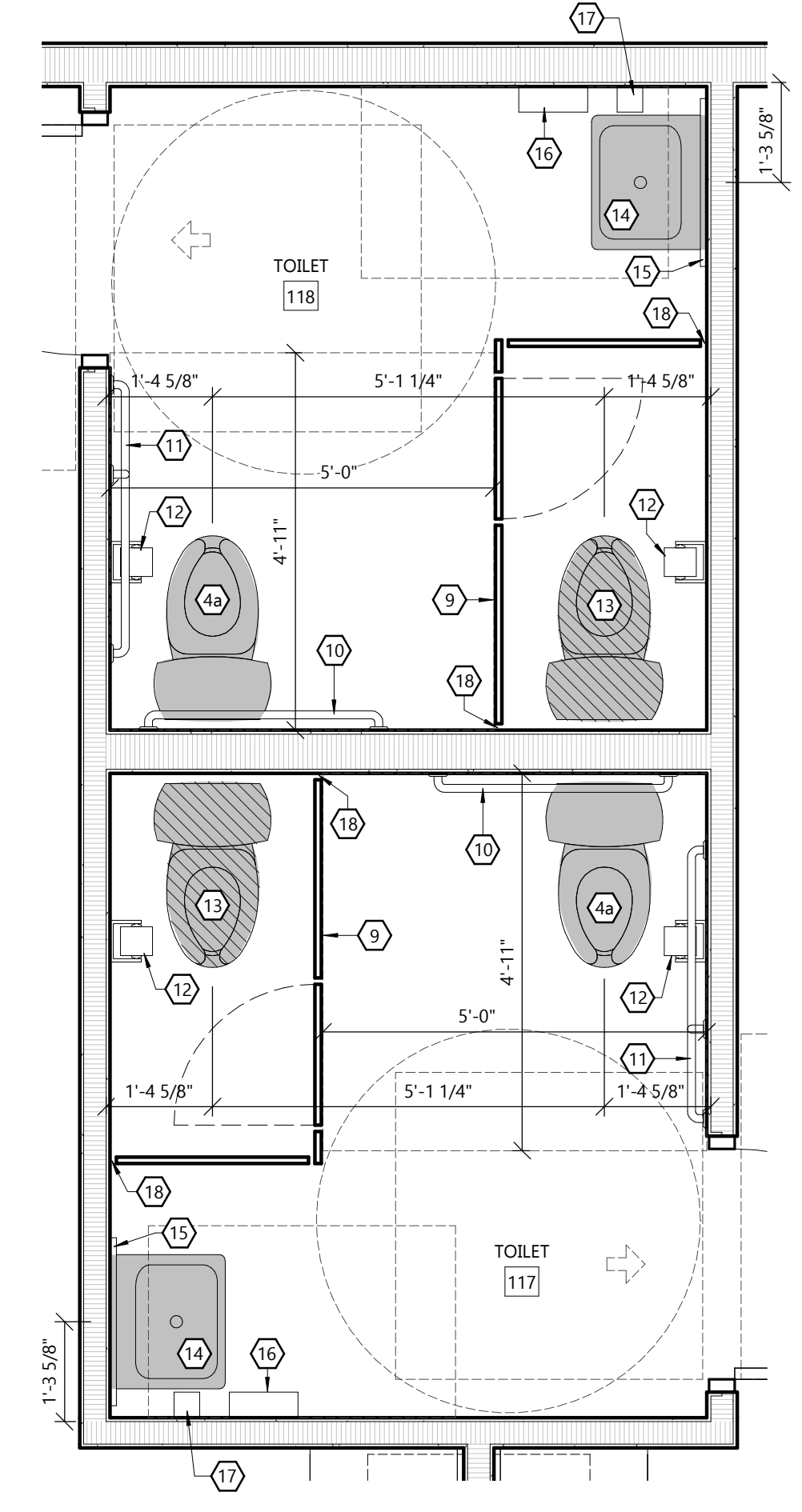
7 ENLARGED RESTROOMS 130 & 131
A5.0 SCALE: 1/2" = 1'-0"



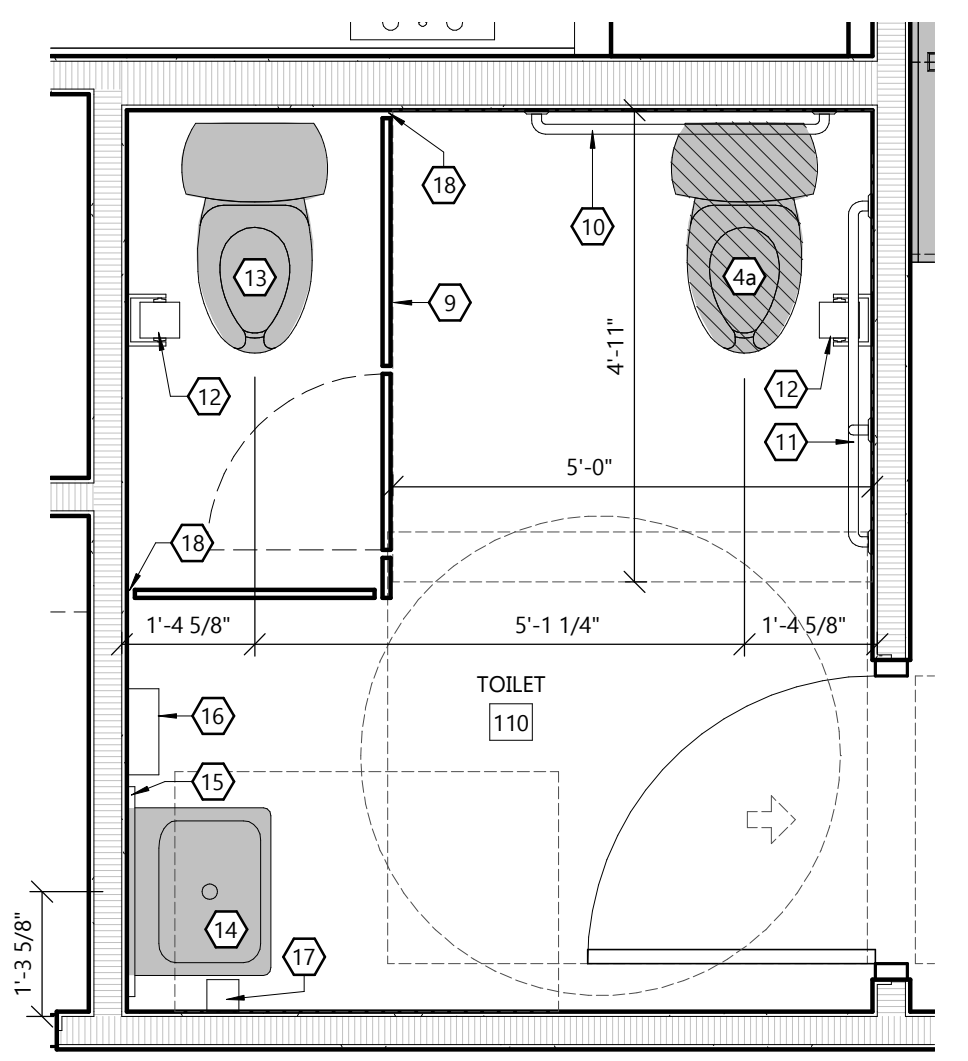
6 ENLARGED RESTROOMS 125 & 126
A5.0 SCALE: 1/2" = 1'-0"



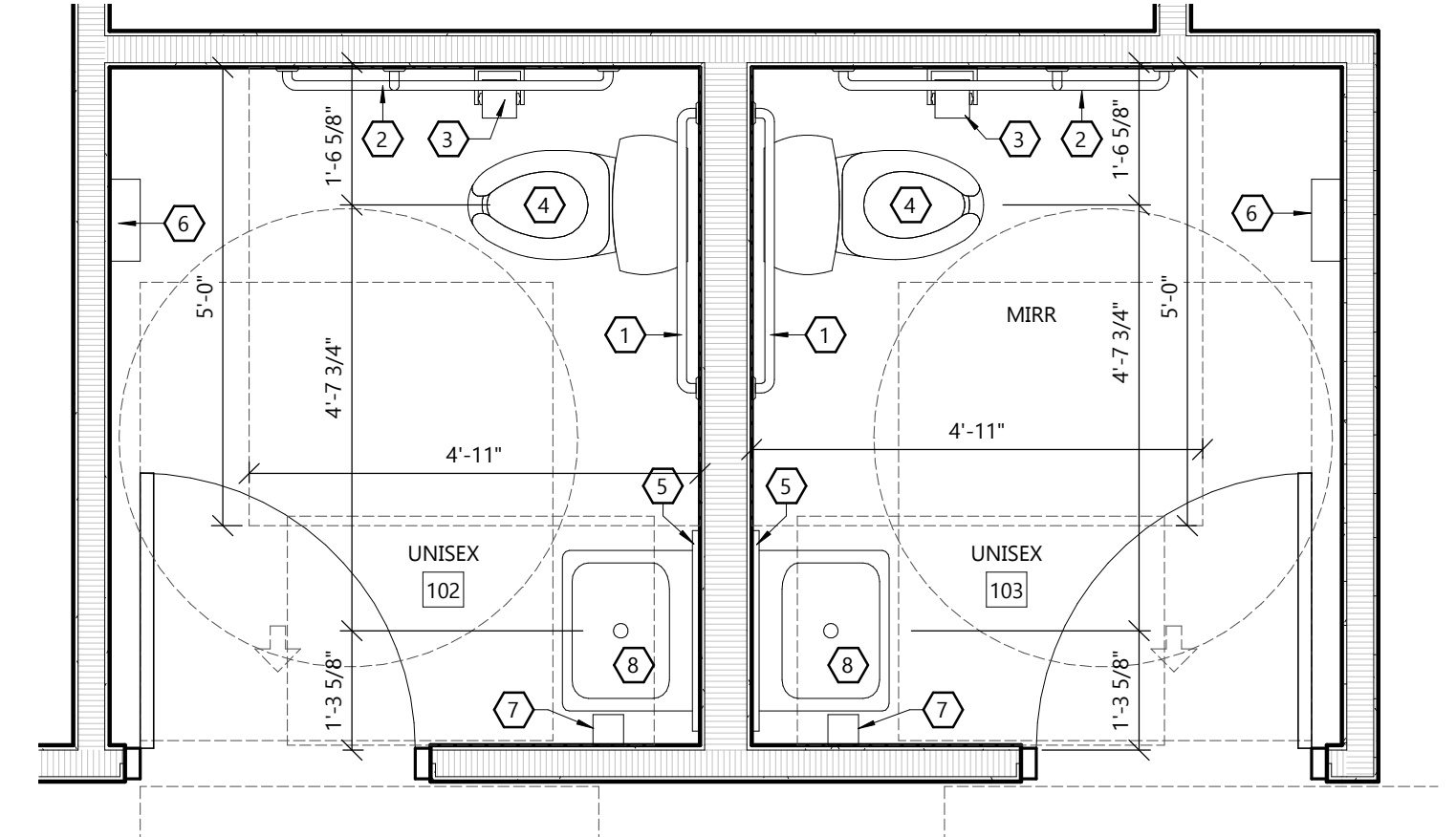
9 ENLARGED RESTROOMS 113 & 114
A5.0 SCALE: 1/2" = 1'-0"



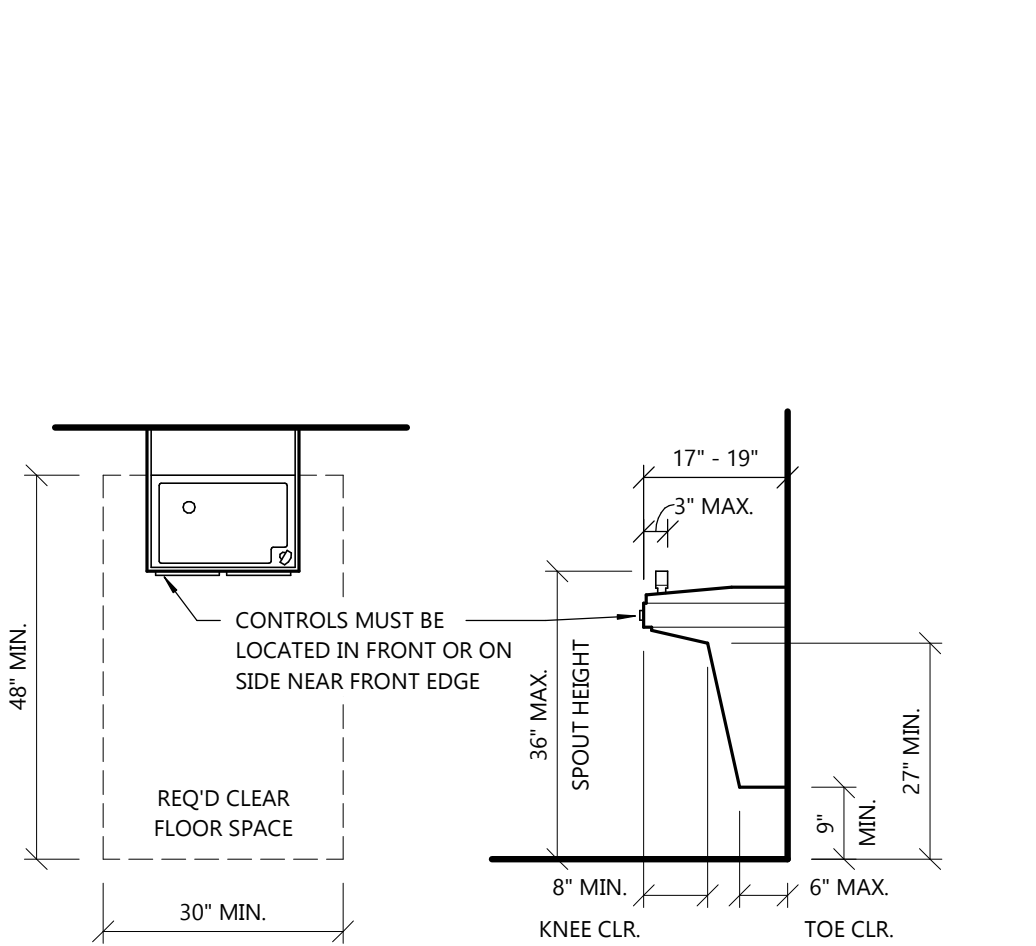
8 ENLARGED RESTROOMS 117 & 118
A5.0 SCALE: 1/2" = 1'-0"



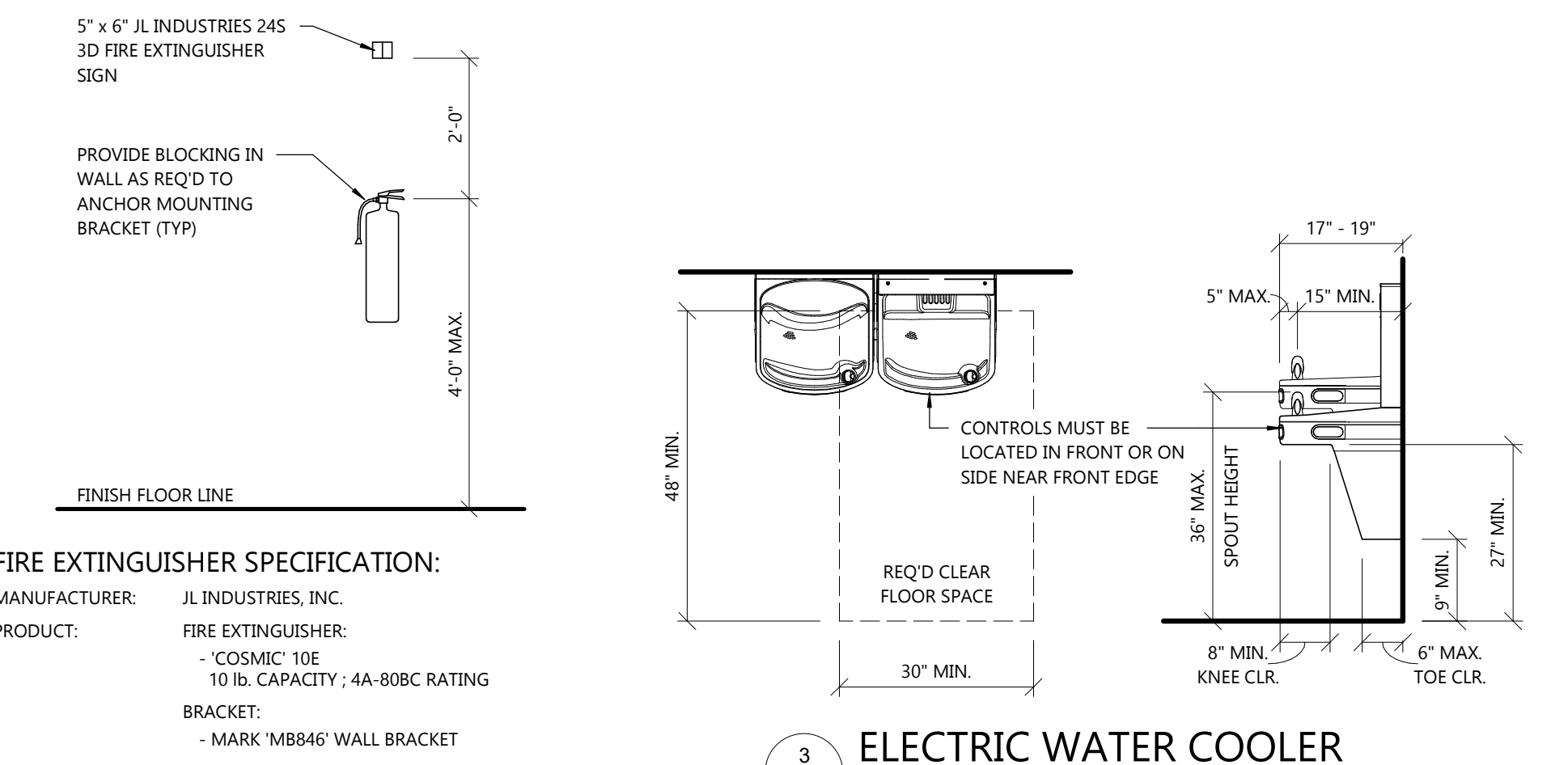
2 ENLARGED RESTROOM 110
A5.0 SCALE: 1/2" = 1'-0"



1 ENLARGED RESTROOMS 102 & 103
A5.0 SCALE: 1/2" = 1'-0"

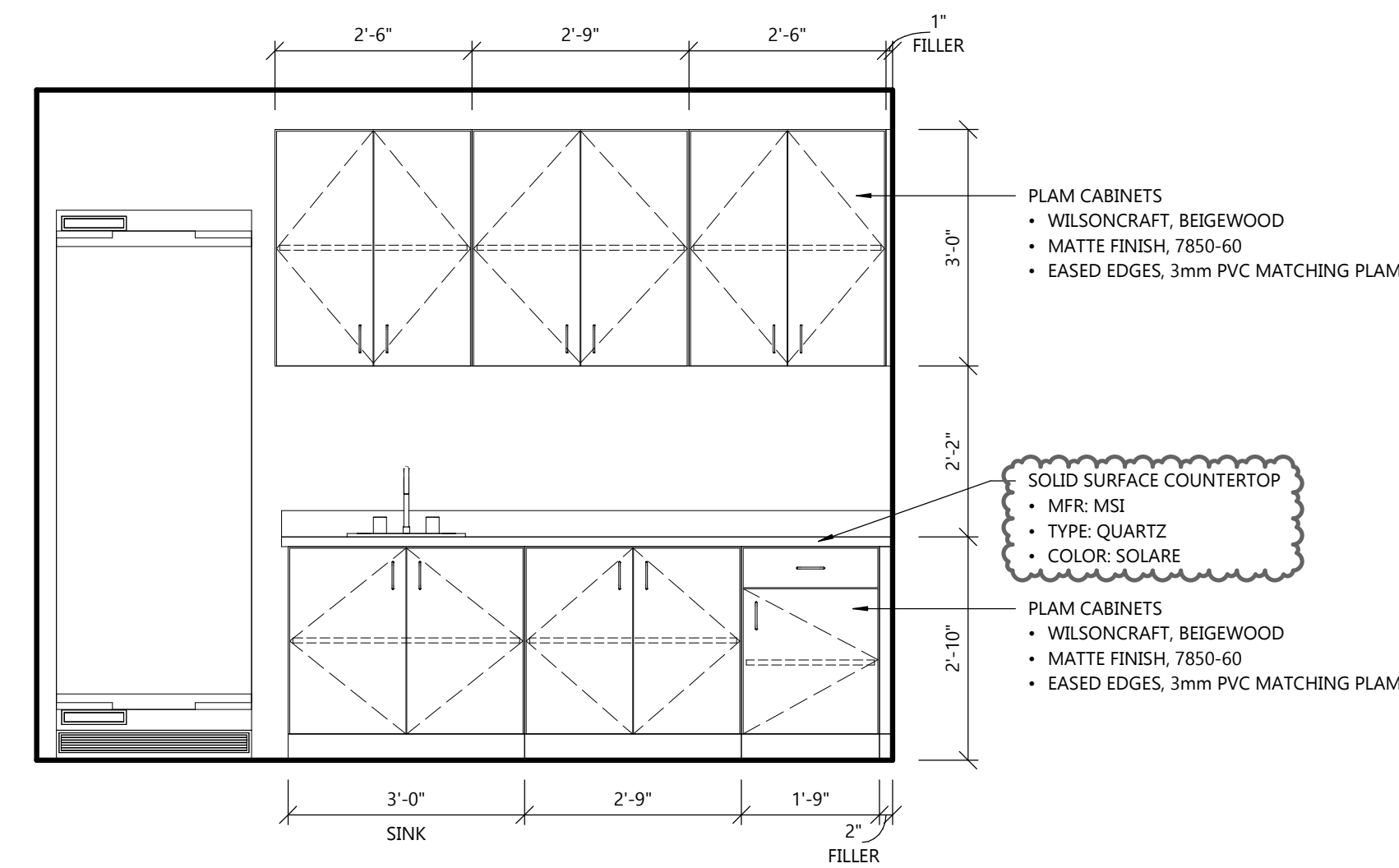


5 ELECTRIC WATER COOLER
A5.0 SCALE: 1/2" = 1'-0"

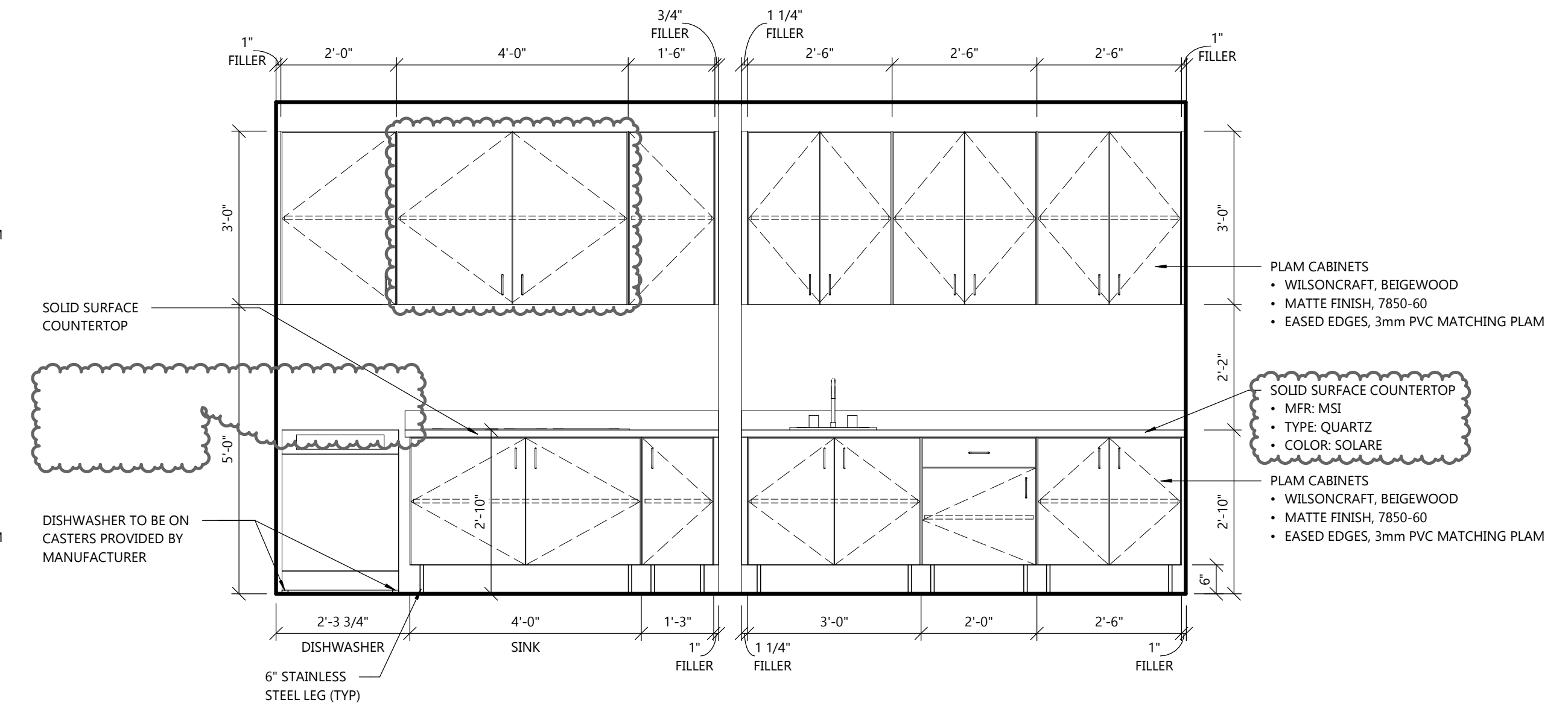


4 FIRE EXTINGUISHER
A5.0 SCALE: 1/4" = 1'-0"

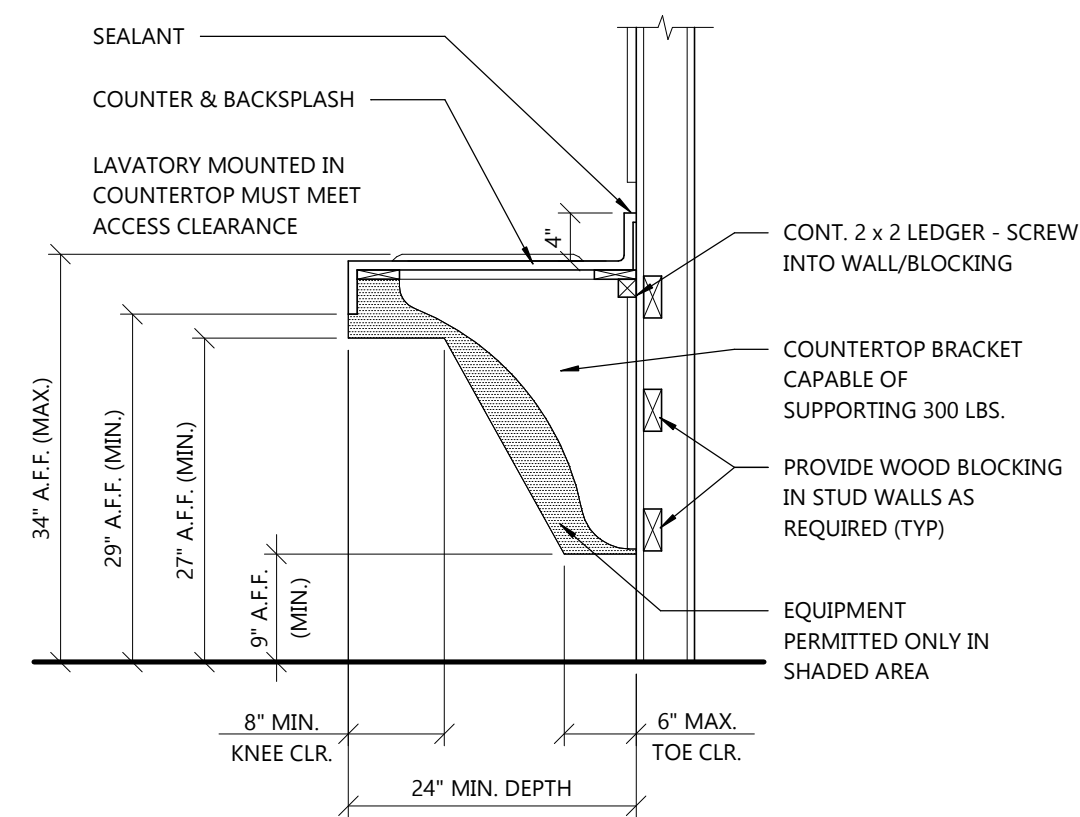
3 ELECTRIC WATER COOLER
A5.0 SCALE: 1/2" = 1'-0"



2 STAFF BREAK ELEVATION
A5.1 SCALE: 1/2" = 1'-0"

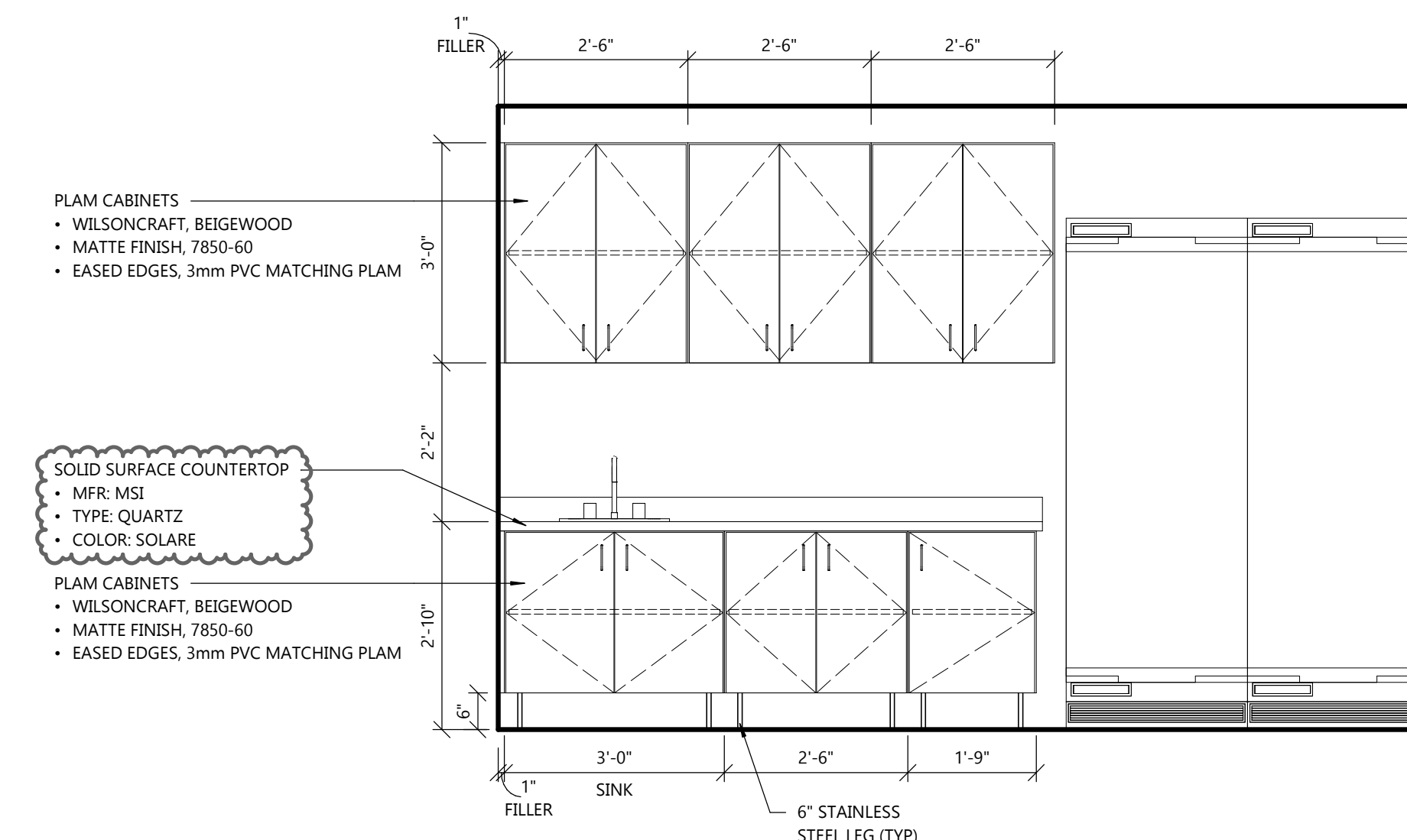


1 KITCHEN CASEWORK ELEVATION
A5.1 SCALE: 1/2" = 1'-0"

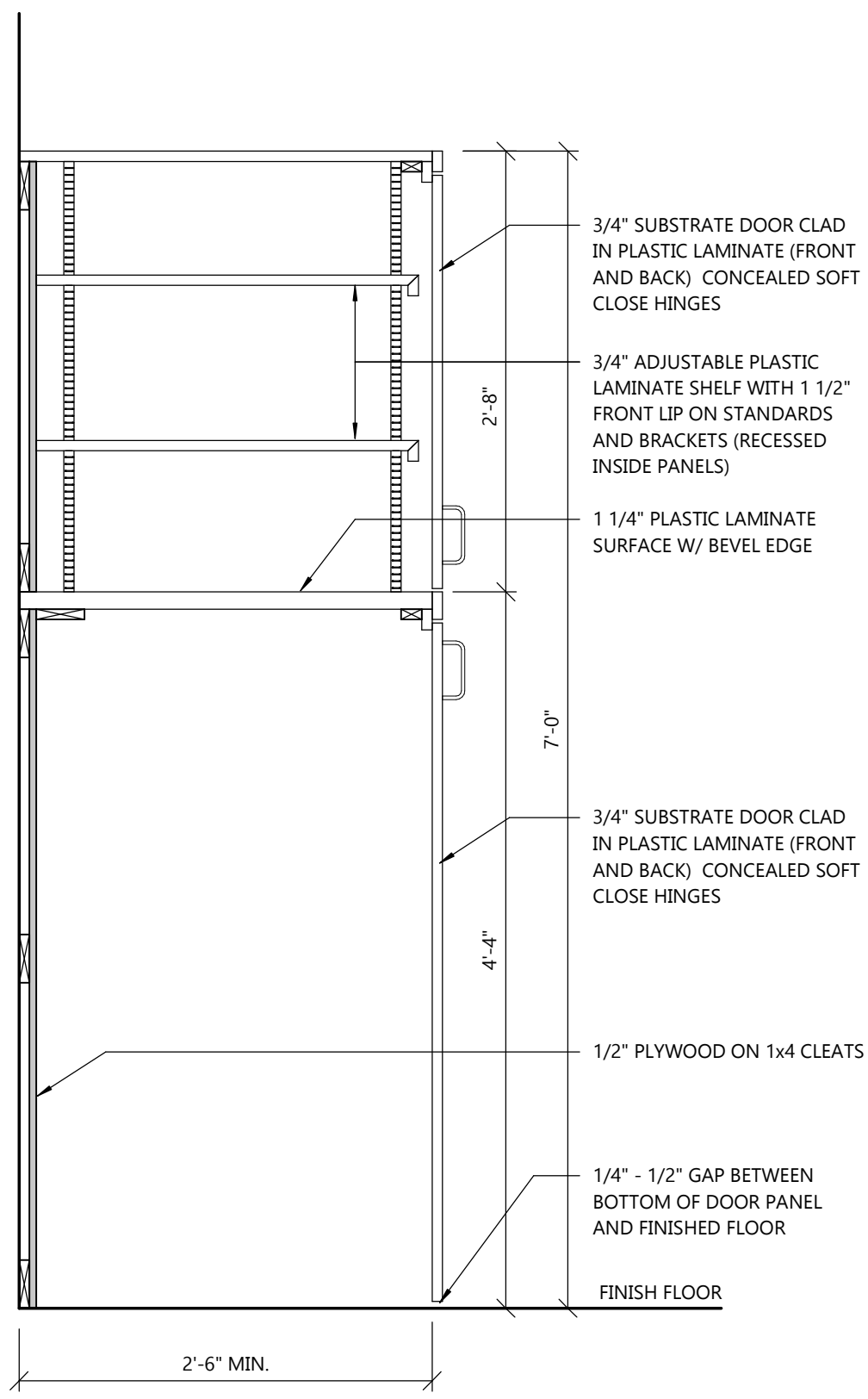


5 COUNTERTOP DETAIL
A5.1 SCALE: 1/4" = 1'-0"

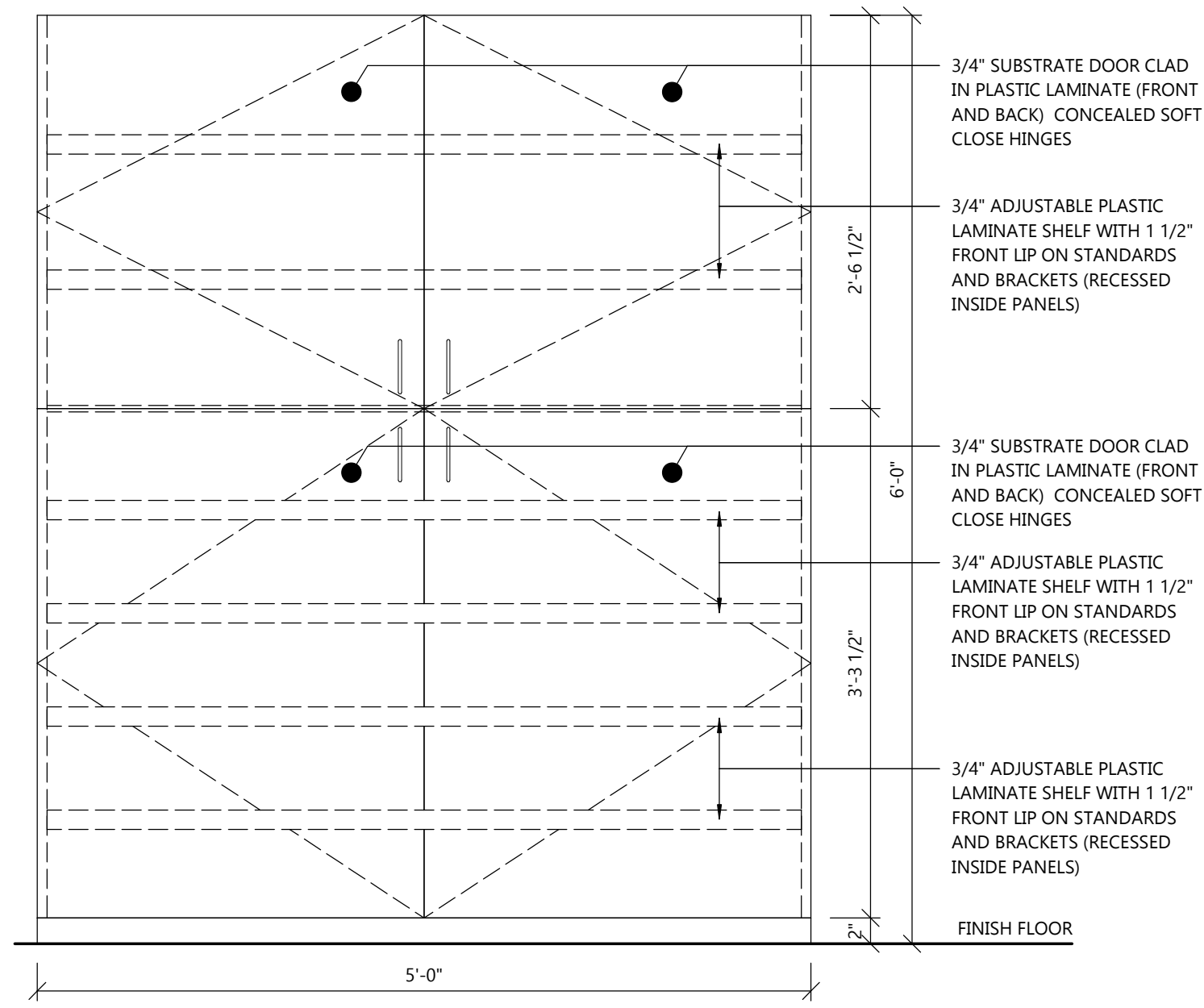
DETAIL 4 NO LONGER USED



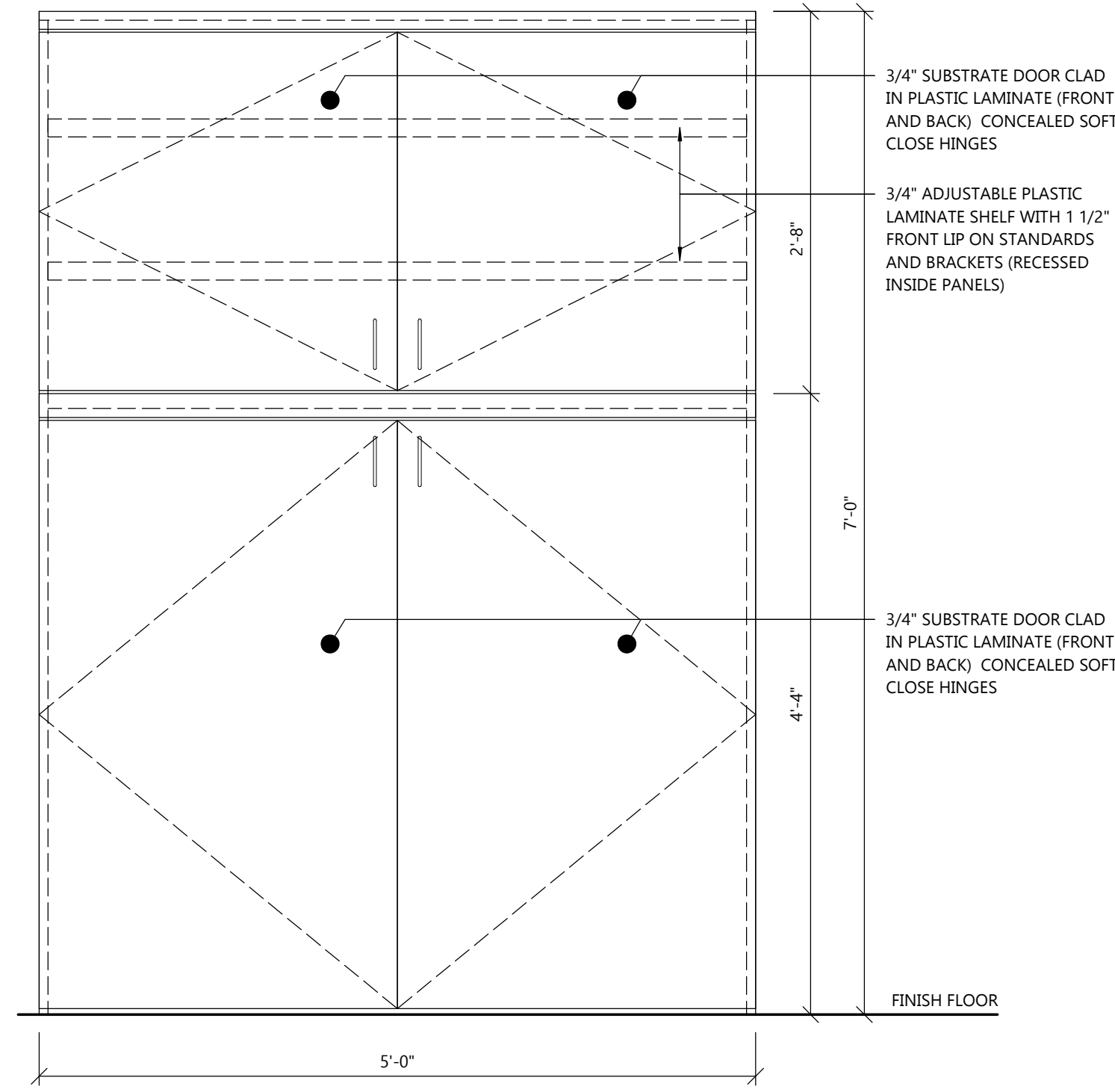
3 KITCHEN CASEWORK ELEVATION
A5.1 SCALE: 1/2" = 1'-0"



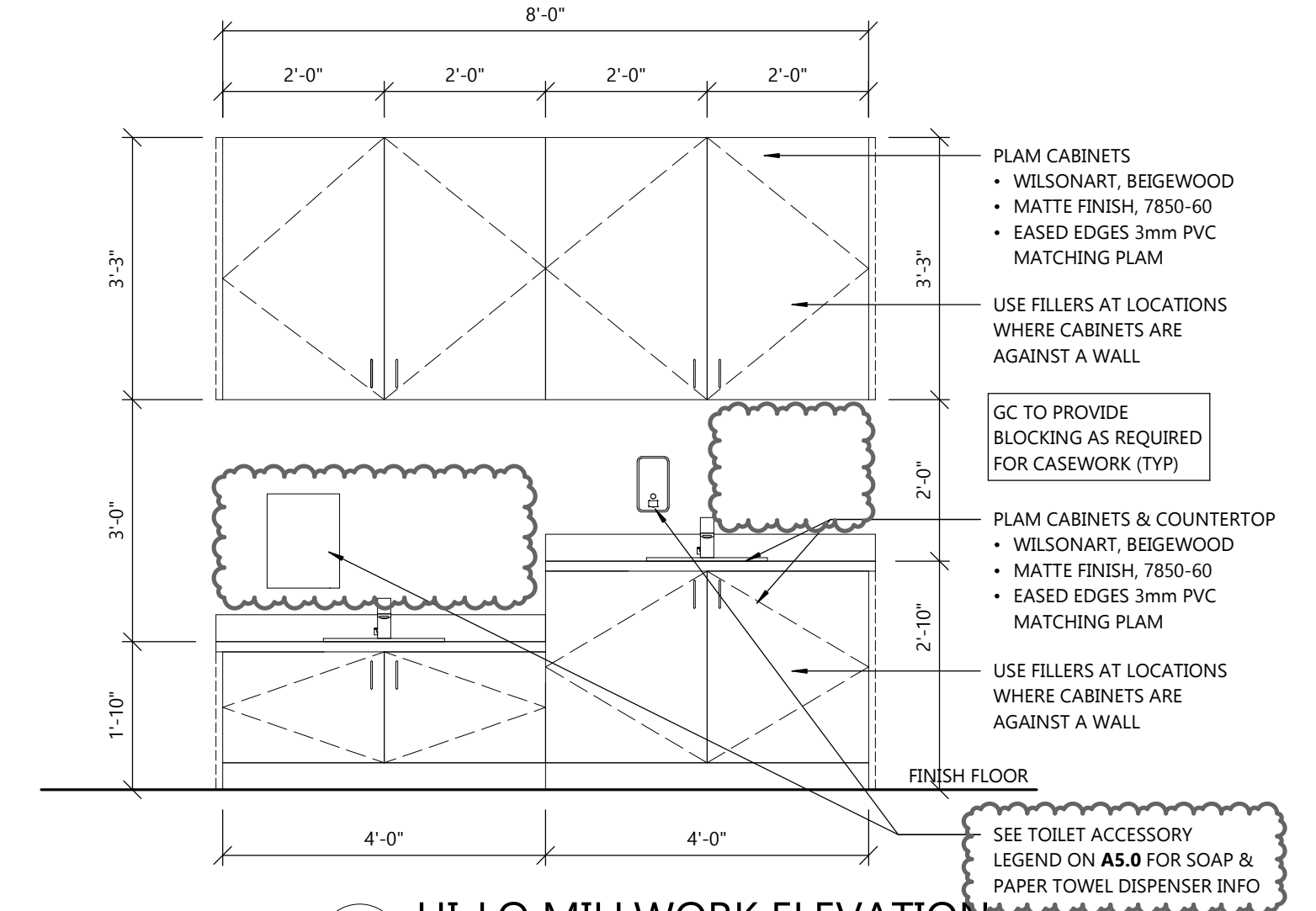
4 COT STORAGE CABINET SECTION
A5.2 SCALE: 1" = 1'-0"



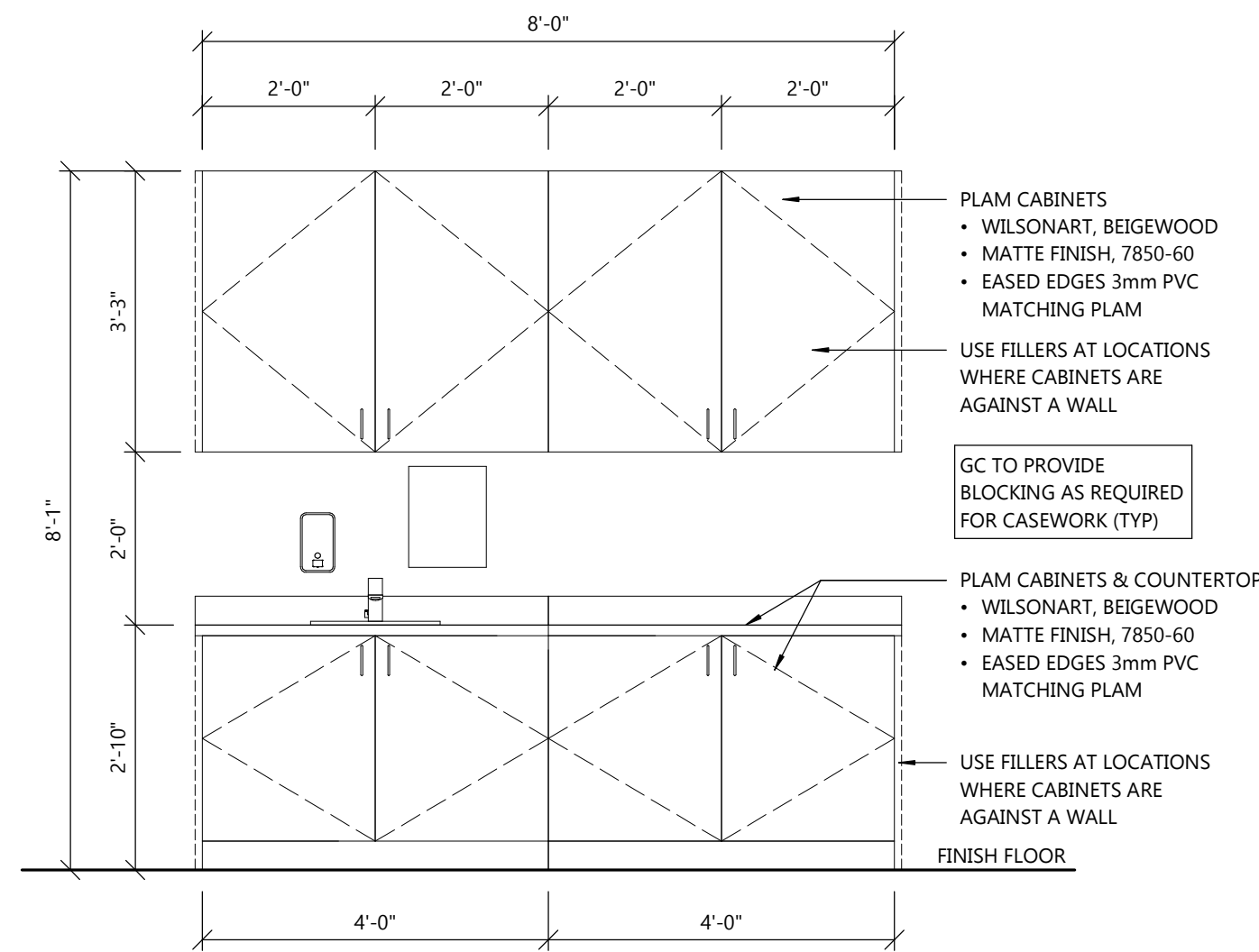
3 STORAGE CABINET MILLWORK ELEVATION
A5.2 SCALE: 1" = 1'-0"



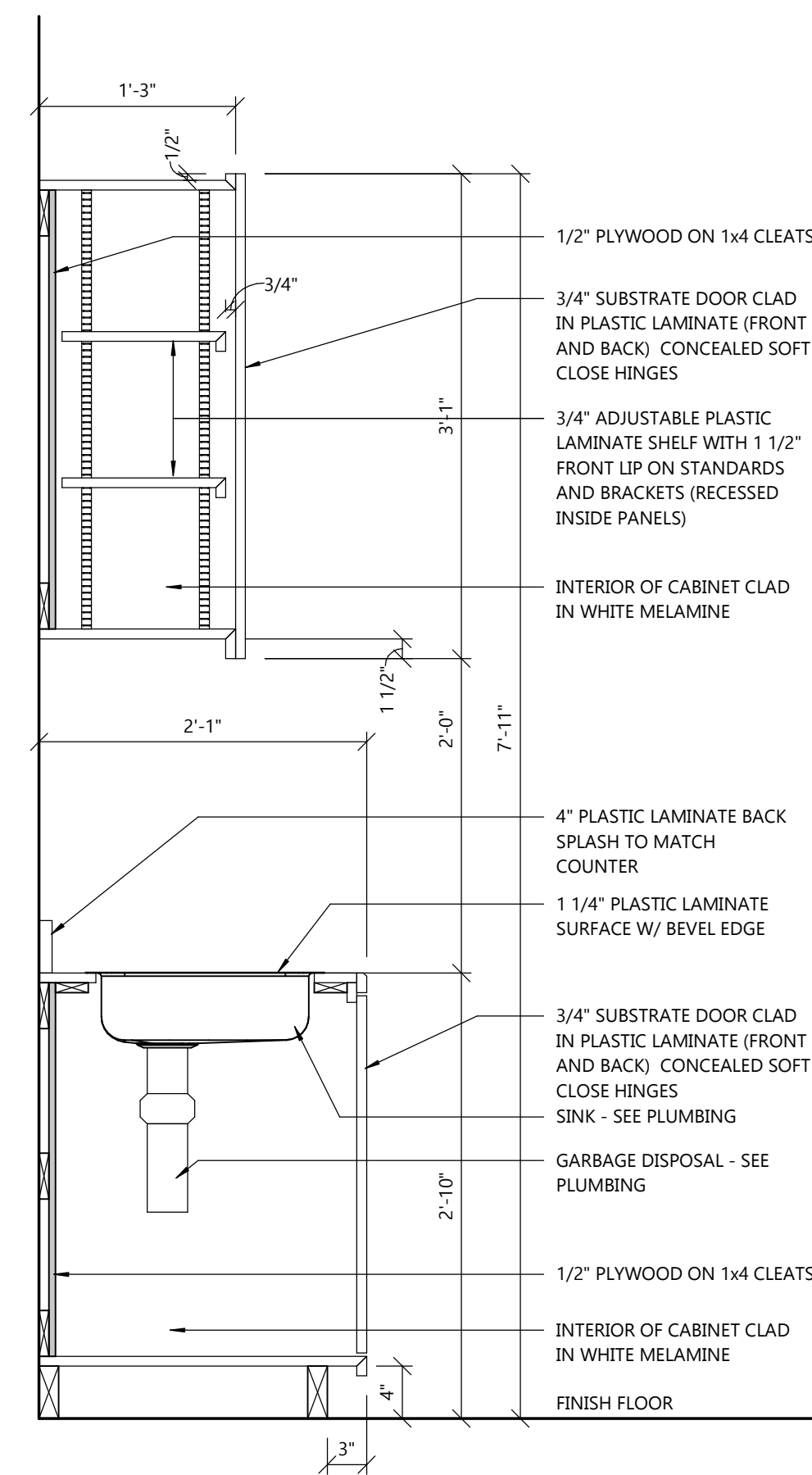
2 COT STORAGE MILLWORK ELEVATION
A5.2 SCALE: 1" = 1'-0"



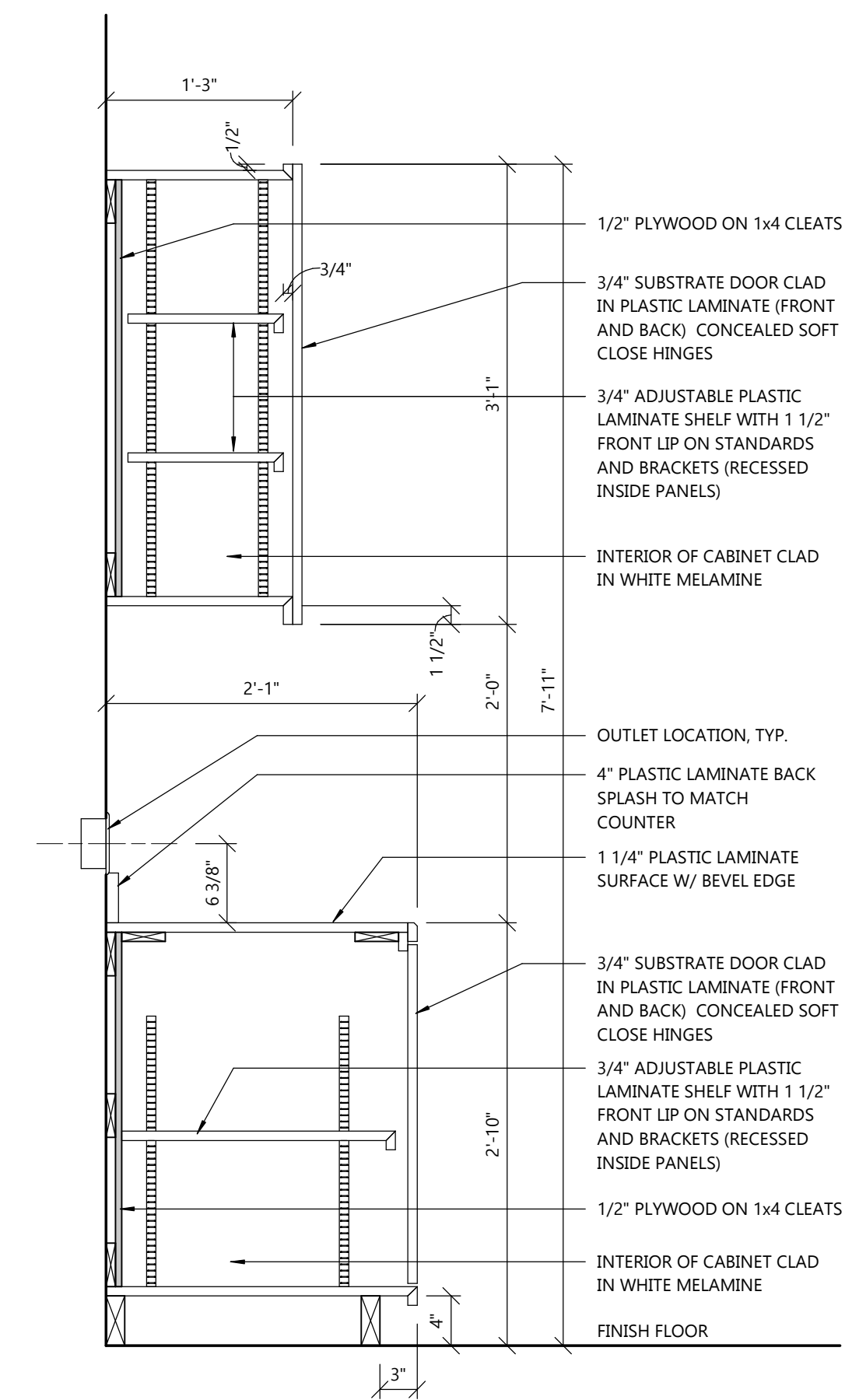
1 HI-LO MILLWORK ELEVATION
A5.2 SCALE: 1/2" = 1'-0"



7 INFANT MILLWORK ELEVATION
A5.2 SCALE: 1/2" = 1'-0"



6 CABINET SECTION AT SINK
A5.2 SCALE: 1" = 1'-0"



5 CABINET SECTION
A5.2 SCALE: 1" = 1'-0"



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COLLABORATION



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
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PROFESSIONAL SEAL

SHEET DATES

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REVISIONS

AD2 MAR. 23, 2023
AD3 APR. 19, 2023

JOB NUMBER

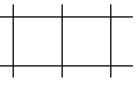


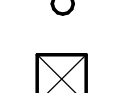

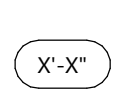
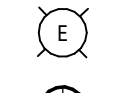
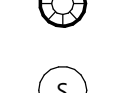

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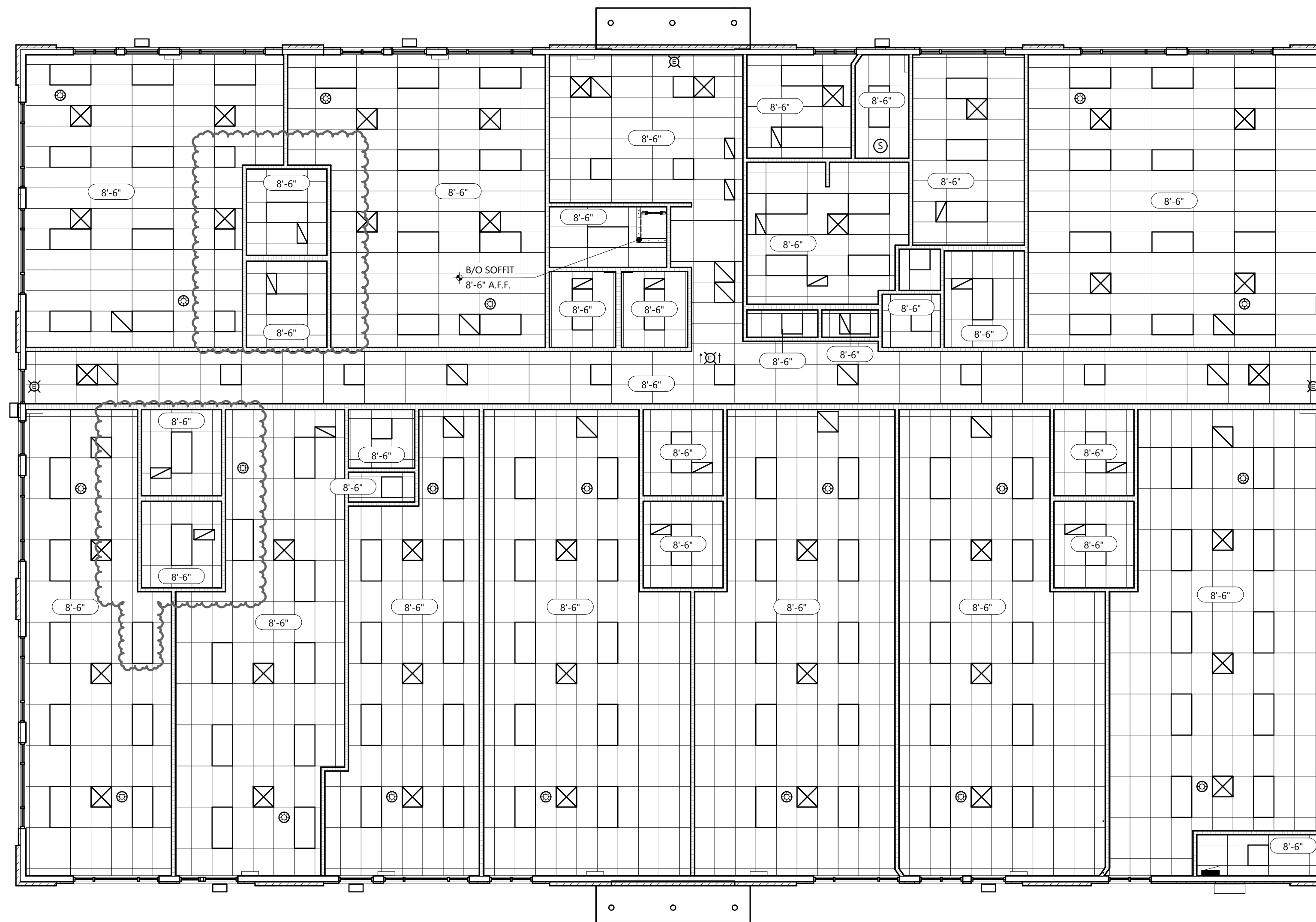
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A7.1

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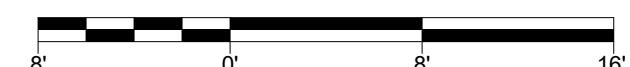
SYMBOLS LEGEND

-  ACOUSTICAL TILE CEILING PANELS - SEE ROOM FINISH SCHEDULE FOR TYPE
-  LIGHT FIXTURE - SEE ELECTRICAL PLANS
-  LIGHT FIXTURE - SEE ELECTRICAL PLANS
-  CEILING SUPPLY GRILLE - SEE HVAC PLANS
-  CEILING RETURN, TRANSFER OR EXHAUST GRILLE - SEE HVAC PLANS
-  DESIGNATES CEILING/BULKHEAD HEIGHT A.F.F.
-  EXIT LIGHT
-  OCCUPANCY SENSOR
-  SMOKE DETECTOR



REFLECTED CEILING PLAN

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



ARCHITECTURAL REFLECTED CEILING PLAN

SCHEDULE OF SPECIAL INSPECTION SERVICES					
PROJECT	APPLICABLE TO THIS PROJECT				
	MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT* DATE COMPLETED
1704.2.5 Inspection of Fabricators					
Verify fabrication/quality control procedures	In-plant review (3)	Y	Periodic		
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's requirements)	Submittal review, shop (3) and/or field inspection	Y	Periodic		
1705.2 Steel Construction					
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for compliance with construction documents)	Submittal Review	Y	Each submittal		
2. Material verification of structural steel	Shop (3) and field inspection	Y	Periodic		
3. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection	Y	Periodic		
4. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection	Y	Periodic		
5. Structural steel welding:					
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Shop (3) and field inspection	N	Observe or Perform as noted (4)		
b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Shop (3) and field inspection	N	Observe (4)		
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Shop (3) and field inspection	N	Observe or Perform as noted (4)		
d. Nondestructive testing (NDT) of welded joints: see Commentary					
1) Complete penetration groove welds 5/16" or greater in risk category III or IV	Shop (3) or field ultrasonic testing - 100%	N	Periodic		
2) Complete penetration groove welds 5/16" or greater in risk category II	Shop (3) or field ultrasonic testing - 10% of welds minimum	N	Periodic		
3) Thermally cut surfaces of access holes when material t > 2"	Shop (3) or field magnetic Partical or Penetrant testing	N	Periodic		
4) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	Shop (3) or field radiographic or Ultrasonic testing	N	Periodic		
5) Fabricator's NDT reports when fabricator performs NDT	Verify reports	N	Each submittal (5)		
1705.3 Concrete Construction					
1. Inspection of reinforcing steel installation (see 1705.2.2 for welding)	Shop (3) and field inspection	Y	Periodic		
2. Inspection of prestressing steel installation	Shop (3) and field inspection	N	Periodic		
3. Inspection of anchors cast in concrete where allowable loads have been increased per section 1908.5 or where strength design is used	Shop (3) and field inspection	N	Periodic		
4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection	Y	Periodic or as required by the research report issued by an approved source		
5. Verify use of approved design mix	Shop (3) and field inspection	Y	Periodic		
6. Fresh concrete sampling, perform slump and air content tests and determine temperature of concrete	Shop (3) and field inspection	Y	Continuous		
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	Y	Periodic		
8. Inspection for maintenance of specified curing temperature and techniques	Shop (3) and field inspection	Y	Periodic		
9. Inspection of prestressed concrete:	Shop (3) and field inspection				
a. Application of prestressing force		N	Continuous		
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system		N	Continuous		
11. Verification of in-situ concrete strength, prior to stressing of tendons in post tensioned concrete and prior to removal of shores and forms from beams and structural slabs	Review field testing and laboratory reports	N	Periodic		
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection	Y	Periodic		
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports	Y	Periodic		
1705.5 Wood Construction					
1. Inspection of the fabrication process of wood structural elements and assemblies in accordance with Section 1704.2.5	In-plant review (3)	Y	Periodic		
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans	Field inspection	Y	Periodic		
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection	Y	Periodic		
4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection	N	Periodic		
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection	Y	Periodic		

2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection	Y	Periodic		
3. Perform classification and testing of controlled fill materials.	Field inspection	Y	Periodic		
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection	Y	Continuous		
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly	Field inspection	Y	Periodic		
* INSPECTION AGENTS		ADDRESS		TELEPHONE NO.	
1. FIRM					
2.					
3.					
4.					
Notes: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies may be subject to the approval of the Building Official and/or the Design Professional.					
2. The list of Special Inspectors may be submitted as a separate document, if noted so above.					
3. Special Inspections as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2					
4. Observe on a random basis, operations need not be delayed pending these inspections. Perform these tasks for each welded joint, bolted connection, or steel element.					
5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N7.					
Are Requirements for Seismic Resistance included in the Statement of Special Inspections?				Yes (No)	
Are Requirements for Wind Resistance included in the Statement of Special Inspections?				Yes (No)	
DATE:				2/15/2023	

Statement of Special Inspections Requirements for Seismic Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Seismic Design Category: A

Statement of Special Inspection for Seismic Resistance Required (Yes/No): NO

Description of seismic force-resisting system subject to special inspection and testing for seismic resistance:
(Required for Seismic Design Categories C, D, E or F in accordance with IBC Sections 1705.11.1 through 1705.11.3, 1707.12.1 and 1705.12.2.)

LIGHT-FRAME WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE.

Description of designated seismic systems subject to special inspection and testing for seismic resistance:
(Required for architectural, electrical and mechanical systems and their components that require design in accordance with Chapter 13 of ASCE 7, have a component importance factor, I_p , greater than one and are in Seismic Design Categories C, D, E or F.)

N/A

Description of additional seismic systems and components requiring special inspections and testing:
(Required for systems noted in IBC Section 1705.11, cases 3, 4 & 5 in Seismic Design Categories C, D, E or F.)

N/A

Statement of Responsibility:
Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

NOT REQUIRED

Statement of Special Inspections Requirements for Wind Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Nominal Design Wind Speed, V_{ult} : 90 m.p.h.

Wind Exposure Category: B

Statement of Special Inspection for Wind Resistance Required (Yes/No): NO
(Required in wind exposure Category B, where the nominal design wind speed, V_{ult} , is 120 miles per hour or greater. Required in wind exposure Category C or D, where the nominal design wind speed, V_{ult} , is 110 miles per hour or greater.)

Description of main wind-force resisting system subject to special inspection for wind resistance:
(Required for systems noted in IBC Section 1705.10.1 and 1705.10.2)

N/A

Description of wind-force resisting components subject to special inspection for wind resistance:
(Required for systems and components noted in IBC Section 1705.10.3)

N/A

Statement of Responsibility:
Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

NOT REQUIRED



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COLLABORATION



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

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2255300

SHEET NUMBER

S0.3



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PROJECT INFORMATION

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SHEET DATES

SHEET ISSUE	FEB. 14, 2023
REVISIONS	
AD1	FEB. 28, 2023

JOB NUMBER
 2255300

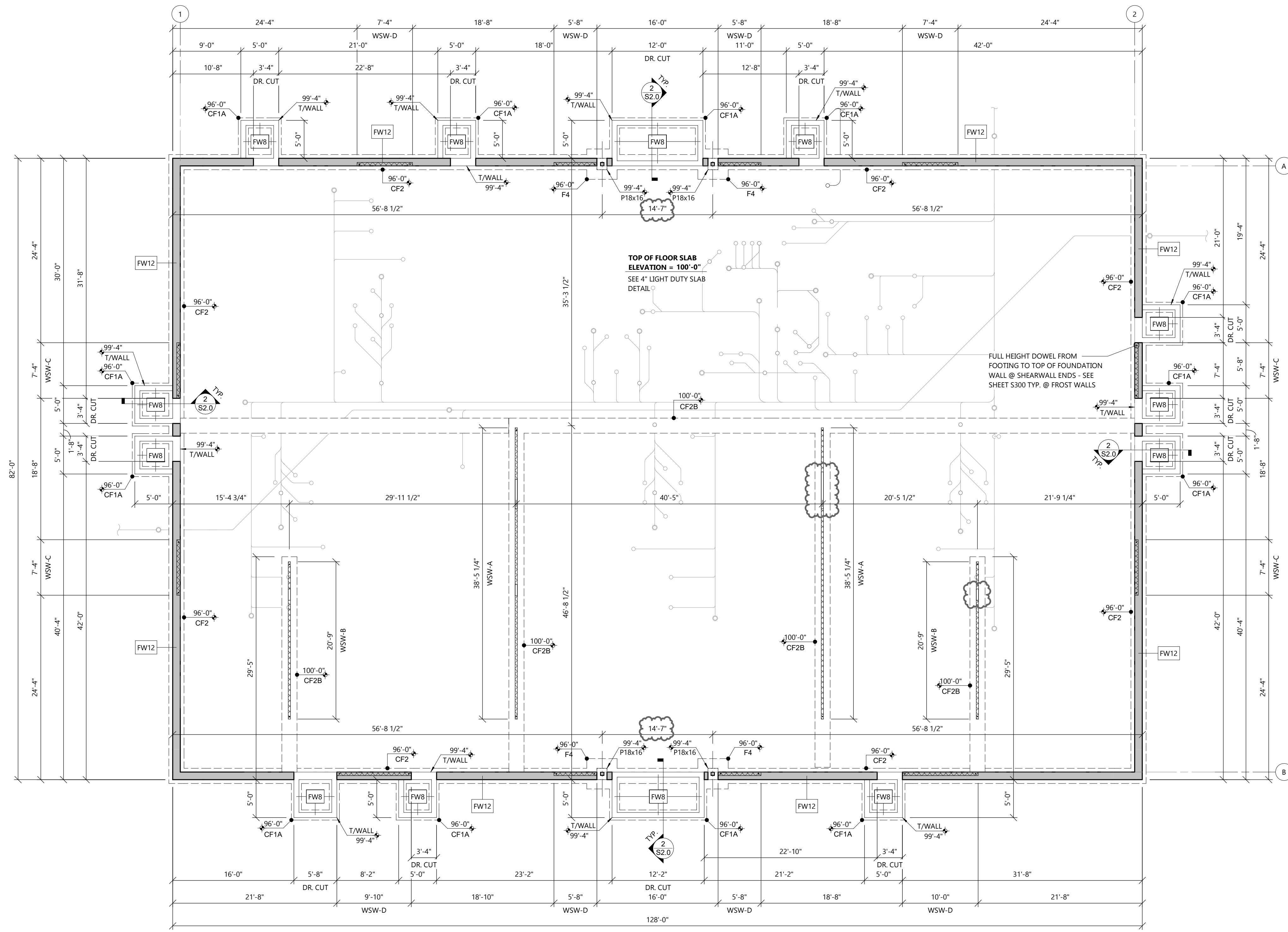
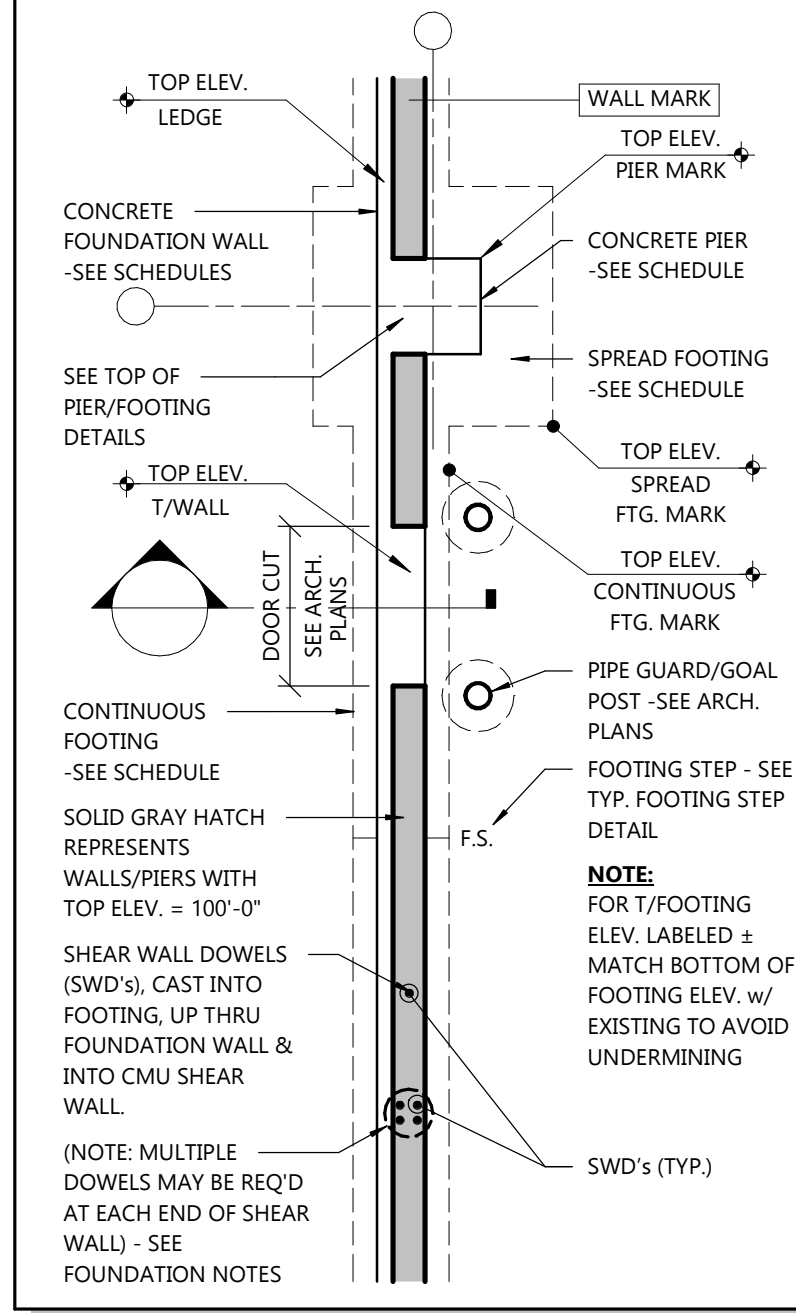
SHEET NUMBER

S1.1

FOUNDATION NOTES

- SEE DESIGN LOADS ON S0 SHEETS FOR ALL DESIGN LOADS NOT SHOWN ON PLANS.
- SEE GENERAL BUILDING SPECIFICATIONS ON A0 SHEETS AND STRUCTURAL SPECIFICATIONS ON S0 SHEETS FOR MATERIAL SPECIFICATIONS NOT SHOWN ON PLANS.
- GEOTECHNICAL REPORT REQUIREMENTS:** CONTRACTOR TO READ, REVIEW AND FOLLOW ALL RECOMMENDATIONS LISTED IN GEOTECHNICAL REPORT (U.N.O.). SEE STRUCTURAL DESIGN CRITERIA FOR GEOTECHNICAL REPORT REFERENCE.
- SEE S2 SHEETS FOR ADDITIONAL FOUNDATION DETAILS NOT REFERENCED ON FOUNDATION PLANS.
- SEE SPECIFICATIONS FOR PERIMETER FOUNDATION INSULATION AND FOUNDATION DRAINAGE PANEL THICKNESS.
- COORDINATE AND VERIFY ALL UNDERGROUND WORK PRIOR TO POURING CONCRETE FLOOR SLAB.
- SEE CIVIL PLANS AND SPECIFICATIONS ON CIVIL PLANS FOR ALL EXTERIOR CONCRETE FLATWORK NOT SPECIFICALLY SHOWN/DETAILED ON THE STRUCTURAL PLANS.
- SEE S2 SHEETS FOR TOP OF PIER/FOOTING AND CONTROL JOINT AT COLUMN LOCATIONS.
- SEE S2 SHEETS FOR SLAB TYPES.
- SEE ARCHITECTURAL FLOOR PLANS FOR TAGS OF ALL GUARDPOSTS & GOALPOSTS. GUARDPOST & GOALPOST SCHEDULE & DETAILS LOCATED ON A6 SHEETS.
- PLUMBING PIPE LINES SHOWN ON THIS PLAN ARE FOR GENERAL LAYOUT INTENT PURPOSES ONLY. REFER TO THE PLUMBING PLANS FOR SPECIFIC INFORMATION.
- WOOD SHEAR WALL DOWELS ARE A PART OF THIS FOUNDATION DESIGN AND MUST BE PLACED IN COORDINATION W/ THE FOOTINGS AND FOUNDATION WALLS PRIOR TO POURING FOUNDATIONS. (THESE DOWELS RUN FROM THE FOOTING UP INTO THE CMU SHEAR WALLS.) CONTRACTORS MUST HAVE A CLEAR UNDERSTANDING OF WHAT IS REQUIRED PRIOR TO BEGINNING FOUNDATION WORK. CONTRACTORS ARE TO REVIEW THE CMU SHEAR WALL SCHEDULE AND DETAIL FOR DOWEL INFORMATION AND IDENTIFY ALL LOCATIONS PRIOR TO POURING. CONTACT EXCEL ENGINEERING, INC. WITH ANY QUESTIONS YOU MAY HAVE PRIOR TO BEGINNING WORK.

FOUNDATION PLAN SYMBOLS



FOUNDATION PLAN
 SCALE: 1/8" = 1'-0"
 NORTH



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

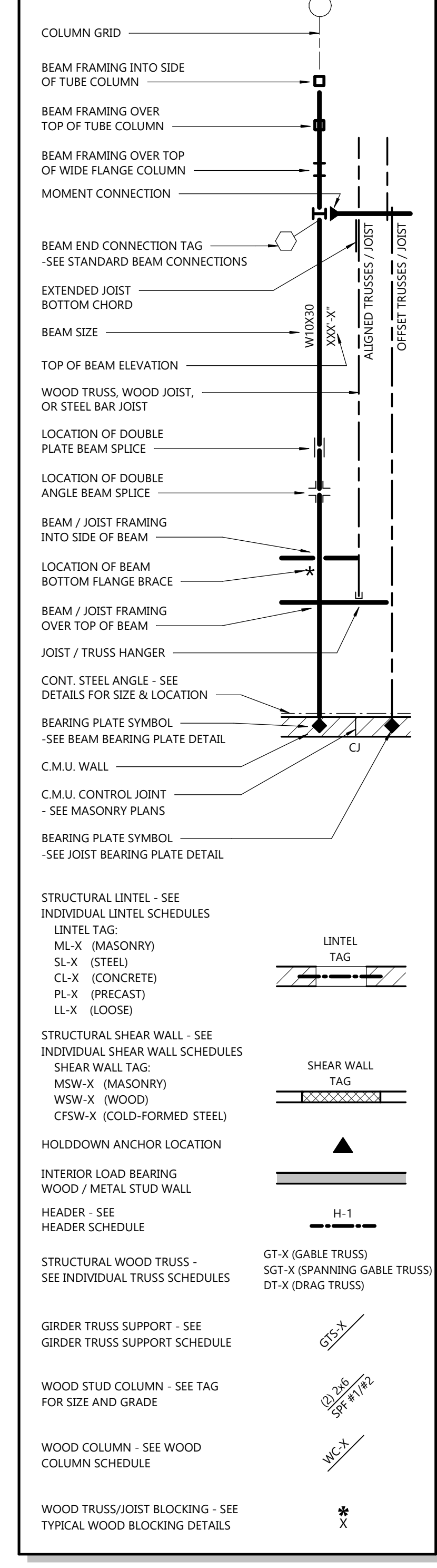
REVISIONS
AD1 FEB. 28, 2023

JOB NUMBER
2255300

SHEET NUMBER

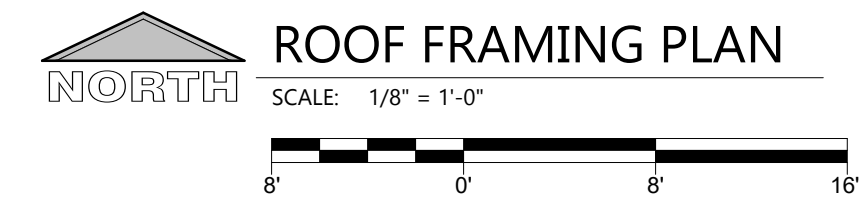
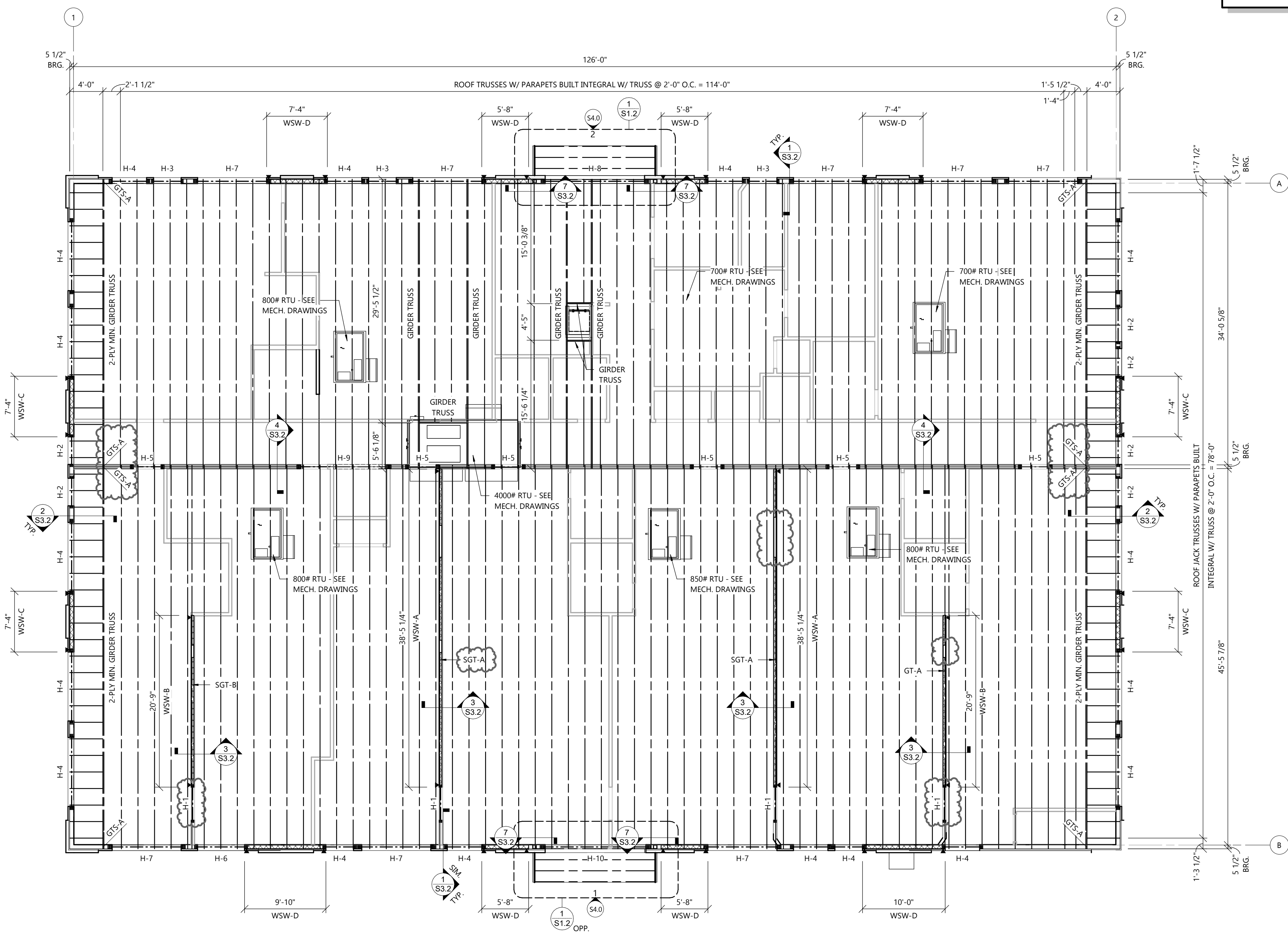
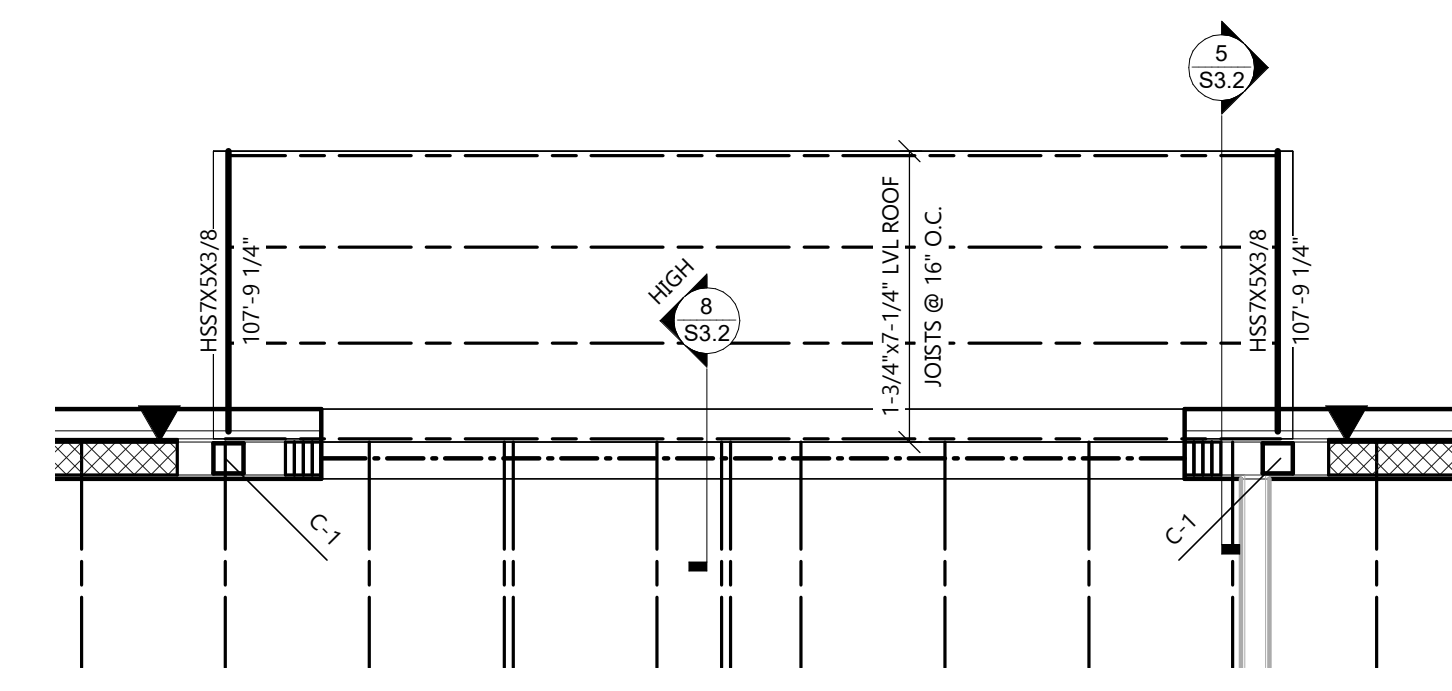
S1.2

FRAMING PLAN SYMBOLS



TRUSS FRAMING NOTES

- ROOF FRAMING PLANS AND FLOOR FRAMING PLANS ARE "SCHEMATIC" ONLY - TRUSS MANUFACTURER TO PREPARE FINAL FRAMING PLANS FOR THE CONTRACTOR'S USE IN FIELD. NOTIFY ARCHITECT / ENGINEER OF ANY CHANGES.
- SEE BUILDING CROSS SECTIONS AND DETAILS FOR TRUSS PROFILES & PRESENCE OF BOTTOM CHORD SHEATHING.
- ALL PERMANENT TRUSS BRACING, INCLUDING CONTINUOUS LATERAL, DIAGONAL, BOTTOM CHORD, AND PIGGY-BACK, AND THEIR CONNECTIONS, SHALL BE DESIGNED BY TRUSS MANUFACTURER - SEE TRUSS MANUFACTURER'S DRAWINGS FOR WEB & LATERAL BRACING SIZE & LOCATION REQUIREMENTS. ALL BRACING SHALL BE INSTALLED BY G.C.
- G.C. TO PROVIDE TRUSS MANUFACTURER W/ LOCATIONS & WEIGHTS OF EQUIPMENT LOADS.
- ALL METAL TRUSS HANGERS BY TRUSS MANUFACTURER WHERE REQUIRED.
- PROVIDE SKEWED 45° "SIMPSON" METAL HANGERS SU (L) OR (R) AT ALL CORNER FRAME INTERSECTIONS.
- PROVIDE (2) 2x6 WOOD BLOCKING AROUND ALL ROOF DECK OPENINGS & UNDER ROOF CURBS, SCUPPERS, ROOF DRAINS, ETC...
- PROVIDE (1) LAYER 1/2" GYPSUM BOARD ON (1) SIDE OF TRUSS AND EXTEND OUT INTO ROOF OVERHANG FOR ATTIC COMPARTMENTIZATION (SEE ROOF FRAMING PLAN FOR LOCATIONS). PROVIDE 20"x30" ACCESS PANEL IN EACH TRUSS DRAFTSTOP FOR ACCESS TO EACH ATTIC COMPARTMENT.
- THE NUMBER AND SIZE OF NAILS CONNECTING WOOD MEMBERS SHALL NOT BE LESS THAN THAT SET FORTH IN I.B.C. TABLE 2304.9.1 "FASTENING SCHEDULE" - SEE STRUCTURAL DRAWINGS.
- PROVIDE FULL DEPTH BLOCKING AT ALL INTERIOR BEARING WALLS @ 48" O.C. MAX.
- USE (1) "SIMPSON" H2.5A TRUSS ANCHORS @ EACH ROOF TRUSS END W/ (5) 8d NAILS INTO TRUSS & (5) 8d NAILS INTO MIN. DOUBLE PLATE - APPLY AT OPPOSITE SIDES OF TRUSS & PLATE.
- UNLESS NOTED OTHERWISE, NAIL WALL SHEATHING 6" O.C. @ PANEL EDGES W/ 8d NAILS, NAIL 12" O.C. (MIN.) TO INTERMEDIATE SUPPORTS.

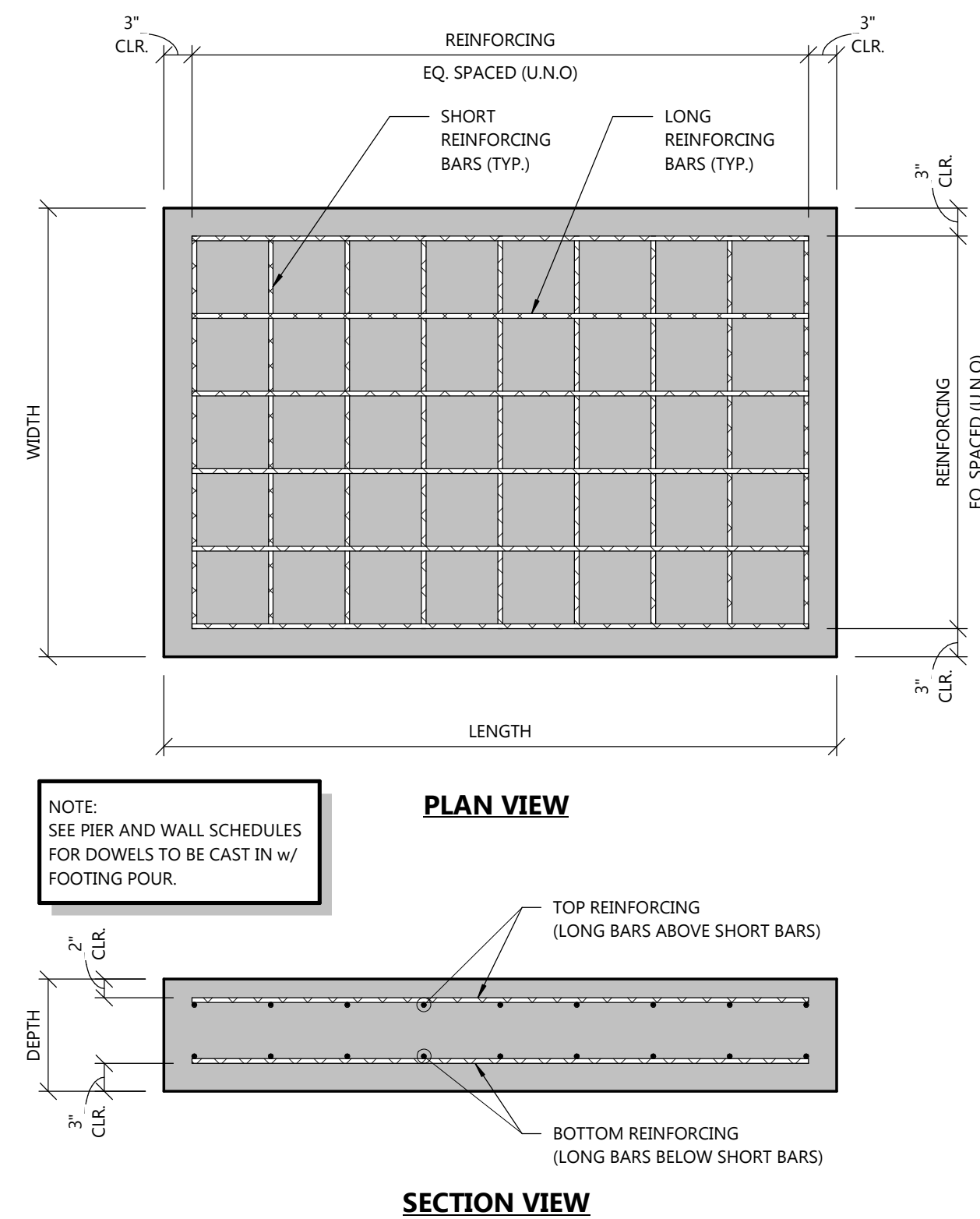


NO.	DESCRIPTION

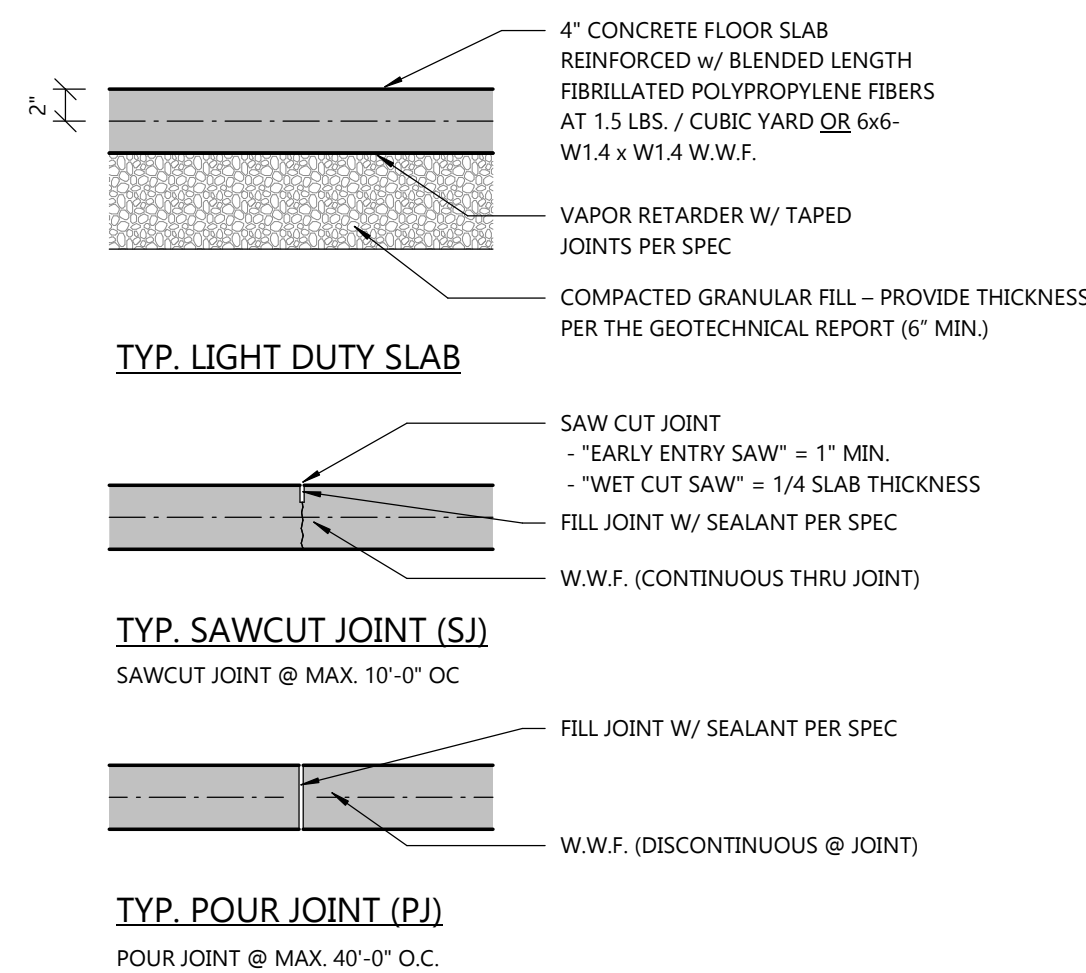
SPREAD FOOTING SCHEDULE NOTES:

- ALL FOOTINGS ARE CENTERED ON PIER UNLESS DIMENSIONED OTHERWISE. IF PIER IS NOT REQUIRED, ALL FOOTINGS ARE CENTERED ON COLUMN GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE.
- SEE TYPICAL SPREAD FOOTING DETAIL FOR TYPICAL CONSTRUCTION & NOTES.
- SEE FOUNDATION PLAN FOR TOP OF FOOTING ELEVATIONS.
- SEE FOUNDATION PLAN FOR FOOTING ORIENTATION.
- SEE COLUMN SCHEDULE FOR COLUMN ANCHOR BOLT INFORMATION (WHERE APPLICABLE).
- SEE STRUCTURAL SPECIFICATIONS FOR CONSTRUCTION MATERIAL REQUIREMENTS.

SPREAD FOOTING SCHEDULE							
MARK	FOOTING SIZE			REINFORCING - LONG BARS		REINFORCING - SHORT BARS	REMARKS
	LENGTH	WIDTH	DEPTH	BOTTOM	TOP	BOTTOM	
F4	4'-0"	4'-0"	12"	(5) #4 BARS		(5) #4 BARS	



TYPICAL SPREAD FOOTING DETAIL
NOT TO SCALE

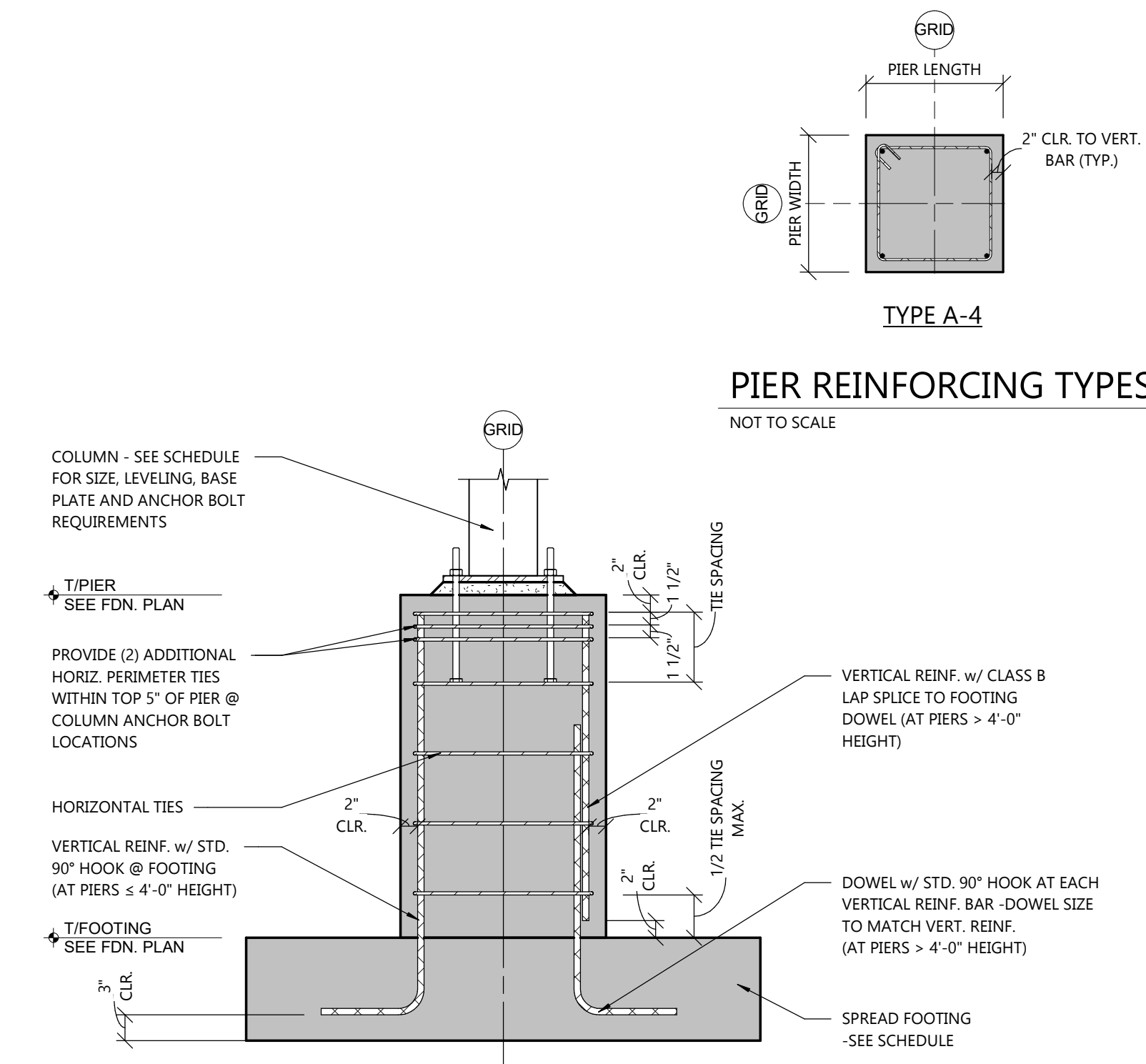


1
S2.0
4" LIGHT DUTY SLAB DETAIL
SCALE: 1" = 1'-0"

PIER SCHEDULE NOTES:

- ALL PIERS ARE CENTERED ON COLUMN GRID LINE INTERSECTIONS UNLESS DIMENSIONED OTHERWISE.
- SEE TYPICAL PIER DETAIL FOR TYPICAL CONSTRUCTION & NOTES.
- SEE FOUNDATION PLAN FOR TOP OF PIER ELEVATIONS.
- SEE FOUNDATION PLAN FOR PIER ORIENTATION.
- SEE COLUMN SCHEDULE FOR COLUMN ANCHOR BOLT INFORMATION.
- VERTICAL REINF. BARS SHALL BE EQUALLY SPACED, U.N.O.
- SEE REINFORCING TOP VIEW DETAILS FOR ORIENTATION OF VERTICAL REINFORCING.
- HORIZONTAL TIES SHALL MEET REQ'S OF ACI 318-7.10.5.3 FOR LATERAL SUPPORT OF VERTICAL REINFORCING.
- SEE STRUCTURAL SPECIFICATIONS FOR CONSTRUCTION MATERIAL REQUIREMENTS.

PIER SCHEDULE								
MARK	WIDTH	SIZE	LENGTH	DIAMETER	VERTICAL REINFORCING	HORIZONTAL TIES	REINFORCING TYPE	REMARKS

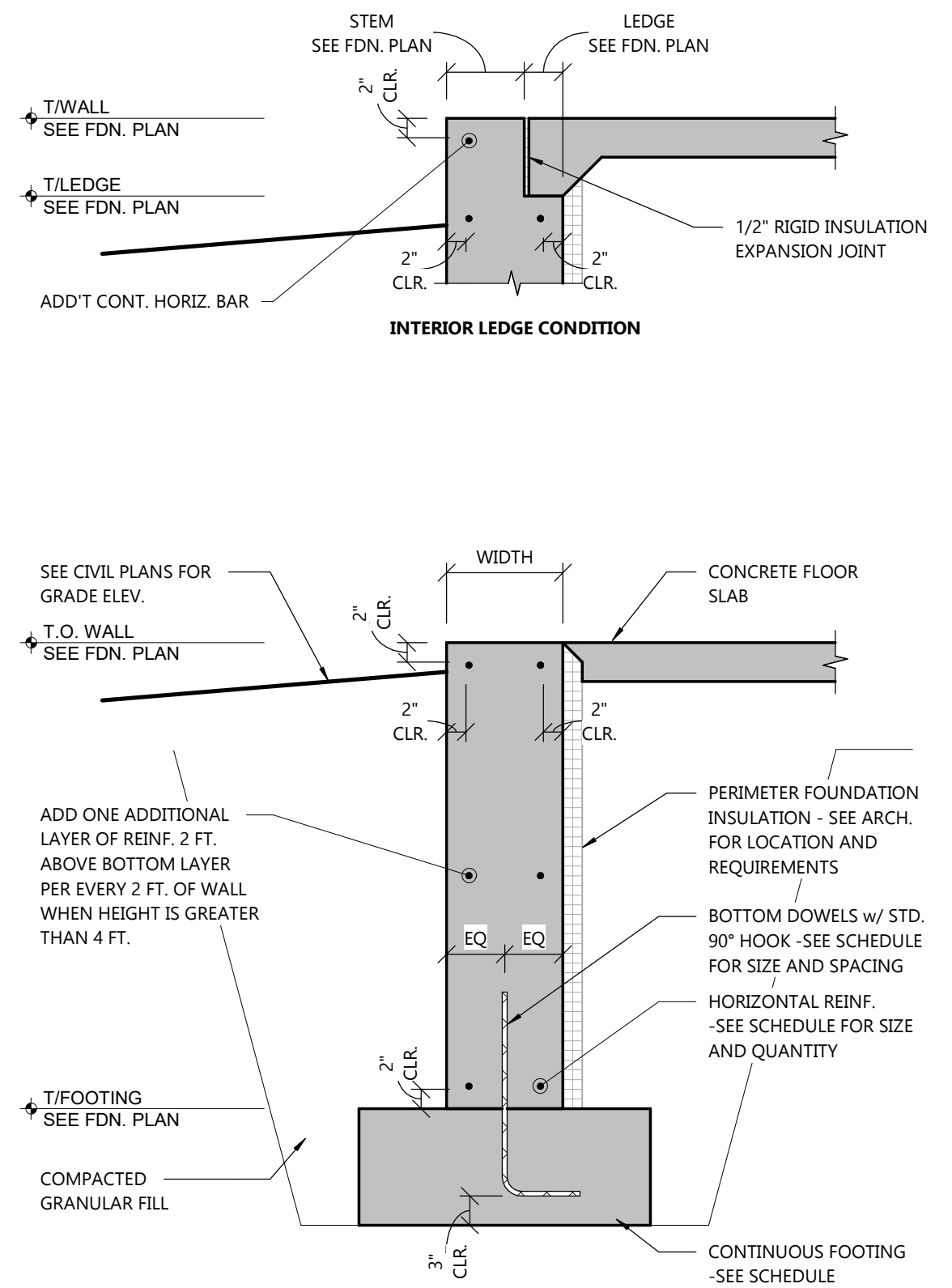


TYPICAL PIER DETAIL
NOT TO SCALE

FROST WALL SCHEDULE NOTES:

- SEE TYPICAL FROST WALL DETAIL FOR TYPICAL CONSTRUCTION & NOTES.
- SEE FOUNDATION PLAN FOR TOP OF WALL & LEDGE (IF APPLICABLE) ELEVATIONS.
- SEE STRUCTURAL SPECIFICATIONS FOR CONSTRUCTION MATERIAL REQUIREMENTS.

FROST WALL SCHEDULE				
MARK	WIDTH	REINFORCING		REMARKS
		HORIZONTAL	BOTTOM DOWEL	
FW8	8"	(2) #4 TOP & BOT.	#4 x 21" + HOOK @ 18" O.C.	
FW12	12"	(2) #5 TOP & BOT.	#4 x 21" + HOOK @ 18" O.C.	

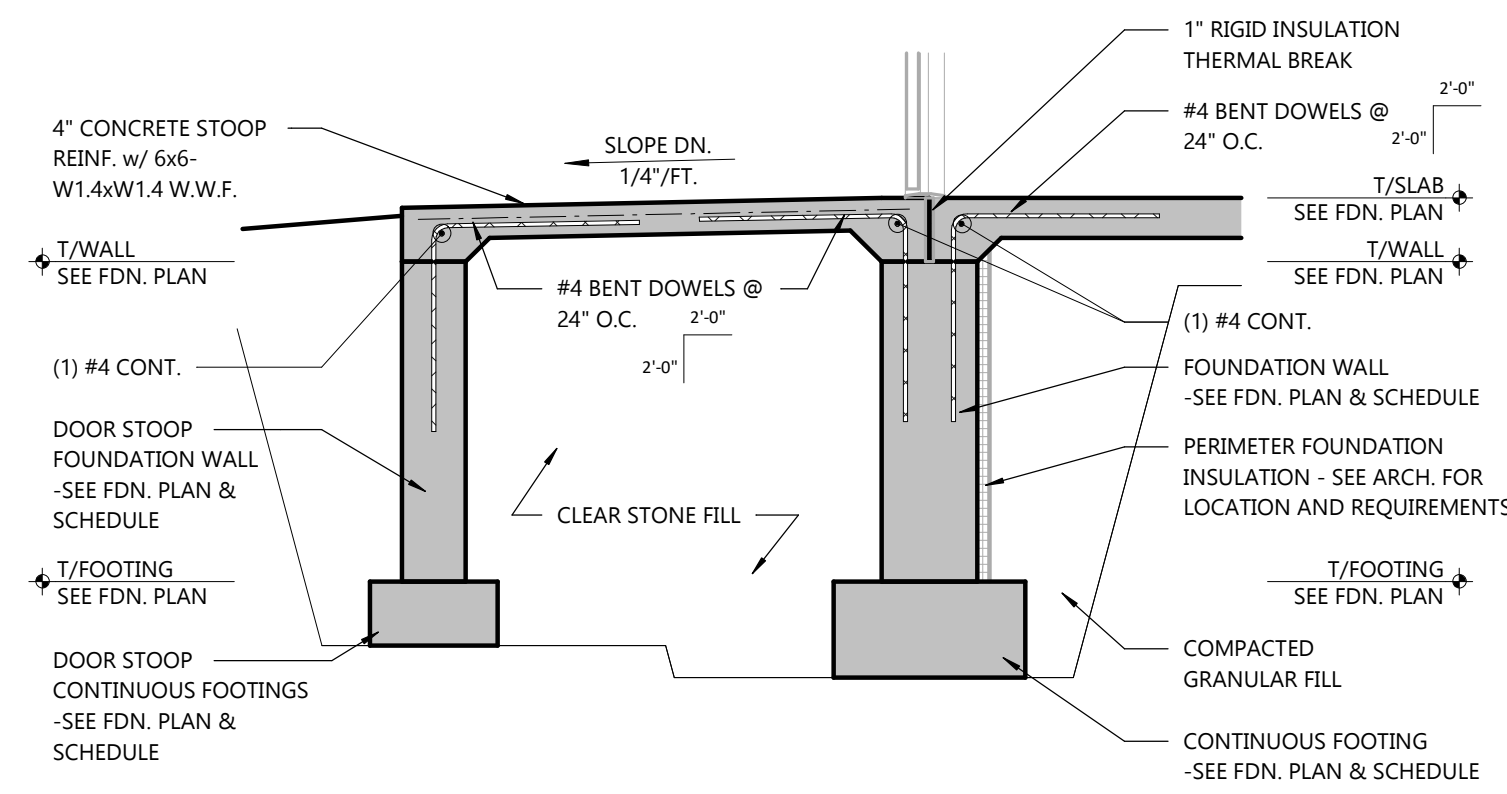


TYPICAL FROST WALL DETAIL
NOT TO SCALE

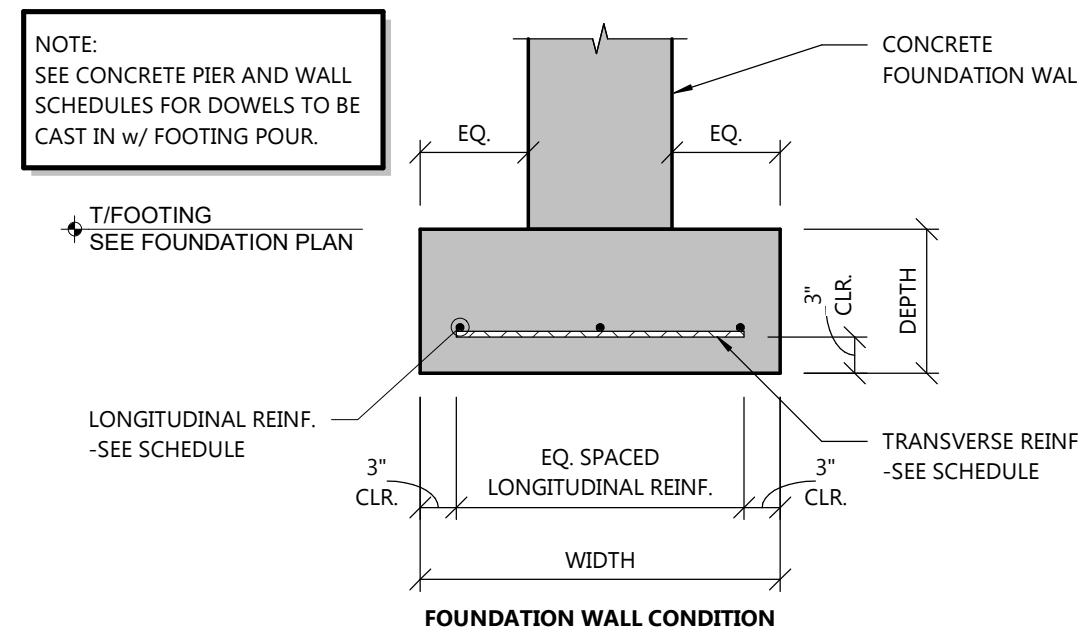
CONTINUOUS FOOTING SCHEDULE NOTES:

- ALL FOOTINGS ARE CENTERED ON FOUNDATION WALLS UNLESS DIMENSIONED OTHERWISE.
- SEE TYPICAL CONTINUOUS FOOTING DETAIL FOR TYPICAL CONSTRUCTION & NOTES.
- SEE FOUNDATION PLAN FOR TOP OF FOOTING ELEVATIONS.
- SEE STRUCTURAL SPECIFICATIONS FOR CONSTRUCTION MATERIAL REQUIREMENTS.

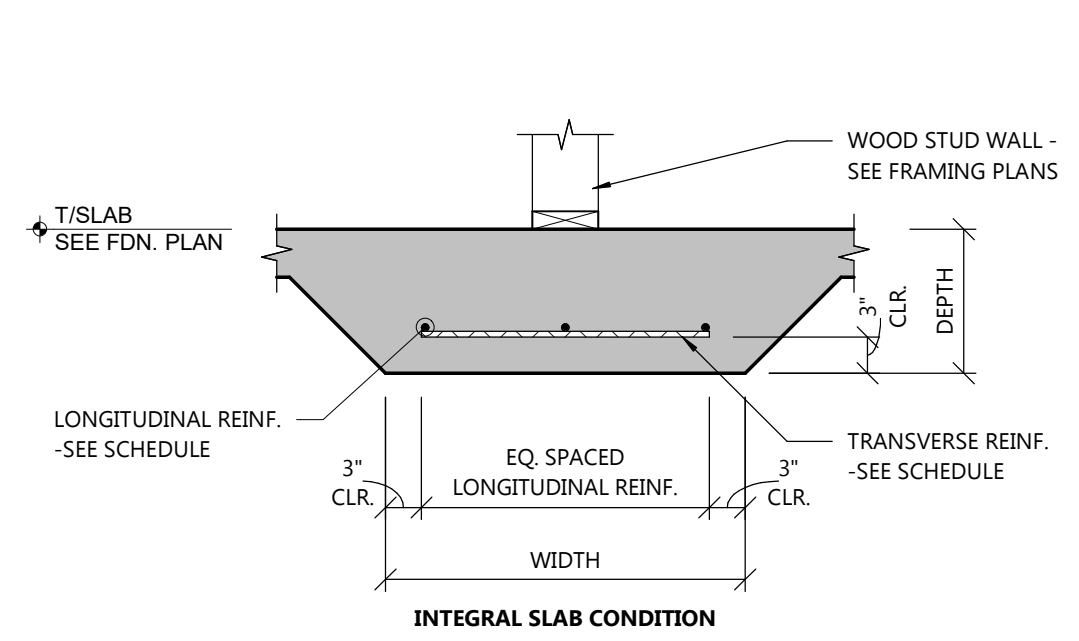
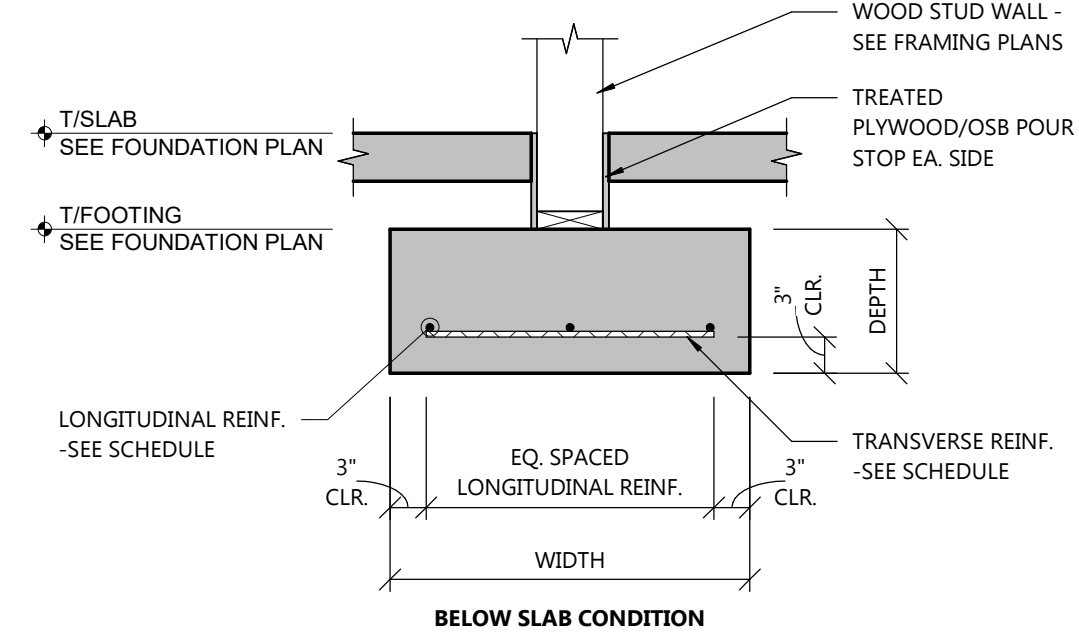
CONTINUOUS FOOTING SCHEDULE					
MARK	FOOTING SIZE		REINFORCING		REMARKS
	WIDTH	DEPTH	LONGITUDINAL	TRANSVERSE	
CF1A	1'-4"	12"	(2) #4 BARS	-	
CF2	2'-0"	12"	(2) #5 BARS	-	
CF2B	2'-0"	18"	(3) #5 BARS	-	



2
S2.0
DOOR STOOP DETAIL
SCALE: 1/2" = 1'-0"



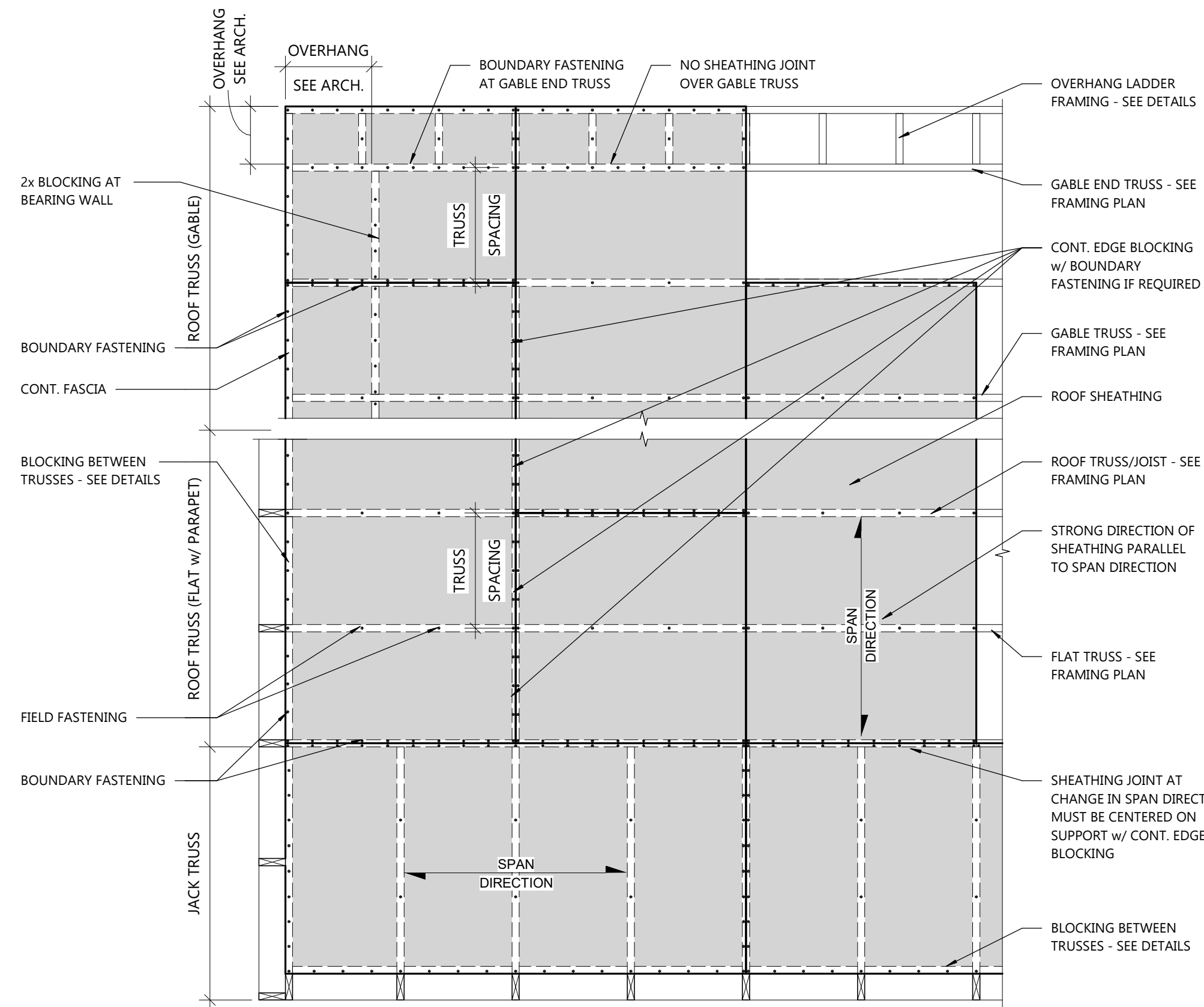
TYPICAL CONTINUOUS FOOTING DETAIL
NOT TO SCALE



WOOD ROOF SHEATHING SCHEDULE NOTES:

- UNLESS NOTED OTHERWISE, WRS-1 APPLIES TO ALL WOOD ROOF SHEATHING.
- GAP BETWEEN PANEL JOINTS REQUIRED - SEE SPECIFICATION.
- SHEATHING PANELS TO BE RATED EXPOSURE 1 MINIMUM.
- SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

WOOD ROOF SHEATHING SCHEDULE									
MARK	SHEATHING DESIGNATION		BOUNDARY FASTENING			FIELD FASTENING			REMARKS
	MINIMUM THICKNESS	TYPE	FASTENER	FASTENER SPACING	CONT. EDGE BLOCKING REQ'D	FASTENER	FASTENER SPACING		
WRS-1*	5/8"	PLYWOOD/OSB	8d	6" O.C.	NO	8d	12" O.C.		



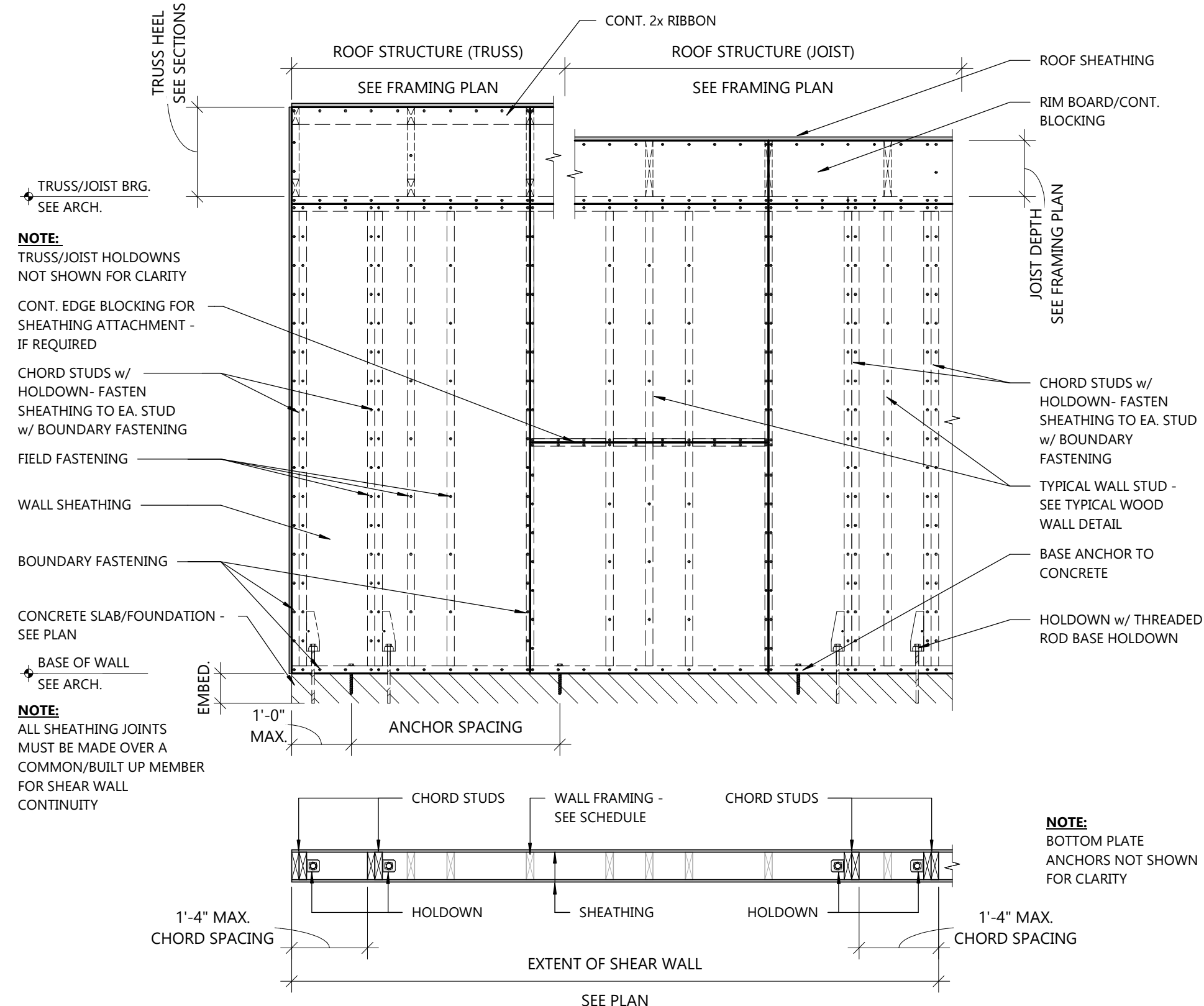
WOOD ROOF SHEATHING DETAIL

NOT TO SCALE

WOOD SHEAR WALL SCHEDULE NOTES:

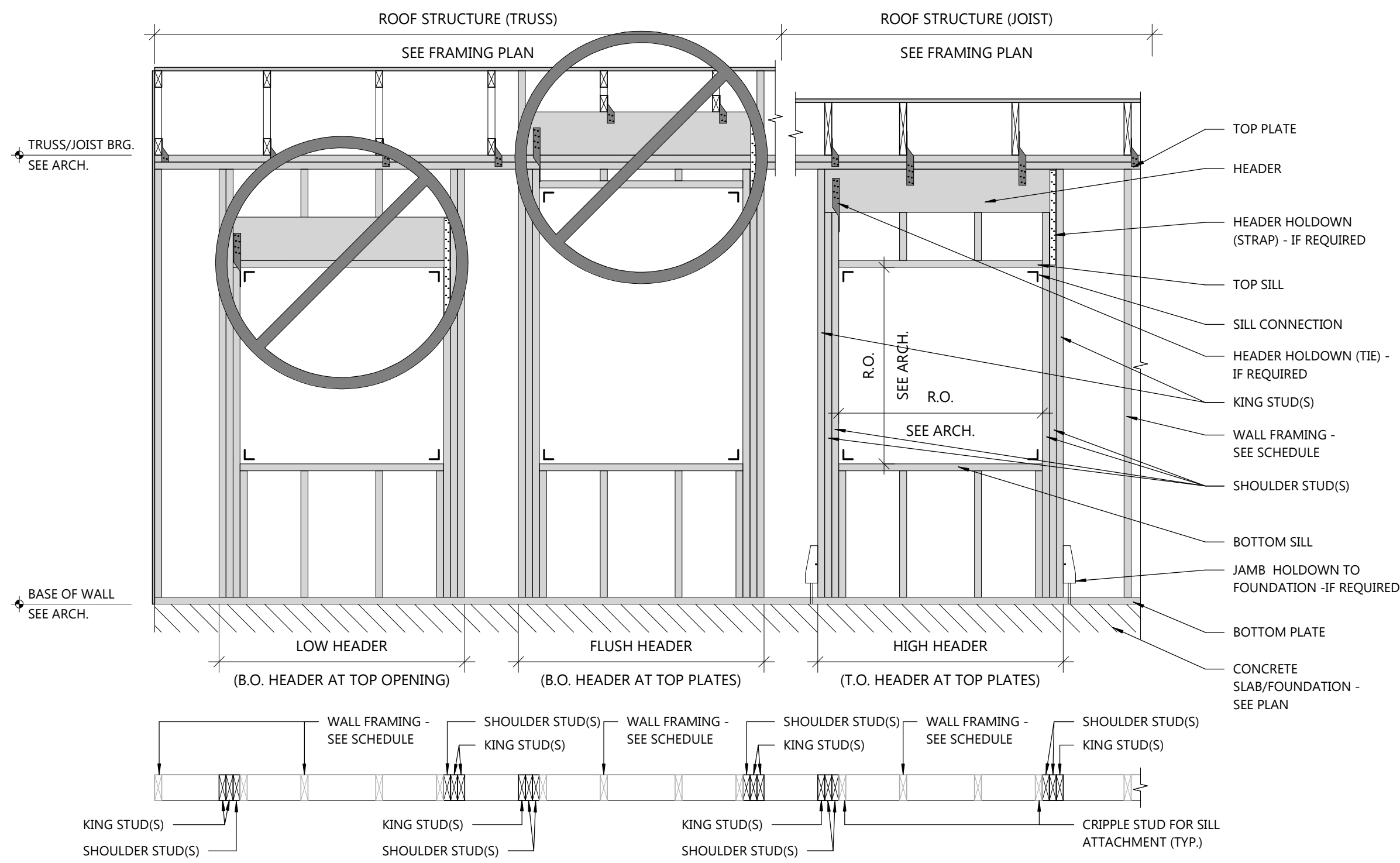
- USE "SIMPSON AT ACRYLIC TIE" IN LIEU OF "SIMPSON SET EPOXY-TIE ADHESIVE" WHEN TEMPERATURE <50 DEG. F DURING CURE TIME. SEE MANUFACTURER'S SPEC.'S FOR CURE TIMES.
- SEE SPECIFICATIONS FOR REQUIRED FASTENER FINISH IN TREATED LUMBER.
- ALTERNATE EQUAL FOR 6d COOLER NAILS = 1-1/2" LONG - 16 GA. STAPLES.
- PROVIDE 'SIMPSON' BPS1/2-3 PLATE WASHER @ EA. SHEAR WALL ANCHOR.

WOOD SHEAR WALL SCHEDULE																
MARK	SHEATHING DESIGNATION			SHEATHING FASTENING			CHORD				HOLDOWN			BASE ANCHORS		
	MINIMUM THICKNESS	TYPE	NO. OF SIDES	BOUNDARY FASTENING	BOUNDING REQ'D	FIELD FASTENING	QTY.	QTY.	SIZE	GRADE	TYPE	ANCHORAGE	SIZE	TYPE	MAX. SPACING	
WSW-A	7/16"	OSB/PLYWOOD	ONE SIDE	8d @ 6" O.C.	REQ'D	8d @ 12" O.C.	1	2	2x4	#1/#2 SPF	DTTZZ	1/2" A36 THREADED ROD EMBED 5" W/ 'SIMPSON' SET-XP EPOXY	1/2" @ 6"	'SIMPSON' TITEN HD	36" O.C.	
WSW-B	7/16"	OSB/PLYWOOD	ONE SIDE	8d @ 6" O.C.	REQ'D	8d @ 12" O.C.	1	2	2x4	#1/#2 SPF	HDU2-SDS2.5	5/8" A36 THREADED ROD EMBED 10" W/ 'SIMPSON' SET-XP EPOXY	1/2" @ 6"	'SIMPSON' TITEN HD	36" O.C.	
WSW-C	7/16"	OSB/PLYWOOD	ONE SIDE	8d @ 6" O.C.	REQ'D	8d @ 12" O.C.	1	2	2x6	#1/#2 SPF	HDU2-SDS2.5	5/8" A36 THREADED ROD EMBED 10" W/ 'SIMPSON' SET-XP EPOXY	1/2" @ 6"	'SIMPSON' TITEN HD	48" O.C.	
WSW-D	7/16"	OSB/PLYWOOD	ONE SIDE	8d @ 6" O.C.	REQ'D	8d @ 12" O.C.	1	2	2x6	#1/#2 SPF	HDU2-SDS2.5	5/8" A36 THREADED ROD EMBED 10" W/ 'SIMPSON' SET-XP EPOXY	1/2" @ 6"	'SIMPSON' TITEN HD	36" O.C.	



TYPICAL WOOD SHEAR WALL DETAIL

NOT TO SCALE



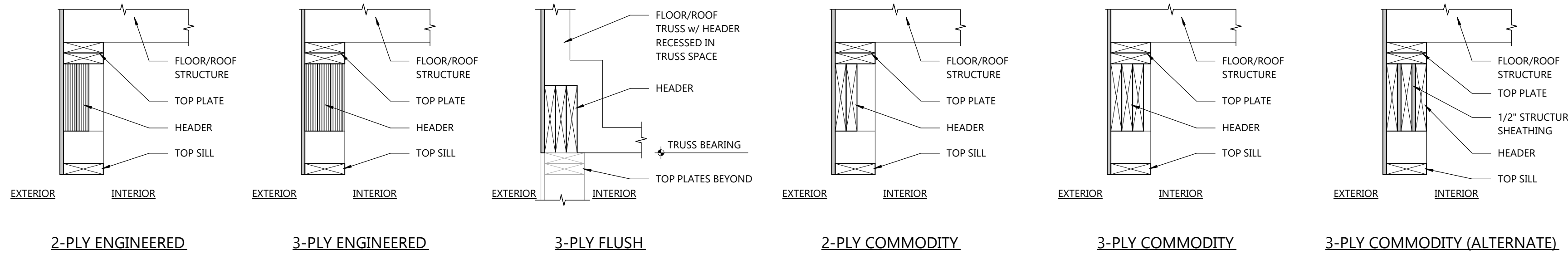
TYPICAL WOOD HEADER DETAIL

NOT TO SCALE

WOOD HEADER SCHEDULE NOTES:

- NAIL ALL HEADERS, BEAMS AND LINTELS UP TO 11 7/8" DEPTH w/ 10d NAILS @ 12" O.C. TOP AND BOTTOM (MIN).
- NAIL ALL HEADERS, BEAMS AND LINTELS GREATER THAN 11 7/8" IN DEPTH w/ 10d NAILS @ 12" O.C. TOP, MIDDLE AND BOTTOM (MIN).
- (3) PLY & GREATER HEADER, BEAM AND LINTEL MEMBERS REQUIRE NAILING FROM EACH SIDE.
- NAIL ALL 2x4 STUD COLUMNS w/ 10d NAILS @ 8" O.C. STAGGERED, ADJACENT FASTENERS FROM OPPOSITE SIDES.
- NAIL ALL 2x6 AND GREATER STUD COLUMNS w/ (2) 10d NAILS @ 8" O.C. STAGGERED, ADJACENT FASTENERS FROM OPPOSITE SIDES.
- SEE SPECIFICATIONS FOR REQUIRED FASTENER FINISH IN TREATED LUMBER.

WOOD HEADER SCHEDULE																
MARK	HEADER				JAMB				TOP/BOTTOM SILL				REMARKS			
	QTY. OF PLIES	SIZE	GRADE	LOCATION	QTY.	SIZE	GRADE	QTY.	SIZE	GRADE	QTY.	SIZE		GRADE	CONNECTION	
H-1	2	2x8	#1/#2 DF-L	HIGH	1	2x4	#1/#2 SPF	1	2x4	#1/#2 SPF	1	2x6	SPF #1/#2	(3) 16d TOENAILS EA.		
H-2	2	2x8	#1/#2 DF-L	HIGH	1	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(3) 16d TOENAILS EA.		
H-3	3	2x8	#1/#2 DF-L	HIGH	1	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(3) 16d TOENAILS EA.		
H-4	3	2x8	#1/#2 DF-L	HIGH	2	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(1) 'SIMPSON' A35 CLIP		
H-5	3	2x10	#1/#2 DF-L	HIGH	2	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(3) 16d TOENAILS EA.		
H-6	3	2x12	#1/#2 DF-L	HIGH	2	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(3) 16d TOENAILS EA.		
H-7	3	1.75x9.25	LVL	HIGH	3	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(1) 'SIMPSON' A35 CLIP		
H-8	3	1.75x11.25	LVL	HIGH	3	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	3	2x6	SPF #1/#2	(1) 'SIMPSON' A35 CLIP		
H-9	3	1.75x14	LVL	HIGH	3	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	1	2x6	SPF #1/#2	(3) 16d TOENAILS EA.		
H-10	3	1.75x14	LVL	HIGH	4	2x6	#1/#2 SPF	1	2x6	#1/#2 SPF	3	2x6	SPF #1/#2	(1) 'SIMPSON' A35 CLIP		



WOOD HEADER TYPES

NOT TO SCALE



Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

COLLABORATION



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

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2255300

SHEET NUMBER

S3.0

GIRDER TRUSS SUPPORT SCHEDULE			
MARK	DESCRIPTION	LUMBER SIZE/GRADE	REMARKS
GTS-A	(2) 2x6 STUDS w/ 'SIMPSON' LGT2 TIE DOWN	2x6 #1/#2 SPF	1) STUD COLUMN TO EXTEND TO FOUNDATION 2) PROVIDE CRIPPLE STUDS IN JOIST SPACE AS REQUIRED 3) PROVIDE (1) 'SIMPSON' HDU2-SD52.5 w/ 5/8" THREADED ROD, 10" EMBED, AND 'SIMPSON' SET EPOXY-TIE ADHESIVE TO FND.

GIRDER TRUSS SUPPORT SCHEDULE NOTES:
1. NUMBER OF STUDS AND GRADES ARE MINIMUMS. VERIFY NUMBER OF STUDS NOT LESS THAN GIRDER PLY. NUMBER OF STUDS AND LUMBER GRADES MAY BE INCREASED.
2. HOLDDOWNS ARE MINIMUMS. COORDINATE w/ TRUSS SUPPLIER FOR GIRDER PLY.

WOOD WALL STUD SCHEDULE NOTES:
1. THE SCHEDULE APPLIES TO LOAD BEARING WALLS.
2. REFER TO PLANS & DETAILS FOR POSSIBLE WALL STUD VARIATIONS. SCHEDULED STUD QUANTITY AND GRADE ARE TO BE TREATED AS MINIMUMS AND SPACING TO BE TREATED AS A MAXIMUM.
3. WHERE WALL STUDS MUST ALIGN FROM FLOOR TO FLOOR, PLACE ADDITIONAL STUDS AS REQUIRED. PLACE CRIPPLE STUDS IN TRUSS SPACE AS REQUIRED FOR CONTINUOUS LOAD PATH TO FOUNDATION.
4. WHERE WALL STUDS MUST ALIGN WITH ROOF/FLOOR TRUSSES, PLACE ADDITIONAL STUDS AS REQUIRED. PLACE CRIPPLE STUDS IN TRUSS SPACE AS REQUIRED FOR CONTINUOUS LOAD PATH TO FOUNDATION.
5. DEFER TO WOOD HEADER SCHEDULE FOR JAMB STUD QUANTITIES, AND DEFER TO WOOD SHEAR WALL SCHEDULE FOR CHORD STUD QUANTITIES.

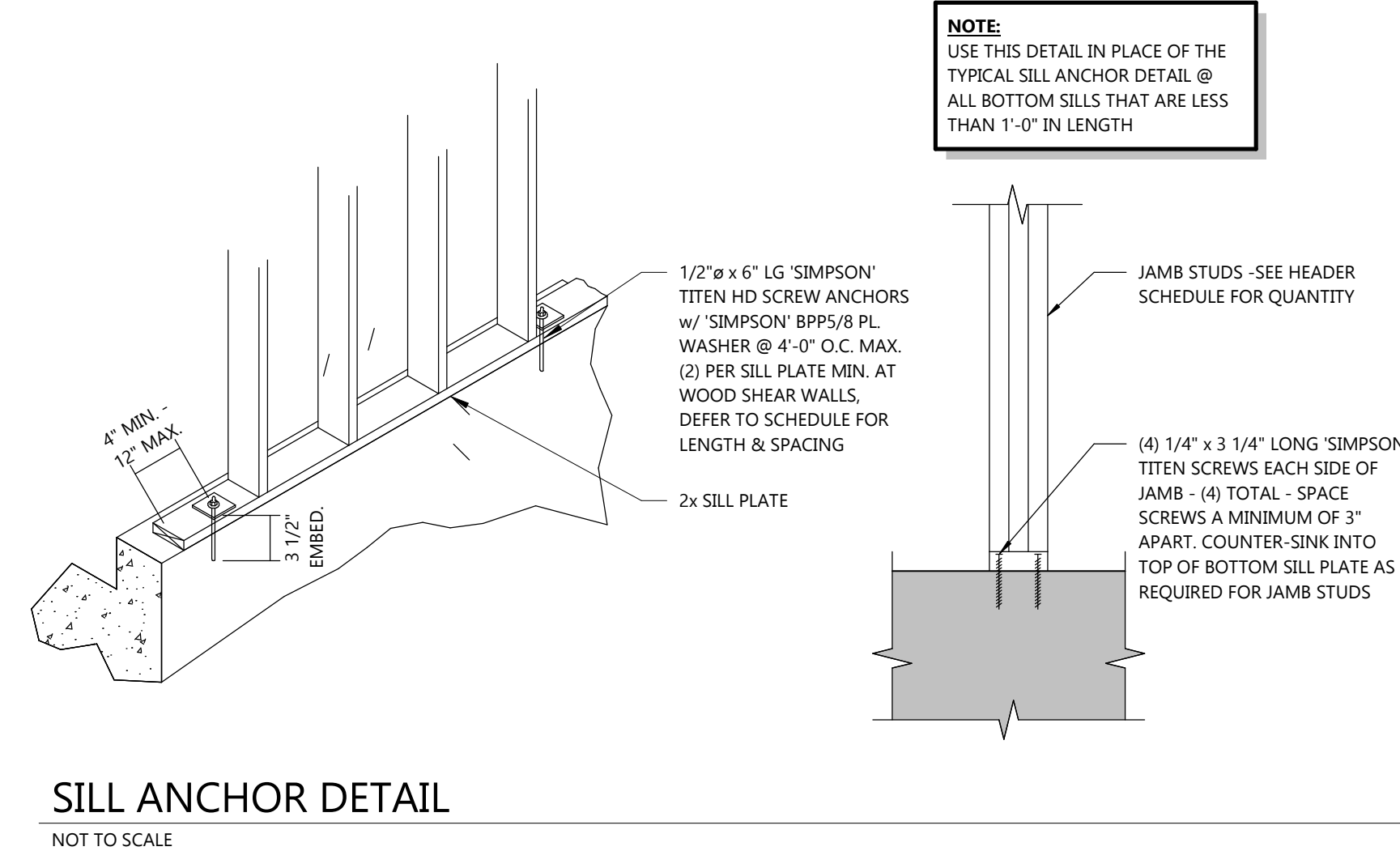
WOOD WALL STUD SCHEDULE - STRUCTURAL BEARING WALLS								
FLOOR LEVEL	No.	TOP PLATES		SIZE	GRADE	SPACING	STUDS ALIGN FLR. TO FLR. (SEE NOTE 3)	STUDS ALIGN w/ TRUSSES (SEE NOTE 4)
		SIZE	GRADE					
1ST FLOOR EXTERIOR WALLS	3	2x6	#1/#2 SPF	2x6	#1/#2 SPF	16" O.C.	NOT REQ'D	NOT REQ'D
1ST FLOOR INTERIOR WALLS	2	2x6	#1/#2 SPF	(2) 2x6	#1/#2 SPF	24" O.C.	NOT REQ'D	REQ'D

SPANNING GABLE TRUSS SCHEDULE								
MARK	WEB SPACING (MAX.)	SHEATHING JOINT BLOCKING REQ'T.	DEFL. LIMIT ON VERT. WEB (OUT-OF-PLAN...)	BOUNDARY NAILING	SHEATHING TYPE	HOLDDOWN STRAP	TRUSS-TO-WALL CONNECTORS	SPACING
SGT-A	24" o.c.	CONTINUOUS	L/240	8d @ 6" o.c.	7/16" OSB ONE SIDE	SIMPSON H2.5A	8d COMMON NAILS	12" O.C.
SGT-B	24" o.c.	CONTINUOUS	L/240	8d @ 6" o.c.	7/16" OSB ONE SIDE	SIMPSON H2.5A	8d COMMON NAILS	8" O.C.

GABLE TRUSS SCHEDULE NOTES:
1. WIND LOADING PER DESIGN LOAD TABLE. SEE STRUCTURAL SHEETS.
2. GT-X INDICATES GABLE TRUSS; ST-X INDICATES SHEATHED TRUSS. SEE PLAN FOR LOCATIONS.
3. HOLDDOWN AND TRUSS-TO-WALL CONNECTORS BY SIMPSON STRONG-TIE.

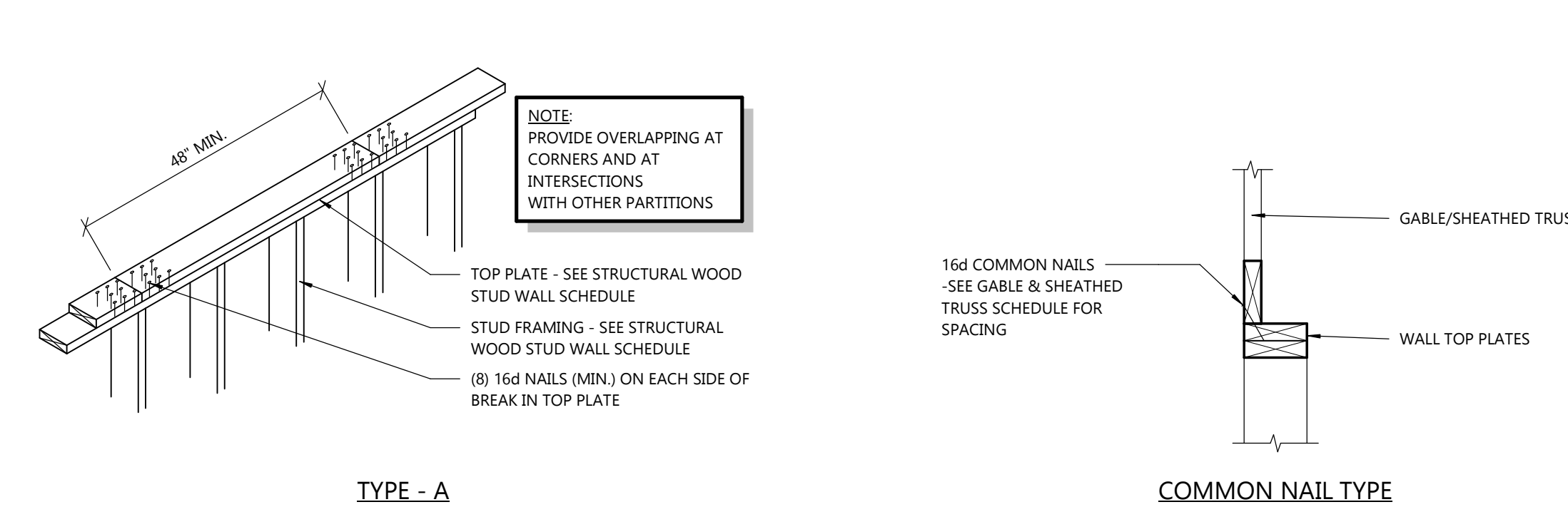
GABLE TRUSS SCHEDULE								
MARK	WEB SPACING (MAX.)	SHEATHING JOINT BLOCKING REQ'T.	DEFL. LIMIT ON VERT. WEB (OUT-OF-PLAN)	BOUNDARY NAILING	SHEATHING TYPE	HOLDDOWN STRAP	TRUSS-TO-WALL CONNECTORS	SPACING
GT-A	24" o.c.	CONTINUOUS	L/240	8d @ 6" o.c.	7/16" OSB ONE SIDE	(1) SIMPSON H2.5A	16d COMMON NAILS	12" O.C.
GT-B	24" o.c.	CONTINUOUS	L/240	8d @ 6" o.c.	7/16" OSB ONE SIDE	(1) SIMPSON H2.5A	16d COMMON NAILS	8" O.C.

GABLE TRUSS SCHEDULE NOTES:
1. WIND LOADING PER DESIGN LOAD TABLE. SEE STRUCTURAL SHEETS.
2. GT-X INDICATES GABLE TRUSS; ST-X INDICATES SHEATHED TRUSS. SEE PLAN FOR LOCATIONS.
3. HOLDDOWN AND TRUSS-TO-WALL CONNECTORS BY SIMPSON STRONG-TIE.



SILL ANCHOR DETAIL

NOT TO SCALE



TOP PLATE SPLICE TYPES

NOT TO SCALE

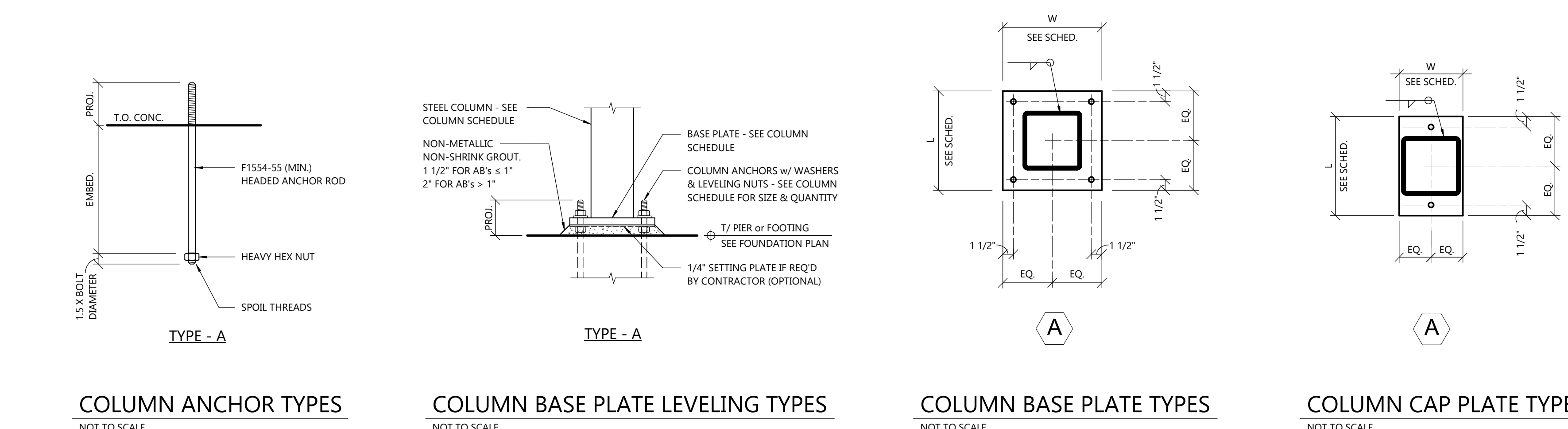
TRUSS TO WALL CONNECTION DETAIL

NOT TO SCALE

COLUMN SCHEDULE NOTES:
• PROVIDE OVERSIZED HOLES AND WASHERS AT ALL BASEPLATES FOR ANCHOR BOLTS AS FOLLOWS UNLESS NOTED/DETAILED OTHERWISE (PLATE WASHERS MAY BE CIRCULAR OR SQUARE):
1/2" TO 5/8" Ø AB = 9/16" Ø TO 1 1/16" Ø HOLE WITH ASTM F844 STANDARD WASHER
3/4" Ø AB = 1 1/16" Ø HOLE WITH ASTM F844 STANDARD WASHER (FOR BASE PLATES LESS THAN 1 1/4" THICK) OR 3/4" Ø AB = 1 5/16" Ø HOLE WITH 2"x1/4" A36 PLATE WASHER
7/8" Ø AB = 1 9/16" Ø HOLE WITH 1 1/2"x5/16" A36 PLATE WASHER; 1" Ø AB = 1 13/16" Ø HOLE WITH 3"x3/8" A36 PLATE WASHER; 1 1/4" Ø AB = 2 1/16" Ø HOLE WITH 3"x1/2" A36 PLATE WASHER; 1 1/2" Ø AB = 2 5/16" Ø HOLE WITH 3 1/2"x1/2" A36 PLATE WASHER
1 3/4" Ø AB = 2 3/4" Ø HOLE WITH 4"x5/8" A36 PLATE WASHER; 2" Ø AB = 3 1/4" Ø HOLE WITH 5"x3/4" A36 PLATE WASHER; 2 1/4" Ø AB = 3 1/2" Ø HOLE WITH 5 1/2"x7/8" A36 PLATE WASHER; 2 1/2" Ø AB = 3 3/4" Ø HOLE WITH 5 1/2"x7/8" A36 PLATE WASHER

• ALL ANCHOR BOLTS SHALL BE INSTALLED FREE OF DIRT, OIL, OR ANY OTHER CONTAMINANTS WHICH MAY DESTROY OR REDUCE BOND TO CONCRETE PER SPS-C-11.
• WELDS DESIGNATED AS DEMAND CRITICAL (DCW) SHALL BE MADE WITH FILLER METALS MEETING THE REQUIREMENTS SPECIFIED IN AWS D1.8/D1.8M CLAUSES 6.1, 6.2, AND 6.3.

Mark	COLUMN		PLATE				BASE PLATE				ANCHORS				CAP PLATE				BOLTS		REMARKS
	SIZE	TYPE	T x W x L	WELD	LEVELING TYPE	QTY.	DIA. (IN.)	PROJ. (IN.)	EMBED (IN.)	TYPE	TYPE	T x W x L	WELD	QTY.	DIA. (IN.)	TYPE	TYPE				
	HSS5X5X1/4	A	3/4"x11"x11"	1/4"	A	4	3/4"	4"	12"	A	A	3/4"x5-1/2"x11"	1/4"	2	3/4"	A307 THRU BOLTS					



COLUMN ANCHOR TYPES

NOT TO SCALE

COLUMN BASE PLATE LEVELING TYPES

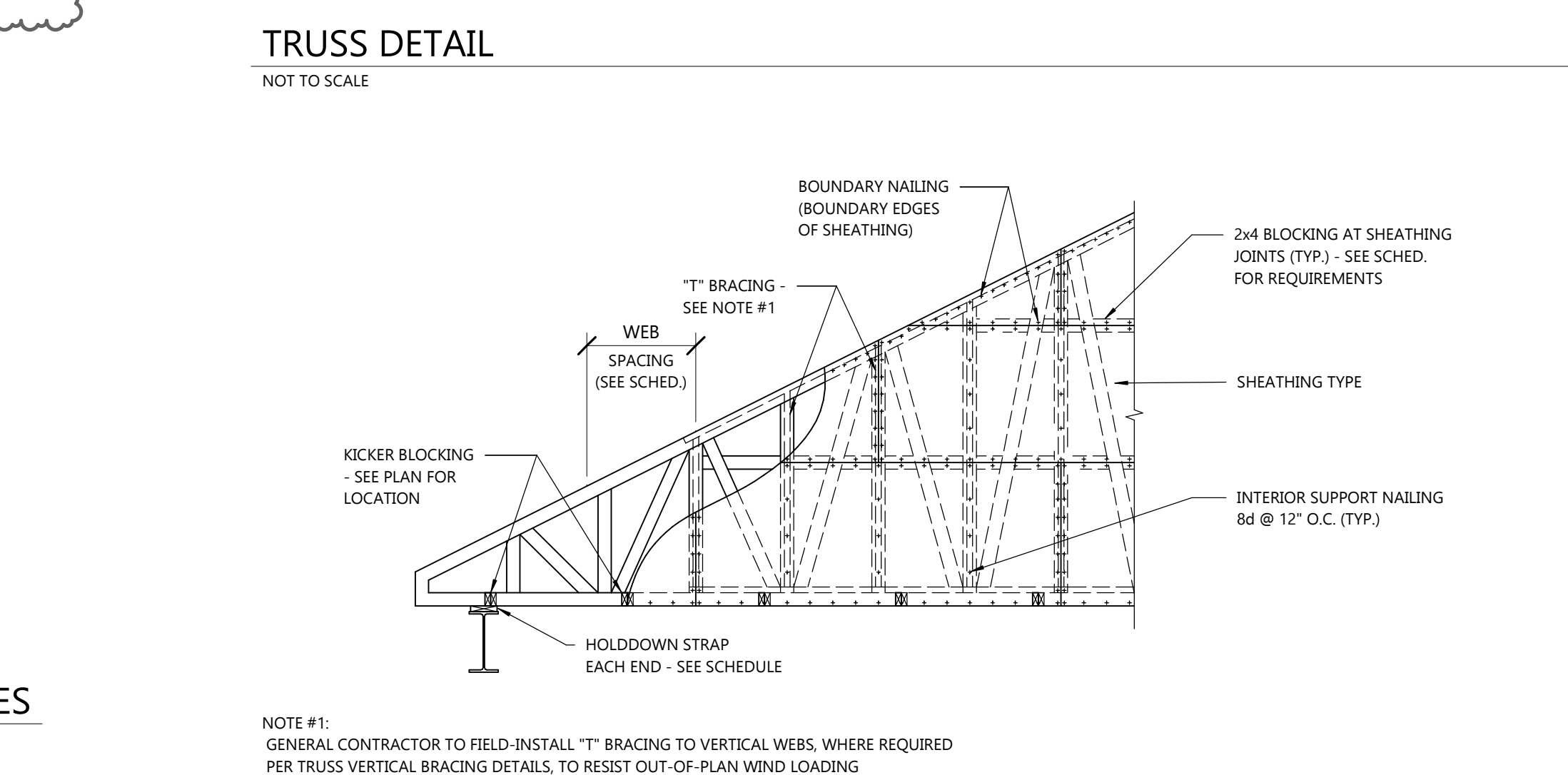
NOT TO SCALE

COLUMN BASE PLATE TYPES

NOT TO SCALE

COLUMN CAP PLATE TYPES

NOT TO SCALE

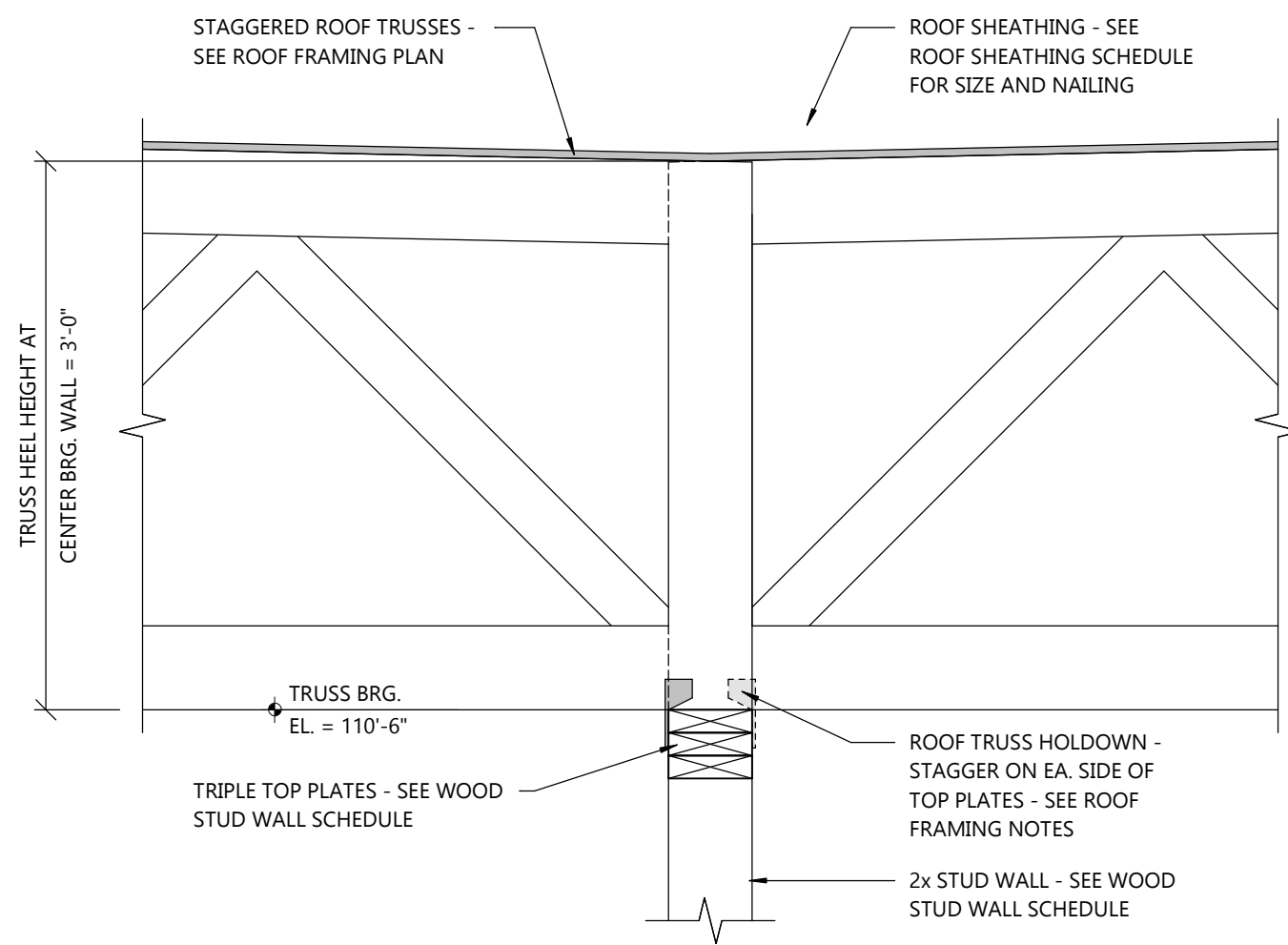


TRUSS DETAIL

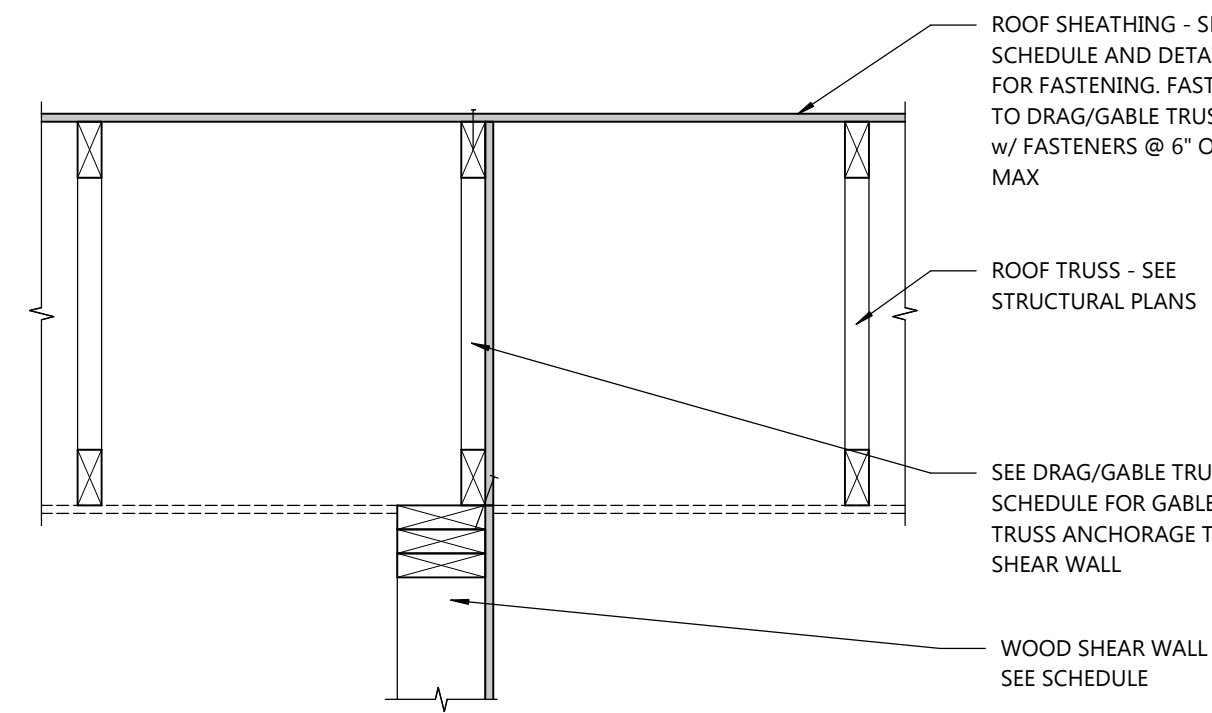
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TYPICAL SPANNING GABLE TRUSS (PARTIAL)

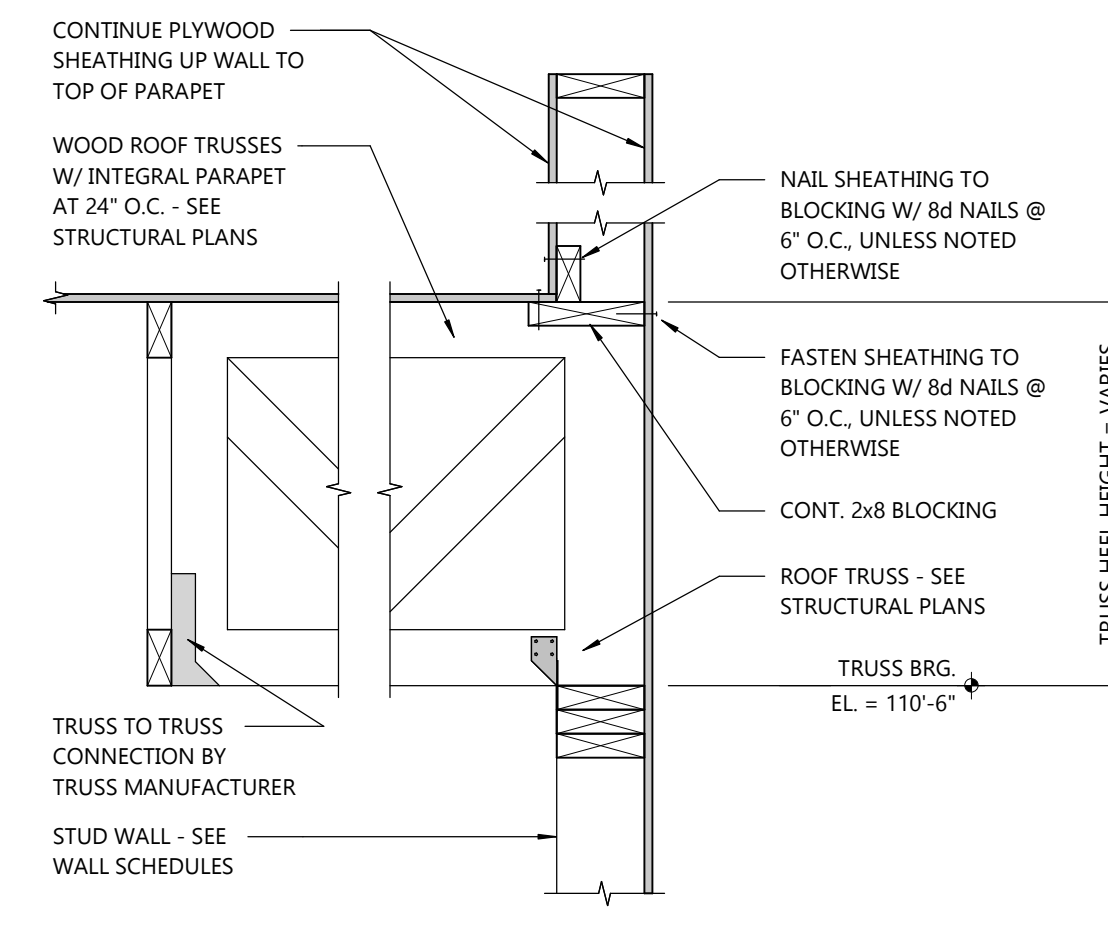
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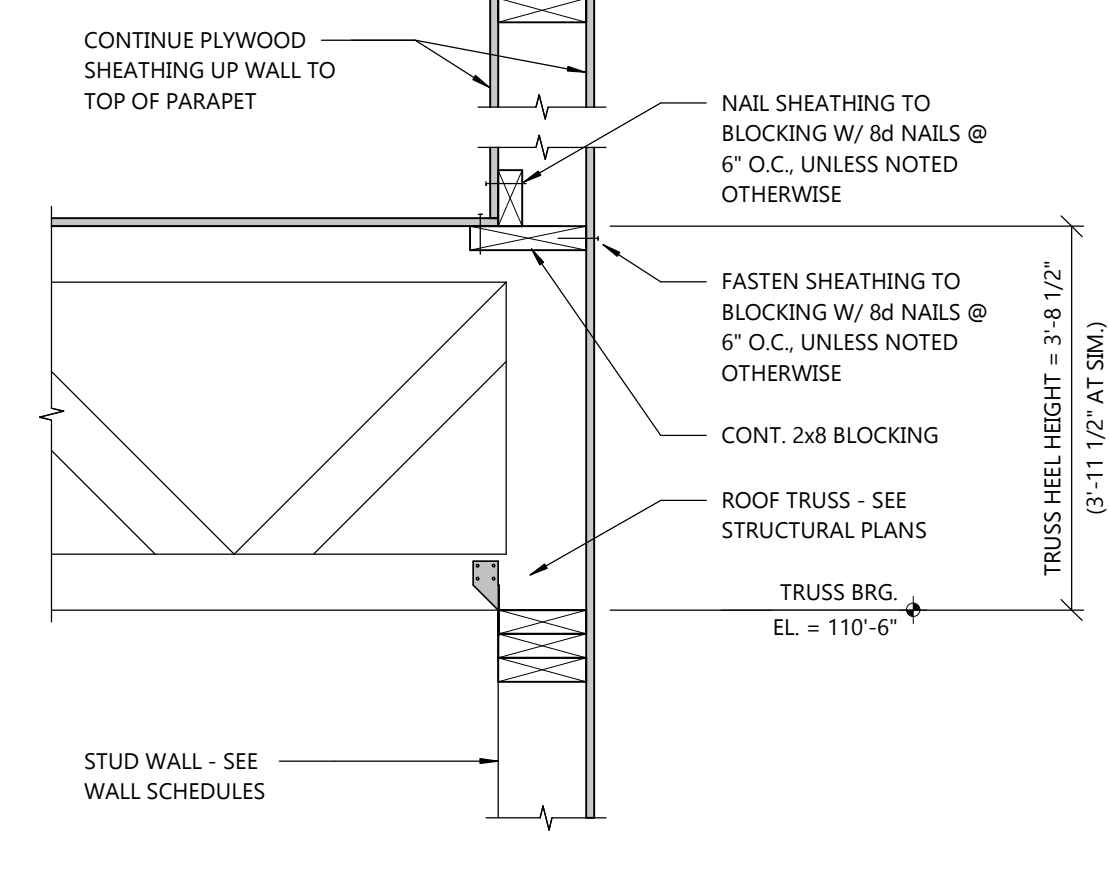
4 DETAIL
S3.2 SCALE: 1" = 1'-0"



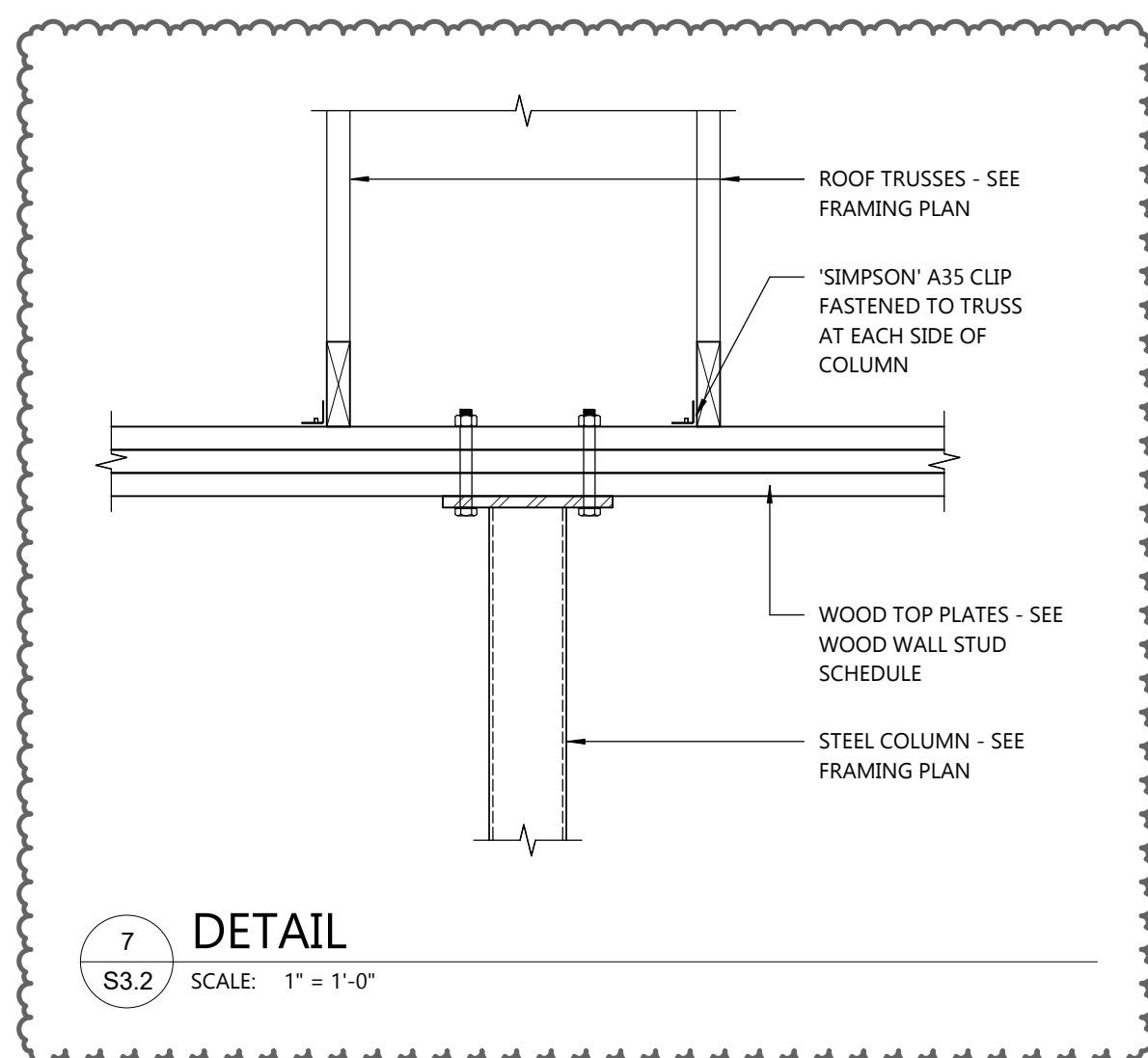
3 DETAIL
S3.2 SCALE: 1" = 1'-0"



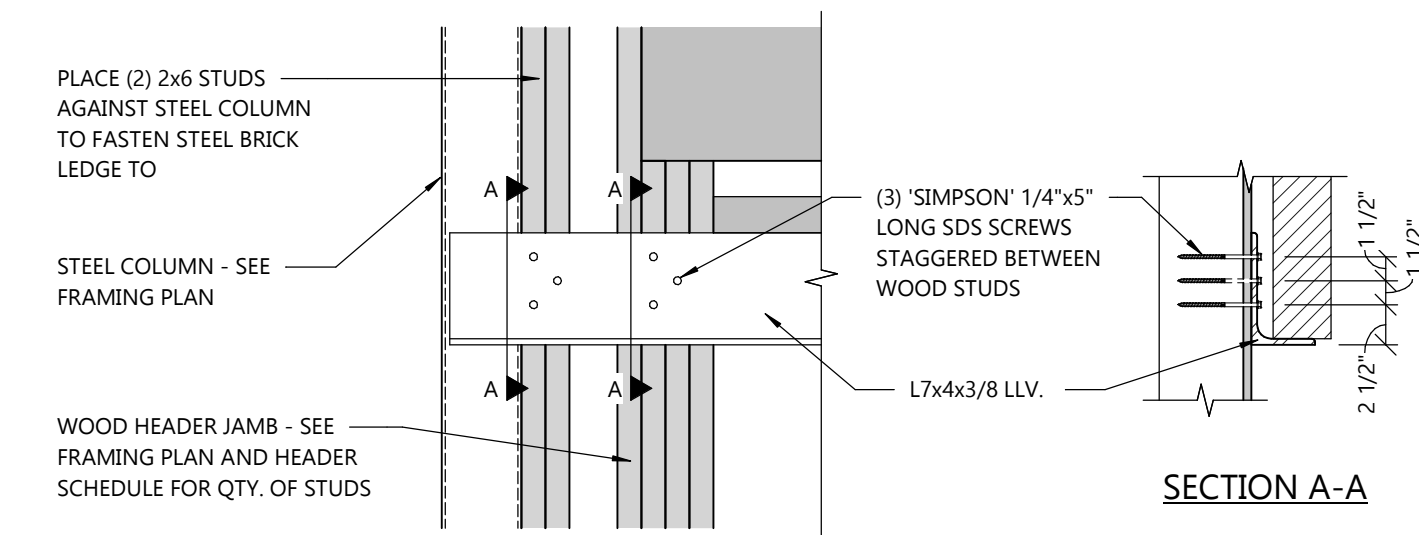
2 DETAIL
S3.2 SCALE: 1" = 1'-0"



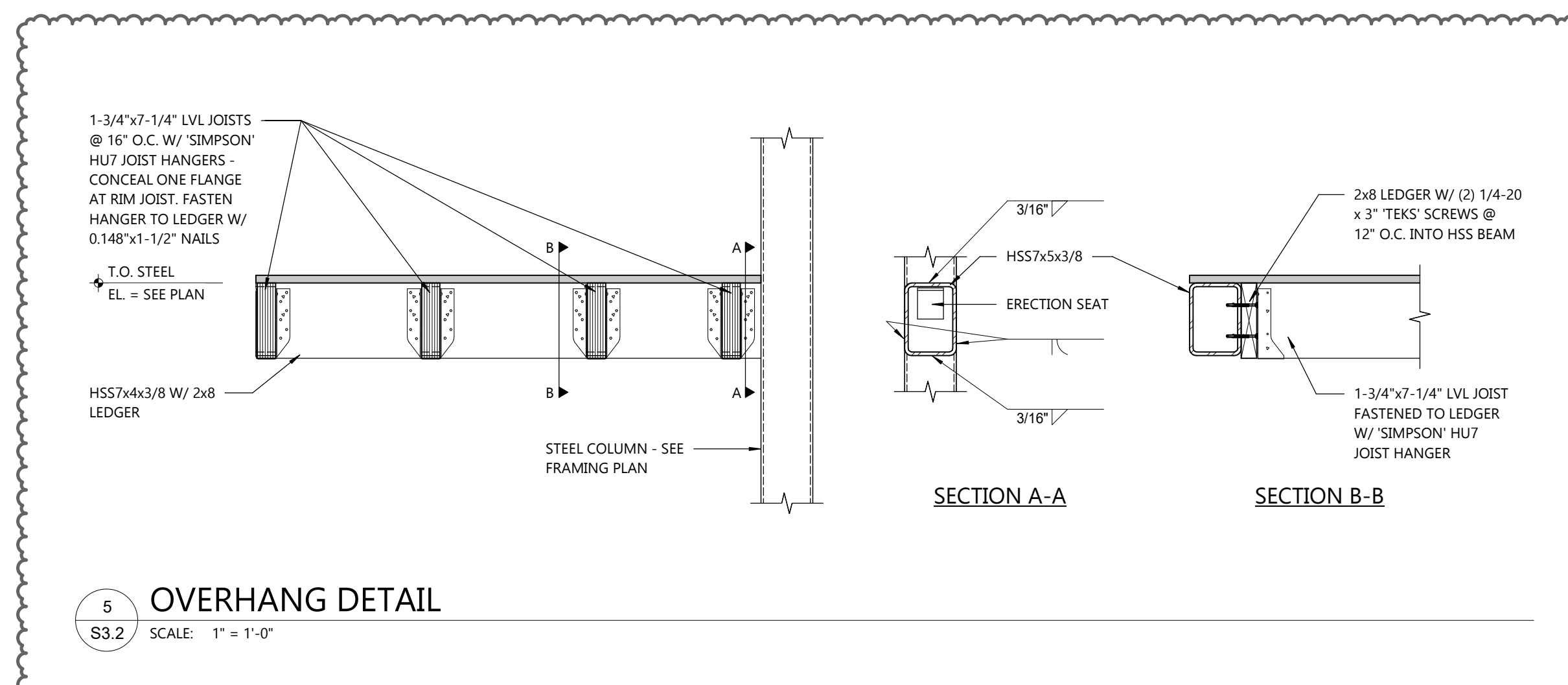
1 DETAIL
S3.2 SCALE: 1" = 1'-0"



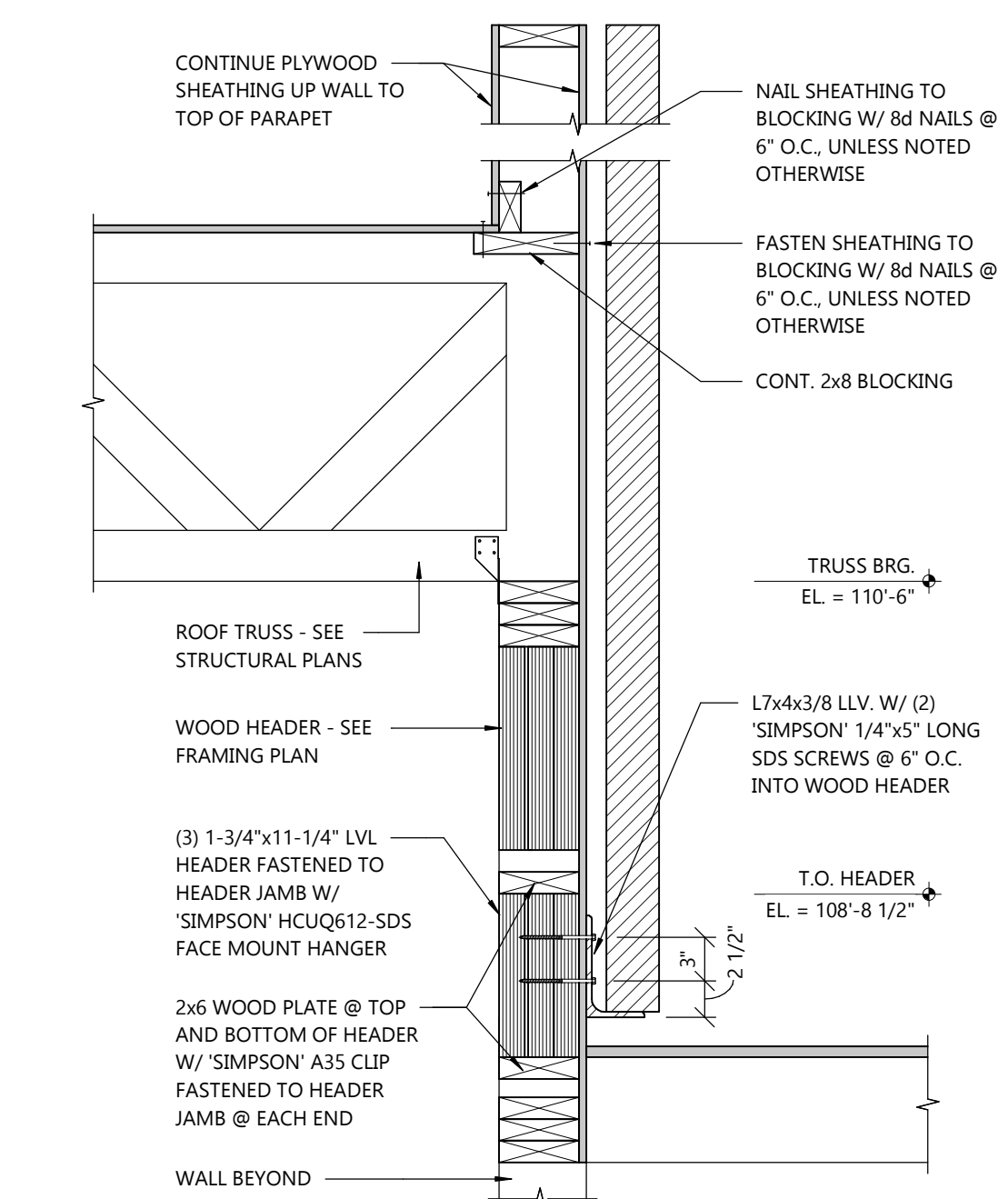
7 DETAIL
S3.2 SCALE: 1" = 1'-0"



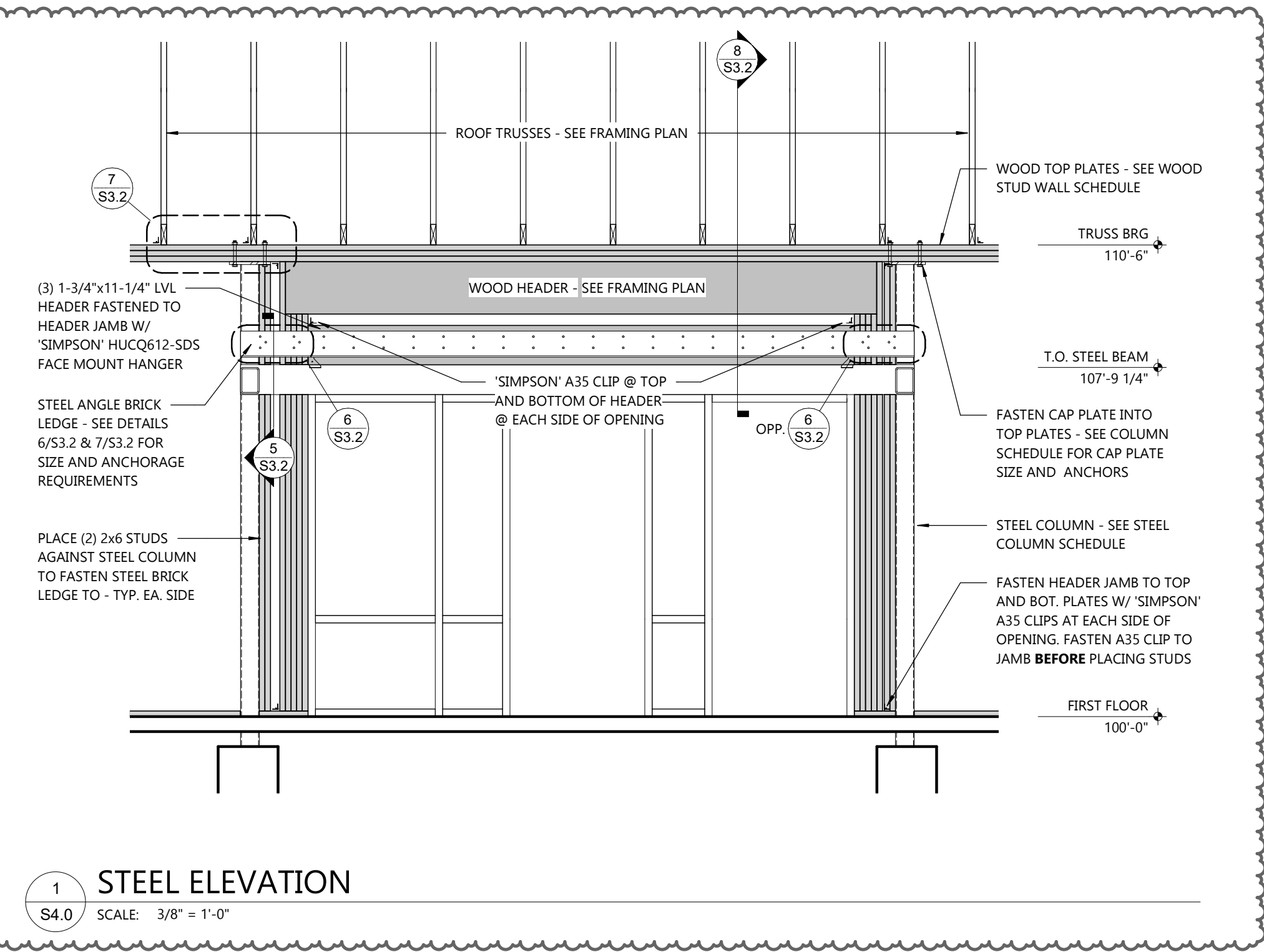
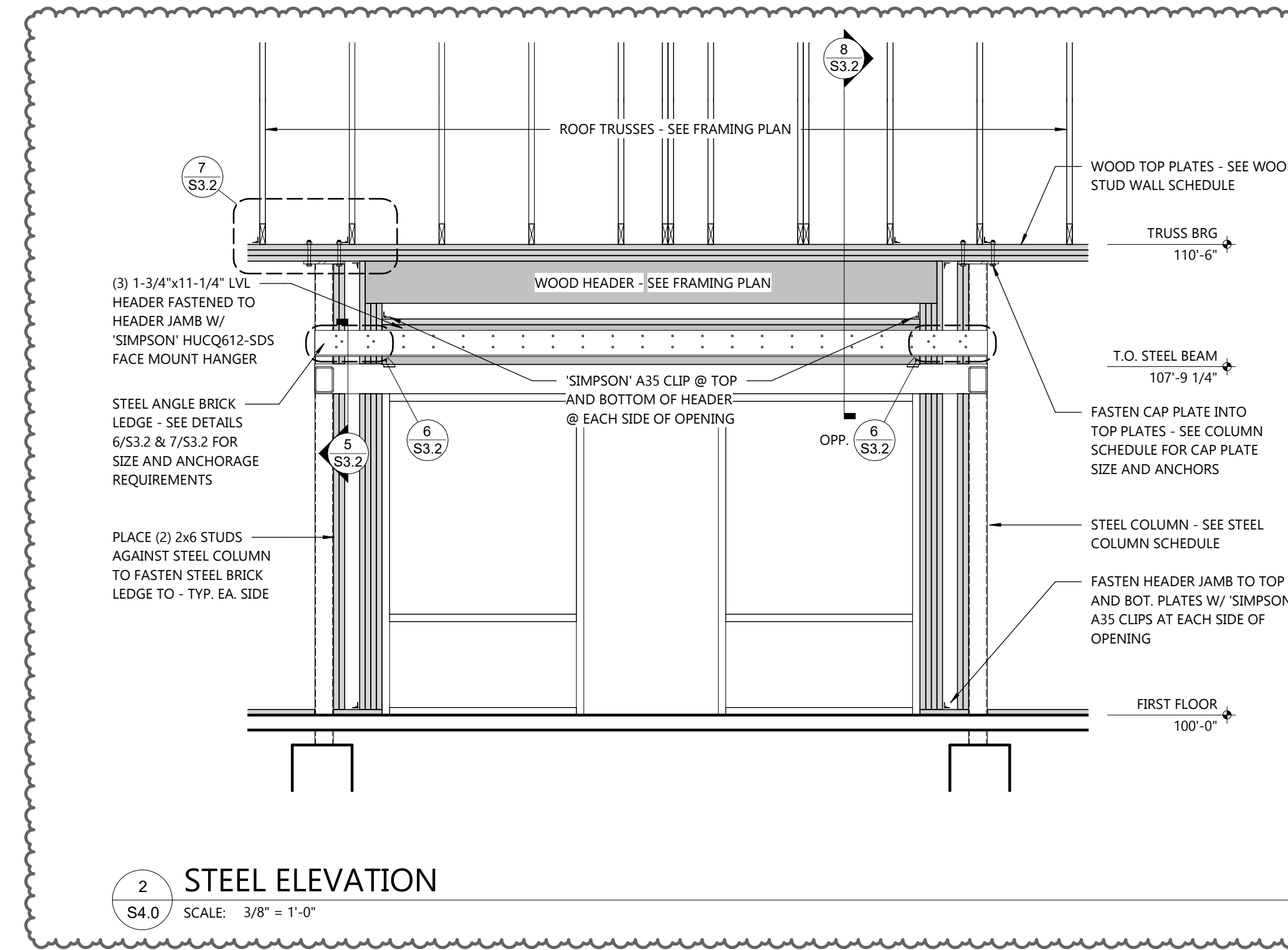
6 STEEL BRICK LEDGE DETAIL
S3.2 SCALE: 1" = 1'-0"



5 OVERHANG DETAIL
S3.2 SCALE: 1" = 1'-0"



8 DETAIL
S3.2 SCALE: 1" = 1'-0"



PLUMBING SPECIFICATIONS (CONT.)

- b. INSTALL SAFING MATERIAL BENEATH THE FINISHED FLOOR OF THE ENTIRE ENCLOSURE OR ROOM AND UPWARD ALONG THE SIDES TO A MINIMUM OF 6" ABOVE THE CURB OR MAXIMUM WATER LEVEL, AND AT THE CORNERS TO A HEIGHT OF 6 FEET AND AT LEAST 3" IN EACH DIRECTION FROM THE CORNERS.
- 3. FLOOR DRAINS
 - a. NOT REQUIRED FOR AREAS OVER UNEXCAVATED PORTIONS OF A BUILDING.
 - b. FURNISH AND INSTALL SAFING MATERIAL EXTENDING MINIMUM 12" FROM THE DRAIN.
- C. INSTALLATION
 - 1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - 2. PROVIDE CHROME PLATED RIGID SUPPLIES TO FIXTURES WITH STOPS, REDUCERS, AND ESCUTCHEONS UNLESS OTHERWISE NOTED IN SCHEDULES AND DETAILS.
 - 3. SEAL FIXTURES TO WALL AND FLOOR SURFACES WITH MILDEW-RESISTANT SILICONE SEALANT, COLOR TO MATCH FIXTURE.
 - 4. INSTALL BARRIER-FREE FIXTURES IN COMPLIANCE WITH LOCAL CODES AND FEDERAL ADA ACCESSIBILITY GUIDELINES.
 - 5. EXPOSED TRAPS, PIPING, AND ESCUTCHEONS SHALL BE CHROME PLATED BRASS UNLESS OTHERWISE NOTED IN SCHEDULES AND DETAILS.
 - 6. ADJUST LAVATORY THERMOSTATIC MIXING VALVE TO 95 DEG F MAXIMUM OUTLET TEMPERATURE.



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QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

REVISIONS

JOB NUMBER

2255300

SHEET NUMBER

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REVISIONS

AD3	APR. 19, 2023
CB1	MAY 10, 2023
CB2	JUNE 5, 2023

JOB NUMBER

2255300

SHEET NUMBER

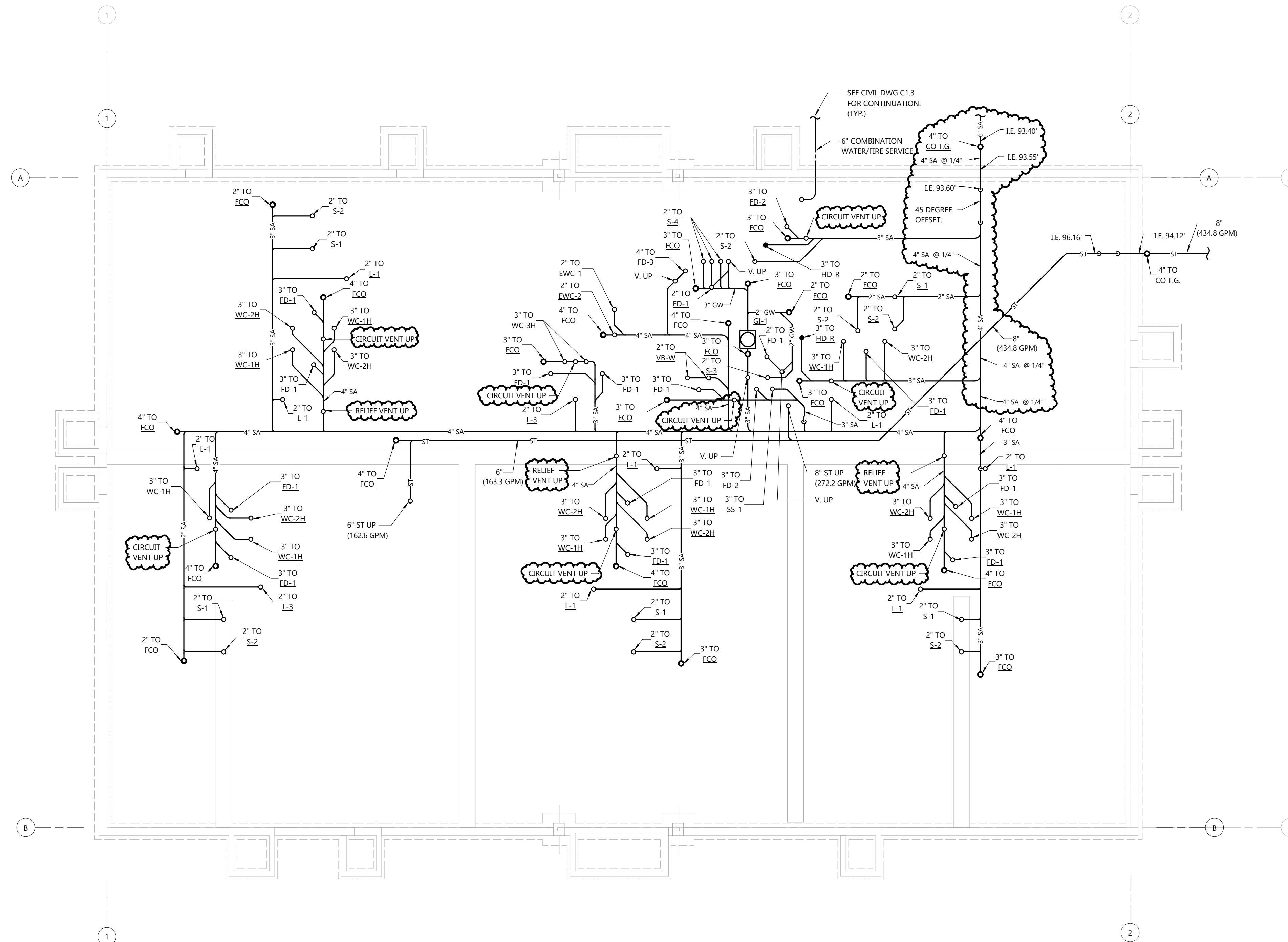
P1.U

GENERAL NOTES:

- NO UNDERGROUND BUILDING DRAIN PIPING SHALL BE INSTALLED UNTIL BUILDING SEWERS ARE BROUGHT TO THE BUILDING AND INVERT ELEVATIONS VERIFIED. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL PIPING IS TO BE CONCEALED. IF BUILDING CONSTRUCTION DOES NOT PERMIT CONCEALING PIPING, LOCATIONS AND ROUTING ARE TO BE APPROVED BY ARCHITECT/OWNER PRIOR TO INSTALLATION.
- INSTALL CLEANOUTS AT STACKS WHICH PENETRATE THE LOWEST FLOOR LEVEL 28" AFF UNLESS NOTED OTHERWISE.
- FLOOR AND WALL CLEANOUT LOCATIONS NOT PERMITTED TO BE MOVED WITHOUT APPROVAL OF ARCHITECT/ENGINEER.
- SEE STRUCTURAL S1 SHEETS FOR FLOOR DRAIN RIM ELEVATIONS.
- SLOPE ALL ST/OF PIPING AT 1/8"/FT UNLESS NOTED OTHERWISE.
- INSTALL HOSE BIBBS AT 10" AFF

KEYNOTES:

- ① CONCRETE PAD.
- ② INTAKE AND EXHAUST FLUES UP TO VENTS THRU ROOF. INSTALL PER MANUFACTURER REQUIREMENTS.



UNDERGROUND PLAN
 NORTH
 SCALE: 1/8" = 1'-0"
 0' 8' 16'



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REVISIONS

AD2	MAR. 23, 2023
AD3	APR. 19, 2023
CB1	MAY 10, 2023
CB2	JUNE 5, 2023

JOB NUMBER

2255300

SHEET NUMBER

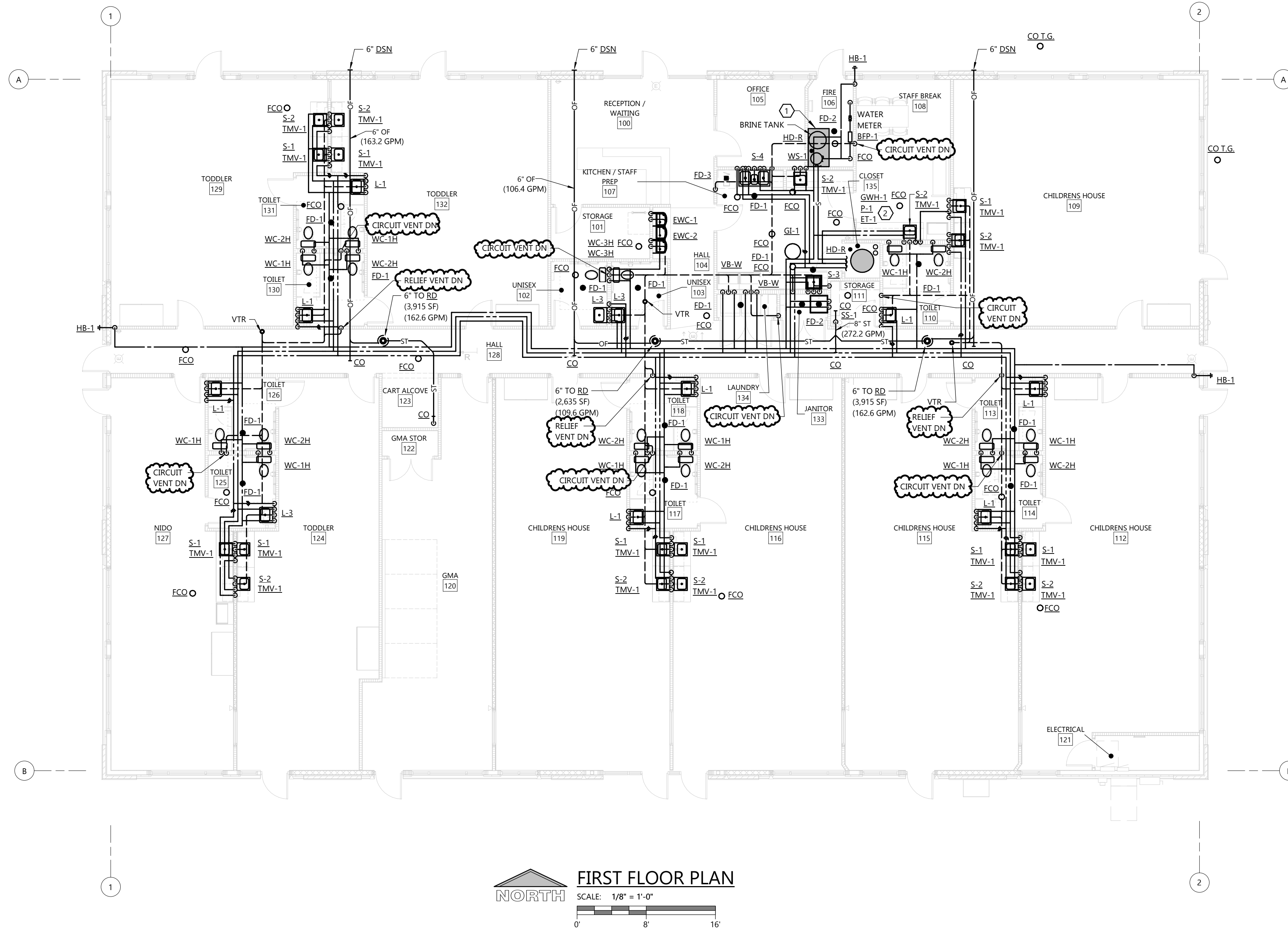
P1.1

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SHEET DATES

SHEET ISSUE MAY 10, 2023

REVISIONS
CB1 MAY 10, 2023

JOB NUMBER

2255300

SHEET NUMBER

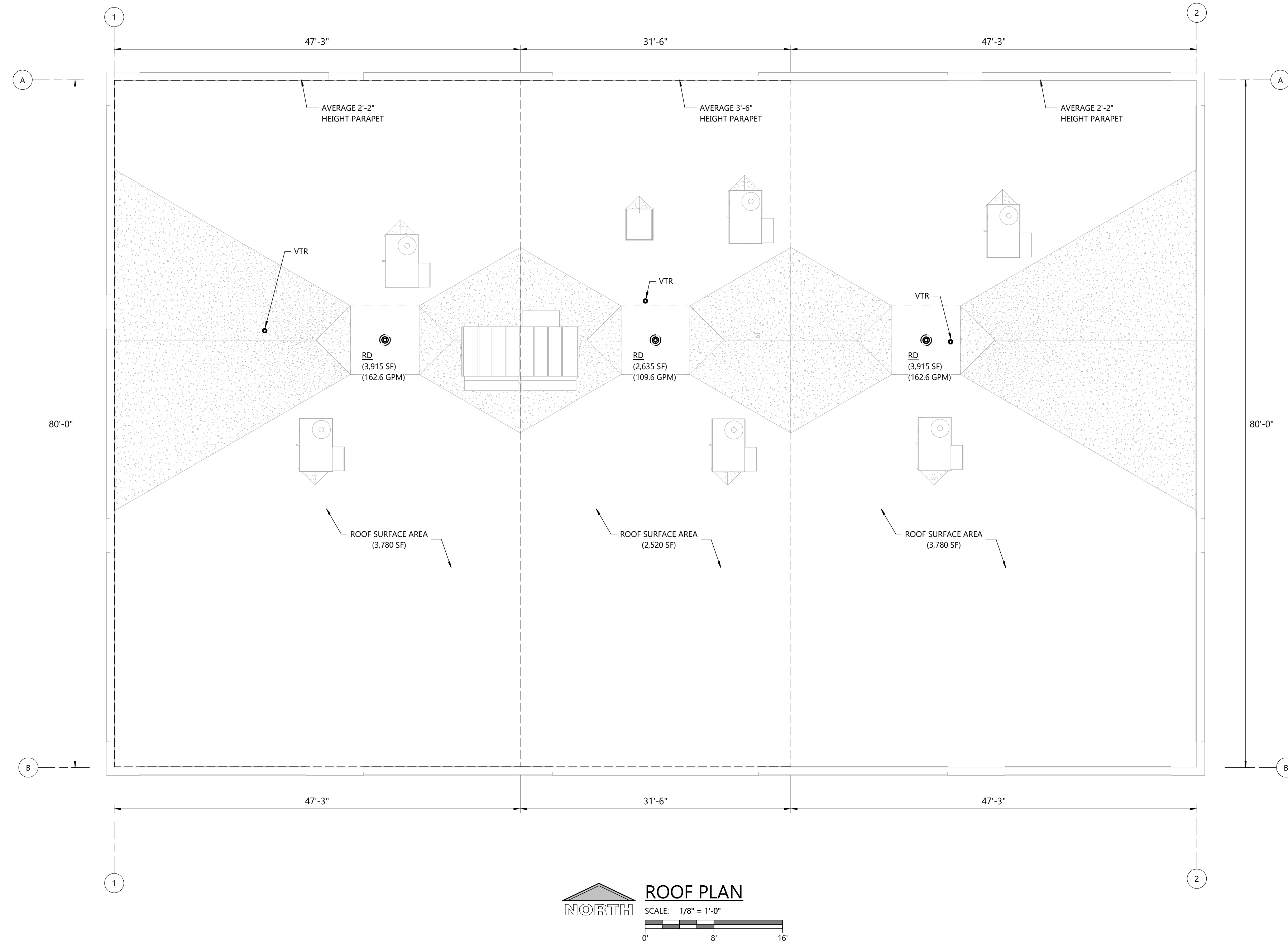
P1.2

GENERAL NOTES:

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KEYNOTES:

- ① CONCRETE PAD.
- ② INTAKE AND EXHAUST FLUES UP TO VENTS THRU ROOF. INSTALL PER MANUFACTURER REQUIREMENTS.





GENERAL NOTES:

- SEE FIXTURE UNIT SCHEDULE ON SHEET P2.0 FOR RUNOUT PIPING SIZE TO FIXTURE
- PIPING SIZED BASED ON TYPE L COPPER TUBING. IF CPVC OR PEX IS SUBSTITUTED RESIZE PER TABLE IN WATER CALCULATIONS.
- PIPING INDICATED AS PEX OR CPVC, SIZED AS PEX OR CPVC.

KEYNOTES:

- ① SEE WATER SOFTENER/HEATER PIPING DETAIL FOR CONTINUATION.
- ② SEE WATER METER PIPING DETAIL FOR CONTINUATION.

FIXTURE UNITS

NO.	FIXTURE	WASTE		COLD WATER		HOT WATER		TOTAL WATER	
		UNITS	TRAP SIZE	UNITS	BRANCH SIZE	UNITS	BRANCH SIZE	UNITS	TOTAL
1	3/4" HOSEBIBB #1	-	-	2.5	2.5	3/4"	-	-	5
1	3/4" HOSEBIBB #2	-	-	1	1	3/4"	-	-	5
1	3/4" HOSEBIBB #3	-	-	1	1	3/4"	-	-	5
2	CLOTHES WASHER - COIN OP	3	6	2"	3	6	3/4"	3	6
1	DISHWASHER	-	-	2"	-	-	4	4	3/4"
1	EWC	0.5	0.5	1 1/4"	0.5	0.5	1/2"	-	-
1	DUAL HEIGHT EWC	1	1	1 1/4"	1	1	1/2"	-	-
2	FLOOR DRAIN - 2"	4	8	2"	-	-	-	-	-
12	EMERGENCY FLOOR DRAIN - 3"	0	0	3"	-	-	-	-	-
2	FLOOR DRAIN - 3"	6	12	3"	-	-	-	-	-
1	FLOOR DRAIN - 4" & LARGER	8	8	4"	-	-	-	-	-
2	HUB DRAIN - 3"	6	12	3"	-	-	-	-	-
11	LAV - SINGLE	1	11	1 1/4"	0.75	8.25	1/2"	0.75	8.25
17	SINK- EXAM/TREAT/CLASS	2	34	1 1/2"	1.13	19.21	1/2"	1.13	19.21
2	SINK- HAND WASH	2	4	1 1/2"	1.13	2.26	1/2"	1.13	2.26
1	SINK - 3 COMP	4	4	2"	3	3	1/2"	3	4
1	SINK- PREP SINK	3	3	2"	2.25	2.25	1/2"	2.25	3
1	SINK- SERVICE - 3"	3	3	3"	2.25	2.25	1/2"	2.25	3
19	WATER CLO- TANK	4	76	3"	2.5	47.5	1/2"	-	2.5
79	TOTAL				182.5	96.72		47.22	125.5

WATER CALCULATIONS

WATER PRESSURE DATA

1	STATIC PRESSURE AT MAIN	69.4	PSIG
2	RESIDUAL PRESSURE AT MAIN	69	PSIG
3	RESIDUAL FLOW AT MAIN	1294	GPM
4	BUILDING FIXTURE UNITS	125.5	F.U.
5	PREDOMINATE FLUSH TYPE	TANK	
6	CONTINUOUS FLOW GPM	0	GPM
7	BUILDING DEMAND	49.3	GPM
8	RESIDUAL PRESSURE AT BUILDING DEMAND	69.4	PSIG
9	SAFETY FACTOR	5	PSIG
10	PRESSURE AVAILABLE FOR DOMESTIC USE	64.4	PSIG

WATER SERVICE AND DISTRIBUTION SIZING DATA

11	ELEVATION OF RESIDUAL TEST HYDRANT	101.50	FEET
12	ELEVATION OF WATER METER	105.00	FEET
13	ELEVATION DIFFERENCE TEST HYDRANT TO METER	3.50	FEET
14	WATER METER SIZE	1	INCHES
15	DEVELOPED LENGTH MAIN TO METER	198	FEET
16	WATER SERVICE SIZE	6	INCHES

PRESSURE AVAILABLE AFTER METER

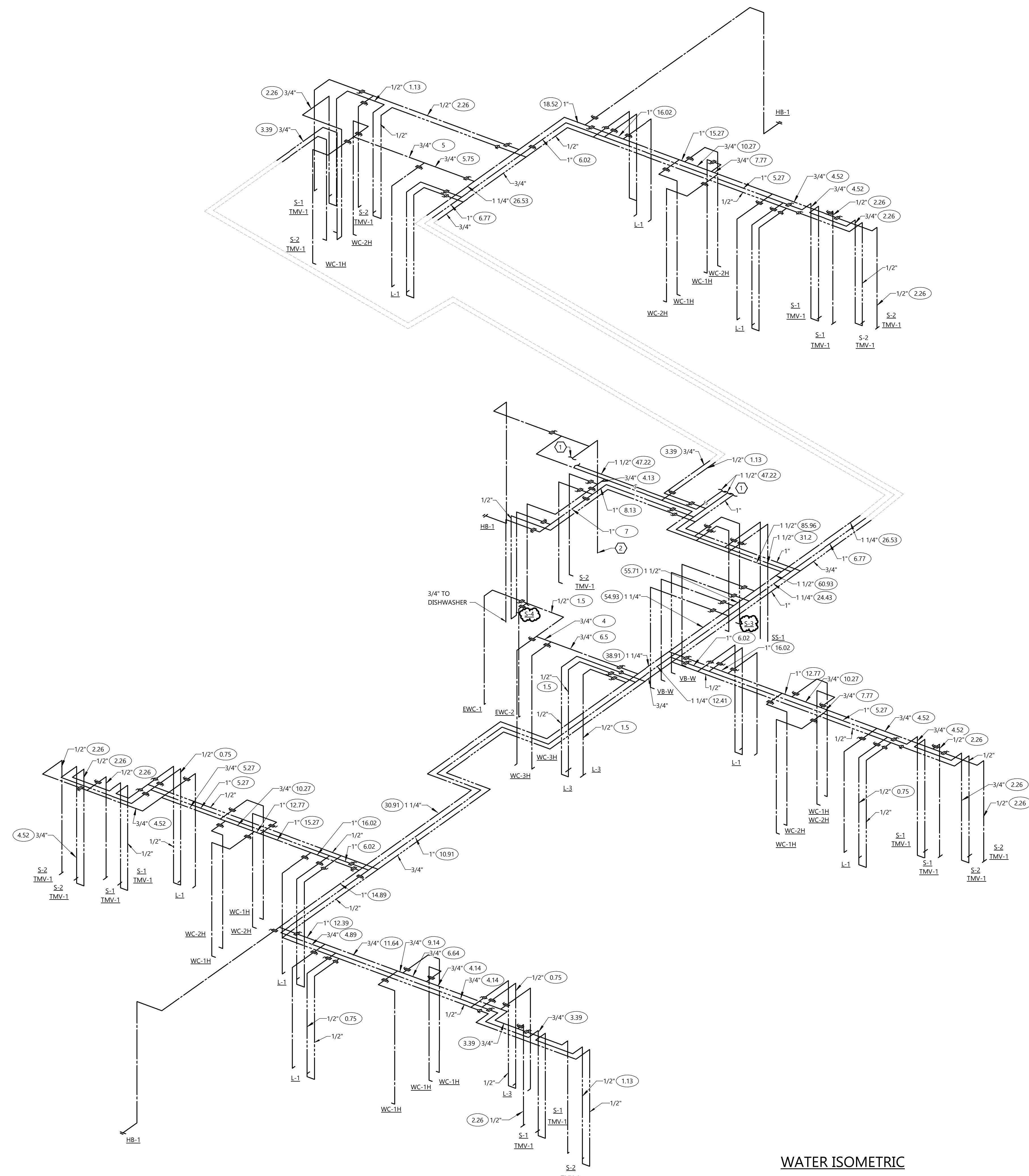
17	PRESSURE DROP BETWEEN MAIN AND METER	0.01	PSIG/100'
18	FRICTION PRESSURE LOSS BETWEEN MAIN AND METER	0.0	PSIG
19	ELEVATION PRESSURE LOSS BETWEEN MAIN AND METER	1.5	PSIG
20	METER PRESSURE LOSS	6	PSIG
21	BACKFLOW PREVENTER PRESSURE LOSS	13	PSIG
22	PRESSURE AVAILABLE AFTER METER	43.9	PSIG

WATER DISTRIBUTION SIZING - COLD WATER

A	AVAILABLE BUILDING WATER PRESSURE	43.9	PSIG	WSFU@B/SEC		
				Copper	CPVC	PEX
B	START POINT TAG (SEE ISOMETRIC FOR TAG LOCATION)					
C	DIST. PREVIOUS START POINT TO THIS START POINT					
D	UNIFORM LOSS PREV. START POINT TO THIS START POINT					
E	PIPE PRESSURE DROP FROM METER TO START POINT					
F	CONTROLLING FIXTURE:					
	ROOM NAME & NO.	WC-1H				
	ID:	TOILET 124				
	PRESSURE REQUIRED	20	PSIG	3/4"	14.0	10.0
G	ELEV. DIFF. BETW. METER AND CONTROLLING FIXTURE	2	FEET	1	31.0	19.0
H	PRESSURE LOSS DUE TO WATER SOFTENER	0	PSIG	1 1/4"	58.0	41.0
I	PRESSURE LOSS DUE TO MIXING VALVE	0	PSIG	1 1/2"	107.0	68.0
J	PRESSURE AVAILABLE FOR PIPING PRESSURE DROP	23.0	PSIG	2	260.0	171.0
K	DEVELOPED LENGTH START PT. TO CONTR. FIXTURE	145	FEET	2 1/2"	469.0	385.0
L	EQUIVALENT LENGTH START PT. TO CONTR. FIXTURE	218	FEET	3	752.0	655.0
M	PRESSURE AVAILABLE FOR UNIFORM LOSS:	10.57	PSIG/100'	4	1792.0	1094.0

WATER DISTRIBUTION SIZING - HOT WATER

A	AVAILABLE BUILDING WATER PRESSURE	43.9	PSIG	WSFU@S/SEC - CP & PEX W/ MTL FTGS		
				Copper	CPVC	PEX
B	START POINT TAG (SEE ISOMETRIC FOR TAG LOCATION)					
C	DIST. PREVIOUS START POINT TO THIS START POINT					
D	UNIFORM LOSS PREV. START POINT TO THIS START POINT					
E	PIPE PRESSURE DROP FROM METER TO START POINT					
F	CONTROLLING FIXTURE:					
	ROOM NAME & NO.	S-1				
	ID:	NIDO 127				
	PRESSURE REQUIRED	8	PSIG	3/4"	6.3	6.0
G	ELEV. DIFF. BETW. METER AND CONTROLLING FIXTURE	3	FEET	1	15.0	17.5
H	PRESSURE LOSS DUE TO WATER SOFTENER	11	PSIG	1 1/4"	32.5	33.0
I	PRESSURE LOSS DUE TO MIXING VALVE	4	PSIG	1 1/2"	66.9	63.0
J	PRESSURE AVAILABLE FOR PIPING PRESSURE DROP	19.6	PSIG	2	162.5	171.0
K	DEVELOPED LENGTH START PT. TO CONTR. FIXTURE	211	FEET	2 1/2"	293.1	385.0
L	EQUIVALENT LENGTH START PT. TO CONTR. FIXTURE	317	FEET	3	470.0	655.0
M	PRESSURE AVAILABLE FOR UNIFORM LOSS:	6.18	PSIG/100'	4	1120.0	1094.0



WATER ISOMETRIC

GENERAL NOTES:
 • SEE UNDERGROUND PLAN AND FIXTURE UNIT SCHEDULE FOR RUNOUT TRAP SIZE TO FIXTURE.

KEYNOTES:
 (1) EMERGENCY FLOOR DRAIN.



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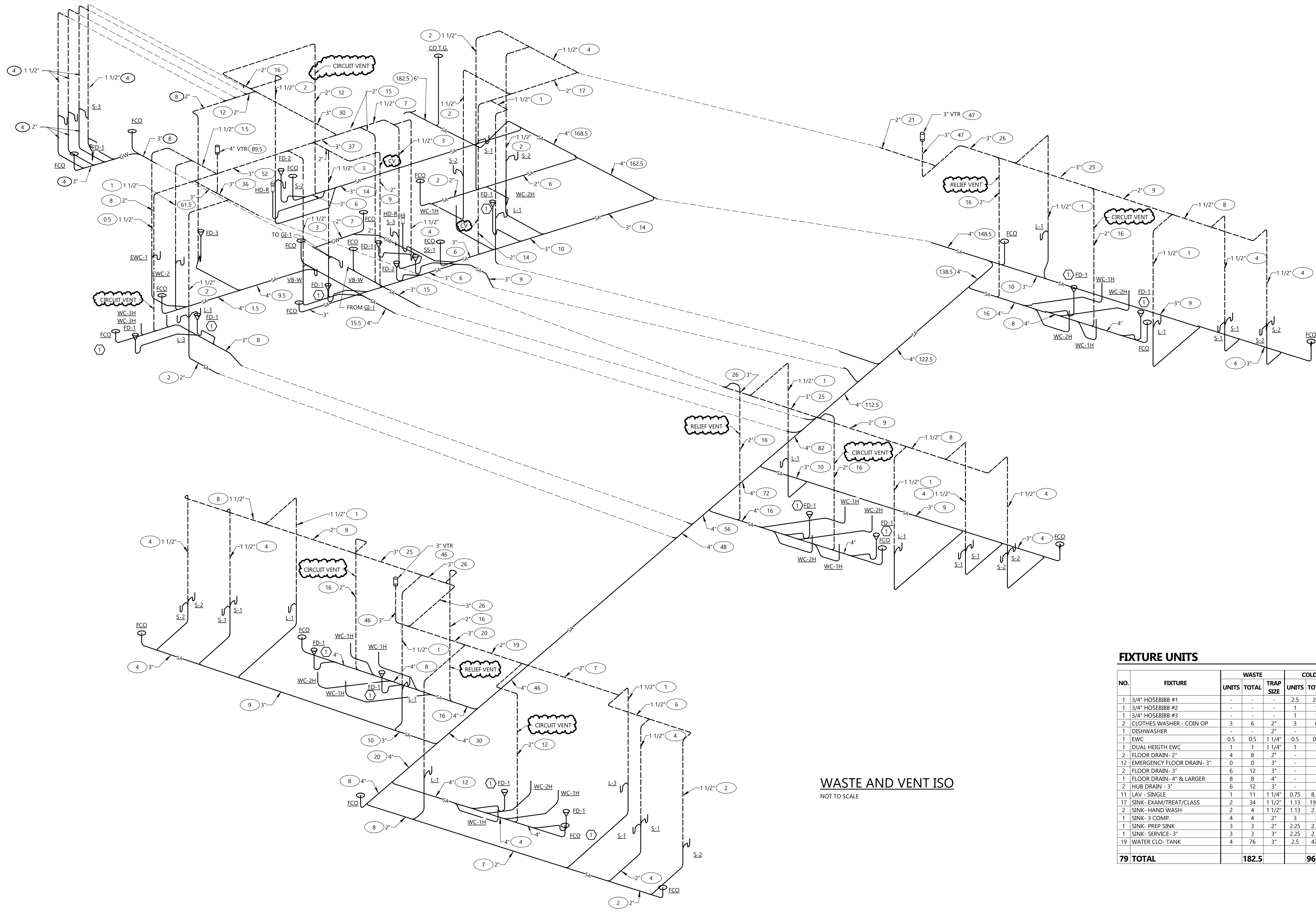
AD3	APR. 19, 2023
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SHEET NUMBER

P3.1



WASTE AND VENT ISO
 NOT TO SCALE

FIXTURE UNITS

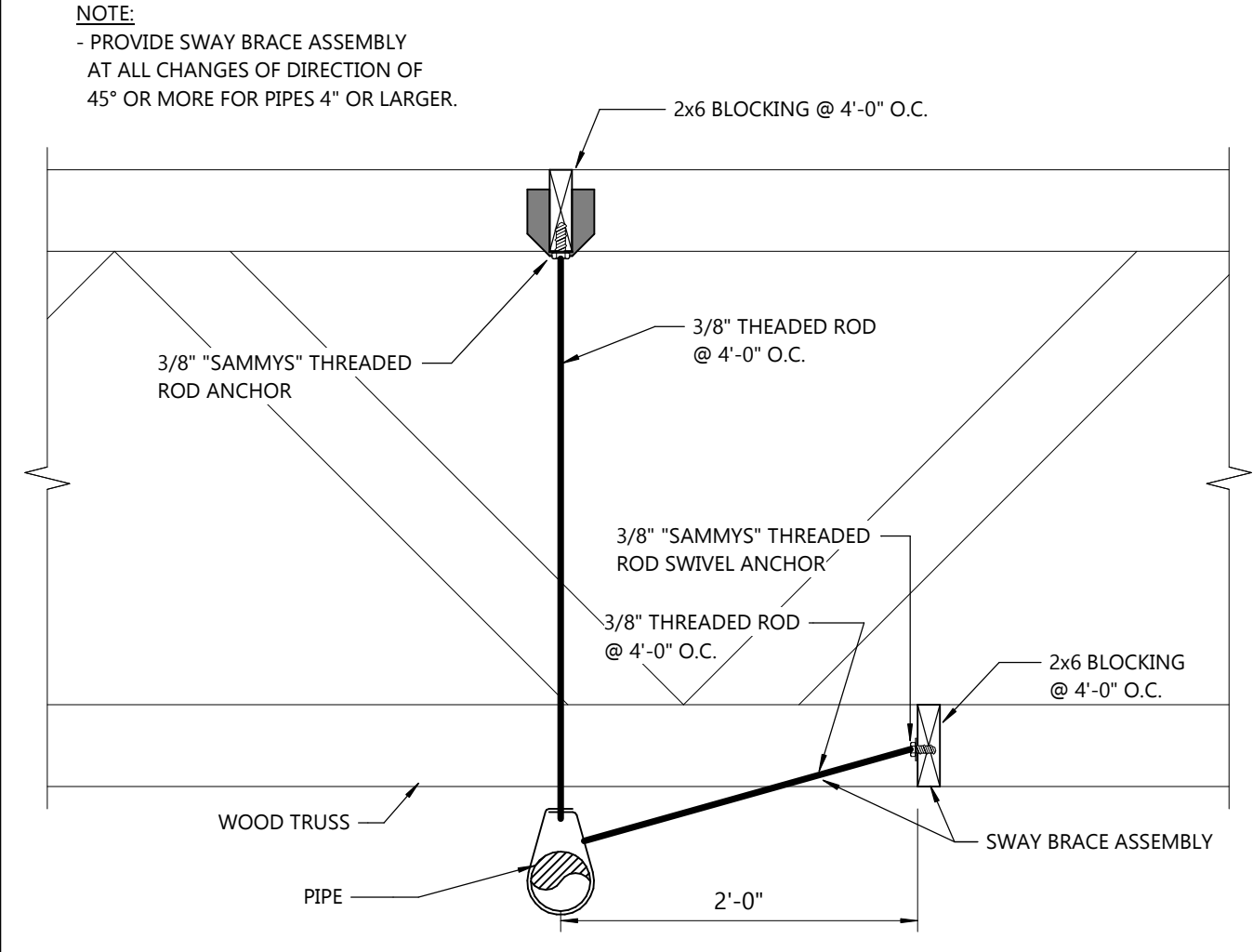
NO.	FIXTURE	WASTE			COLD WATER			HOT WATER			TOTAL WATER	
		UNITS	TOTAL	TRAP SIZE	UNITS	TOTAL	BRANCH SIZE	UNITS	TOTAL	BRANCH SIZE	UNITS	TOTAL
1	3/4" HOSE/BIB #1	-	-	-	2.5	2.5	3/4"	-	-	-	5	5
1	3/4" HOSE/BIB #2	-	-	-	1	1	3/4"	-	-	-	5	5
1	3/4" HOSE/BIB #3	-	-	-	1	1	3/4"	-	-	-	5	5
2	CLOTHES WASHER - COIN OP	3	6	2"	3	6	3/4"	3	6	3/4"	4	8
1	DISHWASHER	-	-	2"	-	-	-	4	4	3/4"	4	4
1	EWC	0.5	0.5	1 1/4"	0.5	0.5	1/2"	-	-	-	0.5	0.5
1	DUAL HEIGHT EWC	1	1	1 1/4"	1	1	1/2"	-	-	-	1	1
2	FLOOR DRAIN- 2"	4	8	2"	-	-	-	-	-	-	-	-
12	EMERGENCY FLOOR DRAIN- 3"	0	0	3"	-	-	-	-	-	-	-	-
2	FLOOR DRAIN- 3"	6	12	3"	-	-	-	-	-	-	-	-
1	FLOOR DRAIN- 4" & LARGER	8	8	4"	-	-	-	-	-	-	-	-
2	HUB DRAIN- 3"	6	12	3"	-	-	-	-	-	-	-	-
11	LAV - SINGLE	1	11	1 1/4"	0.75	8.25	1/2"	0.75	8.25	1/2"	1	11
17	SINK- EXAM/TREAT/CLASS	2	34	1 1/2"	1.13	19.21	1/2"	1.13	19.21	1/2"	1.5	25.5
2	SINK- HAND WASH	2	4	1 1/2"	1.13	2.26	1/2"	1.13	2.26	1/2"	1.5	3
1	SINK- 3 COMP.	4	4	2"	3	3	1/2"	3	3	1/2"	4	4
1	SINK- PREP SINK	3	3	2"	2.25	2.25	1/2"	2.25	2.25	1/2"	3	3
1	SINK- SERVICE- 3"	3	3	3"	2.25	2.25	1/2"	2.25	2.25	1/2"	3	3
19	WATER CLO- TANK	4	76	3"	2.5	47.5	1/2"	-	-	-	2.5	47.5
79	TOTAL		182.5		96.72			47.22			125.5	

PIPE SIZE	STEEL				PVC		PEX	MIN. ROD	
	WATER	VAPOR	INAT. GAS	WATER	VAPOR	C/PVC		METAL PIPE	PLASTIC PIPE
1/4"-1/2"	7'	8'	6'	5'	6'	4'	3/8"	3/8"	
3/4"	7'	9'	8'	5'	7'	4'	3/8"	3/8"	
1"	7'	9'	8'	6'	8'	4'	3/8"	3/8"	
1 1/4"	7'	9'	10'	7'	9'	4'	3/8"	3/8"	
1 1/2"	9'	12'	10'	8'	10'	4'	3/8"	3/8"	
2"	10'	12'	10'	8'	11'	4'	3/8"	3/8"	
2 1/2"	11'	12'	10'	9'	12'	4'	3/8"	3/8"	
3"	12'	12'	10'	10'	12'	4'	3/8"	3/8"	
4"	12'	12'	10'	12'	12'	4'	3/8"	3/8"	
6"	12'	12'	10'	12'	12'	4'	3/8"	3/8"	
8"	12'	12'	-	-	-	4'	1/2"	3/8"	
10"	12'	12'	-	-	-	4'	1/2"	3/8"	
12"	12'	12'	-	-	-	4'	5/8"	3/8"	
14"	12'	12'	-	-	-	4'	5/8"	3/8"	
16"	12'	12'	-	-	-	4'	3/4"	3/8"	
MAX VERT. (1)	15'	15'	-	10'	10'	10'	4'	-	

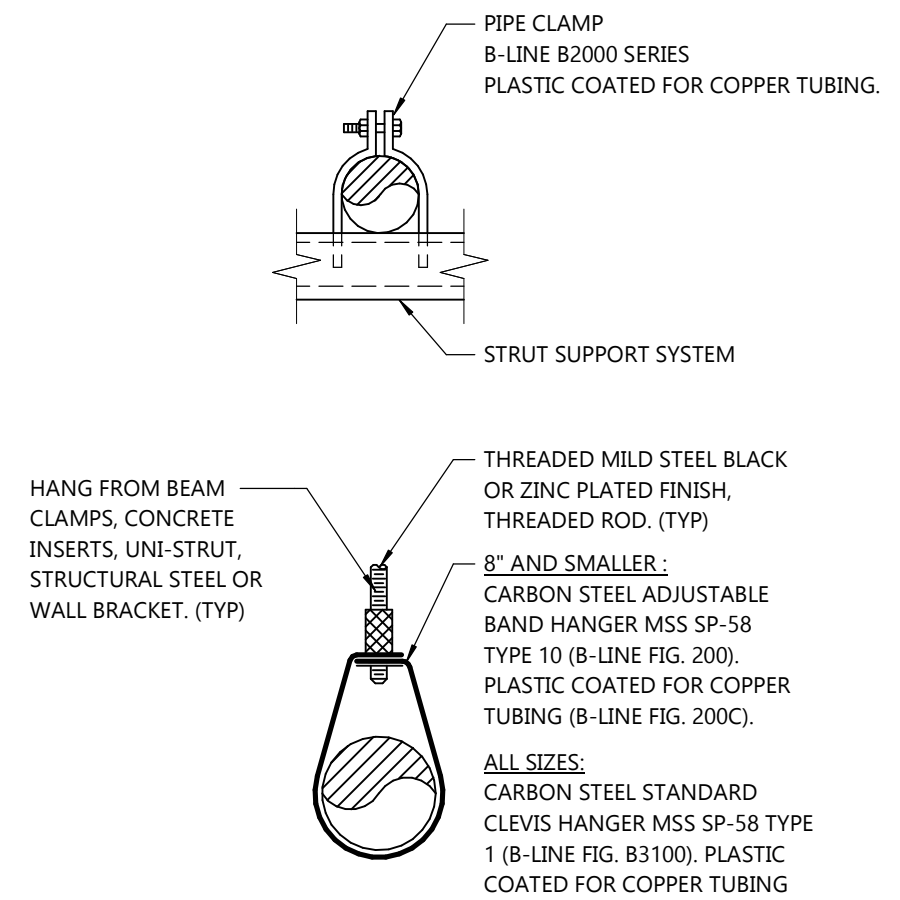
(1) SUPPORT AT MINIMUM EVERY FLOOR LEVEL OR SPACING LISTED.
MSS = MANUFACTURER'S STANDARDIZATION SOCIETY
- INSTALL ADDITIONAL HANGERS WITHIN 12" OF ELBOWS AND TEES AND AT CONCENTRATED LOADS, INCLUDING VALVES, FLANGES AND STRAINERS 2 1/2" AND LARGER.

ROD DIA.	MAX LOAD (1)
3/8"	600#
1/2"	1,100#
5/8"	1,800#
3/4"	2,700#

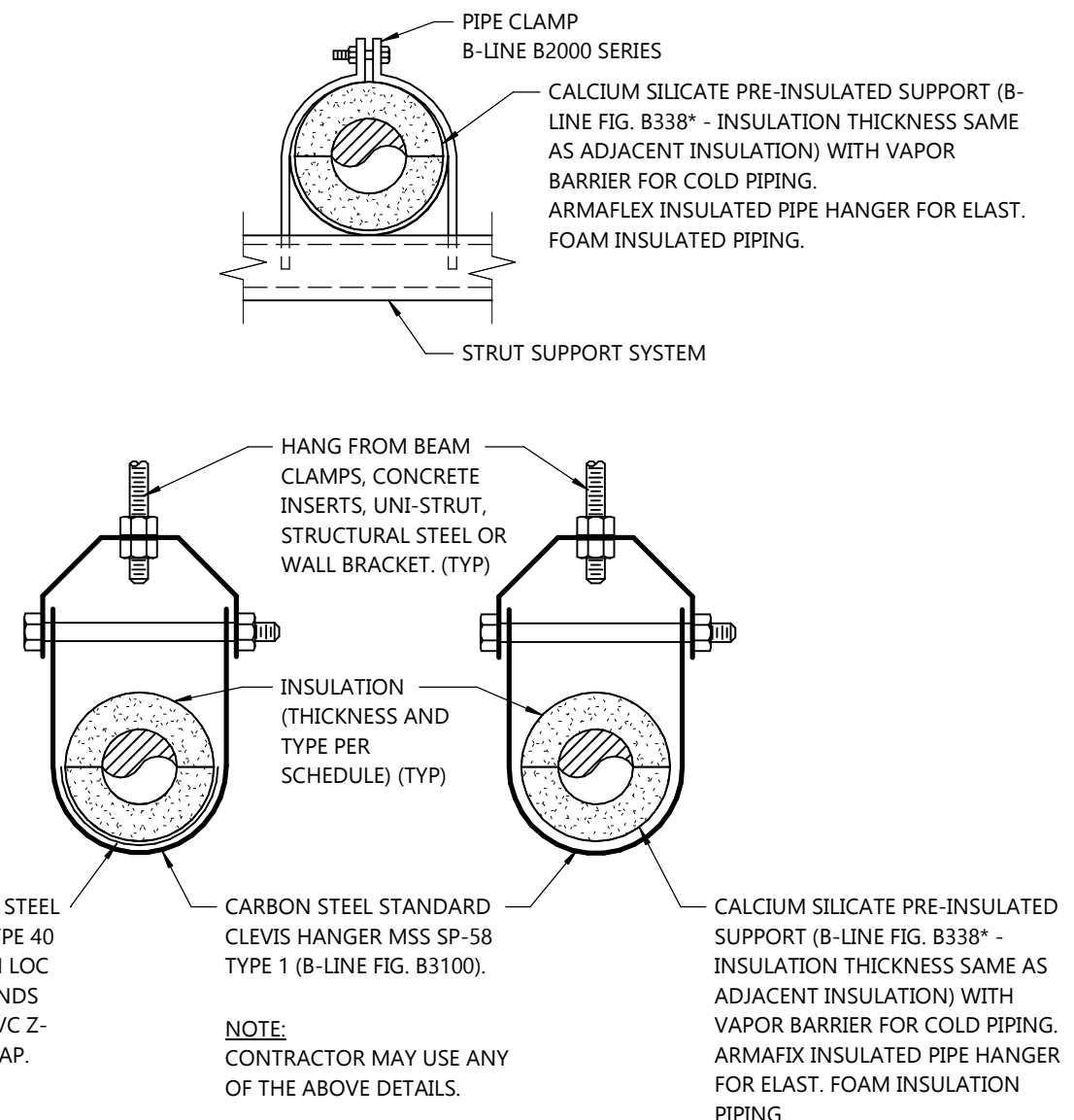
(1) MAX LOAD IS WEIGHT ALLOWED PER EACH ROD.



4 TRUSS HANGER CONNECTION DETAIL
P4.0 NOT TO SCALE

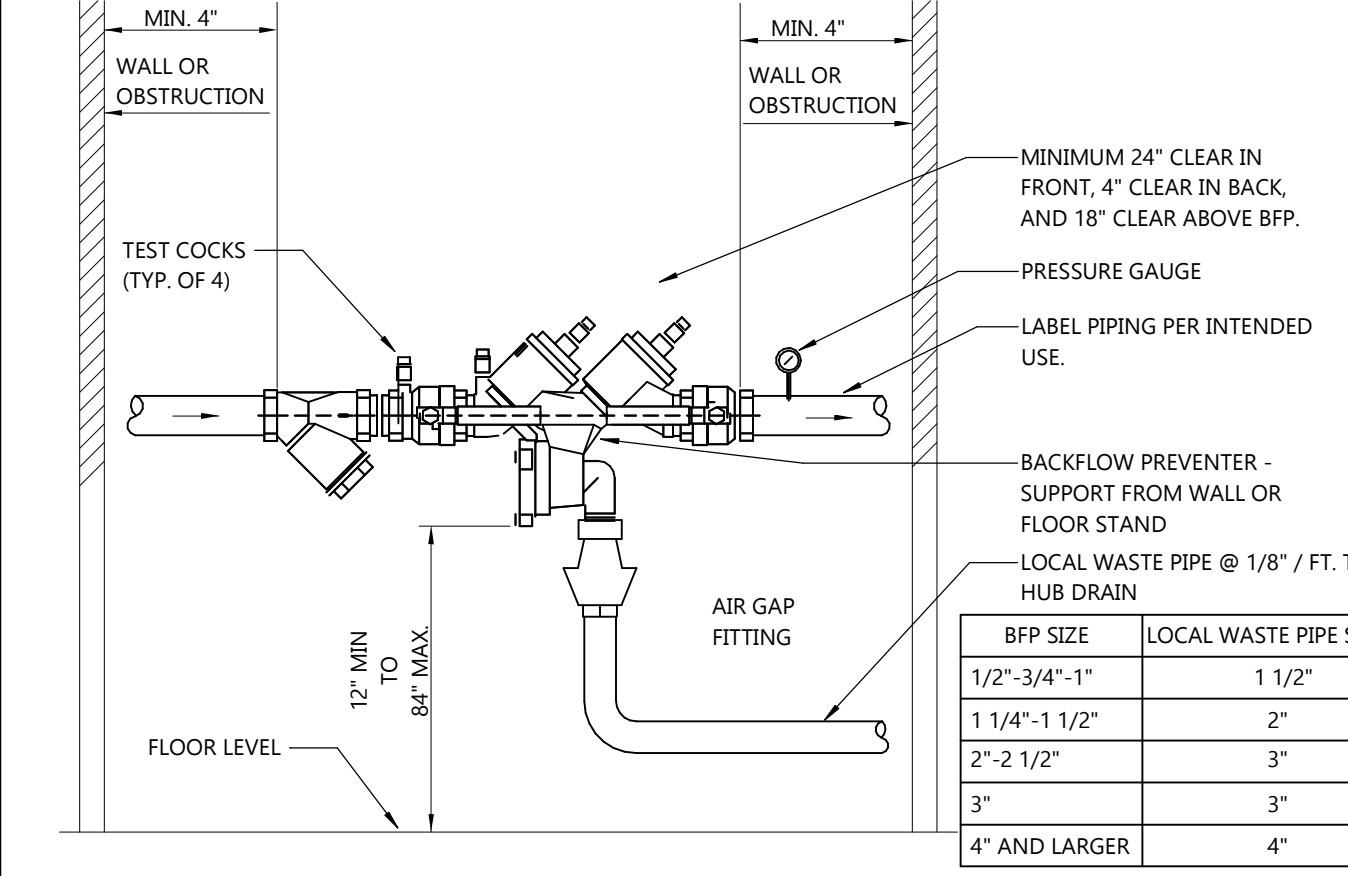


3 UNINSULATED PIPE HANGER DETAIL
P4.0 NOT TO SCALE

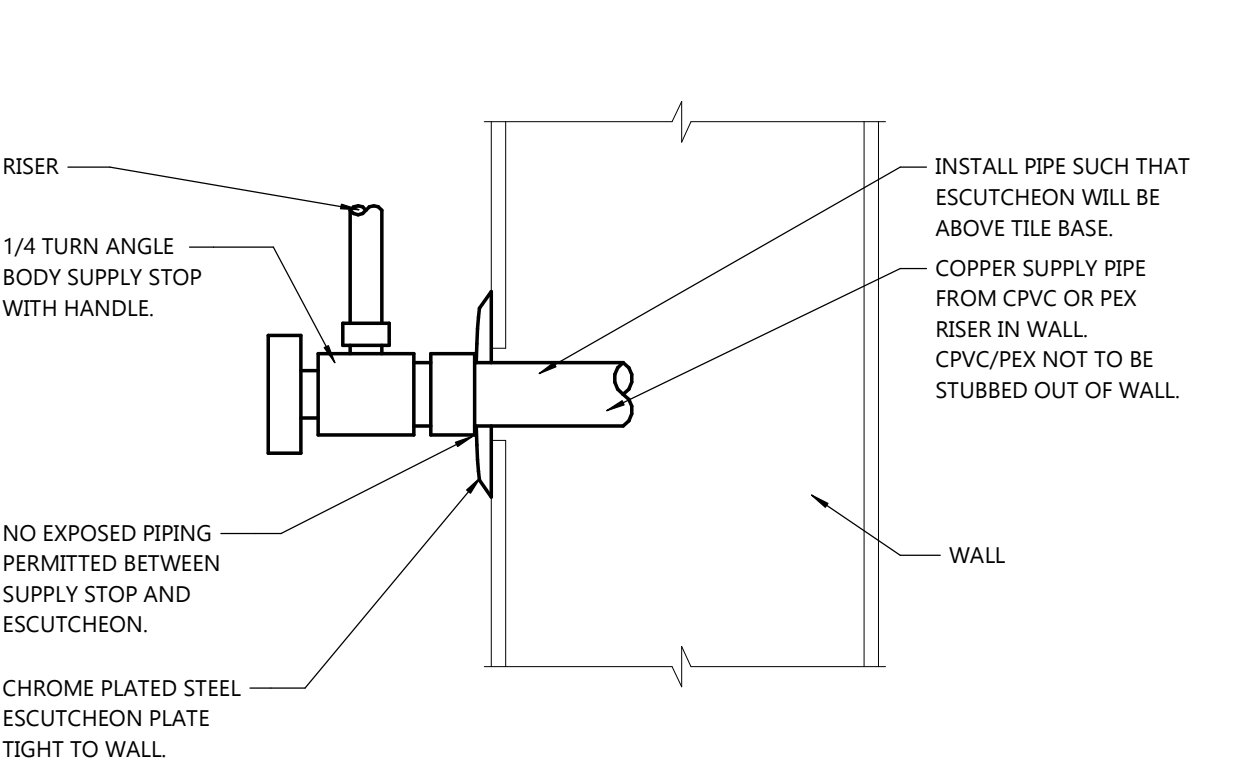


2 INSULATED PIPE HANGER DETAIL
P4.0 NOT TO SCALE

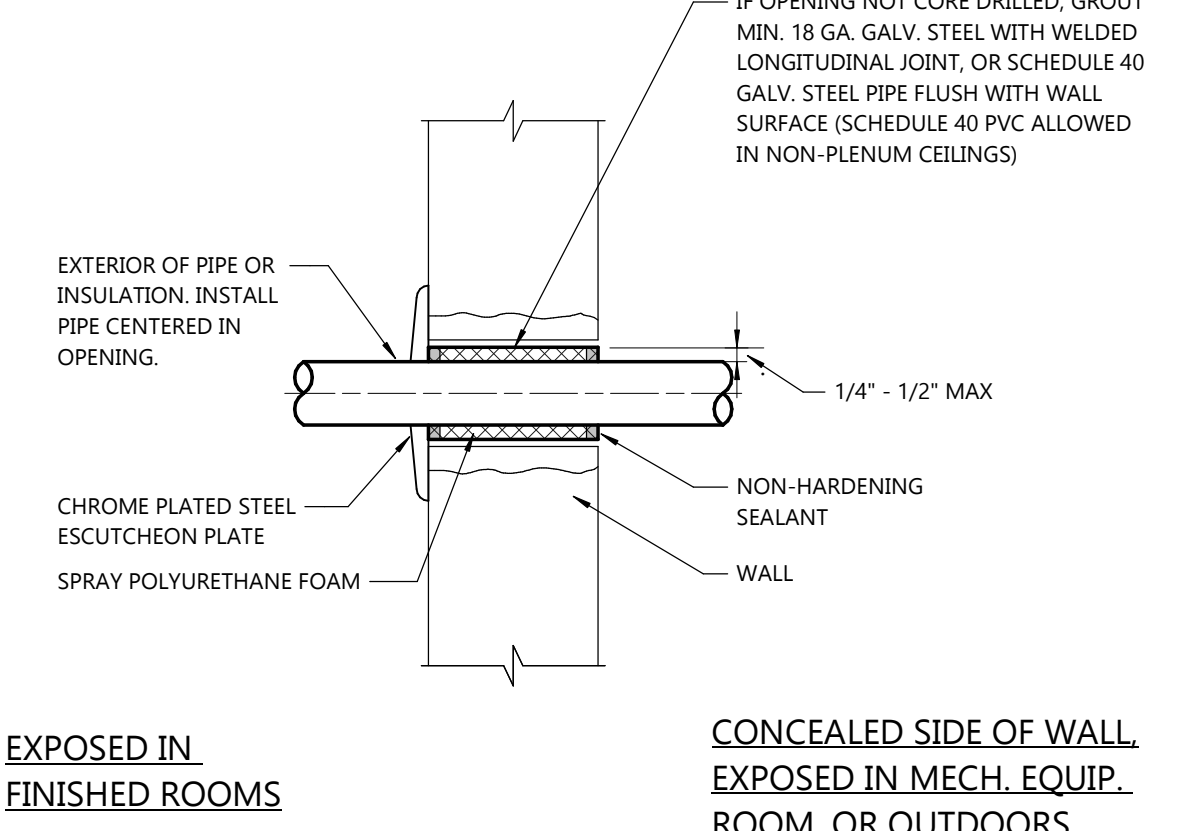
1 PIPE SUPPORT AND HANGER ROD SCHEDULE
P4.0 NOT TO SCALE



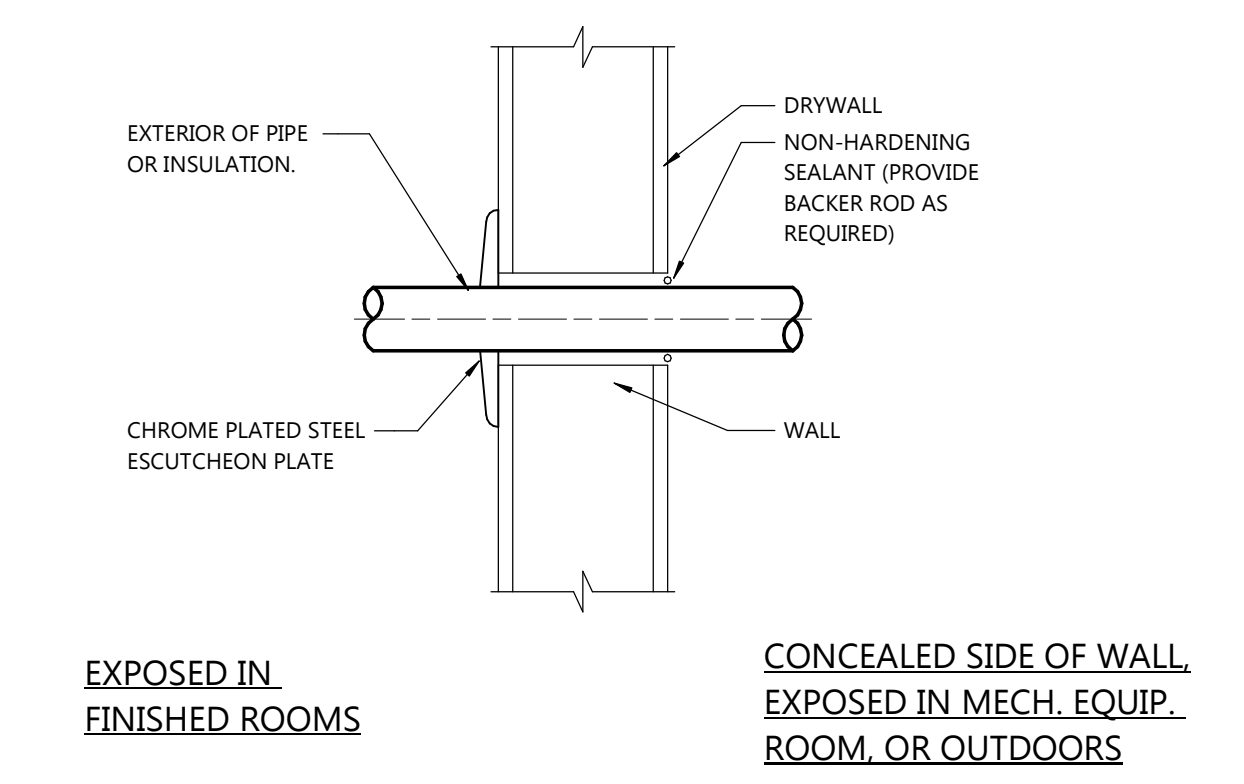
8 BACKFLOW PREVENTER DETAIL
P4.0 NOT TO SCALE



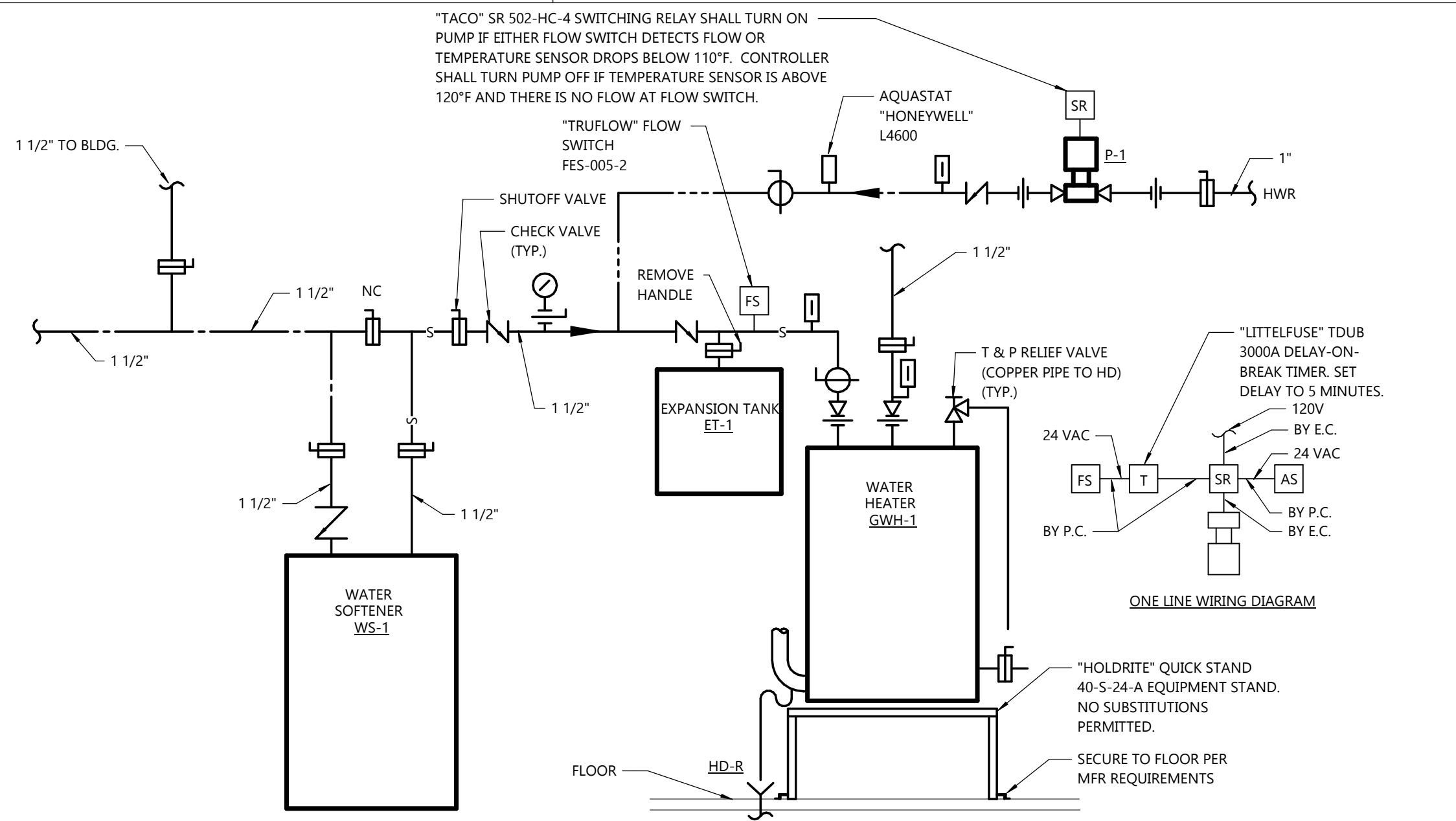
7 ANGLE STOP DETAIL
P4.0 NOT TO SCALE



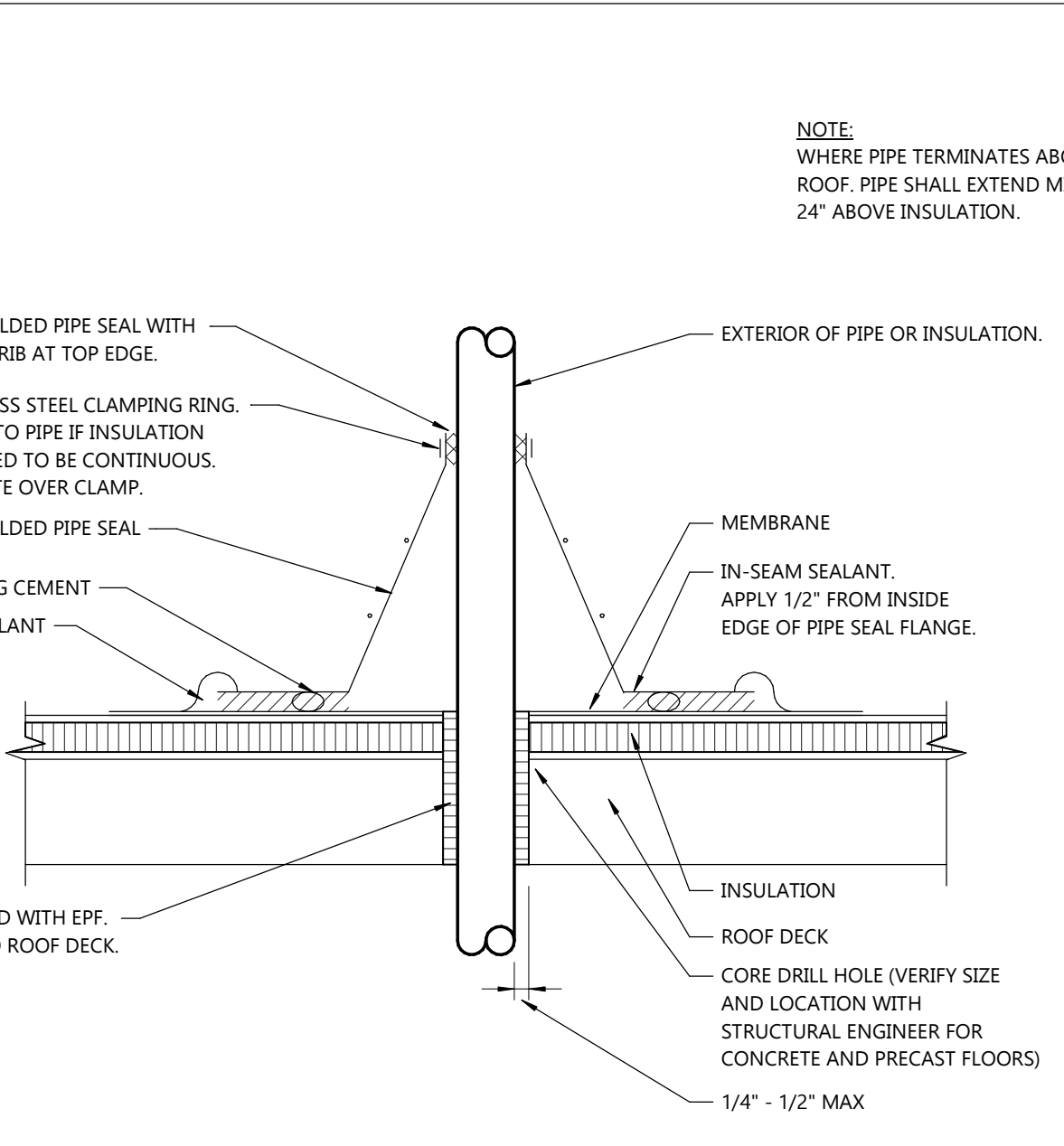
6 PIPE PENETRATION THRU MASONRY OR CONCRETE WALL
P4.0 NOT TO SCALE



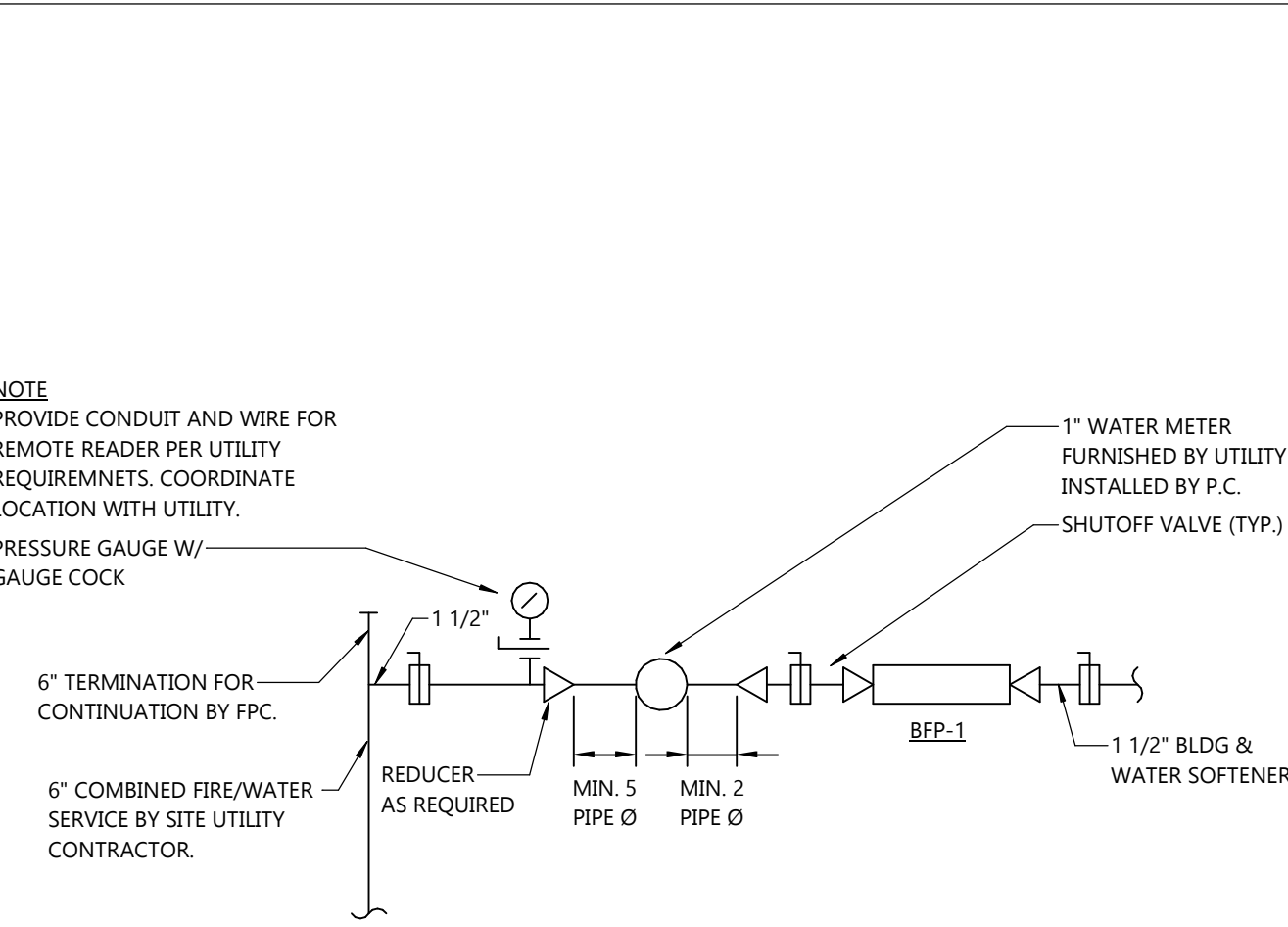
5 PIPE PENETRATION THRU STUD WALL
P4.0 NOT TO SCALE



11 WATER SOFTENER/HEATER PIPING DETAIL
P4.0 NOT TO SCALE



10 ROOF PIPE BOOT PENETRATION DETAIL
P4.0 NOT TO SCALE



9 WATER METER PIPING DETAIL
P4.0 NOT TO SCALE



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SHEET DATES

SHEET ISSUE FEB. 14, 2023

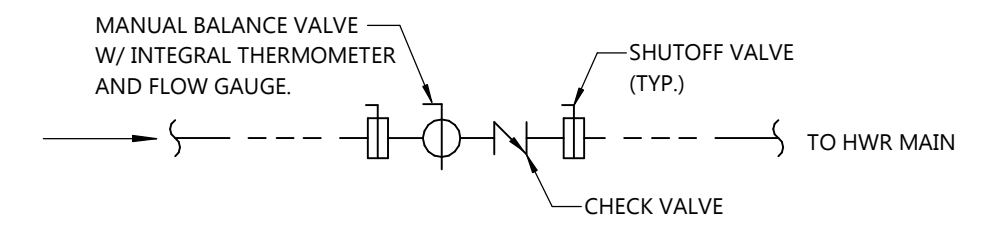
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1 HOT WATER RETURN BALANCE VALVE DETAIL
P4.1 NOT TO SCALE



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CB1	MAY 10, 2023

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THERMOSTATIC MIXING VALVE SCHEDULE (TMV)

NO.	SERVICE	INLETS	OUTLET	MAX. FLOW (GPM)	ACTUAL FLOW (GPM)	ACT. P.D. (PSI)	INLET CONDITIONS				RECIRC. RATE (GPM)	TEMP. SETTING (DEG F)	MODEL	REMARKS
							COLD (DEG F)	PRESS. (PSIG)	HOT (DEG F)	PRESS. (PSIG)				
1	SINK	3/8"	3/8"	3.0	1.0	4	-	-	-	-	NA	105	LFe480-11	POWERS (1)

- ACCEPTABLE MANUFACTURERS: LEONARD, SYMMONS, WATTS, POWERS.
 - LEAD FREE BODY, REMOVABLE CARTRIDGE WITH STRAINER, STAINLESS STEEL SPRING, EPDM O-RINGS AND SOLID WAX THERMOSTAT ASSEMBLY.
 - P.C. SHALL FIELD ADJUST TMV TO TEMPERATURE SETTING INDICATED IN SCHEDULE.
 (1) POINT OF USE TMV SHALL COMPLY WITH ASSE 1070.

WATER CLOSET SCHEDULE (WC)

NO.	MT'G	MIN. MaP (1)	ACTUAL MaP (1)	MIN. PRESS. PSIG	FLUSH TYPE	GPF	BOWL RIM HT. A.F.F.	PIPING CONNECTION	FLUSH VALVE TYPE	FLUSH VALVE/ SUPPLY STOP MER/MODEL	SEAT
1H FLOOR	500	500	8	TANK	1.28	AM. STD. 2315.228	10-14"	HANDLE STOP	-	BRASSCRAFT OCR1912AZXC	AM. STD. 5001G.055 P
2 FLOOR	800	800	8	TANK	1.28	KOHLER K-3575	14-1/2"	HANDLE STOP	-	BRASSCRAFT OCR1912AZXC	BEMIS 1655 SSCT
2H FLOOR	800	800	8	TANK	1.28	KOHLER K-3575	14-1/2"	HANDLE STOP	-	BRASSCRAFT OCR1912AZXC	BEMIS 1655 SSCT
3H FLOOR	800	800	8	TANK	1.28	KOHLER K-3999	16-1/2"	HANDLE STOP	-	BRASSCRAFT OCR1912AZXC	BEMIS 1655 SSCT

- ACCEPTABLE MANUFACTURERS:
 -BOWL: TOTO, KOHLER, AMERICAN STANDARD, CRANE, ELER, MANISFIELD.
 -SUPPLY STOPS: BRASSCRAFT, CHICAGO, KOHLER, DEARBORN, KEENEY, MCGUIRE.
 -SEAT: TOTO, KOHLER, BEMIS, SPERZEL, OLSONITE, AMERICAN STANDARD, CHURCH.
 -TANK WATER CLOSETS: CLOSE-COUPLED WITH VITREOUS CHINA TANK AND COVER, FLUSH ASSEMBLY, AND ANGLE SUPPLY WITH BRASS STEM.
 - FLOOR SET WATER CLOSETS WITH BOLT CAPS.
 - CONTROLS FOR ADA ACCESSIBLE FIXTURES SHALL BE ON THE OPEN SIDE.
 (1) MAXIMUM PERFORMANCE (MaP) RATING PER VERITEC CONSULTING INC. AND KOELLER AND COMPANY. PROVIDE MaP RATING INFORMATION WITH PRODUCT SUBMITTAL.

VALVE BOX SCHEDULE (VB)

NO.	SERVICE	MOUNTING	VALVE	BOX MATERIAL	WATER INLET SIZE	WATER OUTLET SIZE	DRAIN SOCKET SIZE	MODEL	REMARKS
W	WASHING MACHINE	RECESSED	1/4 TURN	PLASTIC	1/2" HOT & COLD	3/4" HOSE	2"	37609	OATEY

-ACCEPTABLE MANUFACTURERS: OATEY, SIOUX CHIEF, SYMMONS, GUY GRAY.
 - ABS PLASTIC BOX AND FRAME, GALVANIZED STEEL MOUNTING BRACKET, BRASS VALVE BODY, INTEGRAL WATER HAMMER ARRESTOR AND TRIM.
 - BOX SHALL BE RATED FOR THE WALL SYSTEM IN WHICH IT IS INSTALLED.

CLEANOUT SCHEDULE

NO.	LOCATION	SIZES	BODY MAT'L	PLUG MAT'L	ACCESS COVER		MISC.	FIGURE	REMARKS
					MAT'L	MISC.			
CO	ABV. CLGS & EXPOSED PIPE	2" - 6"	(1)	PVC	-	-	-	(1)	(1)
FCO	FINISHED ROOMS W/O CARPET (2)	2" - 6"	C.I.	PVC	N.B.	-	-	Z-1460	ZURN
FCO	FINISHED ROOMS WITH CARPET (2)	2" - 6"	C.I.	PVC	N.B.	CARPET MARKER	-	Z-1400-CM	ZURN
WCO	WALL	3" - 4"	(5)	POLY	S.S.	-	-	Z-1469	ZURN
WCO	WALL	2" &..	(6)	POLY	S.S.	-	-	Z-1469	ZURN
CO T.G.	OUTSIDE	2" - 6"	C.I.	PVC	C.I.	-	-	Z-1474-N	ZURN

- ACCEPTABLE MANUFACTURERS: J.R. SMITH, SCHIER, JOSAM, WADE, ZURN.
 - RECESSED TAPER THREAD PLUG WITH SLOTTED RECESS.
 (1) PROVIDE THREADED FEMALE ADAPTER WITH INTERNAL PLUG. ADAPTER MATERIAL SHALL MATCH PIPE MATERIAL TO WHICH CO IS BEING CONNECTED.
 (2) FINISHED ROOMS ARE ROOMS WITH CARPET OR FLOOR TILE OR ROOMS ACCESSIBLE BY A DOOR LESS THAN 42" WIDE.
 (5) PROVIDE "HOLDRITE" TESTRITE TEST/CLEANOUT TEE. THREADED PLUG WITH BRASS INSERT. MATERIAL SHALL MATCH PIPE MATERIAL TO WHICH TEE IS BEING CONNECTED.
 (6) PROVIDE TEST/CLEANOUT TEE. THREADED PLUG WITH BRASS INSERT. MATERIAL SHALL MATCH PIPE MATERIAL TO WHICH TEE IS BEING CONNECTED.

DRAIN SCHEDULE

NO.	TYPE	APPLICATION	OUTLET SIZE	BODY MAT'L	STRAINER/TOP MAT'L		MISC.	MODEL	REMARKS
					SIZE	SIZE			
RD	ROOF/OVERFLOW	INSULATED ROOF	3"-8" (2)	CAST IRON	CAST IRON	12"	(18)	FROET 100C*LP-DU-DP	ZURN
FD-1	FLOOR	PEDESTRIAN TRAFFIC	2"-3" (2)	CAST IRON	N. B. "TYPE B"	5" DIA	-	ZN-415-5B	ZURN (11) (19)
FD-2	FLOOR	EQ. RM. / MED. DUTY	2"-4" (2)	CAST IRON	CAST IRON	7" DIA	-	Z-507	ZURN (11) (19)
FD-3	FLOOR	FLOOR SINK	3"	CAST IRON	N.B. OPEN QUARTER	12" x 12"	ALUM. DOME	861-23KN2D	SIOUX CHIEF
DSN	-	DOWNSPOUT NOZZLE	2"-12" (2)	NL BRASS	-	-	(20)	G-O-N	RECTORSEAL
HD-R	HUB DRAIN	INDIRECT WASTE	(2)	-	STUB DRAIN PIPE 2" A.F.F. AND PROVIDE 1 PIPE SIZE INCREASE ON END OF PIPE.	-	-	-	(19)

-ACCEPTABLE MANUFACTURERS: ZURN, J.R. SMITH, JOSAM, WADE, WATTS, SCHIER, KUSEL, SIOUX CHIEF.
 (18) DECK MOUNTING PLATE FOR DRAIN TO BE BOLTED DIRECTLY TO PLATE. RING EXTENSIONS TO EXTEND SUMP BODY TO BELOW TOP OF ROOF INSULATION, OVERFLOW STRAINER.
 (2) AS NOTED ON DRAWINGS
 (1) SUFFIX "C" DENOTES DRAIN WITH FLASHING.
 (19) PROVIDE BARRIER TYPE INSERT DRAIN TRAP SEAL COMPLIANT WITH ASSE 1072.
 (20) PROVIDE ANTI-THEFT ESCUTCHEON AND STAINLESS STEEL BIRD SCREEN.

BACKFLOW PREVENTER / VACUUM BREAKER SCHEDULE (BFP)

NO.	LOC.	GPM	P.D. (PSI)	INDIRECT WASTE REQ'D	SIZE	MAX. OP TEMP. DEG. F.	TYPE	MAX. HAZ.	BFP/VB PRESS.	APPLICATION	ASSE STD.	MODEL	REMARKS
1	106	53	13.0	YES (6)	1 1/2"	180	REDUCED PRESS. PRINCIPLE BFP	HIGH	CONTIN.	BLDG POTABLE WATER SYSTEM PROTECTION	1013	LF919QT	WATTS (1)

-ACCEPTABLE MANUFACTURERS: WATTS, AMES, ZURN/WILKINS, APOLLO, MIFAB.
 (1) LEAD FREE BODY.
 (6) PROVIDE AIR GAP FITTING.



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PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

JOB NUMBER

2255300

SHEET NUMBER

FP1.1

GENERAL NOTES

- SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
- ALL PIPING IS TO BE CONCEALED. IF BUILDING CONSTRUCTION DOES NOT PERMIT CONCEALING PIPING, LOCATIONS AND ROUTING ARE TO BE APPROVED BY ARCHITECT/ OWNER PRIOR TO INSTALLATION.
- VERIFY EQUIPMENT/DUCTWORK LOCATIONS WITH ARCHITECTURAL AND HVAC PLANS. PROVIDE SPRINKLERS AT THESE LOCATIONS PER NFPA 13.
- PROVIDE ADDITIONAL PIPING/SPRINKLERS AS REQUIRED WHERE NEW DUCTWORK/EQUIPMENT OBSTRUCTS EXISTING COVERAGE. SEE HVAC DRAWINGS.
- SEE HVAC SHEETS FOR AREAS THAT ARE USED AS A RETURN AIR PLENUM. PROVIDE PLENUM RATED CONSTRUCTION.

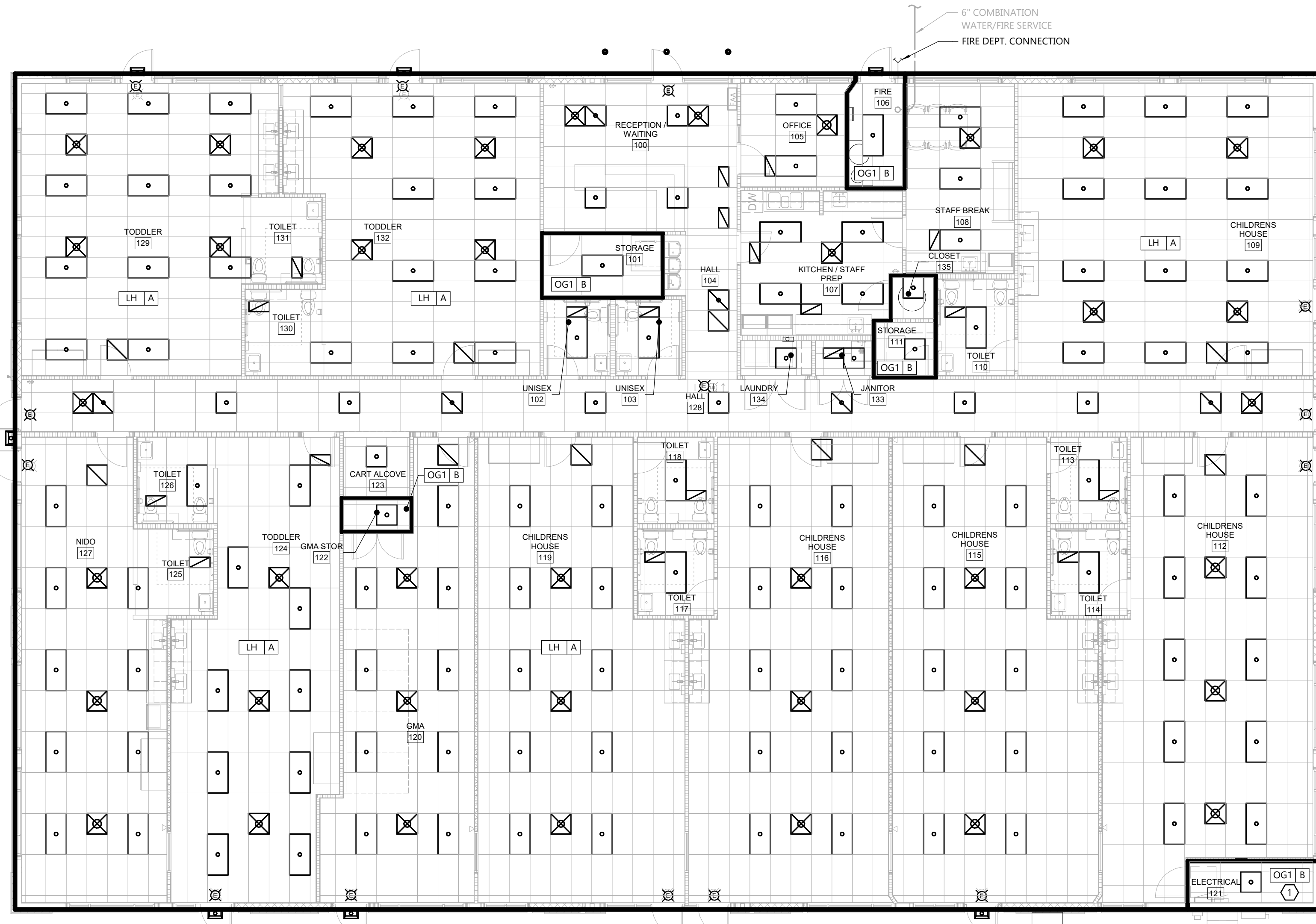
KEYNOTES

NOT ALL KEYNOTES MAY APPEAR ON PLAN.

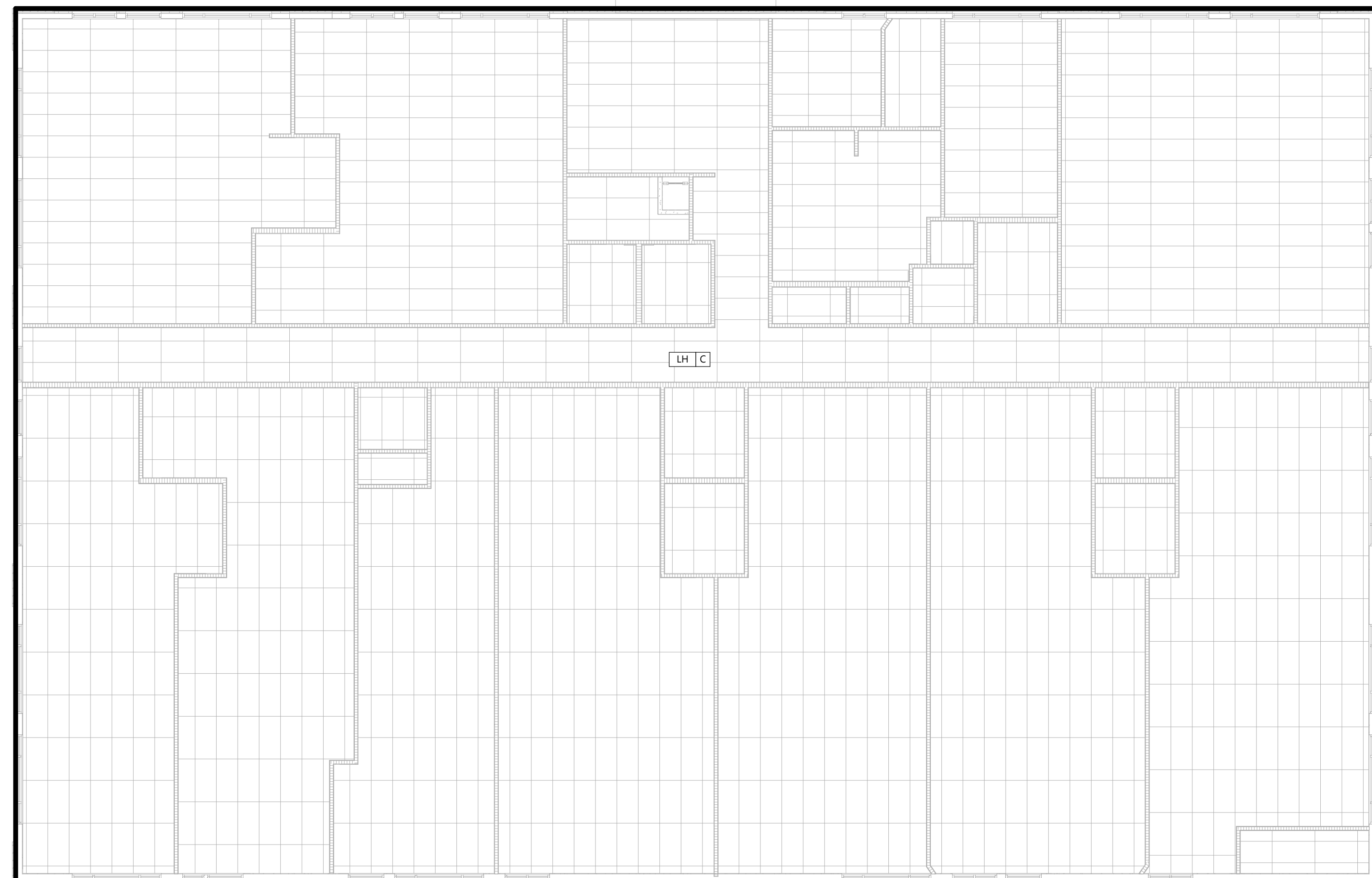
- ① ONLY BRANCH PIPING SUPPLYING SPRINKLER IN THIS ROOM IS PERMITTED.

- INDICATES DESIGN CRITERIA DESIGNATION (SEE SCHEDULE)
- INDICATES SPRINKLER DESIGNATION (SEE SCHEDULE)

X X



FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"
0' 8' 16'



ABOVE CEILING PLAN
SCALE: 1/8" = 1'-0"
0' 8' 16'

FIRE PROTECTION FIRST FLOOR PLAN



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AD2 MAR. 23, 2023
AD3 APR. 19, 2023
CB2 JUNE 5, 2023

JOB NUMBER

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SHEET NUMBER

H1.1

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GENERAL NOTES

- DUCT FITTINGS SHALL BE TYPE SHOWN ON PLAN OR CALLED OUT BY KEYNOTE. SEE DETAIL 1/H3.0 FOR ATTENTIONAL FITTING DETAIL.
- VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING. SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
- DETAIL REFERENCES ON PLANS ARE TO AID THE CONTRACTOR IN IDENTIFYING THE APPLICABLE DETAIL. NOT ALL DETAILS, OR INSTANCES OF DETAILS, ARE REFERENCED ON PLANS. CONTRACTOR IS RESPONSIBLE TO REVIEW AND COMPLY WITH ALL APPLICABLE DETAILS WHETHER OR NOT REFERENCED ON PLANS.
- COORDINATE LOCATION OF ALL EXPOSED PIPING AND DUCTWORK WITH OWNER PRIOR TO INSTALLATION.
- IF DUCT SYSTEMS ARE USED FOR TEMPORARY HEAT, PROVIDE TEMPORARY FILTERS AT RETURN AIR OPENINGS AND INSTALL FILTERS IN THE UNITS EQUIVALENT TO THE EFFICIENCY OF THE SPECIFIED FILTERS FOR THE UNIT. IF PROPER EFFICIENCY FILTERS ARE NOT INSTALLED IN UNIT, UNIT AND ALL DUCTWORK DOWNSTREAM OF UNIT SHALL BE CLEANED BEFORE TEST AND BALANCE.

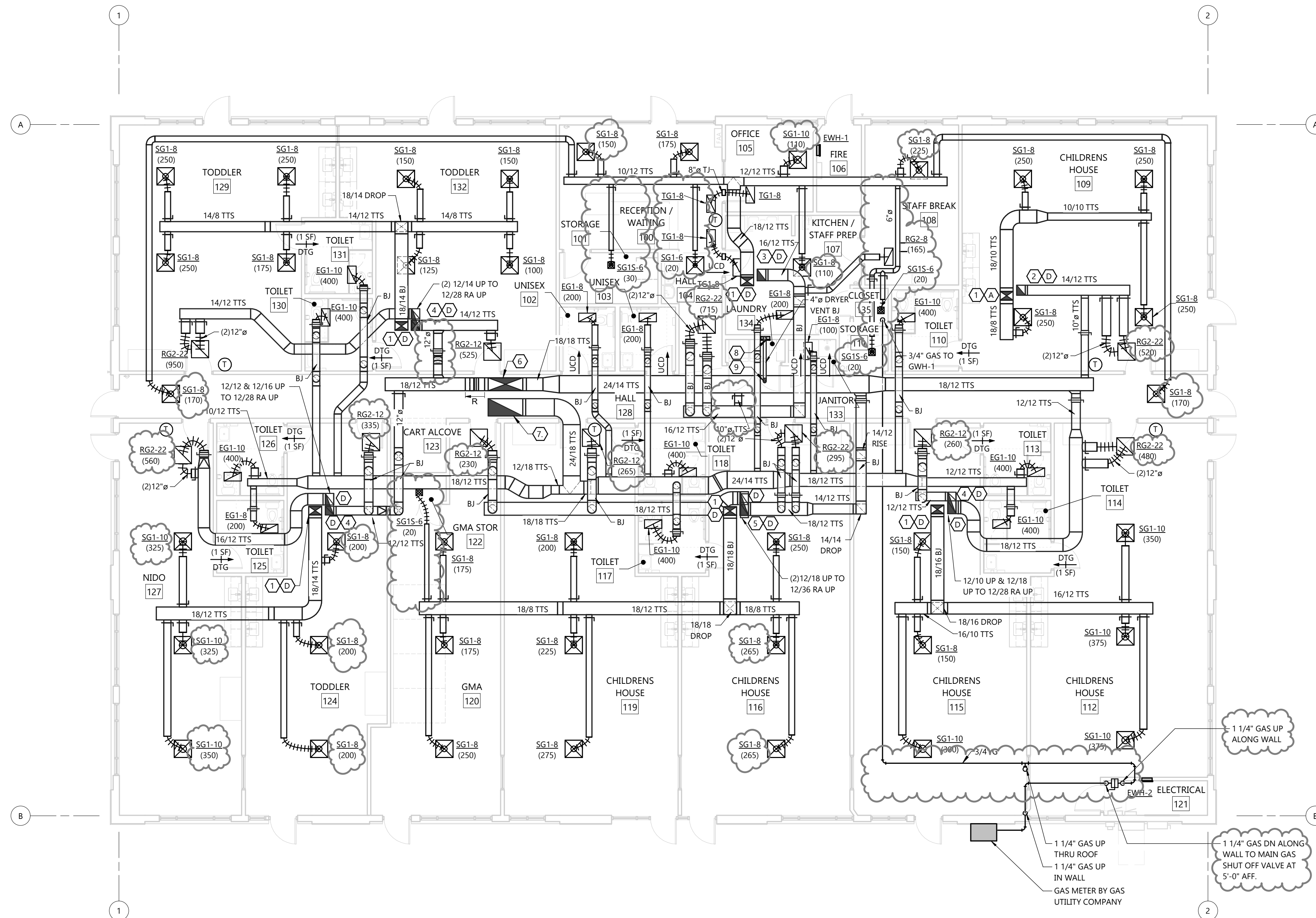
KEYNOTES

- Ⓐ (H) SEE DUCT FITTING DETAILS 1/H3.0
- ① 18/12 SA UP TO RTAC.
- ② 12/14 RA UP TO RTAC - TRANSITION TO RTAC CONNECTION SIZE IN RISE.
- ③ 12/16 RA UP TO RTAC - TRANSITION TO RTAC CONNECTION SIZE IN RISE.
- ④ 12/28 RA UP TO RTAC - TRANSITION TO RTAC CONNECTION SIZE IN RISE.
- ⑤ 12/36 RA UP TO RTAC - TRANSITION TO RTAC CONNECTION SIZE IN RISE.
- ⑥ 48/18 SA UP TO ERU-1, TRANSITION TO ERU CONNECTION SIZE IN RISE.
- ⑦ 48/24 RA UP TO ERU-1, TRANSITION TO ERU CONNECTION SIZE IN RISE.
- ⑧ PROVIDE "DRYERBOX" MODEL 425 FOR DRYER EXHAUST. CONFIRM FINAL INSTALLATION HEIGHT WITH OWNER.
- ⑨ 4" DRYER VENT UP.

GAS LOAD SUMMARY

ITEM	MBH INPUT	REQUIRED PRESSURE (1)
RTAC-1	110	7" W.C.
RTAC-2	67	7" W.C.
RTAC-3	150	7" W.C.
RTAC-4	110	7" W.C.
RTAC-5	110	7" W.C.
RTAC-6	110	7" W.C.
GWH-1	300	7" W.C.
TOTAL	957	

- GAS PRESSURE AT METER = 2 PSIG
- PROVIDE GAS PRESSURE REGULATOR AT EACH PIECE OF EQUIPMENT LISTED ABOVE.
- CONNECT TO EACH PIECE OF EQUIPMENT LISTED ABOVE.
- (1) VERIFY PRESSURE REQUIRED WITH ACTUAL EQUIPMENT INSTALLED ON PROJECT BEFORE SIZING REGULATOR.



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



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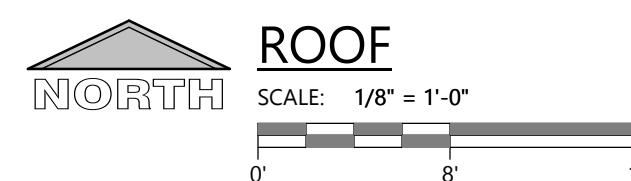
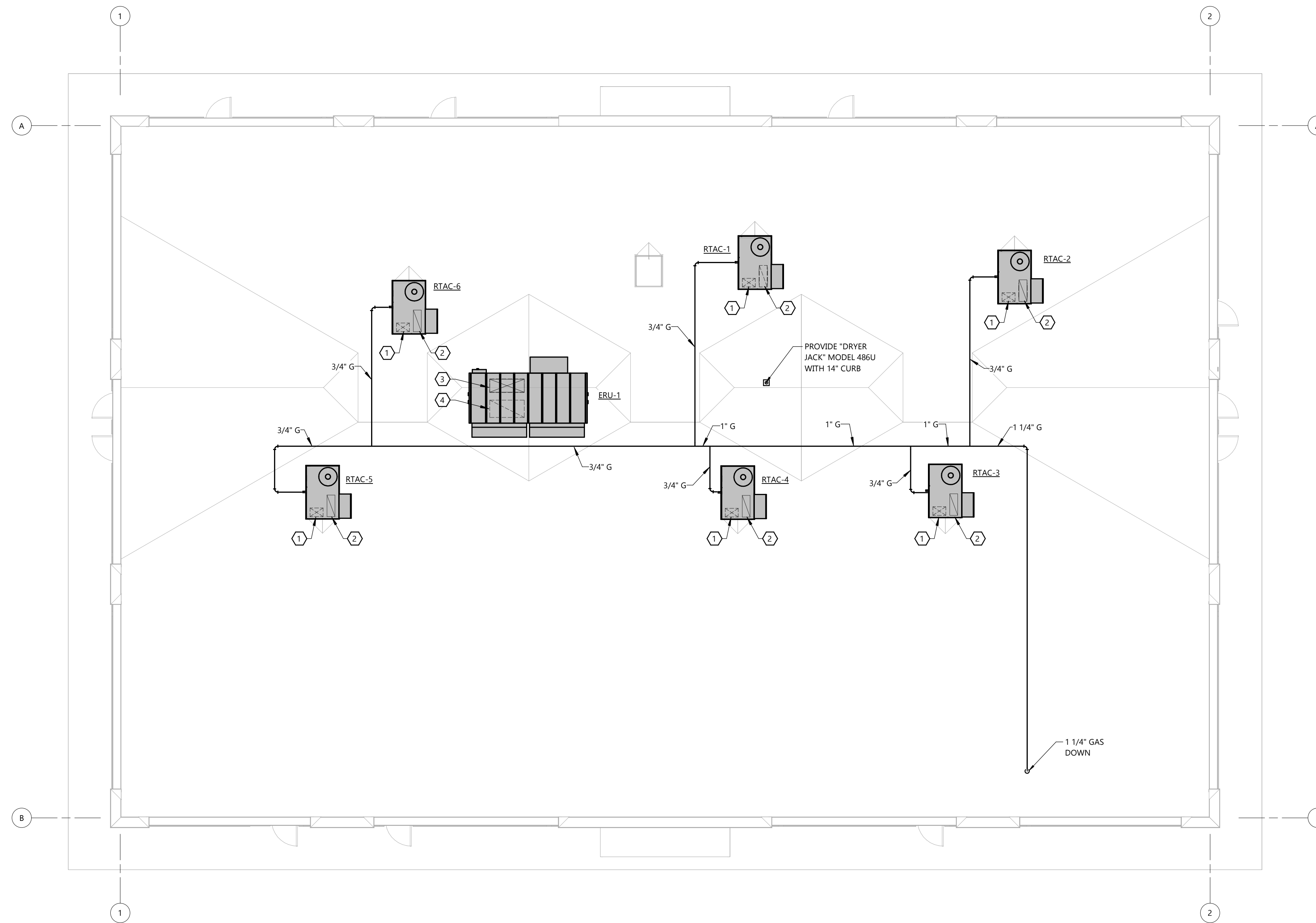
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GENERAL NOTES

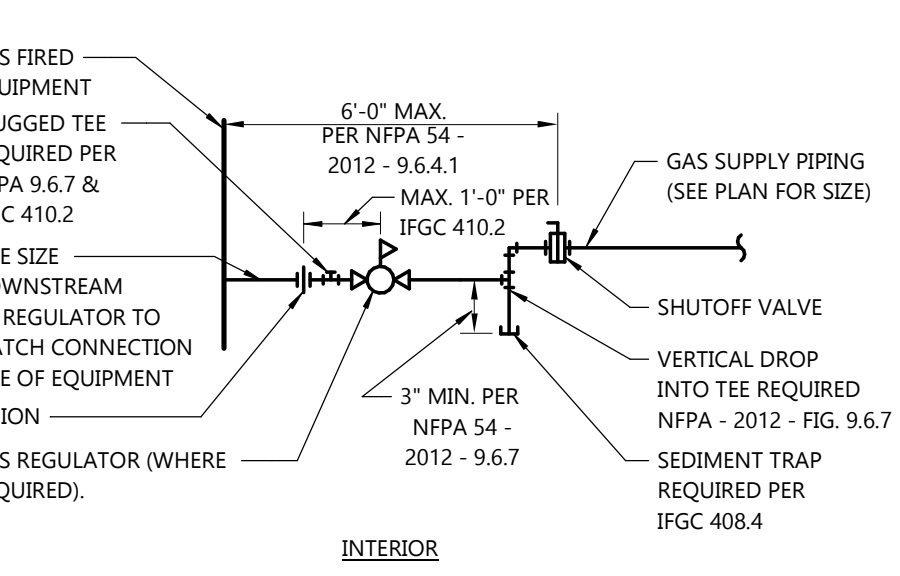
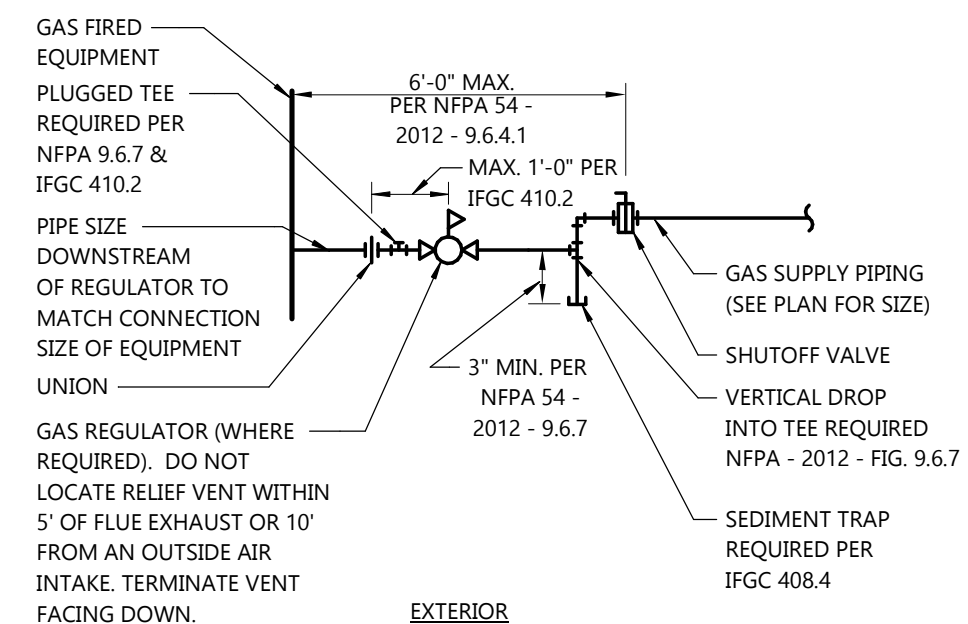
- VERIFY BUILDING OPENING AND CURB SIZES LISTED ON PLANS WITH ACTUAL EQUIPMENT SCHEDULED AND SUPPLIED. COORDINATE REQUIRED OPENING SIZES AND LOCATIONS WITH CONTRACTORS PROVIDING OPENING. SCHEDULES AND ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.
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- TERMINATE ALL GAS REGULATOR VENTS MINIMUM 10'-0" FROM EDGE OF ROOF. VENTS SHALL NOT BE TERMINATED OUT EXTERIOR WALLS.
- DASHED LINES AROUND EXHAUST TERMINATIONS INDICATE 10'-0" REQUIRED CLEARANCE TO OUTSIDE AIR INTAKES.

KEYNOTES

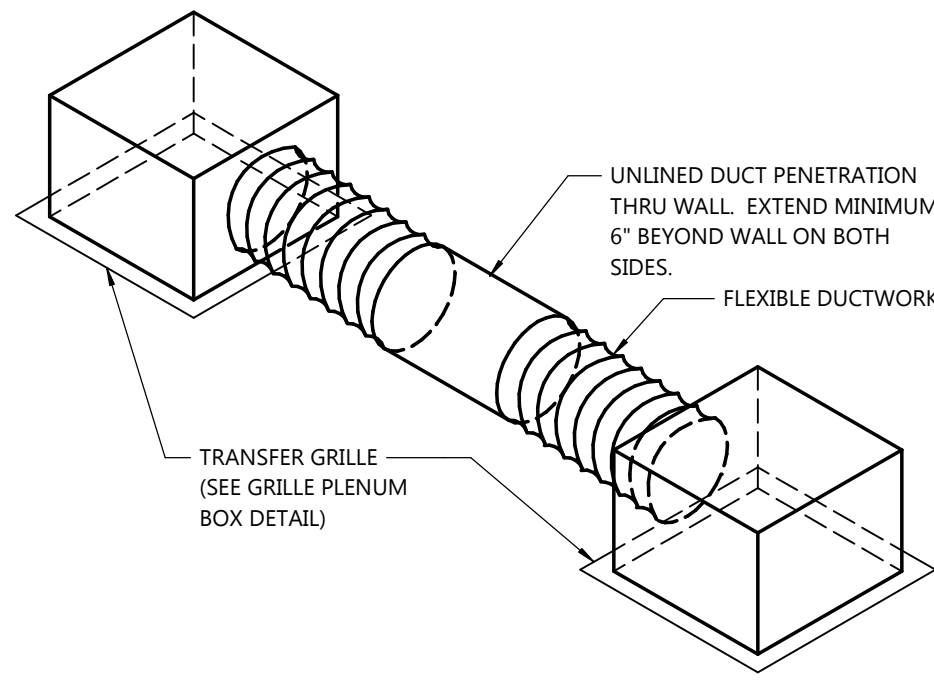
- ① 18/12 SA DOWN THRU ROOF.
- ② 11/30 RA DOWN THRU ROOF.
- ③ 48/18 OA DOWN THRU ROOF.
- ④ 48/24 EA DOWN THRU ROOF.



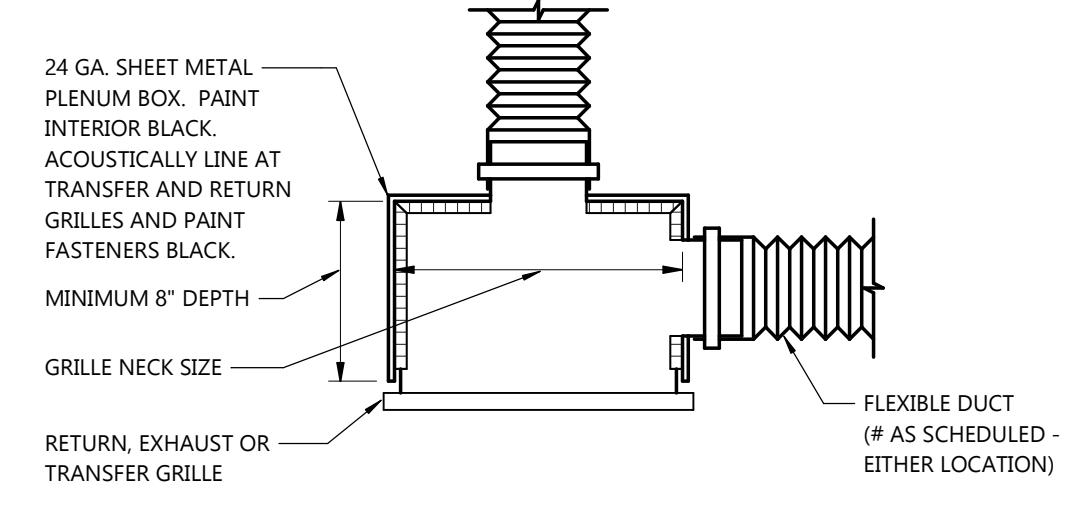
HVAC ROOF PLAN



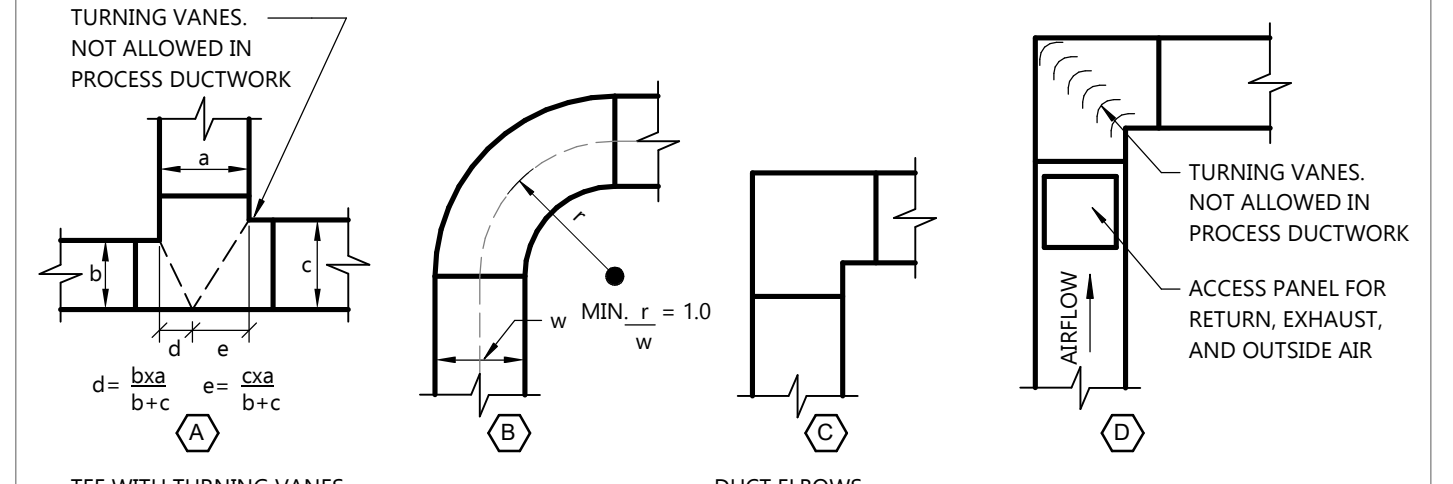
4 GAS PIPE CONNECTION DETAIL
H3.0 NOT TO SCALE



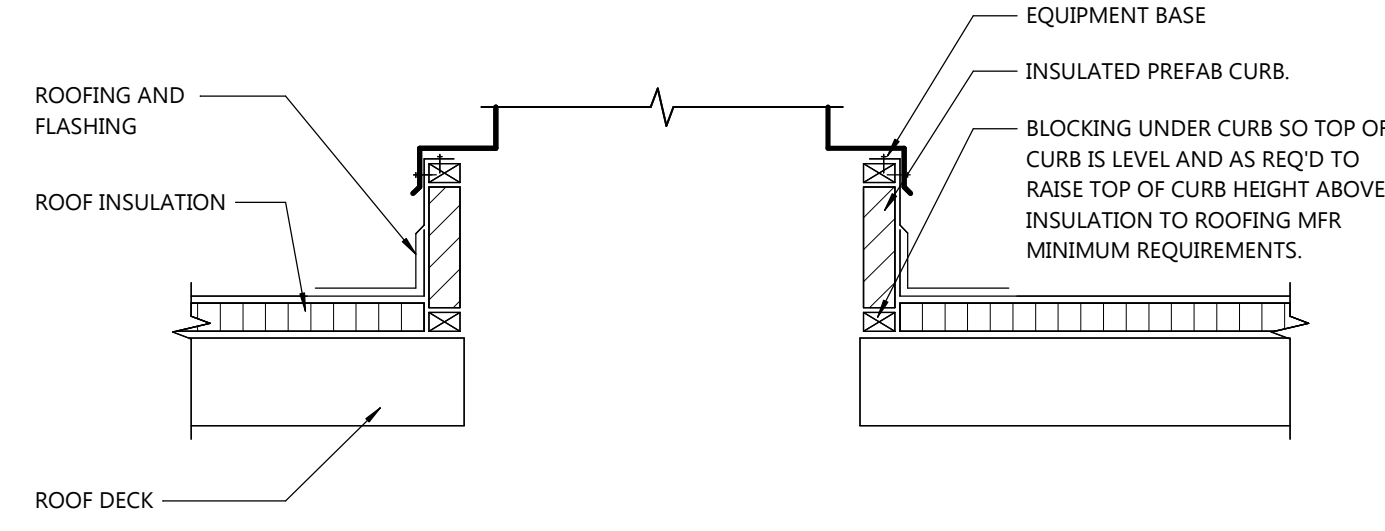
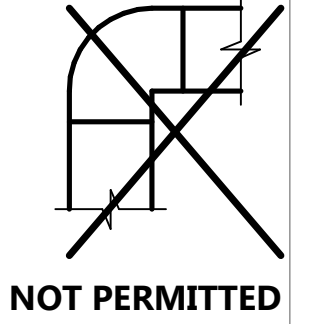
3 TRANSFER DUCT DETAIL
H3.0 NOT TO SCALE



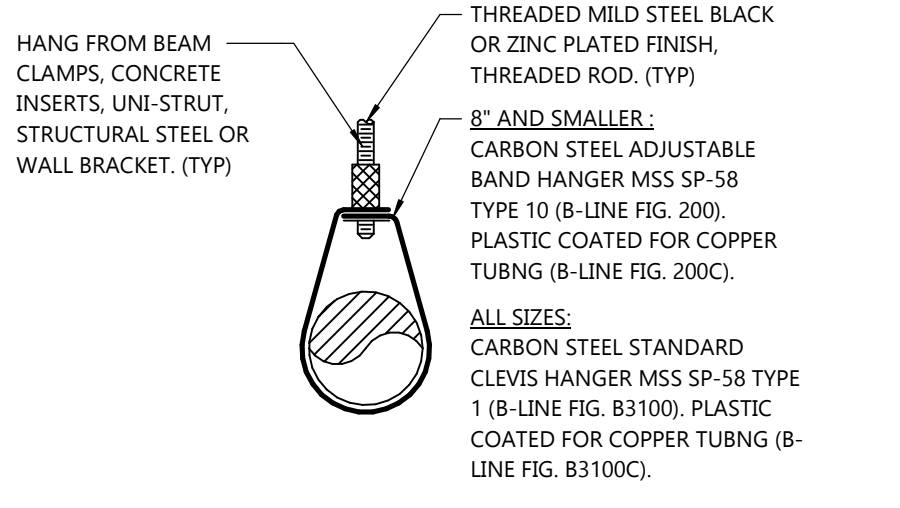
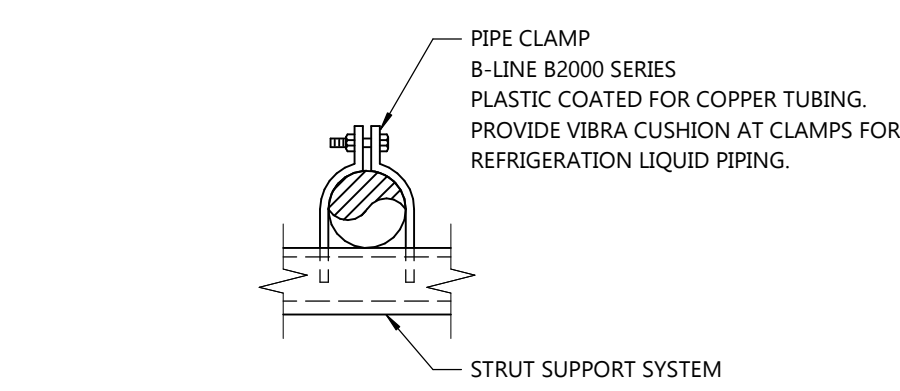
2 GRILLE PLENUM BOX DETAIL
H3.0 NOT TO SCALE



1 DUCT FITTING DETAILS
H3.0 NOT TO SCALE



8 TYPICAL ROOF CURB DETAIL
H3.0 NOT TO SCALE



7 UNINSULATED PIPE HANGER DETAIL
H3.0 NOT TO SCALE

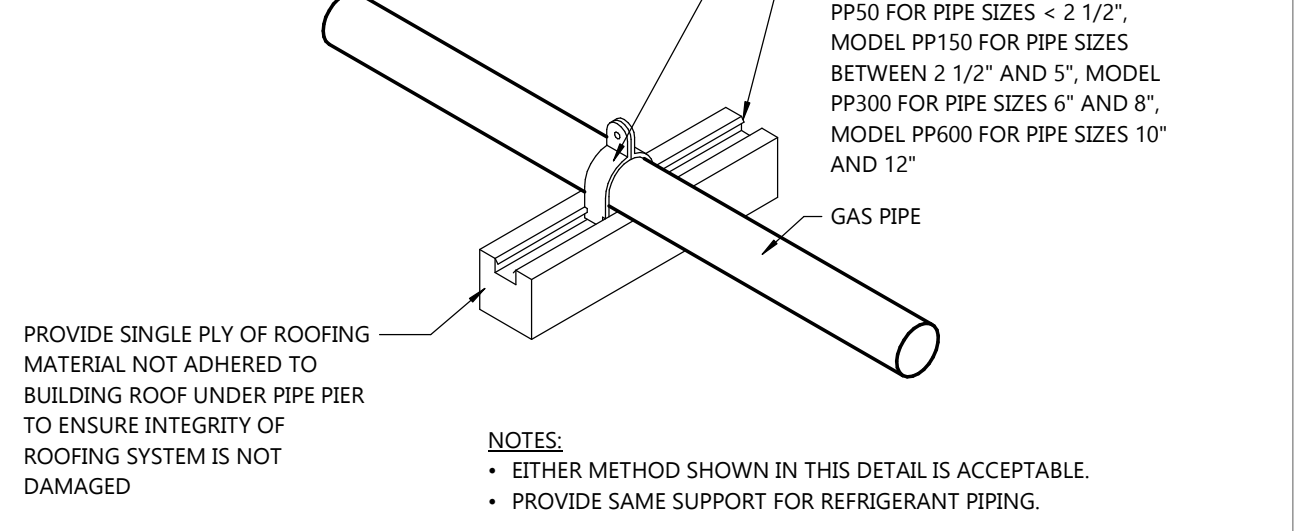
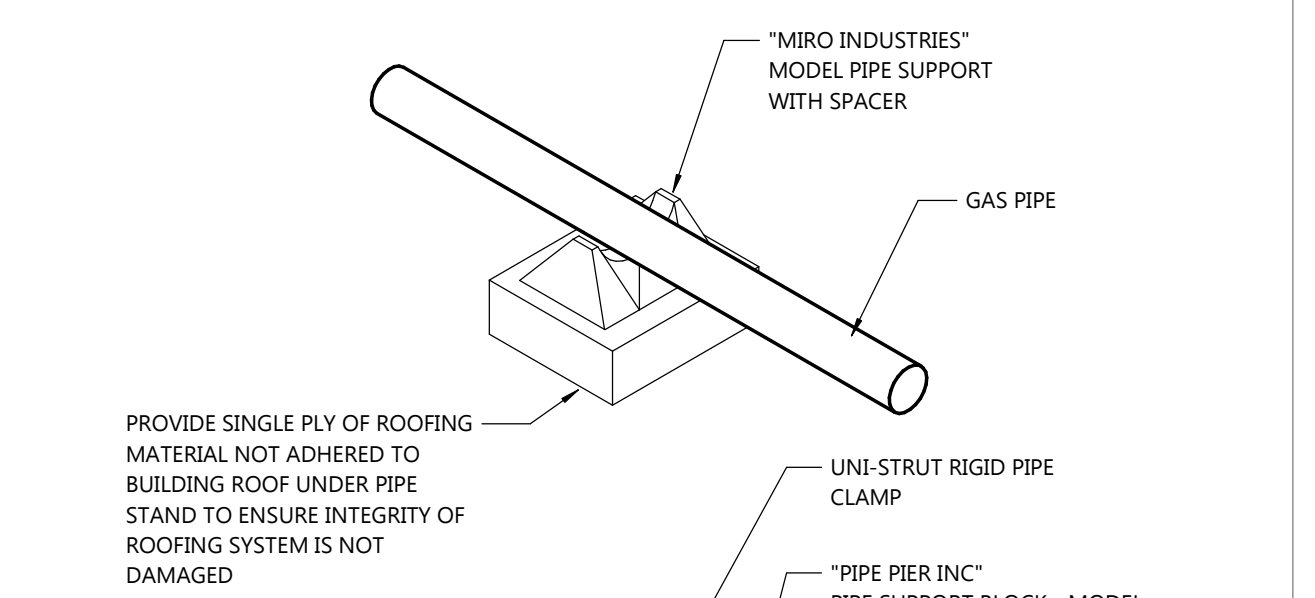
PIPE SIZE	STEEL						MIN. ROD	
	WATER	VAPOR	NAT. GAS	COPPER	PVC	PEX	METAL PIPE	PLASTIC PIPE
1/4"-1/2"	7"	8"	6"	5"	6"	4"	3/8"	3/8"
3/4"	7"	9"	8"	5"	7"	4"	3/8"	3/8"
1"	7"	9"	8"	6"	8"	4"	3/8"	3/8"
1 1/4"	7"	9"	10"	7"	9"	4"	3/8"	3/8"
1 1/2"	9"	12"	10"	8"	10"	4"	3/8"	3/8"
2"	10"	12"	10"	8"	11"	4"	3/8"	3/8"
2 1/2"	11"	12"	10"	9"	12"	4"	3/8"	3/8"
3"	12"	12"	10"	10"	12"	4"	3/8"	3/8"
4"	12"	12"	10"	12"	12"	4"	3/8"	3/8"
6"	12"	12"	10"	12"	12"	4"	3/8"	3/8"
8"	12"	12"	-	-	-	4"	1/2"	3/8"
10"	12"	12"	-	-	-	4"	1/2"	3/8"
12"	12"	12"	-	-	-	4"	5/8"	3/8"
14"	12"	12"	-	-	-	4"	5/8"	3/8"
16"	12"	12"	-	-	-	4"	3/4"	3/8"
MAX VERT. (1)	15'	15'	-	10'	10'	10'	-	-

(1) SUPPORT AT MINIMUM EVERY FLOOR LEVEL OR SPACING LISTED.
MSS = MANUFACTURER'S STANDARDIZATION SOCIETY
- INSTALL ADDITIONAL HANGERS WITHIN 12" OF ELBOWS AND TEES AND AT CONCENTRATED LOADS, INCLUDING VALVES, FLANGES AND STRAINERS 2 1/2" AND LARGER.

MAX. HANGER ROD CAPACITY	MAX. LOAD (1)
3/8"	600#
1/2"	1,100#
5/8"	1,800#
3/4"	2,700#

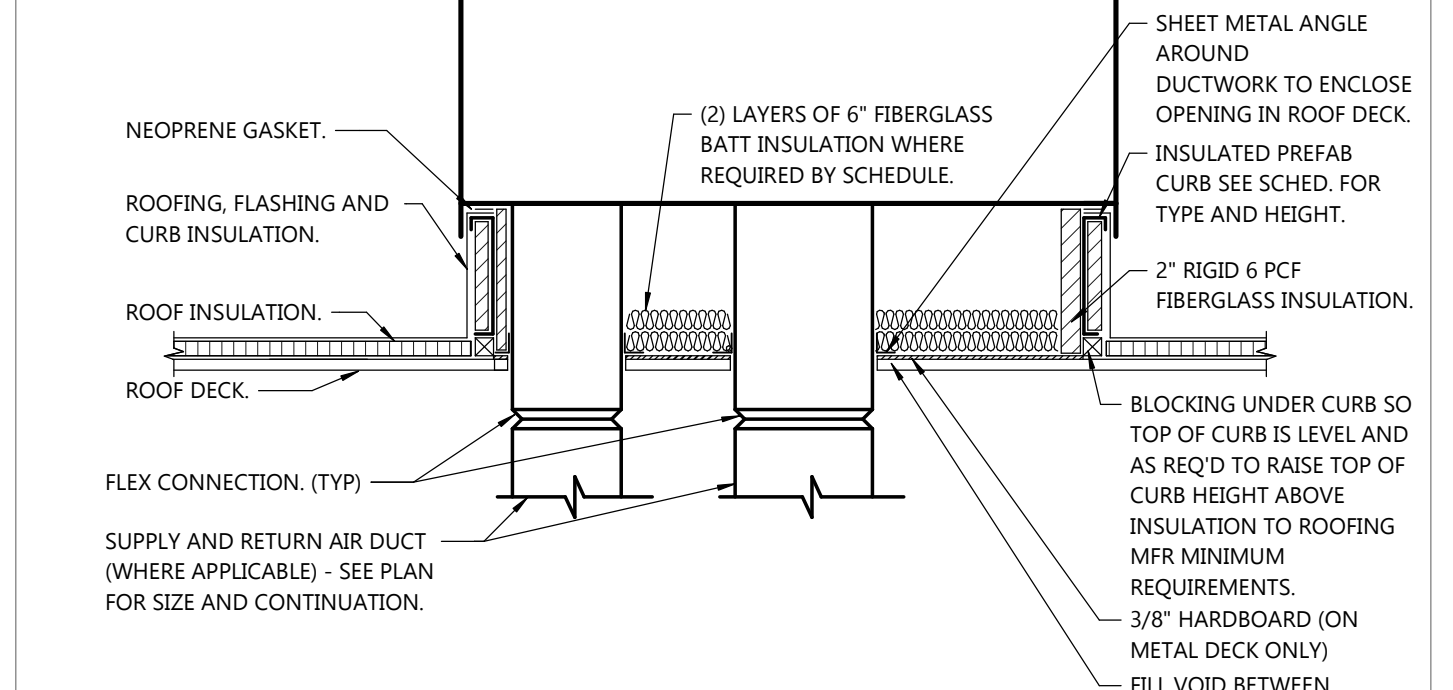
(1) MAX. LOAD IS WEIGHT ALLOWED PER EACH ROD.

6 PIPE SUPPORT AND HANGER ROD SCHEDULE
H3.0 NOT TO SCALE



5 GAS PIPE SUPPORT ON ROOF DETAIL
H3.0 NOT TO SCALE

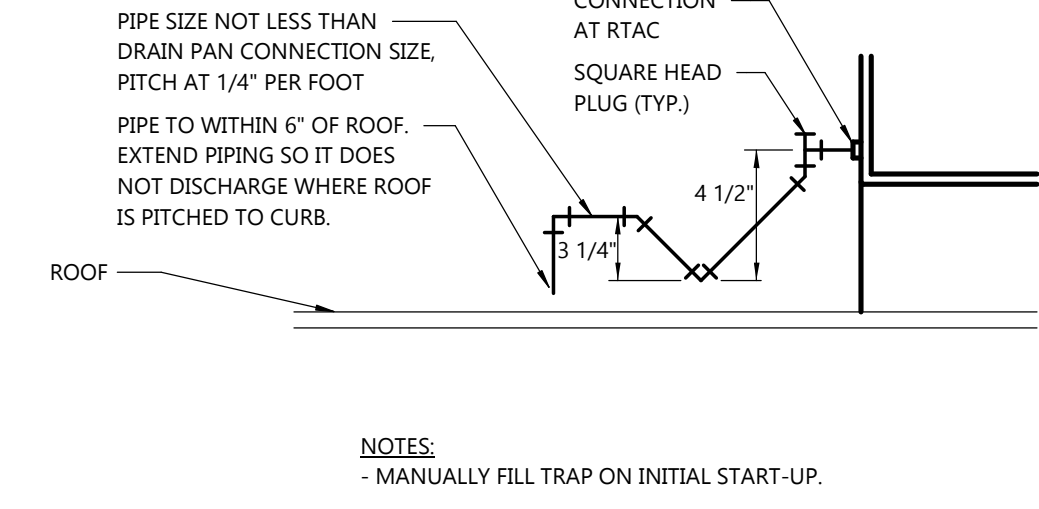
UNIT	INSULATION	BALLAST
RTAC-1	YES	NO
RTAC-2	YES	NO
RTAC-3	YES	NO
RTAC-4	YES	NO
RTAC-5	YES	NO
RTAC-6	YES	NO
ERU-1	YES	NO



9 ROOF MOUNTED UNIT DETAIL
H3.0 NOT TO SCALE



11 ROOF PIPE BOOT PENETRATION DETAIL
H3.0 NOT TO SCALE



10 RTAC CONDENSATE DRAIN TRAP PIPING DETAIL
H3.0 NOT TO SCALE

PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

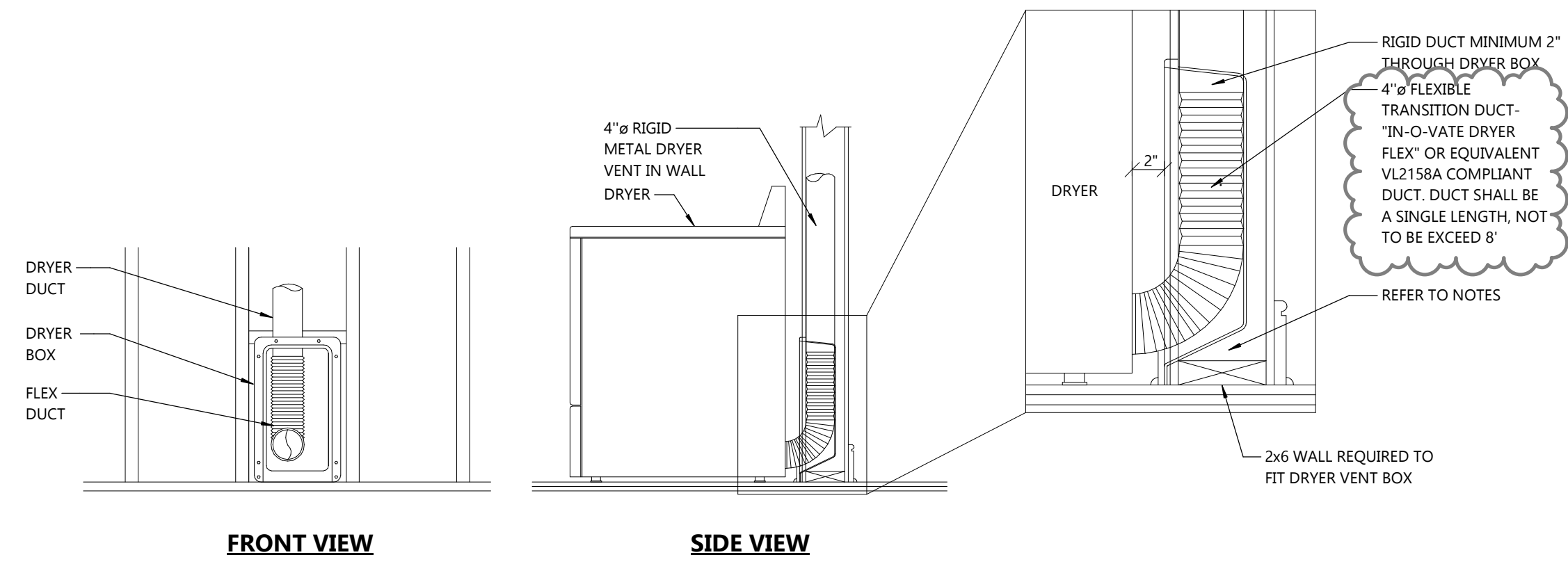
NO.	DATE	DESCRIPTION

JOB NUMBER

2255300

SHEET NUMBER

H3.0



2 TYPICAL DRYER VENT BOX DETAIL
H3.1 NOT TO SCALE

DRYER EXHAUST NOTES:

- DRYER VENT BOX**
- HEATING CONTRACTOR SHALL FURNISH AND INSTALL RECESSED DRYER VENT BOX "IN-O-VATE DRYER BOX" MODEL 425.
 - INSTALL AS LOW AS POSSIBLE RESTING ON THE BOTTOM PLATE TO PERMIT THE PROPER AND SAFE COLLECTION OF THE DRYER TRANSITION HOSE. LOCATE AT OR NEAR THE PROPOSED DRYER APPLIANCE CENTERLINE.
 - BASEBOARD SHALL BE "BUTTED" UP TO THE FIXED EXTENSION RIM AND SLIGHTLY BACK-CUT.
 - DRYER BOX SHALL BE CAULKED BY G.C. AND THEN PAINTED WITH THE TRIM PAINT BY G.C.

- EXHAUST DUCT**
- HEATING CONTRACTOR SHALL FURNISH AND INSTALL ALL DUCTWORK.
 - DUCT SHALL BE RIGID ALUMINUM MINIMUM 24 GAUGE. NO FLEXIBLE DUCTWORK PERMITTED BETWEEN DRYER BOX AND TERMINATION TO OUTDOORS.
 - SUPPORT MAX 4' INTERVALS.
 - ELBOWS SHALL BE MINIMUM 0.5 RADIUS ELBOWS.
 - MINIMUM 4" DIAMETER.
 - SMOOTH INTERIOR FINISH. DUCTS SHALL NOT BE JOINED WITH SCREWS OR SIMILAR FASTENERS THAT PROTRUDE INTO THE INSIDE OF THE DUCT.
 - SEAL ALL JOINTS WITH FOIL BACKED PRESSURE SENSITIVE DUCT TAPE MEETING UL 181 REQUIREMENTS.
 - PROVIDE PROTECTIVE SHIELD PLATES PER IMC 504.7.
 - INSTALL SO INSERT END OF THE DUCT EXTENDS INTO THE ADJOINING DUCT OR FITTING IN THE DIRECTION OF AIRFLOW.
 - PROVIDE EACH VERTICAL RISER WITH A MEANS FOR CLEANOUT.
 - PENETRATE DRYER BOX PORT 2" TO PROVIDE FUTURE CONNECTION AND STORAGE OF TRANSITION HOSE.
 - SLOPE HORIZONTAL RUNS TOWARD THE OUTDOORS AT 1/4 INCH PER FOOT.

- EXHAUST DUCT LENGTH**
- ROUTE TO MAINTAIN EQUIVALENT DUCT LENGTH LESS THAN 35 FEET PER IMC 504.8.4.

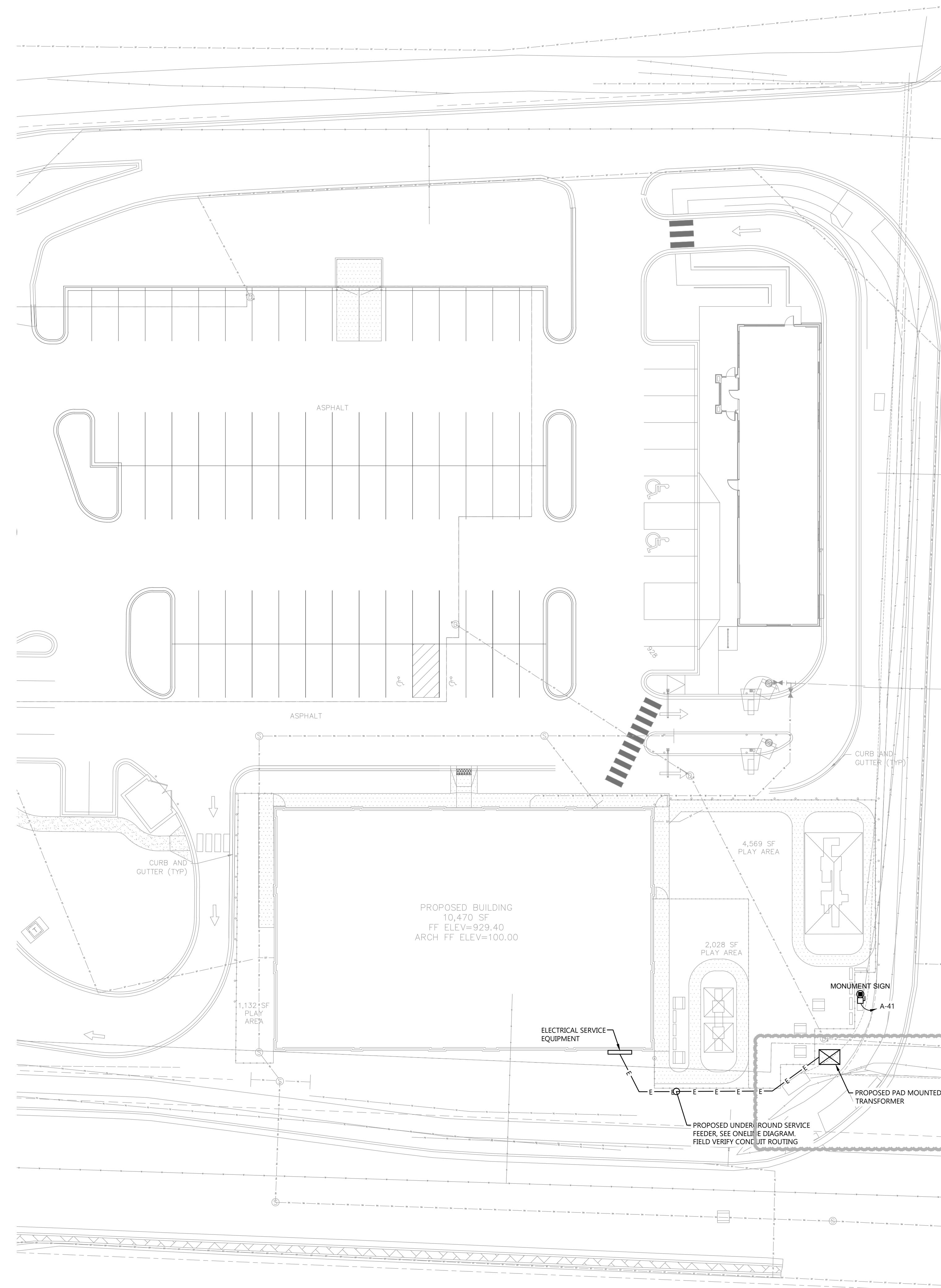
SIGNAGE

- PROVIDE PERMANENT LABEL ON WALL WITHIN 6'-0" OF DRYER CONNECTION IN A VISIBLE LOCATION PER IMC 504.8.5 TO INDICATE THE EQUIVALENT LENGTH (CALCULATED PER IMC TABLE 504.8.4.1) OF THE CONCEALED DUCT. LABEL SHALL INDICATE REPLACEMENT DRYER MUST BE CAPABLE OF OPERATING PROPERLY AT EQUIVALENT VENT LENGTH.

1 DRYER EXHAUST NOTES
H3.1 NOT TO SCALE

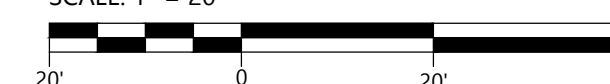
GENERAL NOTES

- EXTERIOR RECEPTACLES SHALL BE GFI TYPE. PROVIDE PASS & SEYMOUR SERIES "W/UC" OR EQUIVALENT COVER. (PER NEC 406.8(B) AND AHJ). COLOR SHALL BE SELECTED BY ARCHITECT.
- SEE SHEET E4.0 FOR BRANCH CIRCUIT FEEDER SIZES.
- SEE HVAC AND PLUMBING PLANS FOR LOCATIONS OF HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING EQUIPMENT. DO NOT REFERENCE ELECTRICAL DRAWINGS FOR EXACT LOCATION.



SITE PLAN

SCALE: 1" = 20'



ELECTRICAL SITE PLAN



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COLLABORATION



PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

ISSUE DATE FEB. 14, 2023

REVISIONS

AD2 MAR. 23, 2023

JOB NUMBER

2255300

SHEET NUMBER

E1.0



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PROJECT INFORMATION

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PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

AD2 MAR. 23, 2023
AD3 APR. 19, 2023
CB2 JUNE 5, 2023

JOB NUMBER

2255300

SHEET NUMBER

E1.1L

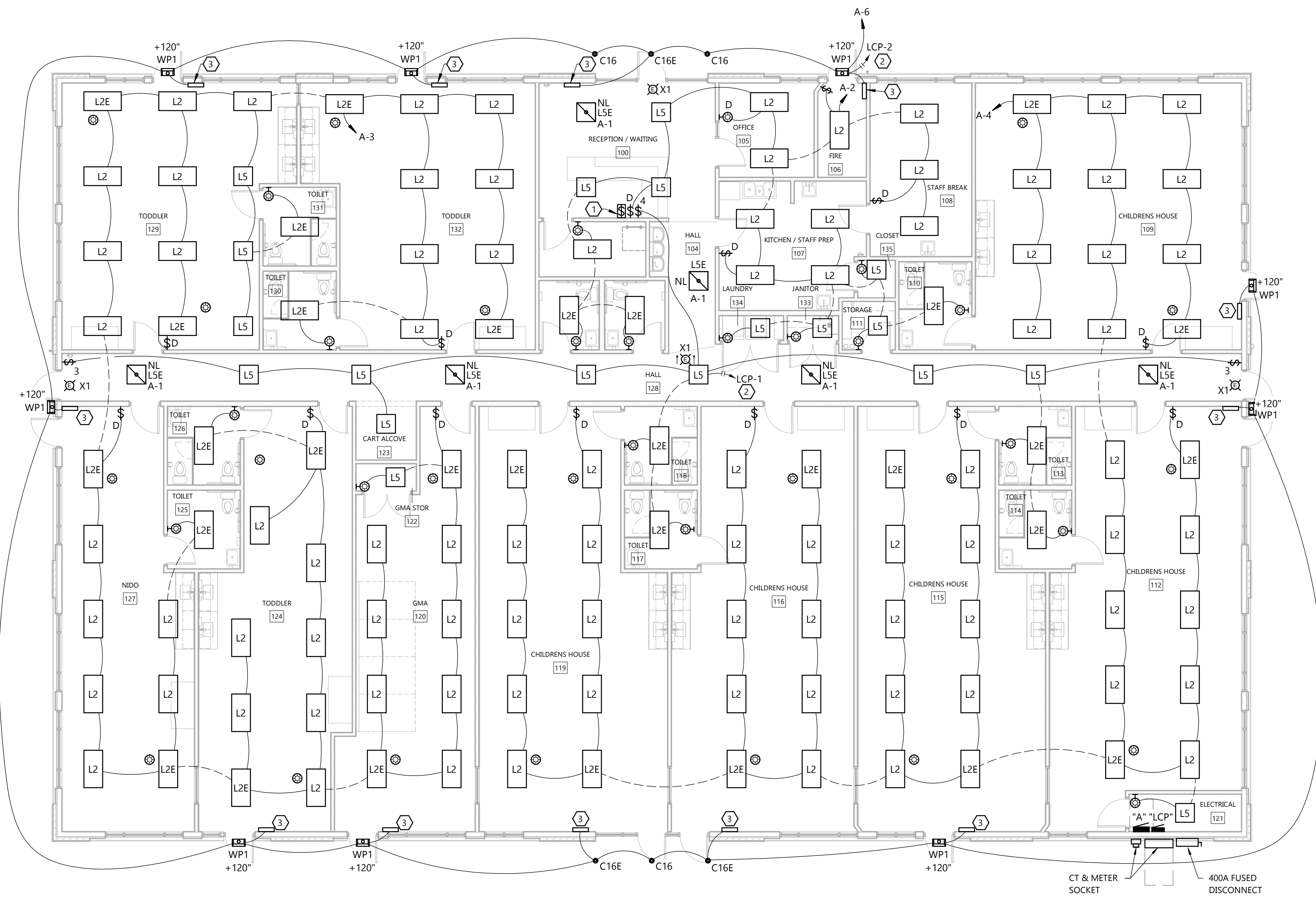
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GENERAL NOTES

- VERIFY ALL EXPOSED CONDUIT ROUTING WITH ARCHITECT/ENGINEER WHERE CONDUIT IS EXPOSED IN FINISHED ROOMS.
- DETAIL REFERENCES ON PLANS ARE TO AID THE CONTRACTOR IN IDENTIFYING THE APPLICABLE DETAIL. NOT ALL DETAILS, OR INSTANCES OF DETAILS, ARE REFERENCES ON PLANS. CONTRACTOR IS RESPONSIBLE TO REVIEW AND COMPLY WITH ALL APPLICABLE DETAILS WHETHER OR NOT REFERENCED ON PLANS.
- COORDINATE LIGHT FIXTURE LOCATIONS IN MECHANICAL EQUIPMENT ROOMS WITH OTHER CONTRACTORS PRIOR TO ROUGH IN.
- WIRE EMERGENCY/EXIT LIGHTS UNSWITCHED TO LIGHTING CIRCUIT SERVING SAME ROOM, OR TO "NIGHT LIGHT" CIRCUIT WHEN AVAILABLE.
- LOCATE EXTERIOR EGRESS LIGHT AT SINGLE WYTHE MASONRY CONSTRUCTION MIN. 12" ABOVE FLASHING AT DOOR HEAD.
- EXIT LIGHT CONDUIT AT SINGLE WYTHE MASONRY CONSTRUCTION SHALL NOT PENETRATE FLASHING ABOVE DOOR HEAD IF EXIT LIGHT IS WALL MOUNTED.
- SEE HVAC PLANS FOR AREAS THAT ARE USED AS A RETURN AIR PLENUM. PROVIDE PLENUM RATED CONSTRUCTION.
- SEE ARCHITECTURAL REFLECTED CEILING AND ELEVATION PLANS FOR LOCATION OF ALL LIGHTING FIXTURES. LOCATE FIXTURES IN ACCORDANCE WITH CEILING AND ELEVATION PLANS.
- DEVICE LOCATIONS MAY BE DISTORTED FOR CLARITY. LOCATE DEVICES SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS.
- SEE LIGHTING FIXTURE LEGEND FOR FIXTURE WIRING INFORMATION.

KEYNOTES

- ALL KEYNOTES MAY NOT APPEAR ON THIS SHEET.
- 1 TIMECLOCK OVERRIDE SWITCH. PROVIDE LABEL "TIMECLOCK OVERRIDE SWITCH".
 - 2 ROUTE CIRCUIT THRU TIME CLOCK CONTROLLED RELAY. SEE EXTERIOR LIGHTING CONTROL DETAIL.
 - 3 PROVIDE REMOTE MOUNT LED DRIVER IOTA-CP10 IN NEMA1 ENCLOSURE. MOUNT ON WALL ABOVE NEAREST ACCESSIBLE CEILING. DRIVER TO PROVIDE EMERGENCY POWER TO FIXTURE TYPE WP1 AND C16 LOCATED AT EXTERIOR ENTRANCE/EXITS.



FIRST FLOOR PLAN - LIGHTING
SCALE: 1/8" = 1'-0"
8' 0' 8' 16'

LIGHTING CONTROL PANEL						
RELAY CIRCUIT	SWITCH	AUTOMATIC CONTROLS	VOLTAGE	SUPPLY FROM		ROOM / AREA
				PANEL	CIRCUIT	
LCP-1	LOCAL SWITCH	TIMECLOCK	120 V	A	2	HALLWAY / COMMON AREA
LCP-2	TIMECLOCK/PHOTOCELL	TIMECLOCK/PHOTOCELL	120 V	A	6	EXTERIOR BUILDING LIGHTS
LCP-3	TIMECLOCK/PHOTOCELL	TIMECLOCK/PHOTOCELL	120 V	A	41	MONUMENT SIGN
LCP-4	TIMECLOCK/PHOTOCELL	TIMECLOCK/PHOTOCELL	120 V	A	38	EXTERIOR SIGNAGE

ELECTRICAL FIRST FLOOR PLAN - LIGHTING



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QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

AD2	MAR. 23, 2023
AD3	APR. 19, 2023
CB2	JUNE 5, 2023

JOB NUMBER

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SHEET NUMBER

E1.1P

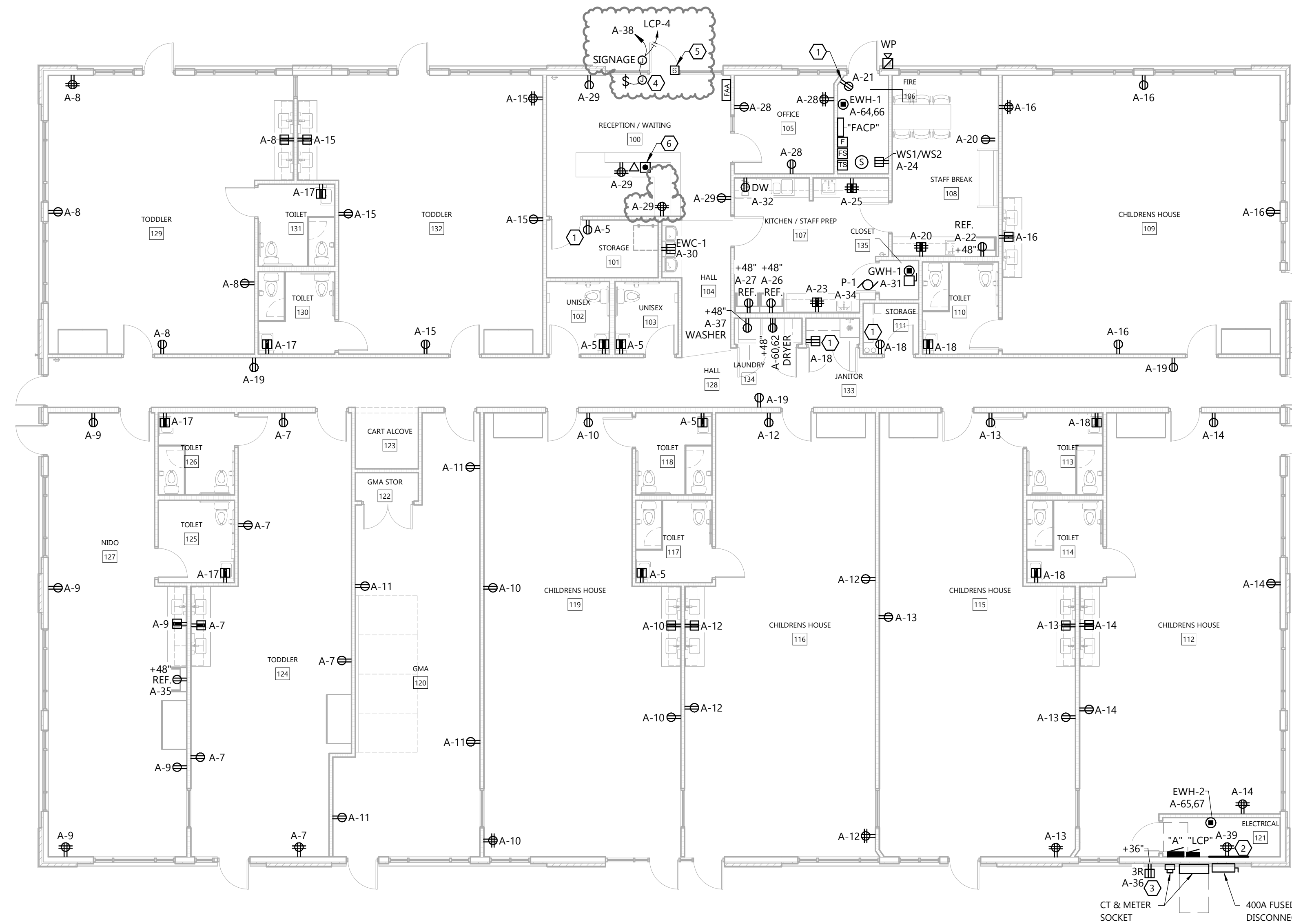
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- ROUGH-IN RECEPTACLES FOR ELECTRIC WATER COOLERS (EWC) BEHIND UNIT. VERIFY LOCATION PRIOR TO ROUGH-IN.
- PROVIDE GFI PROTECTION FOR ALL SINGLE PHASE RECEPTACLES IN THE FOLLOWING LOCATIONS: BATHROOMS, KITCHENS, ROOFS, LOCKER ROOMS & SHOWERING FACILITIES, SERVING WATER COOLERS & VENDING MACHINES, GARAGES & SERVICE BAYS, WITHIN 6'-0" OF A SINK, AND ALL OTHER WET LOCATIONS.
- SEE SHEET E4.0 FOR BRANCH CIRCUIT FEEDER SIZES.
- ALL CONDUITS TO ISLAND CABINERY AND TABLES SHALL BE UNDERGROUND.
- DEVICE LOCATIONS MAY BE DISTORTED FOR CLARITY. LOCATE DEVICES SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS.
- SEE HVAC AND PLUMBING PLANS FOR LOCATIONS OF HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING EQUIPMENT. DO NOT REFERENCE ELECTRICAL DRAWINGS FOR EXACT LOCATION.
- SEE HVAC SHEET PLANS FOR AREAS THAT ARE USED AS A RETURN AIR PLENUM. PROVIDE PLENUM RATED CONSTRUCTION.

KEYNOTES

1. INSTALL RECEPTACLE IN SAME BOX AS LIGHT SWITCH.
2. TELEPHONE BOARD, SEE DETAIL FOR MORE INFORMATION.
3. PROVIDE ARLINGTON "IN BOX" SERIES EXTERIOR BOX AND COVER. PAINT TO MATCH BUILDING EXTERIOR. COORDINATE COLOR WITH ARCHITECT.
4. PROVIDE JUNCTION BOX(ES) WITH LOCAL TOGGLE SWITCH DISCONNECT LOCATED ABOVE ACCESSIBLE CEILING AND ASSOCIATED 120V, 10, 20 AMP CIRCUIT(S) FOR SIGNAGE FIELD. VERIFY EXACT ROUGH-IN LOCATION. CIRCUIT THROUGH LIGHTING CONTROL PANEL LCP-1 FOR AUTOMATIC ON/OFF CONTROL OF LIGHTING.
5. PROVIDE POWER FOR ELECTRIC DOOR STRIKE FROM NEAREST RECEPTACLE.
6. PROVIDE CONDUIT AND BACK BOX AS NECESSARY TO ALLOW FOR ACCESS CONTROL OF FRONT ENTRY DOOR. COORDINATE EXACT REQUIREMENTS WITH SECURITY SYSTEM PROVIDER.



FIRST FLOOR PLAN - POWER
 SCALE: 1/8" = 1'-0"
 NORTH



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PROJECT INFORMATION

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

SHEET ISSUE FEB. 14, 2023

REVISIONS

NO.	DATE	DESCRIPTION

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SHEET NUMBER

E1.3

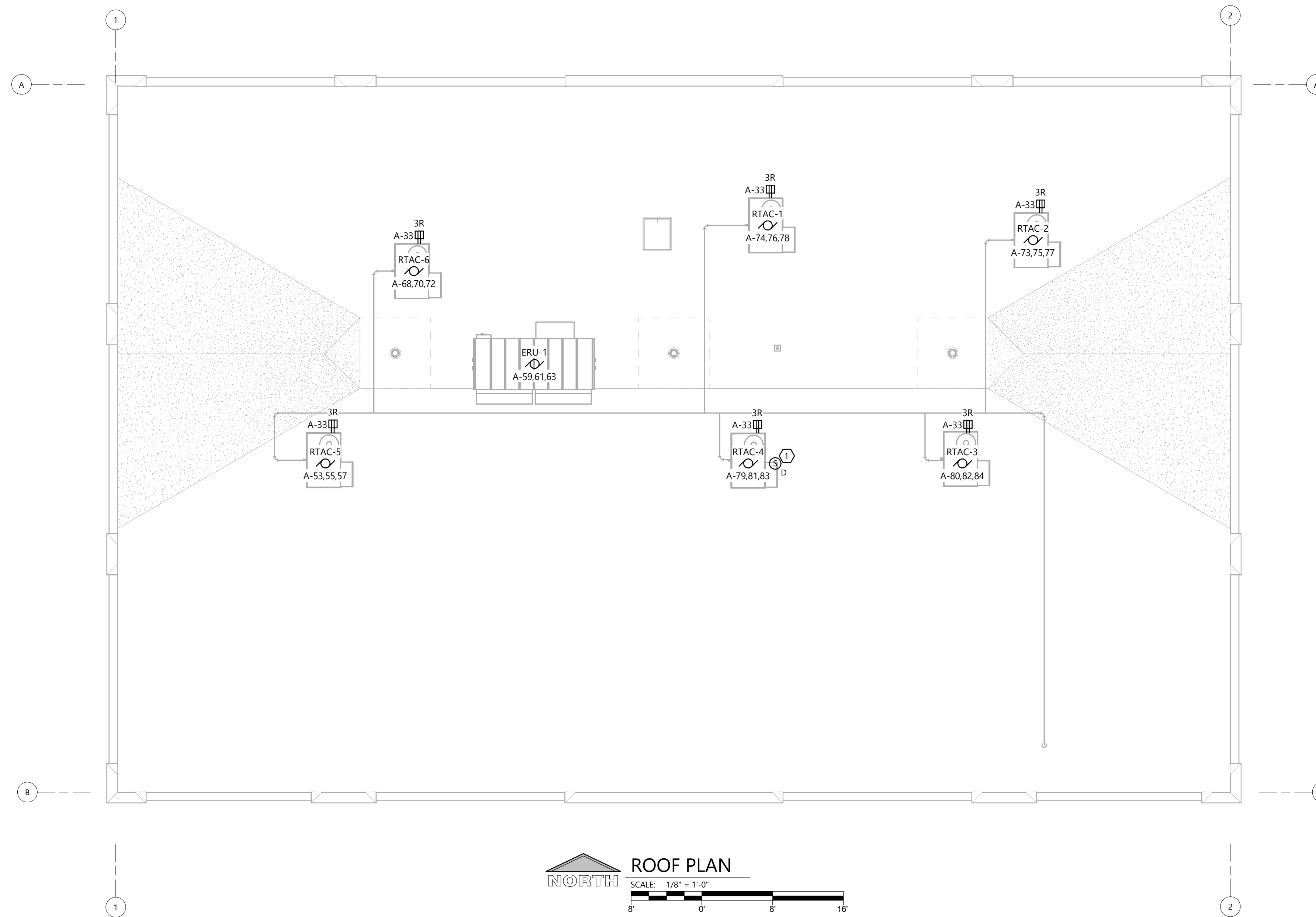
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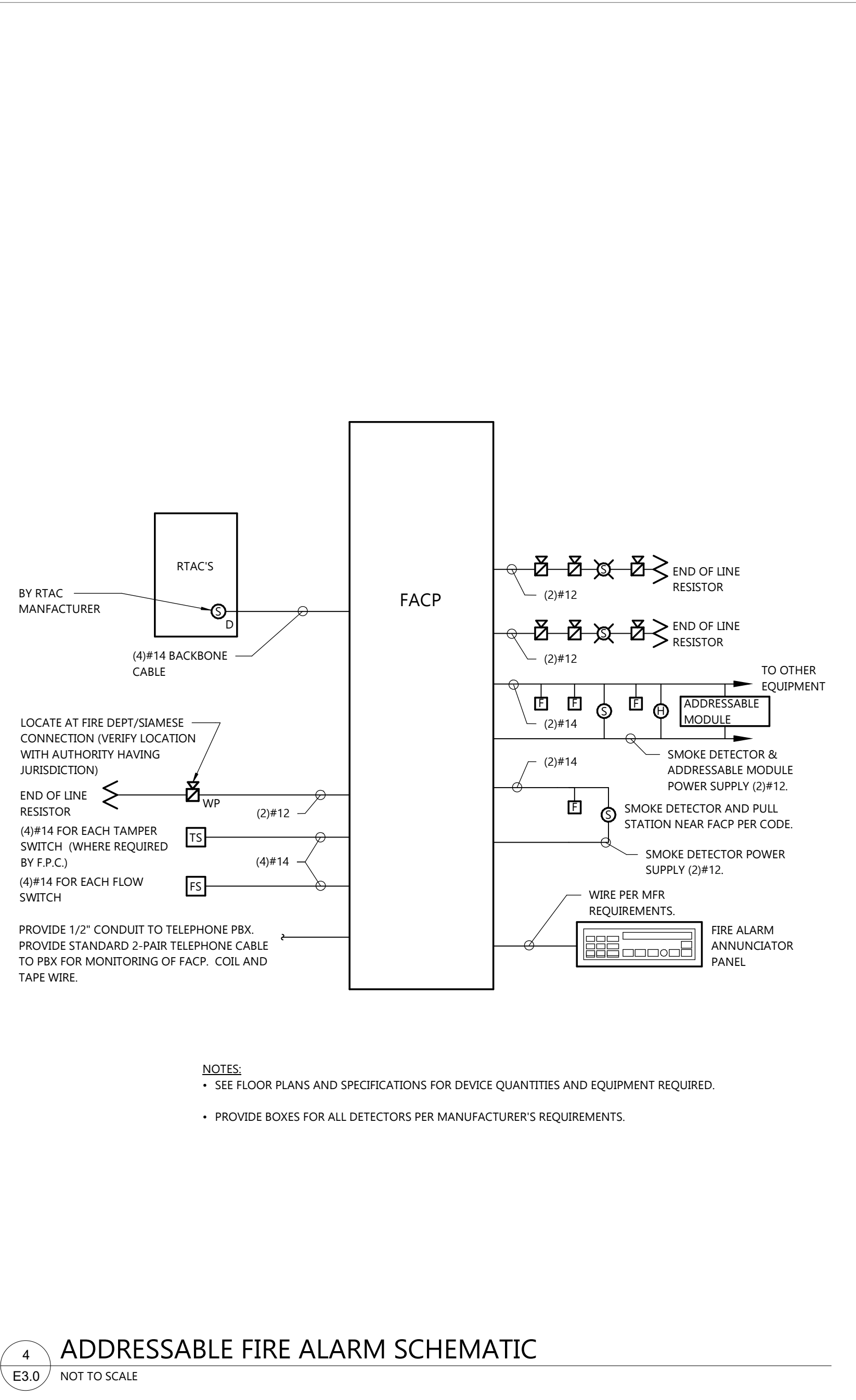
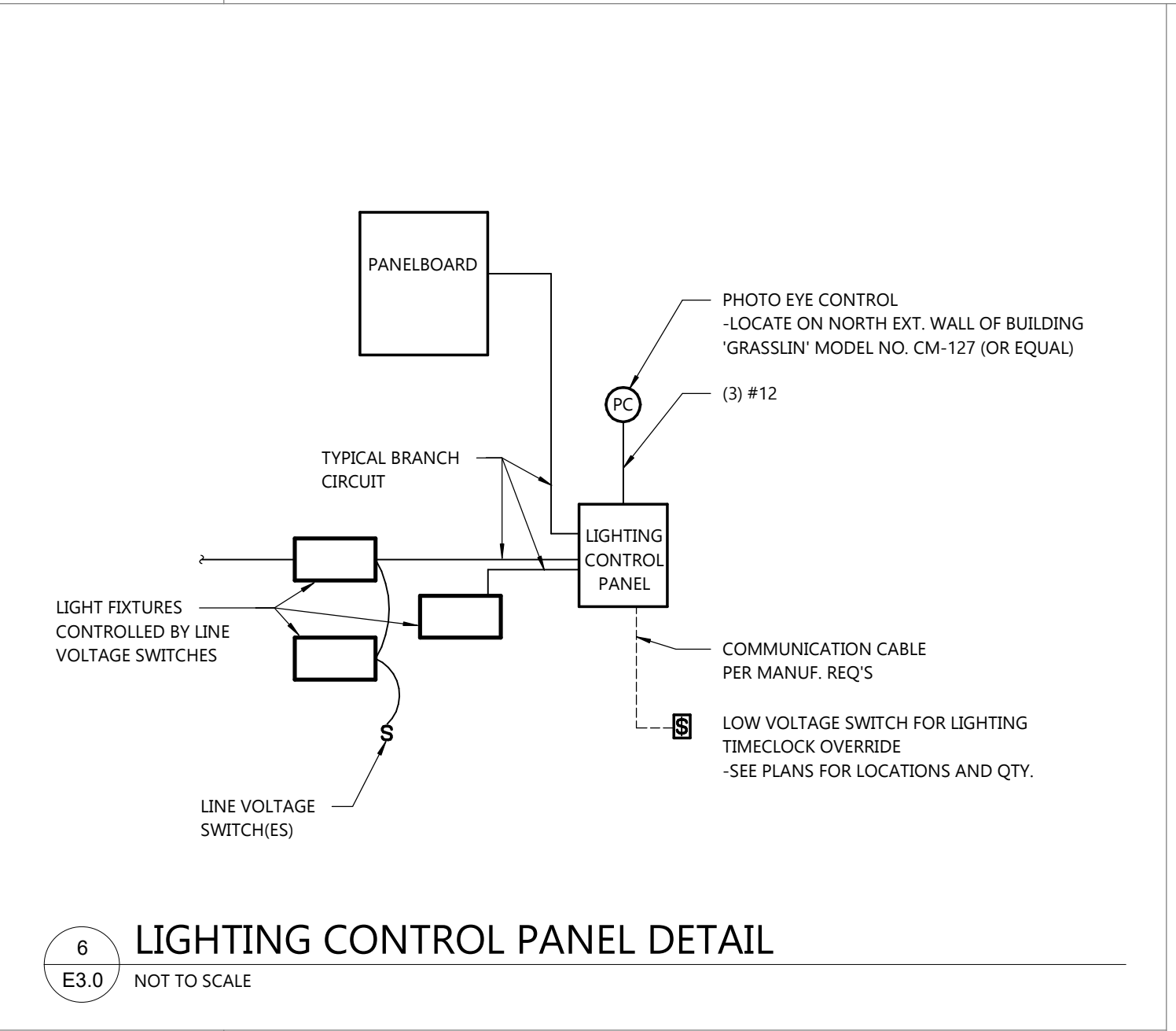
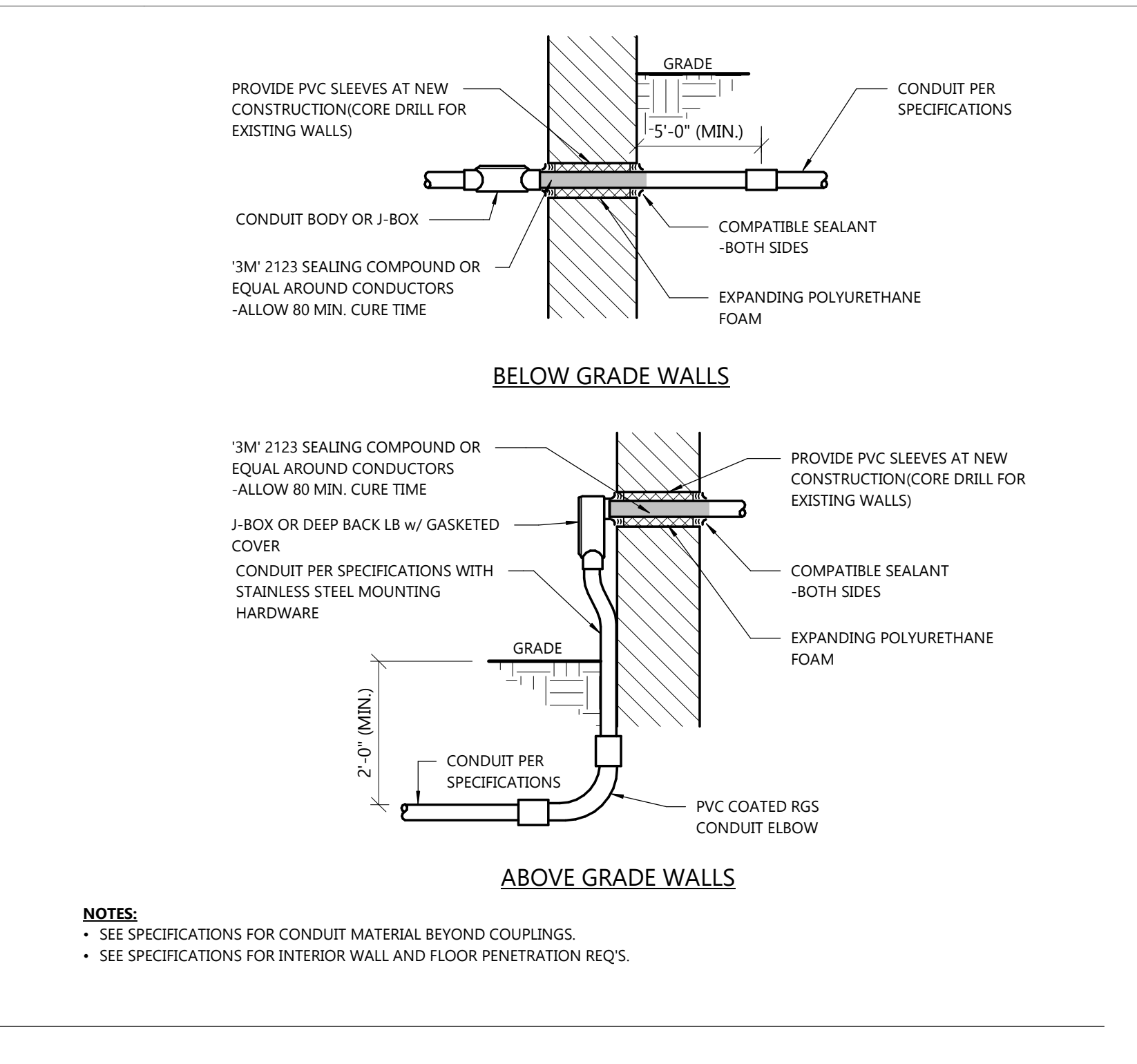
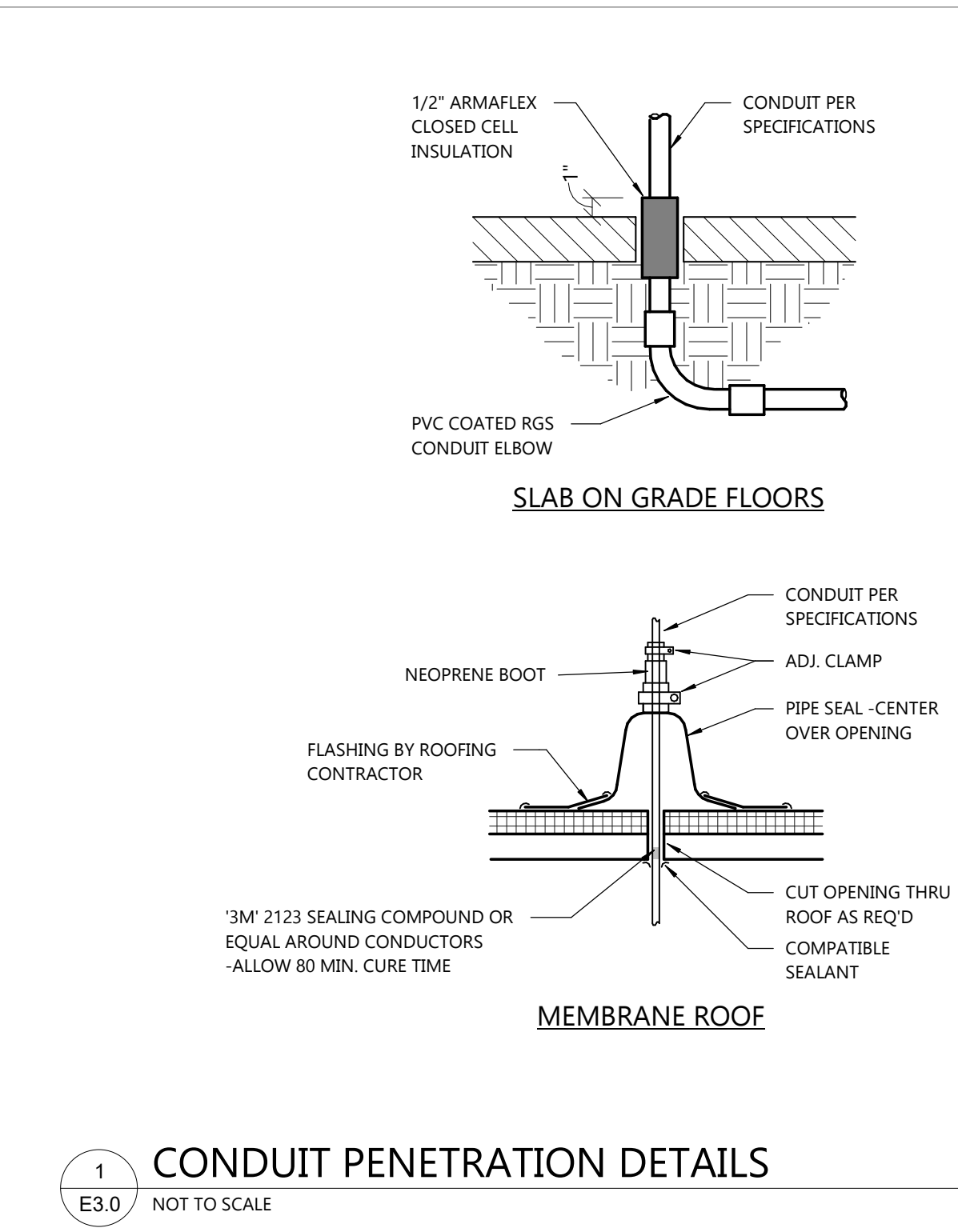
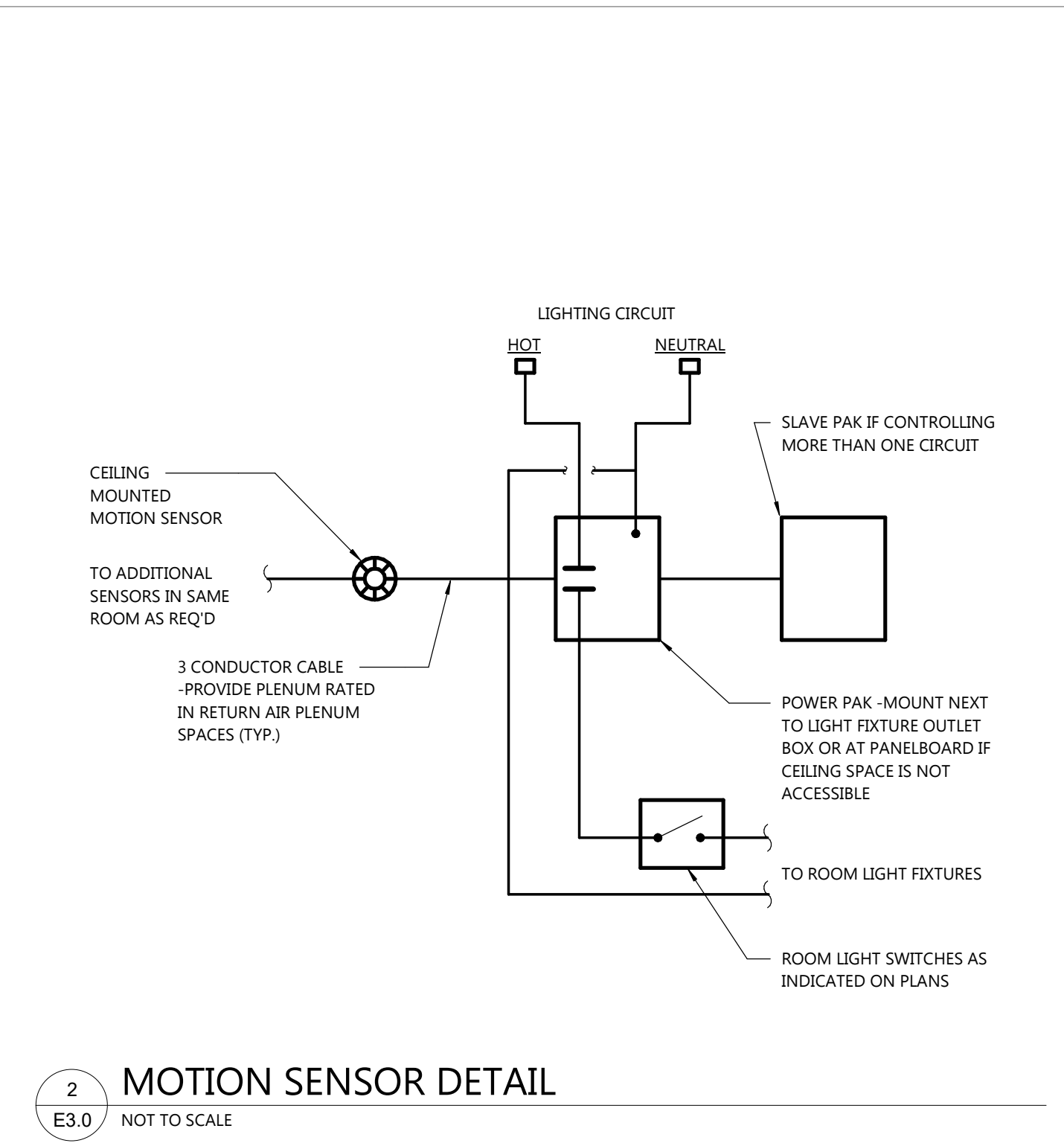
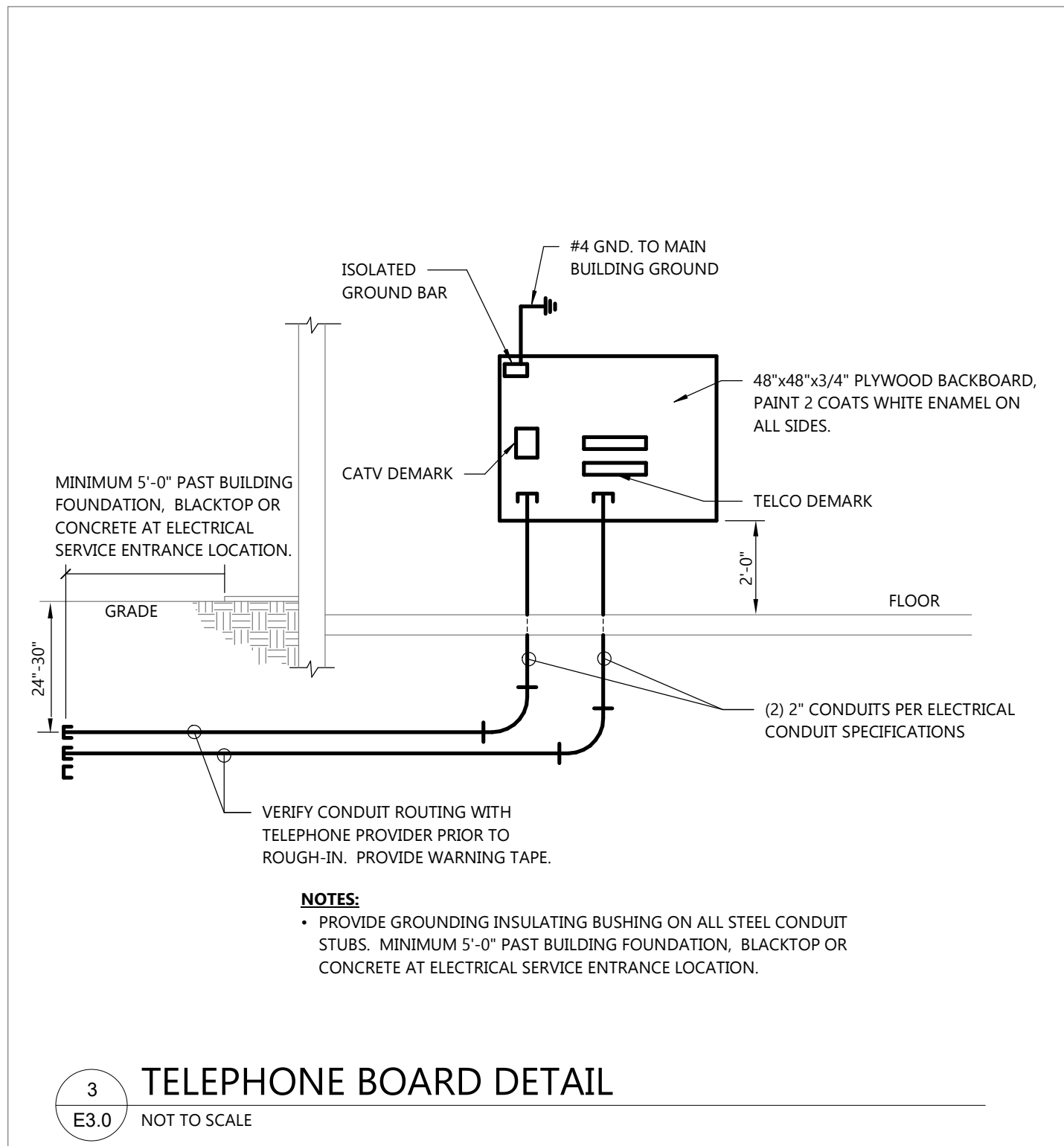
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- SEE SHEET E4.0 FOR BRANCH CIRCUIT FEEDER SIZES.
- DEVICE LOCATIONS MAY BE DISTORTED FOR CLARITY. LOCATE DEVICES SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS.
- SEE HVAC AND PLUMBING PLANS FOR LOCATIONS OF HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING EQUIPMENT. DO NOT REFERENCE ELECTRICAL DRAWINGS FOR EXACT LOCATION.

KEYNOTES

- ① SMOKE DETECTOR PROVIDED WITH RTAC TO SHUT DOWN UNIT ON SMOKE DETECTION. EC SHALL MONITOR SMOKE DETECTOR THRU FIRE ALARM PANEL.



ELECTRICAL ROOF PLAN



EXCEL
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PROJECT INFORMATION

Quattro Development

PROPOSED EARLY CHILDHOOD SCHOOL FOR:
QUATTRO DEVELOPMENT
TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES
SHEET ISSUE FEB. 14, 2023
REVISIONS

JOB NUMBER
2255300

SHEET NUMBER
E3.0

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PROJECT INFORMATION

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TWIN LAKES STATION - LOT 2 • ROSEVILLE, MN 55113

PROFESSIONAL SEAL

SHEET DATES

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REVISIONS

AD2 MAR. 23, 2023
AD3 APR. 19, 2023
ARCH. PLAN CHANGES

JOB NUMBER

2255300

SHEET NUMBER

FA1.1



FIRST FLOOR PLAN - FIRE ALARM
NORTH
SCALE: 1/8" = 1'-0"
0' 8' 16'

FIRE ALARM MATRIX									
AREAS	VOICE NOTIFICATI...	SMOKE DETECTORS	HEAT DETECTORS	PULL STATION	DUCT DETECTORS	CO DETECTORS	FLOW SWITCH	TAMPER SWITCH	REMARKS
HALLWAYS	X			X					
OFFICE AREAS	X					X			
TOILET ROOMS	X			X					
CLASSROOMS	X								
FIRE							X	X	
RECEPTION / WAITING	X			X					
STORAGE AREAS				X					
ELECTRICAL		X		X					(1)
ROOF									(1)

"X" INDICATES MINIMUM DEVICES AS REQUESTED BY CUSTOMER.

NOTES:
- FIRE ALARM SYSTEM IS DESIGN BUILD. DRAWINGS AND SPECIFICATIONS ARE FOR GENERAL INTENT ONLY.
- FIRE ALARM CONTRACTOR SHALL PROVIDE AND LOCATE FIRE ALARM DEVICES IN ACCORDANCE WITH FIRE ALARM MATRIX, LOCAL, STATE, AND FEDERAL CODES AND GUIDELINES.
- FIRE ALARM SHOP DRAWING PLANS WILL BE REVIEWED BY OWNER FOR COORDINATION PRIOR TO FIRE ALARM DRAWINGS BEING SUBMITTED FOR APPROVAL TO ANY LOCAL OR STATE AGENCIES.
- CONTRACTOR SHALL RELOCATE DEVICES AND PROVIDE ADDITIONAL DEVICES IF NEEDED DUE TO OWNER.
- FIRE ALARM MATRIX APPLIES TO SHADED AREAS ON SHEET FA1.1.

REMARKS
(1) SEE ROOF PLAN SHEET E1.3 FOR LOCATIONS OF DUCT SMOKE DETECTORS.